

THE ARIZONA WILDLIFER

2015 Issue 2

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Spring Edition

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The President's Message

I would like to take a moment to thank the outgoing Board members, especially outgoing President Natalie Robb who performed effortlessly and continues to help the board when needed as our past-President. And a special thanks to Locana de Souza who served as Treasurer and Audrey Owens who served as Corresponding Secretary. Last winter, I moved into the President position for the AZ-TWS. A job my predecessor, Natalie Robb, ran so



smoothly she made it look easy, yet as I look forward to coordinating next year's Joint Annual Meeting (JAM) I have some unease contemplating my task ahead. One thing I know, one person does not run a conference and I will be calling on any and all of you willing to pitch in to help. I hope everyone enjoyed the JAM in Las Cruces, there certainly was an abundance of interesting talks, fun social events, great networking and a very exciting quiz bowl. If you didn't make it you missed out but you can read about some of the highlights (including our yearly Chapter Awards) in this issue of the Newsletter. I hope everyone will plan to attend next year's JAM in Flagstaff and stay tuned for more details. Let me say that I am proud to work with the dedicated Board we currently have running the Arizona Chapter - and with their support, I believe we can accomplish anything we need to.

As with many of us, regardless of our specialty within wildlife, my days are largely spent in meetings or responding to emails, but every December (since 2009) I take the opportunity to join the pronghorn roundup at the Cabeza Prieta captive pens, and this past December was no exception. This annual event is an activity to promote conservation of the Sonoran Pronghorn through capturing and releasing individuals no longer needed inside the pens, into several wild locations within the designated recovery area. My lab takes this opportunity to obtain genetic samples from sali-

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Presidents Message cont...

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va swabs and from the blood samples that the vets from Arizona Game and Fish collect. We now have 5 years of genetic data from this captive herd and from individuals repatriated back to the wild. I thoroughly enjoy my limited field time, not just as time spent out of the office, but as time spent in support of wildlife conservation projects. I know all of you who spend time volunteering your time for various wildlife projects share my sentiments.

The Wildlife Techniques workshop was held last month, and was a great experience for all in learning and fun times shared with friends/chapter members of common interest. I hope many of you had a chance to attend, we had a total 9 instructors (with a wide breadth of expertise) and 60 students participating, from throughout the state. This year's offerings were a full range of teaching stations - from non-invasive techniques and mobile apps, to a full range of wildlife capture, handling, and monitoring techniques. If you did not get a chance to attend this year, the Wildlife Techniques workshop is a yearly event so plan on coming next year! I would also like to thank the Arizona Game and Fish Non-Game and Education Branches; Southwest Wildlife Conservation Center; Telonics; the Bureau of Land Management; and the U.S. Forest Service for donating prizes for the workshop.

Enjoy the articles in this issue of the Newsletter and if you are interested in reading past issues, or in learning more about the Arizona Chapter, check out the ever improving website at <http://aztws.com>. Also, please consider submitting your interesting articles to the newsletter. And, if you have suggestions regarding improving any aspect of the Arizona Chapter of The Wildlife Society, I welcome your comments. Please email me at culver@ag.arizona.edu.

Melanie Culver
AZTWS Chapter President

Facebook: <https://www.facebook.com/AZTWS>
Twitter: <https://twitter.com/aztws>

Regional News:

Highlights from SW Section Representative to TWS Council

By: Carol Chambers



Big news... the annual TWS conference returns to Albuquerque 23-27 September 2017. The first meeting was held in Albuquerque in 1994 and it was a great one. Plan now to attend this one. Albuquerque is a great place for the conference and conference organizers are excited to show you the state. Quentin Hayes (Quentin.Hays@enmu.edu), president of the New Mexico Chapter, has formed an organizing committee to kick off planning.

More big news... elections are coming up and you need to vote in a new Southwest Section Rep and Vice President. The Wildlife Society has announced candidates for positions on TWS Council at <http://wildlife.org/meet-the-candidates-tws-2015-elections/>. Our 2 candidates for Southwest Section Rep are Kathy Granillo (NM) and Fidel Hernández (TX). Their biographies are provided below or at the web link above. In addition, you will be voting for TWS Vice President and our candidates include Selma Glasscock, a Southwesterner (TX, Southwest Section Past President, Texas Chapter Past President) and John E. McDonald (former Northeast Section Rep to Council). Make sure to vote when you receive your electronic ballot.

