

# THE ARIZONA WILDLIFER

2019 Issue I

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Winter Edition

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**President:** Tiffany Sprague  
(623) 670-0750 [tasprague@gmail.com](mailto:tasprague@gmail.com)

**President Elect:** Jessica Moreno  
(520) 440-2885 [jamoreno3083@gmail.com](mailto:jamoreno3083@gmail.com)

**Treasurer:** Andrew Jones  
(602) 617-1234 [ajones@azgfd.gov](mailto:ajones@azgfd.gov)

**Recording Secretary:** Valerie Horncastle  
(928) 606-4393 [vhorncastle@gmail.com](mailto:vhorncastle@gmail.com)

**Corresponding Secretary:** Holly Hicks  
(480) 603-8603 [hhicks@azgfd.gov](mailto:hhicks@azgfd.gov)

**Board Member:** Audrey Owens  
(623) 236-7515 [aowens@azgfd.gov](mailto:aowens@azgfd.gov)

**Board Member:** Melissa Merrick  
(520) 490-5931 [mmerrick@email.arizona.edu](mailto:mmerrick@email.arizona.edu)

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## The President's Message



Tiffany with a western screech owl (*Megascops kennicottii*). Credit Debbie Langenfeld.

Happy new year, AZTWS! I hope that all of you are taking advantage of this beautiful season to get out and enjoy the wonders of nature that you work to protect. I also hope that, like me, you are looking forward to all that 2019 has to offer. Personally and professionally, I hope that this

year is filled with opportunities to learn, grow, and enjoy! AZTWS will be there to help you with all of these aspects.

We have so much planned for this coming year. The 52<sup>nd</sup> Joint Annual Meeting (JAM) of the Arizona and New Mexico chapters of The Wildlife Society and American Fisheries Society is rapidly approaching on February 7–9 [details on page 17]. If you haven't yet registered for the JAM, [do so today!](#) Our 9<sup>th</sup> annual Wildlife Techniques Workshop will be in April; stay tuned for more info. We will be helping coordinate the annual Charlie W. Painter BioBlitz in July; contact Scott Sprague ([ssprague@azgfd.gov](mailto:ssprague@azgfd.gov)) if you would like to help with planning. We hope to have another [Fall Mixer](#) late in the year. And so much more!

As we are looking forward, I, unfortunately, have to realize that my time as President is drawing to a close. The past year in this role has been such an honor for me. I have loved engaging with our outstanding board, our members, and our partners and supporters. All of you are what makes this chapter what it is. But I am ecstatic to see what the new board, led by incoming President Jessica Moreno, will accomplish!

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## Presidents Message cont...

*(Continued from page 1)*

Because this is my final President's Message, I want to focus on a refrain I've noted in all of my messages. In each issue, I've provided different ways that you can get involved in natural resource management – personally, professionally, politically. This message will focus on one of the most important ways you can support research and conservation: by **speaking up for science!**

### Speak Up for Science Publicly

*"Ignorance more frequently begets confidence than does knowledge: it is those who know little, and not those who know much, who so positively assert that this or that problem will never be solved by science." –Charles Darwin*

I cannot express how exceedingly important it is to publicly speak up for science, yet it's one of the things most often overlooked by natural resource professionals. We absolutely must get the word out about what we do and *why* we do it. I know, I know. Many of you likely prefer to interact with wild animals than human animals. I know that I certainly do. However, I have pushed myself to incorporate public education into my career in the hopes of inspiring others to care about our natural world.

People often ask how our nation's society has become so disconnected from nature and science. The answer is long and complicated, but intertwined within it is lack of information. In the absence of information, people either try to fill that void with *wrong* information or they simply overlook the topic. Today, there is so much misinformation, disinformation, and lack of information about virtually everything, including nature and science. In gen-

*(Continued on page 3)*

## Regional News:

### Southwest Section Tracks

By Jim Ramakka  
Southwest Section Representative

As the year draws to a close, I want to thank folks for electing me to serve as your Southwest Section representative on The Wildlife Society Council.

Over the last four decades, I worked in various locations across the country, but almost half my career has been in the Southwest, including two winters banding sandhill cranes in the Texas Panhandle and 15 years – in two different tours – with the Bureau of Land Management in New Mexico. My one career constant, ever since graduate school, has been my participation in The Wildlife Society. I first joined TWS to have access to the journals. Eventually, when finances allowed, I began attending Chapter and Section meetings, primarily for the professional development and local networking opportunities. Then, after I was appointed to the Certification Review Board in 1994, I gained a real appreciation for the important role The Wildlife Society plays in maintaining professional standards and providing unbiased information to agency leaders and law makers. Council plays a key role in guiding the direction of The Wildlife Society, and I'm excited to be joining and working with a great group of professionals representing Sections from across North America.

Like other professional organizations, The Wildlife Society continues to evolve. Outgoing Section Representative Fidel Hernandez and I sat together during the Council meeting held at the TWS Annual Meeting in Cleveland. Over the two days of presentations and discussions, Fidel shared with me his insights and observations on the functioning of Council. Dr.

