



Southwest Section Newsletter

Spring 2024 - Vol. 15 Issue #2

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President's Message

Nicole Tatman - 2024 President SW Section of The Wildlife Society

Hello Southwest Section!

Thank you section members for giving me the opportunity to serve as your president this year. I look forward to working with you all to move important initiatives forward.

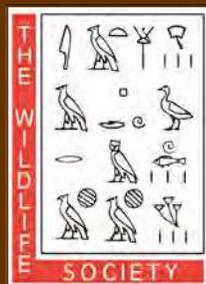


A little more about my background: I am the Ungulate Program Manager for New Mexico Department of Game and Fish and prior to that, I attended New Mexico State University for my undergraduate degree and Texas Tech for my Master's and Doctorate. At NMSU I worked on a project studying jaguar and mountain lion diets in Mexico. At Texas Tech I led two separate research projects: one on the survival of Arizona desert mule deer fawns and the other on the effects of predation and nutrition on elk vital rates in New Mexico. In short, I have strong ties in the southwest; as president I plan to do my best to strengthen connections amongst section membership.

I am happy to report that wildlife professionals in Mexico are making progress towards having an official Mexico Chapter of TWS. In October 2023, the upcoming Mexico Chapter took a major step forward towards becoming an official TWS Chapter. Congratulations to the Mexico team on this important step! Dr. Luis Tarango—Wildlife Professor at Colegio de Postgraduados Campus in San Luis Potosi—has a more detailed update in his article included on page 6 in this newsletter. The southwest section is hoping to sponsor students from Mexico to attend a local wildlife conference in the United States. We will keep you updated as this progresses.

The Section had several accomplishments last year. First, we increased our student scholarship from \$500 to \$1,000 and with 15 applicants, there was clearly a lot of interest. Deandra Jones, a Ph.D. student at the University of Arizona, won the scholarship. She's doing interesting research estimating the black bear population in the Chuska Mountains on the Navajo Nation. You can read more about Deandra's work on page 17. Congratulations Deandra! Our second accomplishment was modernizing the way we communicate with membership. We are now using Google Groups. If you run into any issues receiving our emails please let us know. This shift was no small effort, thank you to past-president Kay Nicholson for all of your work on this!

Regarding Section leadership, I would also like to welcome **Ryan Luna** as the president-elect and **Megan Clayton** as the Sections new Treas-



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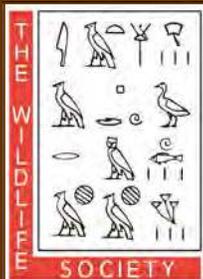
Nicole Tatman - 2024 President SW Section of The Wildlife Society

urer. Ryan is the Department Chair for Natural Sciences at Sul Ross State University; Megan is an Extension Rangeland Specialist for Texas A&M AgriLife Extension Service and the Department of Rangeland, Wildlife, and Fisheries Management at Texas A&M University. **Masa Ohnishi** has been serving as Secretary and will continue this year and **Kay Nicholson** has transitioned to past president. A huge thanks to **Erika Nowak** for her time and service as the Section Treasurer! From research on ungulate migrations, to quantifying impacts of anthropogenic development on wildlife, to innovative avian monitoring systems (to name just a few), I continue to be impressed with the diverse projects you all work on.

On behalf of all the wildlife and landscapes you care about that don't have words – thank you!

Nicole Tatman

TWS Southwest Section President





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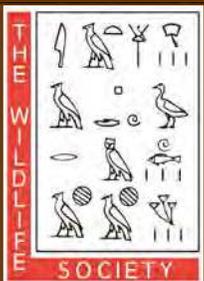
Section News and Information

Thank you to those that contributed to this newsletter: Lauren Connolly, Michael Dax, **Aaron Facka, Kathy Granillo, Deandra Jones, Alejandro Lozano, Shaun McCoshum, Dylan Stewart, Dr. Luis Tarango, Nicole Tatman,** and Dr. Stephen Webb.

We need photos and/or articles from YOU!

Please contribute to the next newsletter. Consider submitting articles or photos on work-related adventures, conservation happenings, or any topics of interest to Southwest Section members. If you’re interested in contributing but don’t know what to write, give us a call!

Deadline for the Spring newsletter articles is **March 1st.**
Deadline for the Fall newsletter articles is **September 30th.**



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Southwest Section Tracks

Kathy Granillo - Southwest Section Representative To Council

By the time you read this article, the Spring meeting for TWS Council will be over and perhaps the solar eclipse as well. Both are seen as momentous events, although the solar eclipse is perhaps more well known. As I'm sure you all know, the path of totality passes directly over part of our Section as it will traverse across Texas from the SW to the NE. I hope that if the eclipse is of interest to you that you can experience it, especially as the next total eclipse that will pass over North America won't happen for another 20 years. I also hope that the Council meetings, or at least their outcomes, are also of interest to you. And the good news is that they happen twice a year, regardless of what the moon, sun, and earth are doing.