In general. Finances have been a major focus for TWS this past year and although we are on sound financial footing we continue to rebuild TWS assets. We are functioning under the new strategic plan and working on increasing membership. TWS website (<http://wildlife.org/>) is dynamic with new articles added weekly on wildlifer events. Our very popular The Wildlife Professional will be going from 4 to 6 issues a year starting in 2016. Government Affairs staff researched, wrote, and produced news articles on the website related to wildlife policy and staff activities including bird-focused additions to Policy Brief Series and Energy Fact Sheets. Check out the 11 fact sheets and 10 policy briefs at www.wildlife.org/policy.

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Regional News cont...

(Continued from page 2)

Membership. Membership has declined by about 1,000 members over the past 2 years. TWS is working on adding even more value to your membership with the updated website, weekly eWildlifer, and more. Review membership benefits and buy a student a membership; for information about benefits, see <http://wildlife.org/membership-benefits/>. Strong membership supports the changes we want to make at state, section, national and international levels by supporting (at all levels) things like the Conservation Affairs Network. TWS is also raising funds through The 1,000 Campaign (over \$100,000 to date, which helps support TWS initiatives).

Conferences. This is the year of the international meeting so have your passport ready. The 2015 annual conference is in Winipeg, Manitoba, Canada (October 17-21). If you're a student and want to present work in progress, deadline for abstracts for Student Research in Progress Posters is June 18. Check out conference information at <http://wildlife.org/2015conference/>. There's another opportunity for international travel to the Fifth International Wildlife Management Congress (<http://iwmc2015.org/>) coming up July 26-30, 2015, in Sapporo, Japan.

WOW. The Southwest Section helped sponsor 2 events for women at the Joint Annual Meeting of the Arizona and New Mexico Chapters of The Wildlife Society and the Texas Chapter TWS meeting. We are forming a WOW committee to bring connections we started at the annual conferences to local levels. At these events we asked participants what they wanted from a WOW network so send me any



Carol Chambers (standing, AZ), Erin Saunders (AZ), and Krysten Zummo (NM) organized a lunch and discussion on involvement in the Women of Wildlife (WOW) network at the Joint Annual Meeting of the Arizona and New Mexico Chapters of TWS, 6 February 2015. Women at the lunch provided ideas for expanding the WOW network through mentoring, networking, and training. Photo by Erin Saunders.

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Regional News cont...

(Continued from page 3)

thoughts you have regarding the direction WOW should take in future to help you or wildlifers you know. Networking, mentoring, and face-time interactions seem to be important to women at all levels of their careers or training.

Social Media. The Wildlife Society Southwest Section Chapters Hub has jumped in 'likes' from 256 to 349 since December. Check us out at <https://www.facebook.com/pages/The-Wildlife-Society-Southwest-Section-Chapters-Hub/205755042835210>. The TWS Women of Wildlife (WOW) Facebook page (<https://www.facebook.com/pages/TWS-Women-of-Wildlife/234411723382592>) is now at 981 likes, up from 926 in December. Find the latest news from the TWS office at the TWS Facebook page with currently over 25,000 likes.

Farewell. After almost 6 years on Council, I'll be stepping down this October and want to thank you for electing me to this position. I've learned more than I ever imagined, made more connections than I ever expected, and hope I've also been able to benefit the Section as much as being the Rep has benefitted me. I've tried to help by starting the biannual newsletter (now on volume 5), develop a Facebook presence, WOW activities, awards, website, and will continue to work for TWS after my position ends. Benefit from being part of TWS by making sure that you are one of the over 9,000 TWS members. Contact me at Carol.Chambers@nau.edu or 928-523-0014 (office) with any comments or questions. And thank you for allowing me to represent you at TWS.

As always if you have questions or comments for me, please contact me – email is best at this time (carol.chambers@nau.edu).

Standing Invitation!

Submit your valued co-workers and partners for one of our Chapter Awards (see criteria at <http://aztws.com>, then click on "Awards"). Let's recognize our finest! Submit your nominations to our President Elect, Scott Sprague (ssprague@azgfd.gov).