*(Continued on page 3)*



## Presidents Message cont...

*(Continued from page 2)*

eral, people don't know what scientists, including natural resource managers and researchers, do. Therefore, they don't understand the importance of our work, nor do they care.

It's up to us to change that. No one knows better than you what it is that you do and why it matters. Sure, there are a number of people out there who excel at science education and whose job it is to communicate with people. But they can't tell *your* story. And they certainly can't talk to everyone. The more knowledgeable people we have reaching out to the masses, the more people we will be able to connect with.

Put simply, no matter how much effort we put into understanding and protecting species and habitats, that work loses substantial value if we don't have buy-in from the public. As noted in my previous [message](#), public input shapes politics, which is what determines decision-makers and laws, which are what governs what happens globally, nationally, and locally and also helps dictate what information (or misinformation) is provided to people...which continues the cycle.

So this is what I beseech you to do: talk to people! Come up with a roughly 30-second elevator speech with the option of expanding if the situation allows. Tell people about your work in lay-person's terms. Tell them why you do this work. Explain why your work is important to *them*. It doesn't have to be elaborate. Just enough to pique their interest or at least leave a smidgen of information with them. Even better if you can provide a way for them to learn more.

By sharing your knowledge and your passion, you can help turn the tide of misinformation and disinformation. And, hopefully, you can inspire others to care.

### Speak Up for Science Professionally

*"You cannot get through a single day without having an impact"*

*(Continued on page 4)*

## Regional News cont...

*(Continued from page 2)*

Hernandez did a great job during his time on Council, and his valedictory column in the SW Section Newsletter provides an excellent summary of the issues covered [see Fidel's overview in our Fall 2018 newsletter [here](#)]. There is plenty of work yet to do, and I will do my best to continue in his footsteps.

The next Council meeting will be in March at the North American Wildlife and Natural Resource Conference in Denver. Prior to that meeting, I plan to attend the [Joint Annual Meeting of the Arizona and New Mexico Chapters](#) and [Texas Chapter Annual Meeting](#) and look forward to re-connecting with old friends and making new ones. I especially want to hear what thoughts folks might have regarding the current direction of The Wildlife Society and any suggestions for ways to ensure the parent society is responsive to the needs of the membership.

Until then, Best Wishes For The New Year!

Jim Ramakka, CWB®

69 Rd. 2785

Aztec, NM 87410

Email: [j\\_ramakka@msn.com](mailto:j_ramakka@msn.com)

Phone: 505-486-2746



Unintended red-eye flash of a great horned owl at twilight creates an eerie yet majestic feel. Credit Brian Blais

## Presidents Message cont...

*(Continued from page 3)*

*on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make." –Jane Goodall*

This piece of the education puzzle should be a no-brainer, but it's also multi-faceted. Yes, I do mean talking with fellow scientists or managers about what you do (Hey, have you submitted an abstract for the 2019 JAM yet? That's a great place to speak professionally!) – but I also mean so much more than that.

Speaking up for science professionally should be a simple, instinctual thing to do. However, more and more, doing so seems to be confronted with controversy. No matter your profession – researcher, manager, advocate, student – you may find yourself in sticky situations. Some of them might be relatively minor (e.g., a colleague not documenting a slip in protocol if it doesn't affect results). Some of them might be major (e.g., a higher-up removing the phrase "climate change" from all documents). Regardless of the situation, you need to be prepared to speak up. But you also need to be careful.

Many of us likely know of people who have been punished for speaking up, whether by losing their jobs, being demoted, being ridiculed, or more. So many people I've talked with are terrified to speak out for this exact reason. But we also know of people who should be commended for speaking out. Think back to early 2017 when federal natural resource agencies were instructed not to communicate with the public about certain issues, but some brave individuals helped leak important documents or set up "alternate" social media pages to help keep the public informed.

If you see something in your workplace that doesn't seem right or that is blatantly anti-science, please don't turn a blind eye. If it's a one-time minor occurrence (e.g., that trivial slip in protocol), it's okay to let it go. But if it's a recurring problem that affects results, or if it's a major transgression that substantially impacts resources or information that the public receives, do something about it.

But, again, be careful. Be sure you know the full story and understand the reasons behind the situation and potential outcomes. Know when to be subtle and when to take it to the next level. And be sure to follow the proper channels.

### Speak Up for Science Politically

*"It is science alone that can solve the problems of hunger and poverty, of insanitation and illiteracy, of superstition and deadening custom and tradition, of vast resources running to waste, or a rich country inhabited by starving people... Who indeed could afford to ignore science today? At every turn we have to seek its aid... The future belongs to science and those who make friends with science." –Jawaharlal Nehru*

I actually wasn't going to touch on this topic because I discussed it at length in the previous [issue](#). However, it is too important a point to not repeat. Remember that politics depends on the public. And you are one of those people on whom it depends. Share your knowledge with our decision-makers! They need to hear from you. Decisions are being made every day that can drastically affect our natural world – energy production, predator control, forest thinning, development...and the list goes on. All of

*(Continued on page 5)*

## Presidents Message cont...

(Continued from page 4)

these need to be done with the basis of science, not opinion. Yet, too often, the people who are speaking the loudest are those who base their comments on opinion and/or self-interest. We need to change that!

