

THE ARIZONA WILDLIFER

2019 Issue 2

 Follow us on Twitter!

 Like us on Facebook!

Spring Edition

Inside this issue:

Regional News	2
AZTWS Service Postings	2
Our Neck of the Woods	4
52nd JAM Recap	8
2019 TWS Conference	9
Student Voice – Arizona	10
Meet your AZTWS Board	12
TWS Council Recap	15
Cont. Education Grants	17
Contribute Submissions!	17

EXECUTIVE BOARD

President: Jessica Moreno
(520) 440-2885 wildlifepathways@gmail.com

President Elect: Andrew Jones
(623) 236-7734 ajones@azgfd.gov

Treasurer: Haley Nelson
(480) 204-9312 hnelson@azgfd.gov

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

Corresponding Secretary: Emily Scobie
(520) 647-6336 escobie@azgfd.gov

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

Board Member: Holly Hicks
(623) 236-7499 hhicks@azgfd.gov

Newsletter Editor: Brian Blais

Facebook:
<https://www.facebook.com/AZTWS>

Twitter: <https://twitter.com/aztws>



The President's Message



2019 AZTWS President Jessica Moreno. Credit Kathleen Kennedy

highway on a bridge giving wildlife the freedom to roam.

I am very grateful for the opportunity to serve this Chapter in my capacity as President, and especially for the many folks – including Scott Sprague, Tiffany Sprague, Kay Nicholson, my cohort Andrew Jones, and my fellow board members, committee chairs, members, students, and professionals – who, through their leadership and participation, continue to shape the Arizona Chapter of The Wildlife Society into everything we wish it to be.

You each have a voice to share our vision for the future, and I cannot wait to see what we can accomplish together this coming year as a community of folks – with diverse backgrounds and perspectives, connected by our common passion for conserving wildlife.

Some of the challenges we face, individually and in our field, will be tough roads to cross. But we build bridges one hurdle at a time,

(Continued on page 2)

Presidents Message cont...

(Continued from page 1)

together in partnership and with a clear goal. Before you know it, as the cactus wren calls and the sun begins to set, we watch while, gingerly at first but with growing confidence, one mule deer at a time makes its way delicately, but swiftly, over the wildlife bridge. Beneath them, the lights of oncoming cars sweep by. The wildlife are moving.

Sincerely,

Jessica Moreno
AZTWS Chapter President

JOIN US! AZTWS CHAIR POSITION OPENINGS

AZTWS is seeking enthusiastic representatives for several positions including

- Social Media Communications Chair to lead our online presence and outreach
- Webmaster
- Conservation Affairs Chair
- Continuing Education Panel
- Opportunities Chair

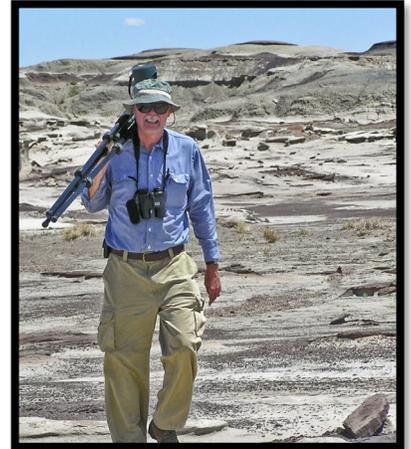
To apply or make inquiries, please contact Jessica Moreno at wildlifepathways@gmail.com

Regional News:

Southwest Section Tracks

By Jim Ramakka
Southwest Section Representative

The snow has finally melted in northwest New Mexico, and the March winds have started. Hopefully, they will calm down before we're faced with our usual spring dust storms.



Over the past month, I was lucky enough to squeeze travel between winter storms to attend the Joint Annual Meeting (JAM) of the Arizona and New Mexico Chapters of The Wildlife Society in Albuquerque, New Mexico; the Texas Chapter Meeting in Montgomery, Texas; and the Spring TWS Council Meeting in Denver, Colorado.

I always look forward to TWS Chapter meetings as a way to keep up on the latest research and management issues in the Southwest and for the opportunity to reconnect with old friends and colleagues. The AZ/NM JAM banquet and award ceremony began with a very nice memorial to Dr. Sandford D. Schemnitz, presented by Dr. Martha Desmond – his colleague at New Mexico State University (NMSU). Sandy was my M.S. advisor at the University of Maine before he moved on to be the first head of the Wildlife program at NMSU. Over the years, Sandy trained hundreds of students and received the 2017 Governor's Lifetime Achievement Award for Conservation before his passing in May 2018.