One of the main topics at the Spring Council meeting will be (was?) the new Strategic Plan. I'm sure we will all hear more about this over the Spring and Summer as we start implementation. Please feel free to reach out to me if you have any questions or concerns as we move forward. Another big topic will be (was?) the next Annual Conference. This will be in Baltimore, Maryland from October 20-24, 2024. The call for abstracts is still open if you'd like to present in the general scientific sessions at the conference. That closes May 3.

As you may be aware, TWS offers monthly webinars which are open to anyone to attend. These webinars are usually hosted by one of the Working Groups or other affiliates of TWS. If you plan to attend the annual conference, and you are a student, an early career professional, or have never attended an annual conference before, please mark your calendar for the September webinar. It will be held September 10 and will be about attending the conference. It will include suggestions for how to make the most of what the conference has to offer, and how to do it in a safe, inclusive way. Women of Wildlife, Out in The Field, Early Career Professionals WG, Inclusion, Diversity, Equity and Awareness WG, and Student Development WG are hosting this webinar.



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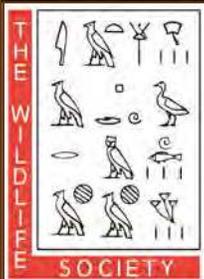
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Kathy Granillo - Southwest Section Representative To Council

The very next TWS webinar will be held April 12, and the topic is leveraging student power for wildlife disease surveillance. Visit wildlife.org to sign up to attend.

Please keep an eye on your inbox for TWS election information. This is your opportunity to vote for leadership of TWS and I encourage you to take advantage of that opportunity. Our section will be voting for Vice President and for Southwest Representative.

I enjoyed seeing many of you at either the Arizona/New Mexico Joint Annual Meeting or at the Texas Chapter Annual Conference. Between the 2 meetings there were over 1,000 attendees. Our Section truly has a large and interested membership, and you are all what makes our events and conferences successful. Keep up the good work and I look forward to seeing you in Baltimore and/or other TWS events!

Kathy Granillo, KGBirder55@gmail.com



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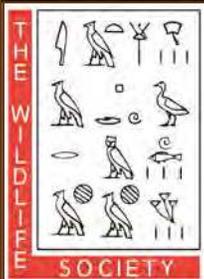
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Luis Tarango, and President-Advisor of the Wildlife Mexico Chapter TWS Civil Association

Brief History

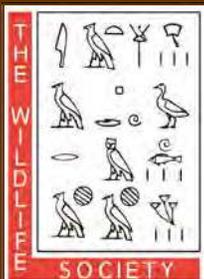
The initiative to form a Mexico Chapter of The Wildlife Society has been a decades-long objective. However, it was about 6 years ago, after having hosted the first (13-16 November 2018) and second (12 -15 November 2019) Mexico national wildlife conferences in the State of San Luis Potosí, that we initiated efforts for its formation. We were encouraged to proceed with establishing a Mexico Chapter after initial conversations with then TWS president Gary White, who attended the second national conference, and SW Section President Dr. Fidel Hernandez, who attended both conferences. We assumed the role of leading the initiative. The first step was to establish a nonprofit wildlife conservation organization with which we could then become associated with TWS. The formation of a national nonprofit was a learning process that required numerous meetings with lawyers and fulfilling various legal requirements. Finally on October 24, 2023, the Mexican government approved the nonprofit organization under the name of Wildlife Mexico Chapter TWS Asociación Civil. This NGO includes participating professors and students of the Colegio de Postgraduados Campus San Luis Potosí, Universidad Juárez del Estado de Durango, Universidad Autónoma de Ciudad Juárez, and Universidad Autónoma de San Luis Potosí. The objectives of this nonprofit organization are to bring together professionals, students, technicians, producers, public and private institutions, and others who have an interest in wildlife management and environmental conservation and who promote natural resource sustainable development at the national,



Gary White and Dr. Luis Tarango on left and Dr. Fidel Hernandez and Dr. Luis Tarango on right at inauguration of second Mexico National Wildlife Conference. Photo courtesy Dr. Luis Tarango.



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Luis Tarango, and President-Advisor of the Wildlife Mexico Chapter TWS Civil Association

regional, and community level. The official decisions of the Mexico Chapter, according to Mexican regulations, will be voted on through in-person and/or virtual meetings and with agreements and minutes signed by each of the Mexico Chapter members. The Wildlife Mexico Chapter address is Zacatecas, No. 13, Colonia Ampliacion la Fe, Guadalupe, Zacatecas, CP 98615.