Also: Please consider becoming active with the Chapter as an officer or board member. Again, contact Scott Sprague (ssprague@azgfd.gov) to register your interest. We'd love to

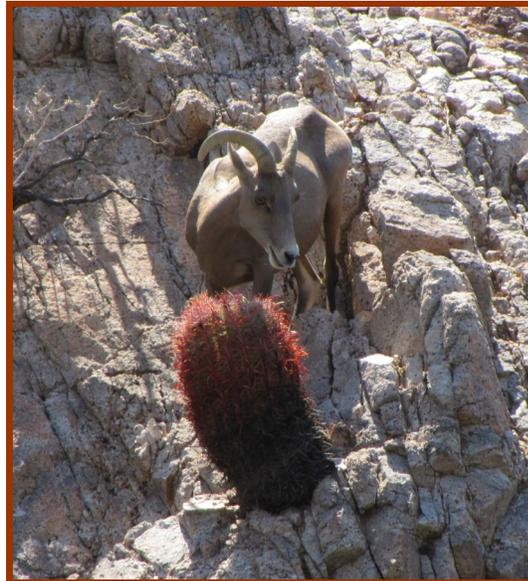


Photo submitted by Brit Oleson



We need articles, stories and pictures for upcoming newsletters.

The Arizona Wildlifer Deadlines

<u>Issue</u>	<u>Deadline</u>
Summer 2015	June 12, 2015
Fall 2015	Sept 11, 2015

Email submissions to: aztwseditor@gmail.com

TWS Southwest Section Representative Nominees



Kathy Granillo

I have lived and worked in the Southwest for about 25 years, and the wild lands and wildlife of this area are near and dear to my heart. The world of wildlife management and research is comprised of a relatively small, close-knit group of very dedicated people. Through my many years of working across the Southwest, and through my involvement in TWS, I have gotten to know many of these people well. They care deeply about wildlife resources. They work long hours. They do good things for wildlife. They need someone who knows the issues in the southwest to speak up at the national level; to be their voice to TWS leadership. They also need to hear back from leadership. I believe I can do this and do it well.

I would focus on better communication between scientists and managers. I have a long-time interest in improving communication between these two groups and I believe that TWS has a large role to play in this endeavor.

Another top issue for me is involving youth and minorities in conservation and science. We need more young people, from diverse backgrounds, to engage in conservation and to pursue careers in wildlife research and management.

An issue that I care deeply about is rapidly accelerating climate change. Anyone who lives in the southwest has seen and felt the changes – hotter and drier, with more intense weather events. I would keep this issue in the limelight while working with national, section and the state chapters.

Fidel Hernández

Rarely do we appreciate an experience during the present. Appreciation generally occurs many years later, after some time has passed, and we can evaluate life retrospectively. Such was my experience regarding professional service. I have been involved with the Texas Chapter of The Wildlife Society and our parent society since a student, nearly 20 years ago, and this involvement has continued through my professional career. I have served as Committee Chair of numerous state and national committees and as President and officer for the Texas Chapter of The Wildlife Society. The primary impetus for my initial involvement arose as service to my profession. I never realized, however, that in addition to serving our profession there was an added value to professional involvement—leading by example.



As professors or mentors of young professionals, we often encourage their involvement in our profession. We preach on the value and benefits of professional involvement. Being an effective mentor, however, is more than educating. It also is leading by example. Today, I remain active not only for professional service but also to hopefully inspire the young professionals in my sphere of influence to do the same. The growth and prosperity of our profession requires the involvement of all, from the incipient to the seasoned. I value the opportunity to represent our society as the Southwest Section Representative and hope others are inspired to join our effort.

Student Voice

2015 JAM Summaries

University of Arizona Student Chapter

By Yoseline Robledo, University of Arizona Student

At the JAM, two groups from our Student Chapter took the time and effort required to compete in the conference's quiz bowl. Both teams did very well and those who did not participate were there to cheer on their peers and all were very proud of the participating students.

Another great experience was having the honor to listen to U of A students give presentations on research that they've been working on for months prior. Listening to presentations from other people who attended the conference was also a great learning experience as we were able to open our minds to a wide variety of ongoing research and learn about the many new technologies and techniques arising in our field.