It was especially gratifying to see old friends John Sherman (Wildlife Program Lead for Bureau of Land Management NM) and Stan Cunningham (Arizona State University) receive awards for their career accomplishments. They are both outstanding wildlife biologists who have had a lasting influence on wildlife management in the Southwest.

(Continued on page 3)

(Continued from page 2)

Regional News cont...

A week and a half after the JAM, I left a foot and a half of snow and single digit temperatures behind to fly to the Houston area to attend my first Texas Chapter meeting. Again, it was great to catch up with friends and to observe a large gathering that, in many ways, mirrored the complexity and excitement that students and professionals experience at TWS Annual Meetings. The Chapter Executive Board and the various committees did an outstanding job developing and presenting a program with an excellent plenary session, five workshops, film presentations, two poster sessions, 13 technical sessions, two sessions devoted to “Finding Your Dream Job,” and plenty of opportunities for students to interact with working professionals.

Attending these Chapter meetings certainly highlighted the unique ambassadorship of the states that make up our section as well as the underlying interest and passion for wildlife so characteristic of our profession. That passion is also shared by our colleagues in Mexico. Dr. Luis Tarango gave an excellent presentation at the Texas Chapter business meeting and detailed the success of the First Annual Conference on Wildlife Conservation and Management in Mexico. Due to the efforts of Fidel Hernandez, The Wildlife Society donated \$5,000 to help fund the conference. Likewise, NMSU Emeritus Professor Dr. Raul Valdez deserves special recognition for his significant logistical and personal financial contributions to the conference.

I had to leave the Texas Chapter meeting a little early in order to prepare for the TWS Spring Council meeting that started a few days later. Council spent two full days reviewing and discussing committee reports, TWS staff activities and accomplishments, as well as examining a variety of budget issues. A brief summary of some of the main topics discussed are presented on pages [15–16](#).

Finally, I hope everyone will try to attend the 2019 joint [TWS/AFS Annual Meeting](#) in Reno, Nevada, from September 29–October 3. It should be a great event! See page [9](#) for details.

Until then,

Jim Ramakka, CWB®

69 Rd. 2785

Aztec, NM 87410

Email: j_ramakka@msn.com

Phone: 505-486-2746



It has been a great year for wildflowers in Arizona. Credit Brian Blais.

Our Neck of The Woods...

Protecting Wildlife and Agriculture Through Co-Management

*By Paula Rivadeneira,
PhD, Food Safety and Wildlife Extension Specialist, University of Arizona Cooperative Extension, Yuma Agricultural Center*

Yuma, Arizona is not only the sunniest place on Earth, but it is also the winter vegetable capital of the world. Located in the beautiful Sonoran Desert, we have an abundance of animals that can potentially put food safety at risk, including deer, javelina, coyotes, rodents, and birds. These animals can carry pathogenic forms of *E. coli* and *Salmonella* that can accidentally contaminate crops when animals defecate in produce fields. Although farmers try countless means to deter animals, there is no one foolproof method to keep them all out.

As the new researcher on the block, and the self-professed bunny hugger of safe produce, I promote the use of natural animal deterrents in Yuma and all over the Southwest desert produce growing region. I am currently working on three research projects aimed at improving food safety by dealing directly with wildlife: 1) The use of falconry to deter nuisance birds; 2) The installation of barn owl boxes and predatory bird perches to decrease rodent populations; and 3) The development of agricultural eco-corridors to increase biodiversity and decrease animal intrusion into agriculture.

Falconry

Have you ever noticed that when hawks and falcons are flying around, smaller birds like starlings and grackles are nowhere to be found? For years, vineyards and orchards have been using that to their ad-



Paula with a trained Peregrine Falcon.

(Continued on page 5)

(Continued from page 4)

vantage, hiring falconers to fly trained birds over their crops to prevent nuisance birds from damaging or contaminating them. Despite the great success that vineyards and orchards have reported with using falconry, few farmers of other commodities have tried it, mainly due to the high cost of hiring falconers.



Peregrine falcon. Credit Paula Rivadeneira

on the species of nuisance birds that are present, the falconers will select a trained bird to chase the nuisance birds away. They are currently using Harris's hawks, Aplomado falcons, peregrine falcons, and kestrels. Every hour from sunrise through sunset, the falconers make their rounds to the fields they are protecting, recording data and releasing trained birds, drones, and dogs to protect the crops. It is important to note that they are strictly performing abatement, which involves scaring the nuisance birds away; they are not hunting. No animals will be harmed during the course of the study.