Next steps

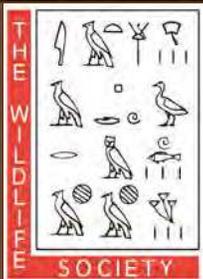
- 1.- It is necessary to prepare more detailed regulations.
- 2.- Build the Web Page of the Wildlife Mexico Chapter TWS Civil Association and invite other individuals and organizations to join the Chapter.
- 3.- Prepare and review the Memorandum of Understanding between The Wildlife Society and the Wildlife Mexico Chapter NGO.
- 4.- Elaborate a work plan to consolidate the objectives of the Mexico Chapter.



Collaborators from Southwest Section of The Wildlife Society and Wildlife Mexico Chapter TWS Asociación Civil during the second Mexico National Wildlife Conference. Photo courtesy Dr. Luis Tarango



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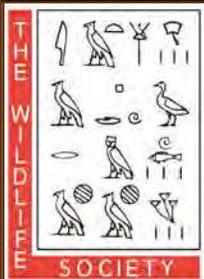
We mainly thank the many individuals whose interest and financial contributions made our efforts a success. We especially thank Gary White, Fidel Hernandez, Cameron Kovach, and Edward Arnett for all their support and interest in forming an association that conserves and manages the wild flora and fauna of Mexico and their habitats. I thank the Postgraduate College Campus at San Luis Potosí for all their support and the colleagues who started me in this adventure and to the founding members of the Mexico Chapter.



Attendees of the Second Mexico National Wildlife Conference. Photo courtesy Dr. Luis Tarango.



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State News

Michael Dax & Aaron Facka, Wildlands Network - A New Energy Frontier: Understanding interactions between wildlife and Utility-Scale Solar

When the San Juan Generating Station closed at the end of 2022, it marked the end of an era. For decades, the coal fired power plant on the outskirts of Farmington, New Mexico, in the north-west corner of the state, had been emblematic of the community's social, cultural and political fabric. The Generating Station and its associated mine created jobs, helped grow the community, and supplied power across the Four Corners region. However, in the face of climate change and concerns surrounding air pollution and other health impacts, it had drawn the ire of environmental and community health advocates, eventually leading to its closure.

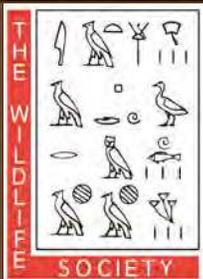
But the Generating Station shuttering its doors did not signal the end of Farmington and the San Juan Basin's position as a community whose primary economic driver is energy production. Pump-jacks still dot the landscape, and to replace the retired power-plant whose hulking mass still commands a presence across the open, arid plains, utility-scale solar has become the new frontier in energy extraction.



Development from east of San Juan Solar Facility outside Kirkland, New Mexico. Photo courtesy Wildlands Network.



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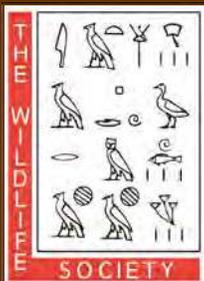
While many environmental advocates view solar and other renewable energy sources as the answer to the problems posed by fossil fuel development, the wide-spread implementation of renewable energy, especially solar, leaves many questions regarding the long-term implications for wildlife and their habitat, including eliminating wildlife habitat, increasing habitat fragmentation and reducing access and connectivity between valuable resources. Over the past two decades, there has been significant research seeking to understand and reduce conflicts with renewable energy for bats, birds and other federally listed species like the desert tortoise, but there is still relatively little known about how large mammals like elk, deer, and pronghorn will be impacted or how those impacts could be mitigated through siting practices or other facility design features.



Collared doe near San Juan Solar Facility. Photo courtesy Wildlands Network.



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With these questions in mind, Wildlands Network is leading a collaborative effort between the Navajo Nation, Ute Mountain Ute Tribe, New Mexico Department of Game and Fish, New Mexico State Land Office, and Bureau of Land Management to understand how pronghorn and other wildlife in the Four Corners region are interacting with or impacted by the solar developments that are set to replace the energy lost with the Generating Station's closure. Thanks to funding support provided by the U.S. Department of Energy, last year we began a four year study employing GPS collars, remote cameras, drones, sign and visual surveys to address these questions with the goal of providing insights to developers and regulators in understanding how local wildlife are interacting with newly constructed solar facilities, and how those interactions may change over time.