Many decision regimes allow for public input, whether they're laws that have been proposed nationally or locally, federal land management actions, energy or water policies, and more. Take advantage of these opportunities to *say something*. You can speak orally at hearings or public comment sessions. You can submit written comments. You can contact your Congress person or state legislator. You can reach out to groups such as AZTWS and encourage us to get involved in the issue. You can even fill out a form letter online (although not as ideal as submitting a personal message, these do sometimes work!).

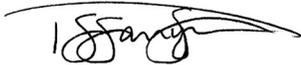
There are so many ways that you can get involved that it doesn't make sense not to. Sometimes, it may seem like an inconvenience, but is it really more convenient to berate yourself after the fact for not doing something when you could?

Being a natural resource scientist, conservationist, or advocate isn't easy. In addition to the years of schooling, the competition to get a job, the hard work required to climb to where you want to be, and the never-ending list of things to be done, we also need to constantly defend what matters most to us. But it's worth it. Take a look around at the beauty and wonder of our natural world, and know that it's worth speaking up to protect it.

One final morsel of advice before I sign off: remember that you are not alone. If you have questions or need advice, we are here for you. Feel free to reach out to anyone on the AZTWS board or in a leadership position, and we will be more than happy to help. You can also reach me at [tasprague@gmail.com](mailto:tasprague@gmail.com).

Now get out there and speak up for science!

Very sincerely,



Tiffany Sprague  
AZTWS Chapter President

## SOCIAL MEDIA POSITION OPENING

AZTWS is seeking a new Social Media Communications Chairperson to lead our online presence and outreach through Facebook, Instagram, and Twitter.

To apply, or make inquiries, please contact Jessica Moreno at [wildlifepathways@gmail.com](mailto:wildlifepathways@gmail.com)

# Transforming Science Communication and Literacy: A new report from Wiley sheds light on one of our profession's biggest challenges

*By Cameron Kovach,  
TWS General Manager*

We live in interesting times.... I could stop there, link the report, and call it quits, but I'm not going to because I'm fascinated by the topic of science communication. In fact, nearly a decade ago I altered my career from studying wildlife to studying new frontiers in wildlife conservation. I say new frontiers because our profession is increasingly operating in uncharted territories. The world is changing, public attitudes are shifting, and skepticism towards science is increasing.

Gone are the days when we could produce a standalone scientific report, retreat to the field, and expect society to exhibit a heightened level of deference towards our research. Some may point to partisan politics or blame millennials because that seems to be a thing, but perhaps, we as a profession have failed to keep pace with the changing times. Our science may reach other scientists but is seemingly lost in the gluttony of information available to policy-makers and the public.

So what's the solution? Unfortunately, there's no simple answer to that question, but Wiley's report—[\*To Know the World: Transforming Science Literacy and Communications to Improve Research Impact\*](#)—touches on several timely and thought-provoking concepts including the following:

- Recognizing the need for “translated” scientific information
- Fostering curiosity and improving scientific literacy by inspiring others to ask questions and seek science-based answers
- Making science relatable and the profession welcoming to all by providing diverse portrayals of scientists and by highlighting the personal stories of scientists
- Contextualizing science and the scientific process
- Developing innovative ways to expand the audience and understanding of research

This is not about becoming activists or about attacking the messaging of others. It's about improving our own messaging, becoming better storytellers, and figuring out ways to enhance our communication while still preserving the depth and integrity of our work. How can we as individual wildlife professionals shape our own personal networks, touch the lives of those around us, and inspire the next generation? Not every aspect of Wiley's report is relevant to wildlife professionals, but I hope the report sparks dialogue within your Section, Chapter, or Working Group while demonstrating that, while these are interesting times, we face boundless opportunity to forge new paths through the unknown.

What do you think? Is the increased skepticism towards science a good thing? What role should wildlife professionals play in communicating science? How do you share your science? Share your thoughts with us on social media @wildlifesociety or #wildlifesociety.

Wiley is the publisher of TWS' three premier wildlife journals—*The Journal of Wildlife Management*, *Wildlife Monographs*, and *Wildlife Society Bulletin*.