During our first field season, two falconers protected 400 acres of crops where growers normally experience substantial crop loss

Considering the exponential costs associated with food-borne outbreaks related to leafy greens, I thought it would be worthwhile to determine if falconry would be effective at deterring nuisance birds from leafy green fields in Yuma. I received a grant from the Center for Produce Safety not just to implement falconry over a two year period to see if it would be effective but also to determine if falconry can be economically feasible on a large scale for all Yuma growers, as well as for others who could benefit from its use, like livestock facilities, golf courses, outdoor venues, and others.

Sonoran Desert Falconry out of Scottsdale, Arizona, is providing falconry services for the project. Falconers are living on site in the field in a university-owned recreational vehicle that I call my SCATT Lab (Super Cool Agricultural Testing and Teaching Lab), where they set up aviaries to house their trained birds. Every morning just after sunrise, falconers deploy to the fields and release their trained birds and/or drones to scare up the earliest avian arrivals. Their techniques are completely dependent on the species of nuisance birds that are present, the crops growing nearby, and the acreage of land they are covering. If adjacent non-produce crops are serving as cover for nuisance birds, they will also deploy dogs to clear those fields. Then, based



The SCATT Lab doubles as a perch. Credit Paula Rivadeneira

(Continued on page 6)

(Continued from page 5)

due to nuisance birds at a nearby grain and seed company. They demonstrated a 97% success rate in terms of chasing birds out of the field. The farmer then reported a 100% success rate in preventing bird damage to those fields – they did not lose a single head of lettuce to birds. During the second season, the falconers covered a similar size territory 60 miles away, where there was intense bird pressure every day for the entire season. Despite the challenge, one farmer estimated that he saved \$400,000 to \$1 million worth of crops from bird damage as a result of the presence of the falconers. We are now in our third and final season protecting a new area, and we are seeing similar results. Once this season is over, we will concentrate on determining how to make falconry affordable on a large scale for growers all over Yuma and beyond.

Barn owl boxes

Farmers in Israel have been installing barn owl boxes in high densities near their agricultural fields for many years to decrease rodent populations. Using barn owls eliminates the need for rodenticides, which often needlessly kill more than just rodents. A family of barn owls can consume 1,000 rodents in a single month, and with a hunting area that can be as wide as 5 miles, they can be effective on a large scale. As a result of funding through the Center for Produce Safety and the University of Arizona College of Agriculture and Life Science Early Career Seed Grant, we are installing a variety of different types of barn owl boxes on organic farms in Yuma, including both fresh produce and date farms. Every 2–3 months, we are trapping and ear tagging rodents to estimate the populations on those farms and to determine how they change as we document increases in wild barn owls in the area. We are also working with Wild at Heart – a raptor rescue based in Cave Creek, AZ – to release rehabilitated barn owls that are ready for return to the wild.

But barn owls are not the only means of natural rodent control. By installing hunting perches that stand about 12 ft off the ground, we can invite a variety of hawks, falcons, and owls to our agricultural fields to manage a wide array of small mammals. This will be done in the next phase of the study as we seek additional funding to complement the barn owl research.

If the data demonstrate that our techniques are effective, we hope that conventional growers in Yuma and the surrounding areas will be willing to eliminate rodenticides from their arsenal of rodent control methods.

Agricultural eco-corridors

Imagine telling a farmer, who is trying her best to keep wildlife out of her fields, that you have a great idea – you would like to enhance the habitat around her fields to make it more suitable for wildlife. Needless to say, farmers do not jump for joy when I share this idea. But here's the thing...studies have shown that when you eliminate wild habitat around agricultural fields, wildlife intrusion *increases* because the field is a resource for them, especially in the desert! So, I thought that if we provide natural habitat, including native foods and water, not only will animals stay out of the fields, but they will maintain their own ecosystem outside of the field where biodiversity can actually increase without accumulating animal intrusion and food safety risks. This may seem counterintuitive, but I have seen it work in Guanajuato, Mexico, where a grower showed me his fields. After two years of making small changes to the native habitat surrounding his crops, he has seen a significant decrease in animal intrusion into his fields, an increase in biodiversity (he went from seeing three species of birds to 21 species of birds!), and a 70% decrease in his use of pesticides in those fields!

Thanks to a grant from the University of Arizona's Haury Program, and a lot of arm twisting of the growers, we are trying this technique in Yuma. I have hired four students to set up wildlife cameras in experimental and control habitats and to substantially improve wild habitat in one area along agricul-

(Continued on page 7)

(Continued from page 6)

tural fields that are consistently challenged with intrusion by coyotes and rabbits. We just set up the cameras in early March to document baseline animal presence in both habitats!