And thanks in part to the 1,100-acre San Juan Solar facility that's currently under construction, we have a unique opportunity to begin answering some of these questions. In addition to these broader concerns, our research hopes to address several specific issues:

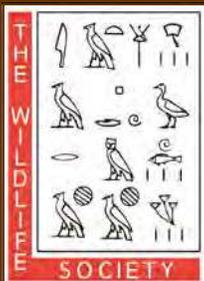
Federal regulations require that solar energy facilities be fenced, so while we expect all large mammals to be excluded from the immediate footprint of any solar facility, questions remain about additional displacement or avoidance that wildlife might display. Especially since pronghorn occupy open habitats with high visibility, will they further avoid these areas to maintain their visual advantages?

Developers and regulators have considered incorporating "corridors" or movement pathways into their developments to facilitate wildlife passage, but how should these be designed to facilitate use by different wildlife?

Since renewable energy development is highly dictated by proximity to transmission lines, how do we account for the cumulative impacts of multiple facilities, especially if they



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are located in different jurisdictions whose permitting processes don't account for activities on neighboring lands. When siting new facilities and conducting preliminary surveys for wildlife, what methods are appropriate to best understand patterns of seasonal habitat use and resource selection that are critical for local wildlife?

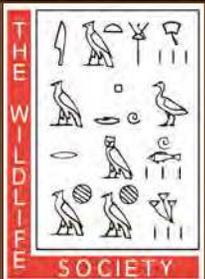
By the conclusion of this study, we hope to take what we have learned to develop recommendations and to improve upon existing siting tools to better consider the needs of pronghorns and other wildlife.



Helicopter used to capture pronghorn for collaring. Photo courtesy Wildlands Network.



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Shaun McCoshum, Wildlands Network - How Familiarity of Academia Can Assist Community Science

Over the past decade, I have interacted with numerous organizations across the country including gardening groups, birders, and “friends of”-type conservation entities. Most of these groups have active members that make up a sizable demographic of people who love wildlife, being outside, and want to be involved with science. Every group that has worked with researchers and who have collected data, talks enthusiastically about the projects, often years after they were completed. Most of these groups also actively gather data for research programs like Breeding Bird Surveys, Monarch Watch, and Journey North.

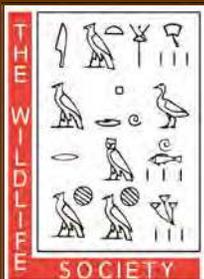
Many groups that have large memberships often talk about projects they would like to do but cannot. Too often, projects are not pursued because members don’t know a researcher or institution. Other times groups will conduct research, but the data does not get shared with institutions. In almost every situation, members of these groups simply don’t know how to start working with institutions because none of their members are familiar with museum protocols or academia. Likewise, most people do not know how to design a research study and without a researcher they feel



One of the early bee collections with header labels and cursory IDs. Sent to Museum of Southwestern Biology. Photo courtesy Shaun McCoshum.



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Shaun McCoshum, Wildlands Network - How Familiarity of Academia Can Assist Community Science

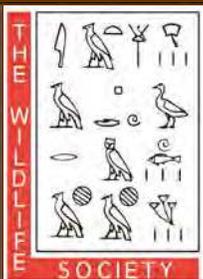


Members of Llano Estacado Texas Master Naturalist (LETMN), Ken Rust and Ethel Matthews labelling bees and inputting data. Photo courtesy Shaun McCoshum.

unprepared. Fortunately, the familiarity that many students and researchers have can be the missing tools community science organizations need to get started or share their work. In the past year alone, I have introduced museum staff and researchers in seven states to four active community groups with collections or on-going studies. The groups were simply missing the access point to the academic side. These introductions have already led to collections being deposited, some expert identification, and also hold the prospect of providing access to acreage and data collection for future ecological work.

One project I have had the luck of being a part of is a local native bee inventory study in the Llano Estacado of Texas, where I currently live. When I moved here in 2018, I knew the area was poorly sampled and museums I had worked with previously would gladly accept legally collected specimens for everything. After

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reaching out to my connections, I began collecting in my personal time.

I also connected with local groups including the Llano Estacado Texas Master Naturalists (LETMN) – an amazing, enthusiastic, group of science minded folks who enjoy learning and hearing about research. Almost a year after I was invited to talk about my pollinator work at a local nature center, Susan May, a leading member of the LETMN, geologist, artist, and nature lover reached out to see if I would be interested in helping LETMN conduct a native bee study. Members of the group were intrigued by my current studies, were very aware the ecoregion was poorly studied,

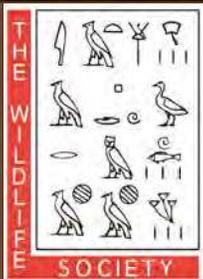
and wanted to rectify the absent native bee inventory with a more systematic collection process.