The experience that had the most impact at the Joint Annual Meeting would probably be having the amazing opportunity to network with professionals in the field that we all one day hope to be a part of. It gave all of us there a great insight on what each agency is looking for in a future candidate. It was a great opportunity to meet professionals for future contacts, volunteer opportunities, and the possibility of a future job with an agency or a future graduate position at a university.

In summation, those of us from the UA Fish and Wildlife Society that attended the NM Joint Annual Meeting grew a lot from this experience because of the teams that participated in quiz bowl, the students that gave research presentations, and the opportunity we all had to network with professionals in our fields of study. At the JAM, we all took away valuable lessons that we will surely take with us into our professional careers.

Prescott College Student Chapter

By Lance Murray, Prescott College Undergraduate Student

I made the long drive with my friends from Prescott to Las Cruces to attend the 2015 JAM of the AZ/ NM chapters after traveling 1,100 miles the day before. Fresh from the snow-covered Teton Mountains where I underwent 3 weeks of an intensive avalanche forecasting course, I looked forward to time well spent with friends and the many workshops and presentations slated to begin the next day.

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Student Voice, cont...

(Continued from page 6)

I thought about what the meeting would be like and the hopeful contacts I would meet and network with during the long drive, and was refreshed to once again bear witness to the vastness of the Sonoran desert and Basin and Range influences.

Upon arriving at the hotel that next morning, the day began in search for the complimentary breakfast table that always seemed to evade us and the room where the resume workshop was to be held. The workshop was one of the best I have attended outside of the military and industrial fields, and was filled with very informational speakers, presentations, and mock interviews. The mock interviews were of greatest interest and value, and helped me to realize what the future of being a wildlife professional may bring. And all the while in the presence of so many camouflage hats, mine included

It's a comfortable feeling to be among peers who have reportedly shared in the similar experiences amongst the many landscapes of field and stream. Hunting does bring with it a great many values and influence relatable to conservation, land stewardship and ethics. However, take for instance someone like my friend, a non-hunter who is attending the workshop with me. One whom I have spent many hours in the backcountry with, from assessing the pinion-juniper woodlands of Mesa Verde to spatially analyzing American pika at 10,000', she has by far earned her stripes crafted her own values of conservation and the like. Nonetheless, she gradually begins to lose comfort and feel like an outsider in the midst of so many sportswomen and men, for the discussions of the workshop infer the obligatory relationship between the wildlife profession and hunting. And as the day wore on we both realized just what kind of influence hunting has on the state and federal fish and wildlife services. A disproportionate amount I would say; and in being a sportsman myself, I can honestly say I wasn't that surprised. But why should non-hunters like my friend be surprised and feel ostracized from the group of wildlife professionals we all so willingly call ourselves?

Virtually all conservation efforts can be traced back to foundations brought about by early prominent conservationists such as Theodore Roosevelt, John James Audubon, Aldo Leopold and Jack Miner, all of which were also outspoken sportsmen. Today's hunters consider themselves conservationists and are often passionately involved with restoration efforts, active conservation, and it's many organizations. Collectively, we raise enough money to purchase millions of acres that help protect and preserve vital habitat for game and non-game species, and contribute greatly to the research and management of said biota. The benefits of such funding may seem to favor large mammals and birds for the sole use of harvesting, but many conservation efforts of game species can affect entire ecosystems and span all trophic levels. Many game animals act as umbrella species and therefore serve a greater purpose than providing sport and sustenance to hunters. Hunters do serve a disproportionate role in the conservation of North American biodiversity and as stewards of the vital habitat they need; and as such must be regarded as a keystone of conservation.

The hunting community in the United States absolutely plays a vital role in the conservation of many game and non-game species and their habitats. Unfortunately, the conservation efforts imposed by the hunting community have all too often been necessary because of a long history of over-hunting and exploitation in North America, but many in the scientific community publish and believe that habitat fragmentation poses the biggest threat to the maintenance of biodiversity.