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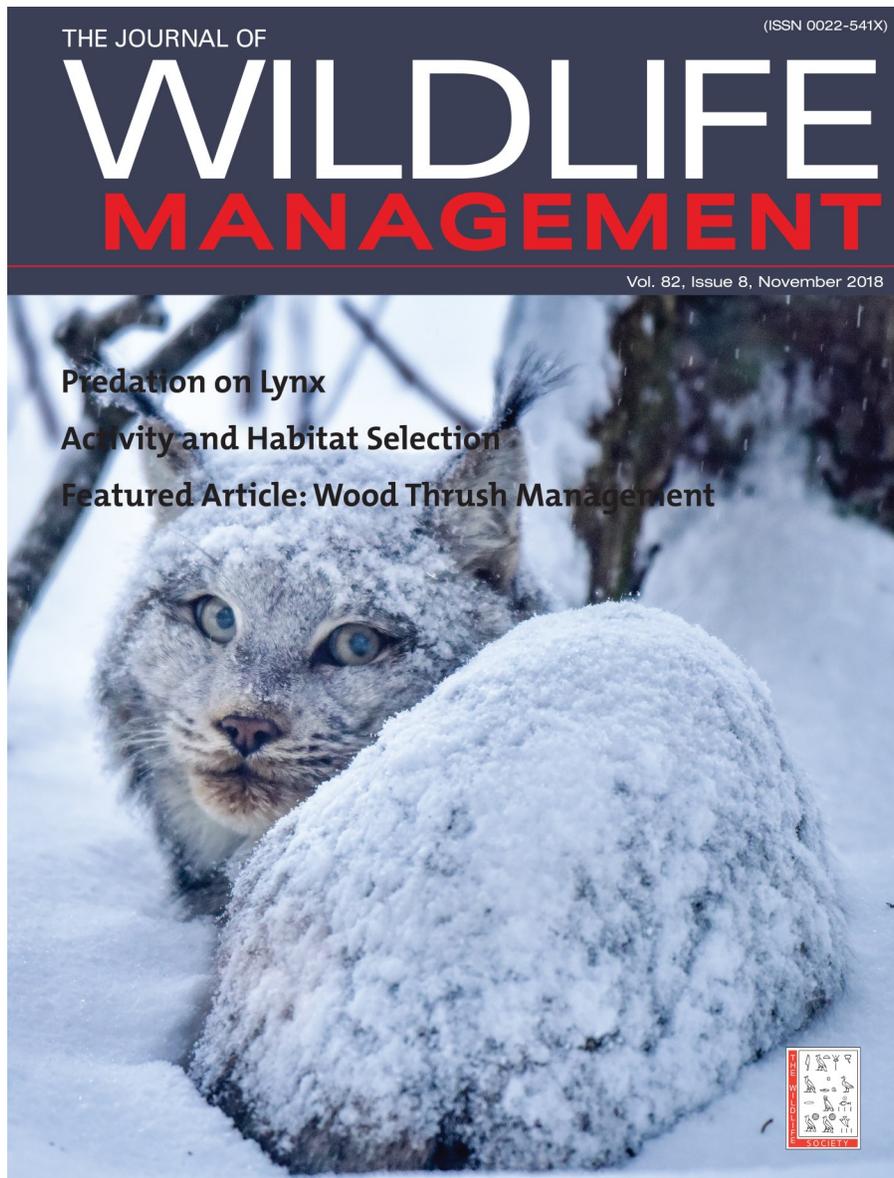
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### January 2019 Issue of *The Journal of Wildlife Management* now available online

The next issue of *The Journal of Wildlife Management* is now available on early view through The Wildlife Society's new journal [hub](#).

With online access included as a membership benefit, TWS members are increasingly engaging with the latest research findings in wildlife science and management. Simply login to [Your Membership](#) directly through the hub to access the latest content or browse archive issues of *The Journal of Wildlife Management*, *Wildlife Monographs*, and *Wildlife Society Bulletin*.

Not a member of TWS? You can still access abstracts and some full studies through the hub!



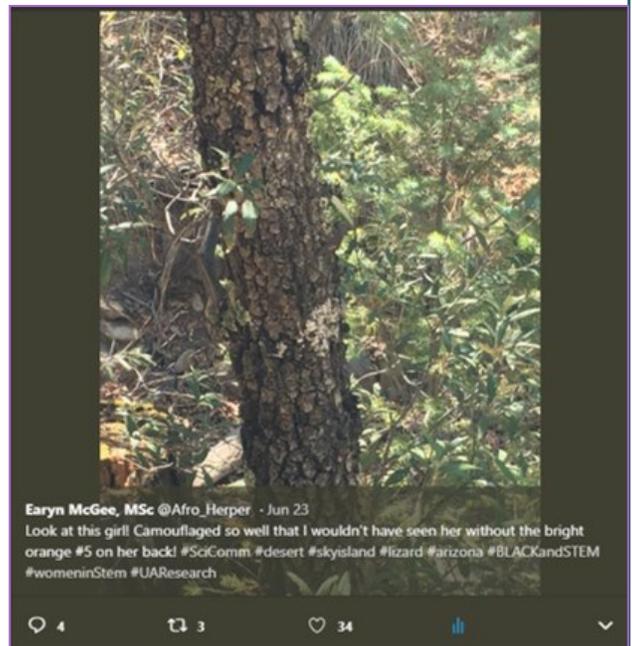
# #SciComm: A Useful Tool to Engage the Public and Promote Diversity and Inclusion in Herpetology

By Earyn McGee,  
Ph.D. Student, University of Arizona

What is science communication? To me, science communication is the process of an expert (academic or not) sharing their expertise in a topic with those who are not experts. Experts can share their knowledge in classrooms, in the field, and on social media. On Twitter and Instagram, I share my science under the handle @Afro\_Herper. Although I had an active Twitter account for more than a year, it was not until I posted a photo of [Goliath the Giant Tadpole](#) that I realized how powerful a tool social media could be for science communication. Prior to Goliath, I was posting sporadically for personal enjoyment. While doing my research at the Southwestern Research Station this summer (2018), the science director, Dr. Michele Lanan, was talking about an abnormally large bullfrog tadpole they had found when removing the invasive species from a local pond. Within hours the post had thousands of interactions, and it was an amazing opportunity for me to talk to people about invasive species and the damage they can cause to ecosystems they are not native to. You can read my guest-post about Goliath here at the [LivingAlonsideWildlife Blog](#). After Goliath, I began to purposefully create interesting and engaging content for the public.