Each of these studies highlights just a few of many techniques that we can use to discourage wildlife from entering leafy green fields. As much as everyone wants a simple fix or a single cure all, there will never be one. Not for birds. Not for deer. Not for coyotes. Not for any wildlife. Instead, it's best to focus on Integrated Pest Management in which falconry, barn owl boxes, predatory bird perches, and eco-corridors each serve as an important tool in our co-management toolbox.



Falconer Jeff showing an Apomado falcon to student Armando. Credit Paula Rivadeneira

If you are interested in learning more about these wildlife co-management projects or other food safety research, contact Dr. Paula Rivadeneira <https://swes.cals.arizona.edu/people/faculty/paula-rivadeneira>.

Recap of 52nd Joint Annual Meeting (JAM) of the Arizona and New Mexico Chapters of the Wildlife and Fisheries Societies

*By Jessica Moreno,
President, AZTWS*

February marked the 52nd Joint Annual Meeting (JAM) of the Arizona and New Mexico Chapters of the Wildlife and Fisheries Societies, held in Albuquerque, NM. The event was a wild success and well attended by students and professionals alike. It was great to see Student Chapters so well represented at the JAM, participating in the Student-Mentor Lunch, talks, poster sessions, Quiz Bowl, and photo contest.

This year, AZTWS presented five awards as part of the JAM banquet night.



Our Conservation Award, recognizing Barbara Hawke, was accepted by staff from the Arizona Wilderness Coalition on her behalf. Barbara passed away last June, and her nomination for this award was endorsed by 18 people from different backgrounds, organizations, and agencies. It is the first time we have given the Conservation Award posthumously, and we were honored to acknowledge her life and work.

We were pleased to recognize John Goodwin with the Doug Morrison Award for his exceptional lifelong work to conserve the masked bobwhite quail. He has been instrumental in reestablishment of this species, and his tireless work ethic and conservation values made him the perfect choice for this award



Our Professional Service Award went unerringly to Stan Cunningham for introducing the wonders of nature and the possibility of a career in the wildlife sciences to countless people. His tireless efforts have helped garner a robust new generation of wildlife biologists.

We awarded this year's Roger Hungerford Student Award to Holly Barton, a deserving graduate in Environmental Planning at the University of Arizona. This is the first time we have recognized a non-wildlife degree student with this award. Holly provides us

(Continued on page 9)

(Continued from page 8)

with a glimpse of a growing future in interdisciplinary, women-led, native-led, climate-conscience wildlife conservation, and we look forward to following her career.

And, we successfully surprised Kay Nicholson with the Outstanding Service to the Chapter Award – an award we reserve for those exceptional people for whom we are very grateful. Kay has served in numerous roles with our Chapter over the last eight years, including organizing the JAM in 2018 during her year as President of the Chapter, and she continues to be an active part of our team. Thank you for your selfless dedication and leadership, Kay!



As an extra treat this year at JAM, Brittany Brown from Arizona State University was the official raffle winner of our tricky species identification game, correctly identifying all eight of the native wildlife represented in pen and ink artwork found throughout the JAM program. (Correct answers: *Oncorhynchus apache*, *Puma concolor* (skull), *Bassariscus astutus*, *Hyla wrightorum*, *Sceloporus magister*, *Trogon elegans*, *Crotalus willardi*, and *Canis lupus baileyi*).



You can learn more about our recent awardees at <https://aztws.com/2018-aztws-chapter-awards/>. Start thinking about who you want to nominate for our 2019 awards and get those nominations in!

Each year, JAM provides us with a chance to gather and network, promote and celebrate each other's work, and learn and grow in our profession. We look forward to seeing you all for JAM in 2020!

American Fisheries Society and The Wildlife Society 2019 JOINT ANNUAL CONFERENCE Reno, Nevada, Sept. 29-Oct. 3, 2019

In 2019, The Wildlife Society and American Fisheries Society will come together for the first-ever [joint national conference](#) of these two organizations. The event will likely be the largest gathering of fish and wildlife professionals ever, and will provide unprecedented opportunities for science-sharing and potential collaboration. Individually, these organizations' conferences ensure your staff stay knowledgeable and up to date on the latest science and management techniques, but combined this can't-miss event opens doors for the future of the natural resources professions. Join us in Reno for an unforgettable experience, and be a part of this historic event.

Registration is now open; information is available at <https://afstws2019.org/register/> .