But is it ethical to continue in the direction of our current "resource management" practices when they are so weighted toward utilitarian and dominionistic responses to biophilia? Have we pushed too hard toward capitalizing on the hunting community that we have forgotten our own natural and humanistic responses? I would agree that legislation such as the Pittman-Robertson Act, federal and state

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Student Voice, cont...

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duck stamps, licensing fees and many others have raised by-far the most money for conservation, but can we do better? Are we sending the wrong message to our young professionals climbing the ladder of academia that we must regard the biota as a whole in terms of game and non-game, and that we must manage these resources in accordance with tag quotas and hunter success rates?

Let us rethink what it means to be a conservationist and the extraordinary position we find ourselves in for guiding it into something worth far greater than revenue. It may be necessary to expand our focus of traditional wildlife management towards one of maintaining all taxa and the adoption of a new land ethic. We must steer away from the short-term success and strive for the greater purpose and improve upon the relationship between people and the environment. Does this process begin at the educational level and what can be said for our current higher ed. in the environmental sciences? Personally I see a clear difference in philosophies between major universities and smaller experiential colleges such as Prescott College in terms of conservation. It seems obvious to myself and others that our peers are being educated in a matter unlike our own which spawns much healthy debate on the subject of conservation.

Northern Arizona University Student Chapter

By Rachel Harrow, NAU Student

I believe in the significance behind being an active member in your professional society. My experiences with The Wildlife Society have amplified this belief. I enjoy attending the JAM because of the opportunities for education beyond the classroom, networking and mentoring opportunities, and the opportunity to participate in the meetings for the state and section chapters.

The Arizona and New Mexico state chapters organized workshops to teach valuable wildlife related skills, and I attended the Wildlife Handling and Restraint and Reptile Enforcement workshops. Dr. Kerry Mower instructed the Wildlife Handling and Restraint workshop, and provided an overview of animal capture, restraint, and capture pharmaceuticals for big game species and water fowl. The reasons for animal capture include research, treatment, or translocation. The different methods of animal capture discussed were funnel trapping, foothold trapping, net gunning from helicopters, corral trapping, water fowl mesh trapping, rocket net gunning, and drop netting. For restraint, he discussed the use of blindfolds, hobbles, and stretchers. He ended the workshop by talking about the history of the administration of capture drugs and his experience with them at the New Mexico Department of Game and Fish and as a student. He described the two types of darts that he uses to administer the drugs to the animal, Pneu darts and DanInject darts, and the pros and cons of each one. Also, he showed us the different types of dart guns he uses, including a blow gun. Brian Anthony from the Arizona Game and Fish Department led the Reptile Enforcement workshop. He provided a brief overview of all the reptile species occurring in the Southwest that are sought after most by members of the illegal pet trade and the potential impacts. Then, he discussed his history in law enforcement and the illegal pet trade in Arizona.

The plenary session covered new technologies in fish and wildlife science. The presentation included talks about stable isotope analysis, advances in satellite telemetry for birds, the use of microsatellite

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Student Voice, cont...

(Continued from page 8)

and genomic SNP markers for reptiles and mammals, the use of unmanned aerial vehicles for rangeland and watershed science, and acoustic telemetry to track fish movements. I attended the student, wildlife, and fisheries presentations, and had the opportunity to catch up on some current research performed in the Southwest.

I had the wonderful opportunity to catch up with previous co-workers, other student chapters, and meet new people in the wildlife and fisheries science field. In addition, I was able to discuss with experienced professionals my ideas for an undergraduate research project and plans for my future career and graduate programs. The student-professional mentor lunch was a great idea to break the ice!

Business meetings for the Arizona State Chapter and the Southwest Section Chapter were held, and the Women of Wildlife committee made announcements. I was able to participate in the meetings, and learn about what to do to stay involved.

Thank you to the Arizona and New Mexico State Chapters of TWS and AFS for putting on such a great meeting, and providing so many student friendly events!

By Grant Samsill, NAU Student

As I progress in my professional and academic career, I have found that who you know is as important as what you know, and how hard you are willing to work. In regards to a networking opportunity, the 2015 wildlife society JAM was a chance of a lifetime. Every time I turned around, I found myself shaking hands and conversing with renowned wildlife biologists and professors. The extracurricular activities I attended and the contacts I made were invaluable to my career. The trainings, seminars, and mingling opportunities were very beneficial and educational. Even though I had to miss some school to attend the 2015 JAM, I learned more about the wildlife profession in a matter of days than I could have at weeks' worth of school. I walked away from JAM with a multitude of new outlooks and skills. I am so glad I decided to attend this year's JAM.