It honestly only took about two hours to outline steps to match what the LETMN was wanting to do to partner with potential museums for insect deposits.



One of the bee study setups in Odessa Texas. Blue vane traps are set-up at ground level and average vegetation height to test if placement affects bee capture. Photo courtesy Susan May.

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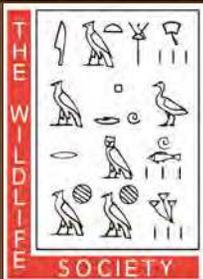
Shaun McCoshum, Wildlands Network - How Familiarity of Academia Can Assist Community Science

Like other projects, after introducing the museum to the group and explaining steps for collecting and depositing, the project would be set up for success as long as engagement continued. However, since I live here, I have been able to casually assist and observe this amazing community project. Thanks to Susan's engagement, local residents, Texas Parks and Wildlife Department, Universities, and museums have all offered to partner. Some have provided supplies or expertise, and all have benefited from the Master Naturalist's data. Synoptic collections are being deposited in three museums plus a photographed, identified collection is on iNaturalist with 107 species, and a research article planned that includes many LETMN members as authors. This project is still expanding with new habitats and study locations being added.

The native bee project the LETMN is doing is just one example of how familiarity with academia can enable community groups to build partnerships that create meaningful, critical data. I encourage everyone who has ever worked with a museum, accessed specimens, or deposited collections to volunteer with their local community organizations. Your knowledge of simple protocols and procedures may be the missing step that fuels community enthusiasm and connects data creation with academic institutions.



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Deandra Jones - SWS Student Scholarship Recipient

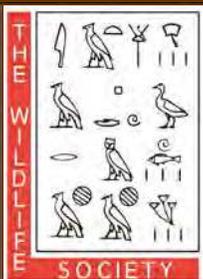
Yá' át'ééh! Greetings, my name is Deandra Jones, as a member of the Navajo Nation, I identify myself as Kinłichí'nii, born for Ashijíhí (I am of the red house people, born for the salt people). As a first-generation college student and a second-year Ph.D. student at the University of Arizona majoring in wildlife conservation and management, my journey is rooted in my upbringing on the Navajo Nation. The profound connection to the land and the rich cultural identity instilled in me fuel my passion for wildlife conservation, shaping my perception of the environment not just as a field of study but as a vital part of my identity and heritage.



Rock formation taken at sunset in Round Rock, AZ on the Navajo Nation. Photo courtesy Deandra Jones.

My journey started in a small rural town on the Navajo Nation, where my love for animals manifested in various ways, from bringing strays home to making my parents stop at the Window Rock Zoo every chance I had. It was in high school that the potential to work with animals became evident, sparking an initial dream of becoming a veterinarian. I earned my bachelor's in general biology at Fort Lewis College in Durango, CO. Post-graduation, I began applying to different veterinary schools and started work as a veterinary technician. It was during this time; I came to the realization that the path of becoming a veterinarian wasn't for me. Despite enjoying my role as a veterinary technician, my passion for research, nature, and wildlife propelled me towards the pursuit of a graduate degree.

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Student News

Deandra Jones - SWS Student Scholarship Recipient

When I applied for graduate school in 2018, my research experience was both limited and non-traditional. Fortunately, I found an advisor who was willing to collaborate with me. Under the mentorship of Dr. John Korprowski, I became part of a conservation research lab at the University of Arizona in 2019. My research focused on the identify and quantifying parasites among endangered Mt. Graham red squirrels and introduced Abert's squirrels in southern Arizona. This investigation sheds light on the potential role these parasites may play in biological invasions and potential factors contributing to a species' extinction risk.

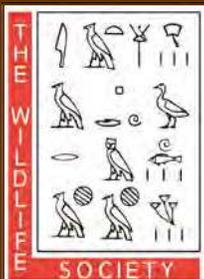


Deandra Jones, running DNA extractions of parasites, taken at the University of Arizona in Tucson, AZ. Photo courtesy Deandra Jones.

Graduating with my Masters in Spring of 2022 marked the transition to my Ph.D., which began that fall under the guidance of Dr. Michael Bogan and Dr. Javan Bauder. This phase of my academic journey involves a collaborative effort with the Navajo Nation Department of Fish and Wildlife (NNDFW). In the late 2000s, NNDFW undertook a thorough needs analysis, identifying five key species, with the black bear emerging as a one of the top priority. As the last formal study was conducted in the 1980s, the uncertainty surrounding the black bear population on Navajo lands makes the urgency for a research initiative important. Our primary objectives include estimating the black bear population, under-18



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Deandra Jones - SWS Student Scholarship Recipient

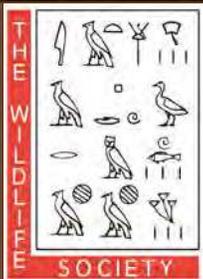
standing human-bear conflict, and exploring Traditional Ecology Knowledge about black bears deeply rooted in Navajo culture.