2019 JAM Review

Student Voice

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

The 2019 Joint Annual Meeting (JAM) of the Arizona and New Mexico Chapters of The Wildlife Society and American Fisheries Society in Albuquerque, NM, was a blast and provided a unique and truly memorable experience for the University of Arizona (U of A) student members who attended. Some of the events that really made the show were the amazing workshops, Quiz Bowl, technical sessions, business meetings, and banquet and awards ceremony.

The hands-on workshops were a fantastic opportunity to learn practical skills in the fields of wildlife and fisheries and an excellent kickoff for the rest of JAM. It also allowed students to have a more memorable experience, which was crucial for both engagement and learning. Also, Quiz Bowl was outstanding this year with many highly competitive and intelligent teams. Congrats to Eastern New Mexico University for winning 1st place! In addition, there was an excellent variety of high-quality technical sessions, which were real eye openers for many, especially those who are new to the field. The business meetings were also both very engaging and fun to participate in as they allowed students to become familiar with other members and better understand how the AZ and NM Chapters of TWS and AFS work internally. To conclude the meeting, the banquet and awards ceremony was perfect for everyone to relax after a jam-packed conference and enjoy a fine meal as awards were announced.

The annual JAM conference is truly great for allowing students to network with professionals, so that they can learn from them and potentially find a career. Overall, the University of Arizona Student Chapters of the AFS and TWS thoroughly enjoyed this unique experience and are looking forward to the next JAM in 2020.

The University of Arizona



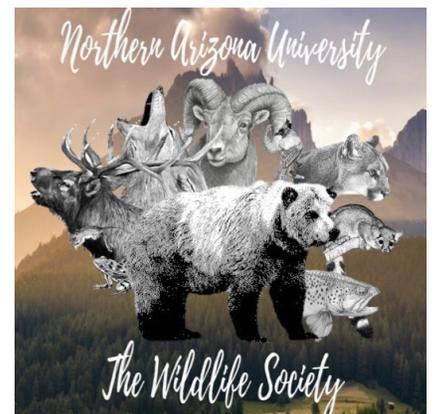
American Fisheries and Wildlife Society

Alex Holmes,

Northern Arizona University Student Chapter of The Wildlife Society

As a newer member of Northern Arizona University's (NAU) Student Chapter of The Wildlife Society, I was excited to experience my first JAM. I knew from the first mention of the meeting that it was something I wouldn't want to miss. Having recently moved from perpetually cloudy and wet Washington, I was eager to learn more about the radically different wildlife of the Southwest and the professionals who study them.

I thoroughly enjoyed my whole experience at JAM, but the aspect I benefitted the most from was listening to the various presentations. Being able to select talks that align with my interests and learn more about specific research being done was a great experience. Although I



(Continued on page 11)

(Continued from page 10)

was unable to attend all the talks that piqued my interest, I was able to discuss them with others who had, opening up conversation on the subjects.

The presentation that stuck out the most to me was “Around the Watering Hole: Terrestrial Ecology of the Endangered Sonoran Tiger Salamander” by Colin Brocka. I have always been fascinated by amphibians, and learning more about this subspecies and their shift in habitat has led to additional research on the Sonoran tiger salamander and other local species.

What I came away with from the JAM was a sense of community with my student chapter and with the organization on a larger scale. It was an opportunity to really get to know other members I see frequently and to meet inspiring professionals I hope to follow – a group of knowledgeable people who are passionate about wildlife. This experience has driven me to become more active in my student chapter and volunteer work.

***Keaton Davis,
Arizona State University, Wildlife and Restoration Student Association***

Every Joint Annual Meeting (JAM), students from the Wildlife and Restoration Student Association (WRSA) represent Arizona State University (ASU) by attending technical sessions, participating in workshops, networking with professionals, fundraising, entering photo contests, and competing in Quiz Bowl.

This year, 18 ASU students attended the JAM and fielded two Quiz Bowl teams. Students also attended various workshops, with many participating in the Venomous Reptile Handling workshop. Most of the ASU students also attended the student mentor luncheon to network with and obtain advice from professionals. WRSA also took advantage of the opportunity to fundraise at JAM this year by selling calendars and hosting a silent auction. It was a huge success as WRSA was able to raise funding for future events and field trips. Two WRSA members presented their research during the poster session, that allowed them to develop and refine their presentation and public speaking skills.



Wildlife & Restoration Student Association
ASU Polytechnic

I have had the opportunity to attend JAM twice in my time at ASU. During each, I had an amazing time meeting new people, catching up with old friends, listening to talks on current research and issues, and receiving training at the workshops. I hope that future cohorts of ASU students will see the value of JAM and make every effort possible to attend. Although it may be tough to attend some years, I would say that it is well worth the trip. I would also like to say how proud I am of many of the ASU students who went out of their way to participate in several of the JAM contests and performed very well. Whether it was the species ID contest in the brochure, the photo contest, or Quiz Bowl, I hope the students who participated know how appreciative I am of their hard work and dedication to WRSA and ASU.