My research focuses on lizard communities in the Chiricahua Mountains and how these communities may be affected by drought and stream drying. There has not been a lot of research done to see if lizards are consuming aquatic insects that emerge from streams. And if they are consuming these food sources, how important are they to lizards? One day while in the field for recapturing samples, I almost walked past a lizard because she was camouflaged so well. I shared a “crypsis” picture of the experience on Twitter and was encouraged to regularly post similar photos. That is how I started a weekly Twitter game called #FindThatLizard. Every Wednesday at 5pm MST, I post a photo of a lizard being cryptic in its natural environment. With #FindThatLizard, I have had the opportunity to share my research with a much broader audience and I have received a lot of positive feedback. I get to answer questions about what I do, why I do it, and how I do it.

Participating in science communication not only allows me to share the science, it also allows me to introduce the scientist to the world. I started attending scientific conferences as an undergraduate student. When there, I would play a nameless game where I would count the number of Black people I ran into or saw at the conference. Spoiler, I only ever needed my fingers and never made it to my toes. The representation of African American scientists in the fields of ecology and herpetology is severely lacking. In most academic spaces that I find myself in, I am the only African American woman and often the only nonwhite person. Not only is this incredibly isolating and disheartening for me as an individual, but it is clear that important perspectives are not being included. When I speak to



The first of what would become a weekly tradition of #FindThatLizard. Credit Earyn McGee.

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**herpetALLogy** @herpetALLogy · Dec 19  
RESPONSES WANTED: Many people have said to me that my work with wildlife, especially with herps, is for white people. Why do you think that is?

29 18 50

**Earyn McGee, MSc** 🦎🦎🦎 @Afro\_Herper · Dec 19  
I think it has a lot to do with the culture within communities and not a lot of representation. For a long time, many recreational areas (where urban POC may be more likely to experience herps) were not welcoming to POC.

2 19

**herpetALLogy** @herpetALLogy · Dec 19  
Wow! Yeah a king of unspoken restriction from areas with biodiversity....I've heard it described as feeling like this land doesn't belong to us—a question of ownership

2 6

**Joanne Crawford** @wildlifementor  
Follow

Replying to @herpetALLogy @Afro\_Herper

This is a new idea that I have not been exposed to before...very important!

6:10 PM - 19 Dec 2018

Shedding light on some inequalities in the sciences in order to create more inclusion and diversity. Credit Earyn McGee.

For the last two years, the committee has been working to understand the culture within the department and how it affects the faculty, students, and staff already within the department – and how we can change the culture to make the department more diverse and inclusive to people of color and white women. In the future, I hope to make science communication my full-time occupation. It is the perfect intersection between my science, my social justice, and my art. Science Communication is a powerful tool to engage the public with accurate science information. As well as encourage those from underrepresented communities to participate in science recreation-ally and/or as a potential career.

professionals about the inequalities in these fields, many do not even think about how white these spaces are. Which means that when they are doing their research and making important management decisions, they are not thinking about the people missing from the room.

I have two main goals for my outreach. The first is to increase the representation of African Americans in ecology and herpetology by being visible and accessible. Representation is important because it shows budding scientists that there is a space for them in these fields. It helps to break down cultural barriers that say African Americans do not do these kinds of jobs and that there is no money to be made. My second goal is to break down the barriers within academia, which include implicit and explicit biases. As a graduate student at the University of Arizona, I am currently the co-chair of the School of Natural Resources and the Environment's Inclusive Excellence Committee.

**Elizabeth Carlen** @E\_Carlen  
Following  
Replying to @Afro\_Herper  
These are my parents trying to #FindThatLizard, their new favorite Wednesday night game.



5:53 PM - 19 Dec 2018  
9 Likes

**herpetALLogy** @herpetALLogy  
Following  
If you haven't played the weekly #findthatlizard game from @Afro\_Herper you're missing out!

**Earyn McGee, MSc** 🦎🦎🦎 @Afro\_Herper  
Hello #Digitalherpers. For this week's #FindThatLizard challenge you'll be looking for the striped plateau lizard, *Sceloporus virgatus*. As always you will have until 9pm PST before I post the location. Feel free to post guesses in the comments

Show this thread  
10:39 AM - 19 Oct 2018  
8 Retweets 10 Likes

**Countryman editor** @Countrymaned  
Follow  
#DesktopScientist #DesktopNaturalist #FindThatLizard

**Earyn McGee, MSc** 🦎🦎🦎 @Afro\_Herper  
It's that time again! For this week's #FindThatLizard challenge you're looking for a gravid striped plateau lizard, *Sceloporus virgatus*. As always you have until 9pm before I post the location. Feel free to post guesses in the comments. Good luck...