Deandra Jones, collecting black bear hair samples taken in Chuska Mountains on the Navajo Nation. Photo courtesy Lashauna Brown.

In Navajo beliefs, the black bear is seen as sacred, and traditional knowledge highlights its vital role. Recognizing this cultural significance, my research takes an innovative approach, surpassing conventional methods to prioritize cultural sensitivity, knowledge sharing, and collaboration with the Navajo people. By prioritizing relationships with local leaders, actively listening to community members, and engaging in cultural activities, the research aims to gather knowledge that directly benefits the Navajo Nation. These experiences contribute meaningfully to wildlife management strategies and address specific community needs. This initiative also strives to provide accurate and updated data to the NNDFW, facilitating effective habitat management in the Chuska Mountains and ensuring the seamless integration of traditional knowledge with scientific research for the benefit of the Navajo Nation.

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Student News

Deandra Jones - SWS Student Scholarship Recipient

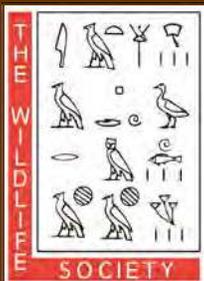


Black bear walking toward hair snare trap, taken in the Chuska Mountains on the Navajo Nation. Courtesy of our trail camera.

Looking ahead, I envision myself as a dedicated wildlife biologist, contributing to effective wildlife population management, whether within a tribal department or the federal government. However, my aspirations extend beyond personal achievements, with a focus on mentoring Indigenous students, creating STEM outreach programs, and serving as a bridge connecting Indigenous heritage with science and conservation. My ultimate goal is to ensure that future generations have the tools and opportunities to thrive, grounded in their rich cultural heritage.

Ahéhee', Thank you.

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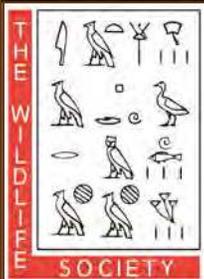
Dylan Stewart, Alejandro Lozano, & Dr. Stephen Webb - Bighorn Sheep Relocation in Sonora, Mexico

Mountain sheep (*Ovis* spp.) abundance across North America has declined more than 60% from historic times due to factors such as overgrazing, habitat fragmentation, and disease transmission from domestic livestock and exotic species. In Mexico, wild sheep populations experienced unprecedented declines, and by the mid to late 1900s, free ranging bighorn sheep (*Ovis canadensis* spp.) were extirpated from Chihuahua and Coahuila. Legislation restricted the legal use of wildlife, which indirectly reduced the economic incentive to invest in wildlife conservation. As such, many landowners were financially incentivized to convert their properties to agriculture. In 1997, Mexico established the Wildlife Conservation and Production Diversification in the Rural Sector program, which created a legal framework for private landowners to manage and harvest wildlife under governmental oversight. Only areas registered with the federal Office of Wildlife as Wildlife Conservation, Management, and Sustainable Utilization Units (UMAs) can harvest wildlife through sustainable sport hunting, and UMAs must file a management plan that includes population estimation and monitoring methods, harvest reporting, and protection of wildlife (e.g., protection from poachers) within the property before requesting hunting permits.

The most common tool for restoring bighorn sheep is to translocate a subset of a population to an area either not historically occupied (introduction), previously occupied (reintroduction), or with an existing population (restocking). In Mexico, UMAs are designated as either extensive, in which wildlife is free ranging, or intensive, in which wildlife is managed in a controlled environment (e.g., breeding programs). Currently, 88% of registered UMAs are used for game-ranching and captive breeding. Often, bighorn sheep are raised in breeding facilities and translocated to extensive UMAs to meet the demand for hunting permits while reducing the potential to overharvest resident herds.



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Dylan Stewart, Alejandro Lozano, & Dr. Stephen Webb - Big Horn Sheep Relocation in Sonora, Mexico

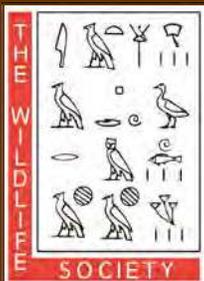


Translocated desert bighorn sheep, Sonora, Mexico. Photo courtesy Ivan Lozano. Scan the QR code to see translocated bighorn sheep being released into the Sierra El Alamo Mountains, Sonora, Mexico.