Meet Your New 2019 AZTWS Board!



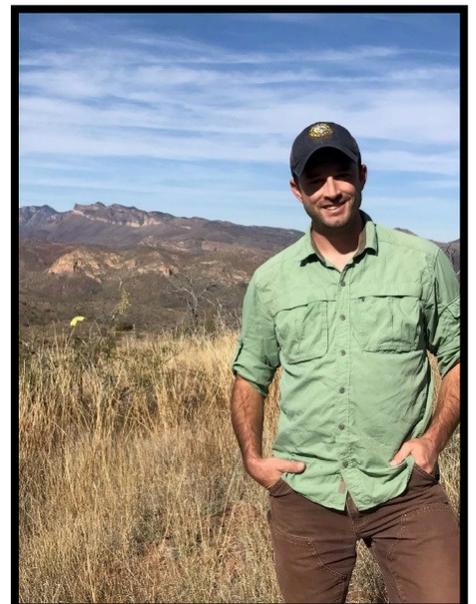
Jessica Moreno, President

Jessica Moreno is a wildlife biologist and science communicator with more than 10 years of experience in non-invasive carnivore research and wildlife corridor conservation in the Arizona and Sonora borderlands. She served on the AZTWS Board as the Corresponding Secretary in 2017 and was an active member and officer of the University of Arizona (UA) Student Chapter as an undergrad. After graduating from the University of Arizona with a degree in Wildlife Conservation and Management in 2007, she worked for the UA Wild Cat Research and Conservation Center leading urban mountain lion and bobcat studies. She spent the next seven years with Sky Island Alliance leading an internationally recognized

citizen science program to monitor wildlife and to conserve wildlife linkages, jaguars and ocelots, and wilderness. She is a certified wildlife tracker and currently works as a contractor for organizations such as the Coalition for Sonoran Desert Protection. In addition to her technical science expertise, she has experience in communications, website design, grassroots advocacy, policy and planning, and fundraising and development. She has a passion for carnivores, outdoor cooking, and wild open spaces. Jessica is an enthusiastic collaborator, dedicated to connecting people to conservation to protect our quality of life. We look forward to Jessica's leadership as our 2019 AZTWS President.

Andrew Jones, President Elect

Andrew Jones was born and raised in Wyoming, attended undergraduate school at Washington State University, and earned a Master's degree from Northern Arizona University. Andrew worked as a lead biologist for the research branch of the Arizona Game and Fish Department from 2009–2018 where he studied the impacts of off-highway vehicle use on kit fox habitat selection, mountain lion foraging behavior, and predator-prey dynamics of desert bighorn sheep and mountain lions. Recently, Andrew moved into the game program data manager position for the Arizona Game and Fish Department. He served as the Chapter Treasurer from 2016–2018. In this capacity, he assisted with budget and spending requests, JAM planning, and serving on the Continuing Education Award committee. Andrew's motivation for the President-Elect position reflects his belief that the Chapter can continue building on the work of past-presidents and current board members, that includes hosting informative field techniques workshops, organizing the JAM, par-



(Continued on page 13)

(Continued from page 12)

ticipating in bio-blitz efforts, and serving as a resource to current and future members of the wildlife management community. He likes to spend his free time with his wife Haley and daughter Emma.



Haley Nelson, Treasurer

Haley Nelson is the Image Analysis Specialist for the Arizona Game and Fish Department's Wildlife Contracts Branch. She received a B.S. in Applied Biological Sciences with a focus in Wildlife & Restoration Ecology from Arizona State University and an M.S. in Geographic Information Systems Technology from University of Arizona. Haley has been with the Department since 2014, where she has gained experience in both wildlife biology and information technology. In 2018, she began working for the Department's Highways and Wildlife Connectivity group, where she assists with trail-camera image processing and review, aerial wildlife welfare checks & telemetry surveys, and maintaining desktop and mobile applications used in large-scale wildlife capture operations.

Emily Scobie, Corresponding Secretary

Emily Scobie is a wildlife biologist for the Arizona Game and Fish Department where she studies and monitors a wide range of taxa including invertebrates and bats. She has degrees in Ecology and GIS and enjoys getting nerdy with spatial analysis. In her free time, she enjoys international travel and exploring her hometown of Tucson.