Show this thread  
9:02 AM - 12 Sep 2018  
1 Retweet 2 Likes

#FindThatLizard reaches a broad audience and facilitates engaging conversations. Credit Earyn McGee.

# Our Neck of The Woods...

## The Salad Within – The Scoop on the Poop

By Carol Chambers, Faith Walker, & Daniel Sanchez

Bat Ecology & Genetics Lab, School of Forestry, Northern Arizona University

Not many of us hold conversations about bowels, but feces can provide an incredible amount of information about a creature's identity, diet, and disease. And newly available genetic technologies are key to unraveling the secrets of poo. We have developed a DNA assay that currently identifies at least one third of the world's >1,300 bat species. Our tool, called *Species from Feces* (<http://nau.edu/batdna>), works well with the small fragments of DNA found in feces...that may be months or years old...and distinguishes bats but excludes the arthropod prey in their diet. To date, we have identified bats using redwood tree hollows, mines, bridges, and windfarms from Arizona to Saskatchewan to Rwanda and in many places between.



New Mexico jumping mouse. Credit José G. Martínez-Fonseca.



A trip to the salad bar – jumping mouse eye view of what's on the menu in August (Apache-Sitgreaves National Forest) Credit Carol Chambers.

But what if we want to know what they eat?

We are developing techniques to identify insect, plant, and animal prey in the diet of bats and other organisms. These days, we're focused on a local rodent, the endangered New Mexico jumping mouse (*Zapus luteus luteus*, formerly *Z. hudsonius luteus*) found only in the southwestern United States. In Arizona, these 15 to 22 g animals occur in the White Mountains.

Listed under the Endangered Species Act in 2014, the New Mexico jumping mouse lives at high elevation along riparian areas in the Southwest. Populations are small and isolated and are threatened by livestock grazing and human recreation. We have a lot to learn

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about jumping mice; they're active in summer and spend the rest of the year (up to nine months) hibernating. Summer is thus a critical time with survival dependent on finding mates, raising young, and eating. In late summer or early fall, jumping mice fatten up in preparation for winter hibernation by dramatically increasing their mass. In just two months, jumping mice need to increase their mass by a third or more, from 20 to 30 g. How do they do this? What's their secret food source?



Dan Sanchez prepares fecal samples for analysis of diet. Credit Faith Walker.

Dan is currently refining his genetic analyses by developing a new assay to simultaneously screen fecal DNA for a range of diet items including plants, insects, and fungi. This genetic testing approach isn't just for the mice, though, nor is it just done in the laboratory. We have successfully identified diet of mule deer, pronghorn, wombats, and a variety of African ungulates (we traveled to the poo source for the latter two and analyzed DNA in the field).

Feces is an ideal tool to aid conservation efforts. This non-invasive approach reduces stress to the animal, yet it provides a tremendous amount of information. And no animal has to be sacrificed to collect stomach contents. For the jumping mouse, by collecting feces from traps, we can identify diet of this endangered species using non-invasive approaches. Up next for Dan is to use microsatellite markers to identify individual jumping mice via their feces DNA. He will use this information to model how jumping mice disperse across the landscape. Are they restricted to riparian areas or capable of moving across dry, upland habitat?

Daniel Sanchez, a PhD student at NAU, is exposing the salad menu. Several years ago, we identified plants as a dominant food source for these mammals using a shotgun metagenomics approach. (Analogous to a shotgun's shell spread, *shotgun sequencing* is a technique used to survey genomic content by sequencing random fragments of DNA rather than specific targets.) Using this knowledge, we focused on understanding which plants they eat. Dan examined diet for 82 jumping mice captured in 2016 and 2017 from Arizona, New Mexico, and Colorado. From feces, he identified 89 plant genera and found 1–18 plant taxa, with an average of eight, per individual jumping mouse. That is definitely a great trip to a salad bar!

To further explore diet, we categorized taxa by plant form and found that, along with a diversity of plants, New Mexico jumping mice like forbs (62% of plant taxa) and true grasses (19%) the most. Other diet items included components of shrubs (10%), trees (4%), sedges (2%), and rushes (1%). Dietary richness appears to increase during the late summer, in August through October, coinciding with the time of year that many forbs and grasses flower and produce seeds. A staple of jumping mice turned out to be avens (*Geum*; in the 'rose' family); about half of our 82 animals consumed seeds from large-leaved avens (*Geum*



*Ranunculus* species, a common diet item of the New Mexico jumping mouse. Credit José G. Martínez-Fonseca.

# Student Voice

*By Sandy Slovikosky,*

*President of the University of Arizona Student Chapters of the American Fisheries Society and The Wildlife Society*

From the time I was little, I always knew two things: I loved wildlife conservation and I loved international cultures. Given that I was born and spent the first several years of my life in Germany, I grew up with a strong appreciation for immersing myself in other countries and learning new languages. Thus, it didn't take long for me to realize that my ultimate career goal would be related to performing wildlife conservation work abroad. This past summer, that dream came one step closer to reality.