The Southwest Chapter and the New Mexico wildlife society chapters did a great job selecting a venue for this year's JAM. The Hotel Encanto de Las Cruces in Las Cruces, New Mexico was very accommodating and spacious. The local faculty and staff provided all the guests with an ample experience and learning environment.

I am grateful for the contacts I made and the time spent getting to know each individual. The 2015 JAM challenged me to think beyond the present. For example, I was able to discuss my ideas for a graduate research project with experienced professionals. In addition, I discussed my plans for a career in wildlife with current professionals. I hope that one day I can return to the JAM as a wildlife professional, and influence the lives of new and upcoming students that are eager to learn and succeed.

All students and professionals with a passion and dedication to wildlife should attend a JAM. Thank you to the Arizona and New Mexico State Chapters of TWS and AFS for putting on such a great meeting.

2014 AZTWS Chapter Awards

Doug Morrison Award

The Doug Morrison Award is given in memory of Doug Morrison to an Arizona Biologist in a non-supervisory position who has made significant contributions to the management and conservation of wildlife in Arizona. This Award exemplifies the dedicated work ethic of the Chapter's former President and U.S. Forest Service Biologist, Doug Morrison. Contributions are in areas of wildlife research, education and training, management, or law enforcement.

This year, the Doug Morrison was presented to Brenda Strohmeier. Brenda is currently employed as a supervisory biological technician at Rocky Mountain Research Station in Flagstaff. In particular, I nominate Brenda based on her participation in the Flagstaff Festival of Science - one of the best events held in Flagstaff. It is a huge event in the Flagstaff community and takes an enormous amount of work to organize.

Not only does Brenda represent the Rocky Mountain Station at the festival (including organizing and persuading RMRS scientists to participate), she sits on the board and currently serves as Secretary. Her work is integral to the success of the festival.

In addition, Brenda is involved in several other educational outreach programs Camp Colton; Greenhouse for School and Community Projects; In School Programs and Educational Kits; County Fair; Eagle Eyes Family Science Day; and More Kids in the Woods - Flagstaff in the Woods.



Brenda Strohmeier

Professional Service Award



Heather Bateman accepting the Professional Service Award

The Professional Service Award is given to an Arizona biologist for outstanding contributions to management and conservation of wildlife. This individual is also recognized for their professional work standards and conduct. Contributions are in the areas of wildlife research, education and training, management, conservation, or law enforcement.

This year, the Professional Service Award was presented to Heather Bateman from Arizona State University. Heather Bateman from Arizona State University, has worked tirelessly above, and well beyond her call with little recognition besides a "thank you" here and there from her students. While teaching at ASU as a professor and coaching a few graduate students, she is also conducting her own research and developing an "app" that would make it much easier for biologists to collect morphometric measurements from reptiles.

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2014 AZTWS Chapter Awards cont...

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The main reason for Heather's nomination is her involvement with coaching ASU undergraduate students and encouraging them to be highly involved with TWS. By developing young students, she has insured a future for wildlife conservation. She has worked very hard to get students to TWS conferences. Due to her leadership, ASU led a team of quiz bowlers for the first time to the TWS National Conference in Milwaukee. She is an exemplary biologist living to the highest standards of our profession.



Randy Babb

Conservation Award

The Conservation Award is given to a person, or persons, not employed directly as a wildlife biologist, or an organization not directly involved in wildlife management who contribute significantly to the conservation of wildlife and/or their habitat in Arizona. Conservation can include, but is not limited to research, education, legislation, and protection or enhancement of wildlife and their habitat.

This year's Conservation Award was presented to Randal Babb. Randy Babb is currently the Arizona Game and Fish Department's officer in charge of the Watchable Wildlife Program and was formerly Information Officer for Region VI in Mesa. While serving in these positions, Randy has done an exemplary job of keeping the public informed on wildlife issues and developing information and education programs for public consumption. However, the main reason for Randy's nomination is his more than 30 years of professional wildlife contributions, off and on the job.