Over 1,000 bighorn sheep reintroduction projects have been conducted across North America; however, only ~50% have been considered successful. Additionally, there is little to no information on the space use, connectivity, habitat use, movement, and survival of translocated bighorn sheep in Mexico, highlighting the importance of working with private landowners to conduct research on free-ranging bighorn sheep. Working with the Artee family, who have a long history of conserving and managing for desert bighorn sheep (*O. c. mexicana*), our objectives are to quantify space use, connectivity, habitat use, movement, and survival of desert bighorn sheep, which are translocated from an intensive breeding facility (intensive UMA) to a free-range property (extensive UMA) containing a resident, wild population of sheep. We are grateful to the Artee family for partnering with us to conduct research in the Sierra El Alamo Mountains, ~45 km W of Caborca, in northwestern Sonora, Mexico.



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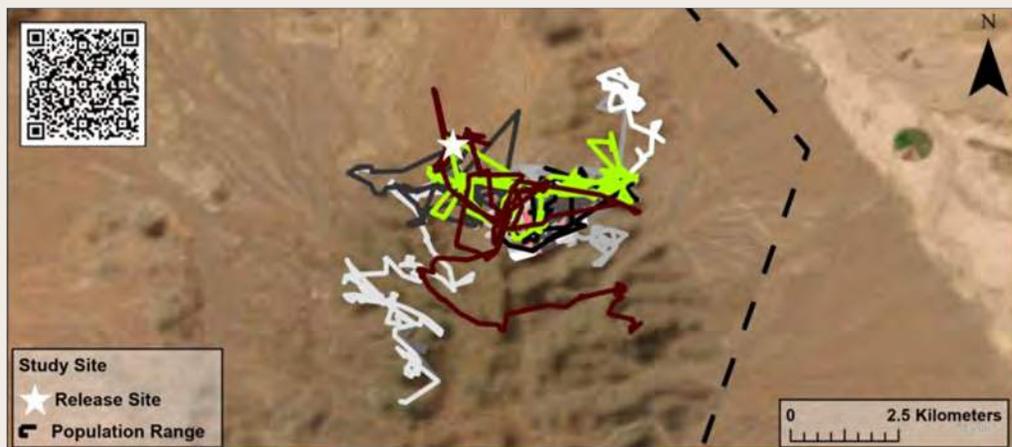
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Student News

Dylan Stewart, Alejandro Lozano, & Dr. Stephen Webb - Bighorn Sheep Relocation in Sonora, Mexico

In 2022, we captured and fitted 16 desert bighorn sheep (9 F, 7 M) with GPS collars, 9 of which were video collars; these collars collect 1 location every 3 hours. Additionally, we will fit 18 sheep with GPS collars, 1 of which will be a video collar, in May 2024.

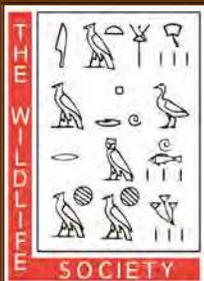


Post-release movements of 16 translocated bighorn sheep, Sonora, Mexico. Figure and animation created by Dylan Stewart. Scan the QR code to see an animation of sheep movements following release.

The first leg of the research project is to evaluate space use, movement, and survival. Preliminary analyses of data collected the first year suggest that monthly home range size for females was greatest in April (1,319 ha) and least in September (291 ha). For males, home range size was greatest in February (1,533 ha) and least in October (513 ha). Cumulatively, movement was greatest from April through June (~49 km) for females and from February through April (~52 km) for males. Annual survival (Nov. 2022 – Nov. 2023) was 81% (13/16) for both sexes.