I first heard about the volunteer organization [Wildlife ACT](#) (Africa Conservation Team) by doing some research online. As thrilling as it was to look for something associated with my favorite species, big cats, it required a lot of caution. There are

numerous places throughout the continent that mask as legitimate conservation organizations but, in reality, are money-making scams associated with exploitation. Nonetheless, it didn't take long for me to realize that Wildlife ACT is genuine. They are affiliated with the World Wildlife Fund and Panthera – excellent for my career goals. Wildlife ACT was also rated 2<sup>nd</sup> best in Africa (and best in South Africa) for Habitat and Species Conservation in 2017, and ultimately ended up contributing to one of the best decisions I've made in my undergraduate career.



Credit Sandy Slovikosky.

This relatively new non-profit organization works within the KwaZulu-Natal Province of South Africa and monitors threatened species within enclosed reserves. Data obtained, such as species behavior, movements, physical condition, etc., is then used to make informed management decisions. I spent my first two weeks at Tembe Elephant Park and another two at Eastern Shores of iSimangaliso Wetland Park. At Tembe, a 4-person volunteer team and I aided with daily tracking of priority species (e.g., lion, leopard, elephant, rhino, etc.), telemetry work, and camera trapping. It was really quite amusing when my supervisor practically put me in charge of the camera traps when

Credit Sandy Slovikosky.

*(Continued on page 18)*

*(Continued from page 12)*

he realized I already had experience! I enjoyed every moment of it: waking up at 4:30 every morning, watching the sun rise, hearing the lions roar, getting to know the local Zulu woman who helped us with tracking, observing a leopard hunt right next to the truck or two elephants play-fighting, being surrounded by lions or elephants whilst sitting in the back of a vehicle, entering data into spreadsheets, and having a traditional South African “braai” (barbecue) in the evenings together with the other park staff. The ultimate highlight of the trip, though, was when we had the privilege of aiding in the translocation of four young female lionesses. None of us would ever have thought we would have the opportunity to participate in such an event.



Credit Sandy Slovikosky.

Once my adventures at Tembe were over, I transitioned to iSimangaliso Wetland Park close to the coast where I worked on the largest leopard camera

trap survey in the world, sponsored by Panthera. Seeing a leopard on the first day on the way into camp was quite a pleasant surprise! Here, my volunteer team had a little bit more time to sleep in as we typically left our house at 7:00 in the morning to check cameras and returned around noon. There were a total of 41 sites, all with paired cameras on each side of the road – to photograph both sides of a leopard. The rest of the day was devoted to analyses – identifying individual leopards from their spot patterns and sorting the photos into priority species categories that are used by park staff to monitor populations and biodi-



Credit Sandy Slovikosky.

versity. Although this project had less variety of activities than at Tembe, it made up for it with an immense diversity of ecosystems. We typically spent our free time at the beach, together with a group of students from a nearby marine organization studying whales, or in the coastal city of St. Lucia.

To conclude, it’s definitely worth giving a huge shout-out to Wildlife ACT and their members who go out of their way to ensure their volunteers have a good time and learn something. As an intern desiring to build a career within this field, their advice, time, and effort meant a lot to me. Anyone interested in more details can find it on my website: [www.sanimal.net](http://www.sanimal.net).



Credit Sandy Slovikosky.

# A Note from Continuing Education Grant Recipients

By Aaron Prince, Applied Biological Sciences, Arizona State University



From left to right: Aaron Prince, Cheyenne Herzog, Lauren Jackson, Dr. Heather Bateman, and Sid Riddle.

After months of dedicated field work and statistical analyses, four Arizona State University (ASU) students were rewarded with attending the Southwest Partners of Amphibian and Reptile Conservation (SW PARC) annual conference held in Oklahoma City. The Arizona Chapter of The Wildlife Society (AZTWS) provided nearly all the funding [see CEG on the next page] that enabled the students to attend and present their research. The [PARC](#) network is an inclusive, collaborative organization geared towards the conservation and advocacy of herpetofauna throughout the United States.

These conferences bring together the minds of herpetologists and herp-naturalists alike (such as staff from [HerpMapper](#) – a citizen-science platform for herpetofauna data). Officials from several state agencies presented their research and management plans. Their presentations gave insight on the application of eDNA methodologies to detect amphibians, the application of citizen-science and BioBlitzes in Nevada, the use of military lands in southeastern Arizona, and several other topics advocating for reptiles and amphibians in the Southwest.

Students working with Dr. Heather Bateman from Arizona State University at the Polytechnic campus had a strong showing at SW PARC by presenting four different studies along the San Pedro River in Arizona. Aaron Prince covered snake and prey abundance across three different habitat types, Sidney Riddle revealed the effects of soil structure on Couch's spadefoot toads, Lauren Jackson presented on mite presence and intensity on various whiptail lizards in the region, and Dr. Bateman talked about the effects of habitat structure on the herpetofauna communities of the San Pedro. This intimate conference gave many of us an opportunity to present research of our own designs to well-known professionals in our field.