Valerie Horncastle, Recording Secretary

Valerie Horncastle has been working as a wildlife ecologist and spatial analyst for 14 years with a focus in wildlife and habitat relationships, specifically in regards to wildlife responses to forest treatments, wildfires, invasive species, habitat connectivity, grazing, and other management plans. She started her career with Arizona Game and Fish Department's Research Branch in Flagstaff for seven years (2003–2010). While working with AGFD, she conducted research on several projects including migration routes of bald eagles, low level military flights on pronghorn, and forest restoration effects on multiple species including bats, turkeys, mule deer, and elk. In 2010, she took a Research Associate position at Northern Arizona University. Her research at NAU included wildfire and grazing effects on small mammals, fire connectivity and modeling, forest restoration effects on mule deer, use of natural and human modified features by coyotes in the Sonoran Desert, determining endangered Sonoran pronghorn distribution models, and research on the endangered New Mexico meadow jumping mouse. After many years

(Continued on page 14)

(Continued from page 13)

in research, she decided it was time for a change; since January 2017, she has been a District Wildlife Biologist for the Springerville Ranger District in the Apache-Sitgreaves National Forest. She holds an MS from Oklahoma State University in Wildlife and Fisheries Ecology and a BA from University of Tennessee at Martin in Natural Resource Management.

Melissa Merrick, Board Member

Melissa Merrick is an assistant research scientist at the University of Arizona's School of Natural Resources and the Environment in the Department of Wildlife and Fisheries Conservation and Management. Melissa works as a member of the Koprowski Conservation Research Laboratory, where her research primarily focuses on the population ecology, behavior, space use, and resource selection in threatened and endangered vertebrates, including the endangered Mt. Graham red squirrel. She has experience with a diversity of taxa, from beetles and bats to rodents, raptors, and ungulates. Melissa



enjoys working and playing in the field as well as getting to work on collaborative research projects with local, state, national, and international colleagues. She is a state, section, and national TWS member since 2005 and serves TWS at many levels. She is a member of the Spatial Ecology and Telemetry Working Group and chair-elect of the International Wildlife Management Working Group, a member of the Southwest Section Geospatial Advisory Committee and the 2018 JAM planning committee, and participated in the 2017 TWS Leadership Institute. She has helped to organize workshops and sponsored symposia for TWS working groups and committees. Melissa has also enjoyed volunteering for AGFD's black-tailed prairie dog reintroduction program, antelope jackrabbit surveys, and bat research on Department of Defense lands. She received her BS in Biology from Nebraska Wesleyan University, MS in Biology and GIS certificate from Idaho State University, and PhD in Wildlife Conservation and Management from the University of Arizona. For her dissertation research, Melissa tested hypotheses related to intrinsic and extrinsic drivers of natal dispersal and settlement in Mt. Graham red squirrels. She also modeled landscape connectivity and potential dispersal routes in a forest fragmented by tree death and fire. In addition to wildlife ecology research, Melissa also assists with website design and management and is dedicated to science communication and outreach. She looks forward to increasing her service to the AZTWS and helping the chapter grow and serve its diverse membership.



Holly Hicks, Board Member

Holly Hicks is the Small Mammals Biologist for the Arizona Game and Fish Department. She earned her Conservation Biology degree in 2008 at Arizona State University. Holly's work entails management of Gunnison's prairie dogs, black-footed ferrets, and New Mexico meadow jumping mice and re-establishment of black-tailed prairie dogs. She has dedicated the last 10 years to volunteering at Liberty Wildlife, helping rehabilitate injured wildlife. In her free time, she enjoys the outdoors, running, and traveling. Holly has served on the board of AZTWS in various roles since 2010. She is our Chapter's Student Liaison and also the Chair for the annual Wildlife Techniques Workshop that is offered to students and young professionals.

Summary of TWS Spring Council Meeting

By *Jim Ramakka,*

TWS Southwest Section Representative

Review of TWS Staff Reorganization – CEO Ed Thompson briefed Council on the new TWS Staff organization chart.

FY18–19 Operations Plan and Budget Updates

- Finance, Administration, and Infrastructure – expenses and income are on target with a small budget surplus at the end of 2018.
- Business Relations (income from other organizations and businesses) – income at the end of 2018 was approximately six percent ahead of the target.
- Membership – paid membership of 10,142. Up 4.4% compared to last year.
- Professional Development and Certification – 122 applications for Certification and 46 renewal applications received through January 2019. Average processing time for AWB/CWB = four months.

The Goal for Conference Attendance (1,800 attendees) was not met with a Cleveland meeting attendance of 1,659. Likewise, one sub-goal of the Digital Media Goal was below target with only 352 wild-life.org articles published by Jan. 31 (target 434).