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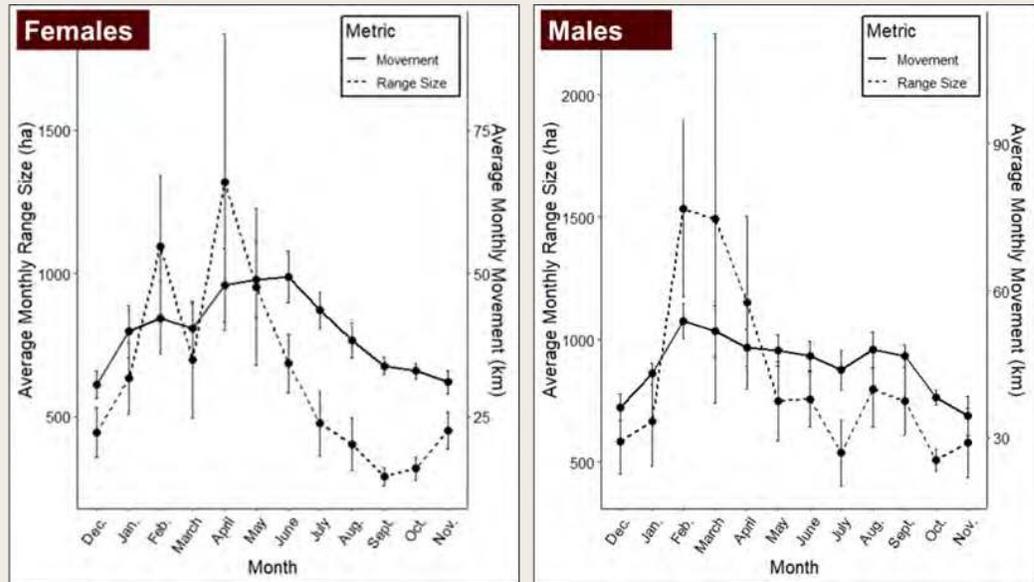
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Dylan Stewart, Alejandro Lozano, & Dr. Stephen Webb - Bighorn Sheep Relocation in Sonora, Mexico

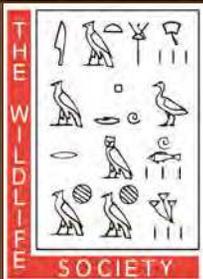
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Average monthly range size (ha; Brownian bridge movement model) and movement (km) of female and male bighorn sheep, Sonora, Mexico. Figure created by Dylan Stewart.

Early post-monitoring data suggest the restocking was successful because annual survival was high, translocated sheep joined herds with native sheep, and video collar data suggests females recruited lambs. We will conduct habitat selection analyses using GPS and video data to identify the factors that influence translocation success, and then use these data to prioritize release and supplemental water source sites and manage critical habitat across Sonora, Mexico.

To learn more about the project, please feel free to reach out to Dylan Stewart (Dylan.Stewart@tamu.edu), Alejandro Lozano (alejandrolzn@yahoo.com), or Dr. Stephen Webb (stephen.webb@ag.tamu.edu).





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SWS Board & Committee Chairs

Current Board

President: **Nicole Tatman** Nicole.tatman@dgf.nm.gov 505-469-3966

President-Elect: **Ryan Luna** rluna@sulross.edu

Past President: **Kay Nicholson** kay.e.nicholson@jacobs.com 602-530-1605

Secretary: **Masa Ohnishi** masahiro.ohnishi@tamuk.edu

Treasurer: **Erika Nowak** Erika.Nowak@nau.edu 928-523-7760

Southwest Section Representative to TWS Council

Kathy Granillo kbirder55@gmail.com (505) 350-1007

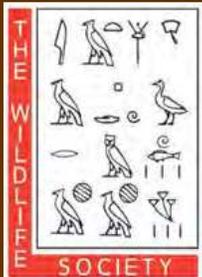
Active Committees

Conservation Affairs:

Vacant Position

Newsletter:

Jamie Killian jamie.killian@tpwd.texas.gov 254-566-5011
& **Anna Lad** annablairelad@gmail.com 254-702-1869



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Join!



Membership Application

Membership Fee \$5.00

First Name	Middle Name	Last Name	Suffix
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Mailing Address

City	State	Zip Code	Country
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E-mail address	Phone
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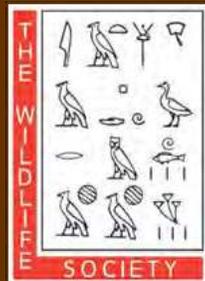
Member Type (Please circle one): Student Regular Retired

Please include this form with your payment and mail to:

Dr. Megan Clayton, Treasurer TWS-SWS, Texas A&M AgriLife Research & Extension Center, 1619 Garner Field Road, Uvalde, TX 78801

Membership benefits for the Southwest Section TWS

- SWS TWS Newsletter
- Scholarship opportunities
- Section-level meetings and conferences
- Strengthen your connections to national TWS
- Peer connections through Listserv and [Facebook](#)
- Website information at <http://wildlife.org/sw-section/about/>



Current Members

AZ	NM	TX	Int	Oth
65	76	126	2	58

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I would like to thank the section for the opportunity to serve as newsletter co-editor. I have enjoyed getting to know membership and learning about the great things happening in the southwest. I am stepping down as co-editor to give someone else the opportunity to serve on this committee. If you are looking for a way to give back to the section and grow your network please reach out to SWS President, Nicole Tatman. I am happy to answer any questions you may have regarding the role and responsibilities.

Jamie Killian

Jamie.killian@tpwd.texas.gov