The conference culminated with a field trip option to explore Oklahoma's Wichita Mountains Wildlife Refuge. At the refuge, we were given an entire day to explore different regions of the park to look for reptiles and amphibians. Among the animals we found were tiny narrow-mouthed toads, Great Plains skinks, and large watersnakes (diamondback and plain-bellied watersnakes). The refuge itself boasted a unique and diverse population of reptile and amphibian species – many of which attendees had not previously seen. This field trip was just another incredible experience that was made possible by support of AZTWS. The biggest takeaway many of us from ASU had was the practice of presenting our research to a room full of professionals. This experience allowed us to get familiar with our presentation styles and exposed us to just how different conferences can be from one another. The opportunities that were provided to us by AZTWS funding carry both significant meaning and invaluable experiences towards our careers and long-term goals.



Quannah Parker Lake, Wichita Mountains Wildlife Refuge. Credit Aaron Prince.

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# Continuing Education Grants



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

Applications can be submitted at any time and will be reviewed quarterly. Applicants will be notified within 30 days of the Committee’s review. The Continuing Education 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.

**Online Applications**  
**[HERE](#)**  
**Now accepting for 2019**



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We need articles, stories, and pictures for upcoming newsletters.

### *The Arizona Wildlifer Deadlines*

<u>Issue</u>	<u>Deadline</u>
<b>Spring 2019</b>	<b>Mar 15, 2019</b>
<b>Summer 2019</b>	<b>Jun 14, 2019</b>

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

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# Fall Member Mixer on the Mogollon Rim

*By Audrey Owens, AZTWS Board Member*

In November, nine chapter members got together for a fun, educational, and chilly fall mixer on the Mogollon Rim. Our trip started at the Tonto Creek Fish Hatchery, on Tonto National Forest — managed by Arizona Game and Fish (AGFD). We got a tour of the facility, where they produce 50,000 lbs. of trout every year, including tiger trout, a sterile – and beautiful – hybrid of brown and brook trout. After lunch, we surveyed the property for large-blotched ensatina (*Ensatina eschscholtzii klauberi*), a terrestrial salamander introduced to the property nearly 40 years ago. AGFD is interested in knowing the extent of its range around the introduction site, so we scoured the nearby slopes, detecting 12 salamanders as well as a juvenile Madrean alligator lizard (*Elgaria kingii*).



Tiger trout. Credit Audrey Owens.



Large-blotched ensatina. Credit Audrey Owens.

Following our herping session, we drove down Highway 260, where Scott Sprague, former AZTWS President and current AGFD research biologist, explained the concept and design components of the crossing structure and monitoring system for elk – a long-time successful collaboration between AGFD and the Arizona Department of Transportation. We also checked out a wildlife underpass near Sharp Creek. The bridge not only facilitates safe crossing for wildlife but also provides roosting habitat for bats in boxes affixed below the bridge. We rounded out our day around a campfire, which was a cozy end to a chilly evening. I know quite a few members wanted to attend but couldn't, so be on the lookout for other upcoming member mixers! Thanks to the Tonto Creek hatchery and Scott for sharing your expertise!



AGFD Biologist Scott Sprague educates about wildlife crossings. Credit Tiffany Sprague.



Excitement not contained! Credit Tiffany Sprague.

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**JOIN US!**  
**FEBRUARY 7–9, 2019**  
**JOINT ANNUAL MEETING**  
**OF**  
**THE ARIZONA AND NEW MEXICO CHAPTERS OF**  
**THE WILDLIFE SOCIETY**  
**AND**  
**AMERICAN FISHERIES SOCIETY**  
**ALBUQUERQUE, NEW MEXICO**

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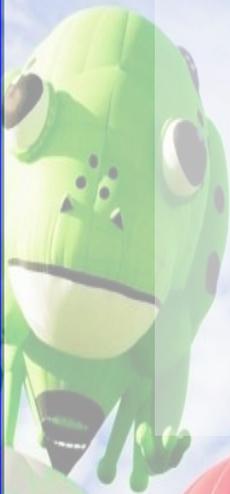
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**SCHEDULE AT~A~GLANCE HERE**

**WORKSHOP DESCRIPTIONS HERE**

**SPECIAL JAM RATES AT MARRIOTT PYRAMID HERE**

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# Student-Mentor Lunch



*The 52<sup>nd</sup> Arizona-New Mexico Joint Annual Meeting of The Wildlife Society and American Fisheries Society*

**Where: Marriott Pyramid, Albuquerque, NM; the Atrium**

**When: February 8<sup>th</sup>, 2019 11:30AM-1PM**

**Who: 70 students, 10 wildlife professionals**

Want to network with local wildlife professionals? Have career-related questions you want to ask? Sign up for the student-mentor lunch when you register for the 2019 JAM!

Cost of signing up for lunch is \$8.

Mentors are from New Mexico Department of Game and Fish and Arizona Game and Fish Department, U.S. Fish and Wildlife Service, University of Arizona, Coalition for Sonoran Desert Protection, and McDowell Sonoran Conservancy

Registration can be found online here:

<https://www.regonline.com/registration/Checkin.aspx?EventID=2544634>

For more details, please contact Ginny Seamster ([virginia.seamster@state.nm.us](mailto:virginia.seamster@state.nm.us))

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