Partnerships – Council emphasized the importance of only developing outside funding partnerships with entities compatible with and supporting TWS mission and goals. Partnership and other agreements will be reviewed by the TWS Executive Committee and made available to Council members.

Financial and Investment Policy – Updated business practices and sound financial management over the last seven years have restored TWS finances to a solid footing. At the 2018 Annual Meeting, Council voted to fully fund the Permanent Reserve Fund and, based on recommendations of the Finance Subcommittee, addressed two key topics to ensure future financial stability:

- Rebalancing the investment mix in TWS Accounts to buffer the Permanent Reserve Fund from inevitable fluctuations in the stock market while focusing on an investment mix for growth in the Endowment Fund.
- Establishment of an Investment Fund, also focused on growth, funded with any surplus income remaining at the end of the year. The fund would be the repository for unrestricted donations, annual budget surpluses, and distributions from the Permanent Reserve Fund, should that Fund exceed the target balance. Expenditures from the Investment Fund would be at the discretion of Council.

Additionally, Council discussed strategies for restructuring the McDonough and Rusch Awards to meet the intent of the original donations.

TWS Confidentiality Policy – An *Ad Hoc* Committee, chaired by Pres.-Elect Gary White, reviewed existing policies such as the TWS Western Section Resolution on Transparency, as well as other information, and recommended that, rather than requiring signature of binding confidentiality agreements, new and existing Council members receive training on the need for confidentiality on some issues while maintaining as much transparency as possible.

Code of Ethics – Council voted to approve changes to the TWS Wildlife Biologist Certification Program Policies and Procedures Manual to align procedures for Ethics Code violations with those delineated in the TWS Code of Ethics so that the same process would apply for both Certified and non-

(Continued on page 16)

(Continued from page 15)

Certified members.

Organizational Units – Council approved the following:

- Dissolve two Student Chapters of TWS, one for little or no student involvement, the other due to closing of the college.
- Approve revised charter and petition for the formation of a Nutritional Ecology Working Group of The Wildlife Society.
- Approve requested changes to one Student Chapter of The Wildlife Society's Bylaws to be consistent with university policy.

Progress Report 2019 AFS-TWS Joint Conference in Reno – TWS Staff continue to collaborate with AFS to coordinate planning, marketing, and execution of the 2019 Joint Conference in Reno, including developing strategies to lower operational costs that level off or reduce registration costs while maintaining a good member experience and ensuring that the conference provides a net income that helps support other member benefits.

Projected attendance could be roughly 5,000 participants. At present, 112 symposia and workshops (54 wildlife, 68 fish related) have been proposed.

Position Statements – Council reviewed a Draft Issue Statement directed toward Wildlife Killing Contests prepared by the Council Position Statements *Ad hoc* Committee. After several edits and revisions, Council referred the draft back to the Executive Committee for final review and approval. The issue statement was approved on March 7 and a copy was transmitted to the SW Section Conservation Affairs Committee.

Government Affairs – TWS Government Affairs staff continues to be involved in a number of legislative and policy issues including the following:

- Working with partners to advance the Recovering America's Wildlife Act (RAWA) and to generate changes to the Modernizing the Pittman-Robertson Fund for Tomorrow's Needs Act.
- Working alongside the Wild Sheep Foundation and others to produce a video highlighting the effects of feral horses and burros on wildlife (scheduled to launch on the TWS website in mid-March).
- Chairing the National Environmental Coalition on Invasive Species as a vehicle for advancing the modernization of federal invasive species policy.
- TWS prepared and transmitted, or co-signed with partners, 35 letters or comment summaries to legislative committees, individual legislators, or agency heads addressing topics of concern including budget appropriations and proposed changes to existing laws or regulations.

TWS also submitted testimony to the U.S. House of Representatives Committee on Natural Resources regarding RAWA and Modernizing the Pittman-Robertson Fund; testimony to the House Appropriations Subcommittee on Agriculture regarding adequate funding for USDA/APHIS, NRCS and NIFA and the Renewable Resources Extension Act (RREA); as well as testimony to the Senate Interior Appropriations subcommittee on budget issues.

The TWS Policy Internship Program, which had been discontinued due to past budget issues, will be reinstated with an intern based out of the Headquarters Office.



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



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

The Arizona Wildlifer Deadlines

<u>Issue</u>	<u>Deadline</u>
Summer 2019	Jun 14, 2019
Fall 2019	Sep 13, 2019

Email submissions to aztwseditor@gmail.com.