It is Randy's accomplishments outside his assigned duties that make both his work so valuable. Randy can rightfully be called Arizona's foremost naturalist as his off duty time is spent studying wildlife and investigating animal biogeography, behaviors, status, and relationships. Randy's knowledge of the natural world includes botany, mammalogy, ornithology, and, above all, herpetology. Randy has published authoritative articles on everything from arachnids and insects to sandhill cranes and including an identification guides to fishes, amphibians, and reptiles.

He is generous with his time, willingly volunteering for conservation orientated programs, and wildlife projects. Randy also devotes countless weekends to camping with college students from ASU and UA and his ability to communicate complex wildlife issues in an understandable manner has made him a mentor to many of them. These weekends are among the most memorable college learning experiences for young wildlifers in that the lessons learned not only enrich their academic experience, their innovative presentation is such that they last a lifetime.

Finally, Randy is a superb illustrator, and has created our new logo for the AZ-TWS.

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2014 AZTWS Chapter Awards cont...

(Continued from page 11)



Hsiang Ling accepting the Roger Hungerford Award

Roger Hungerford Award

The Roger Hungerford Award is given to a student who, while attending an Arizona college or university, made significant contributions to the management and conservation of Arizona's wildlife and/or habitat. Contributions are in the areas of wildlife research, education and training, management, conservation, or law enforcement. The Award is given in memory of one of Arizona's finest research biologists, Roger Hungerford.

Hsiang Ling was the recipient of this year's Roger Hungerford Award. Hsiang Ling arrived at The University of Arizona from her M.S. work in Taiwan where she worked hard to achieve an exceptional academic record, gain an incredible amount of experience, and earn the reputation among faculty as their most outstanding student. Hsiang Ling is hard working, dedicated to conservation issues, and a superb intellect. Her PhD work involves the impact of roads on wildlife and is an intellectually challenging dissertation that she has embraced with passion and determination.

The results of Hsiang Ling's doctoral work permit informed management and conservation decisions. Hsiang Ling used two tree squirrel species (federally endangered Mt. Graham red squirrels and Abert's squirrels) as model organisms for the assessment of road impacts. She has presented her research at 14 professional conferences related to wildlife, conservation biology and road ecology. She has been incredibly productive, and is keen to share her findings with land managers as well as basic scientists.

Finally, her ability to engage and passion to make a difference is at the core of her successful and wonderful persona.

Thank you to Student Paper Competition Judges!

We would like to acknowledge and extend a big thank you to the panel of distinguished judges for the student paper competition at this year's JAM:

Jim Heffelfinger

Reed Sanderson

Harley Shaw

Matt Wunder

Meet the 2015 Arizona TWS Board Members



Melanie Culver, President

Melanie Culver received her BS in Biology from the University of Utah in 1984 and her PhD in Biology from the University of Maryland in 1999. Her dissertation research was on molecular genetic variation, population structure, and natural history of pumas range-wide in North and South America. Melanie was also involved in paternity, kinship, forensics, and viral genetic studies on pumas while a PhD student. Melanie did her postdoc at Virginia Tech where she first started working on black bear genetics, bald eagle genetics, and genetics of a variety of other wildlife species. In 2002, Melanie joined the faculty at the University of Arizona as Assistant Unit Leader of the Arizona Cooperative Fish and Wildlife Research Unit (USGS) and Assistant Professor in the School of Natural Resources and the Environment, where she continues working on conservation genetics and currently advises several graduate students in their studies of carnivores and other wildlife species. Her current research focus includes several areas of conservation genetics including molecular taxonomy to resolve taxonomic units for species with conservation concerns; gene flow and connectivity for many species and populations including several trans-boundary species along the Arizona/Mexico border; and molecular ecology to utilize genetics to examine behaviors such as prey choice, reproductive success, and migratory pathways. Melanie tries to keep her research relevant to management-related questions that arise in the state of Arizona, and elsewhere, for carnivores and other wildlife, including applying the latest genomic tools to these research questions. Melanie believes TWS provides a needed forum to establish conservation priorities for wildlife, both regionally and nationally, and for networking among biologists - for those reasons she is delighted to serve as an officer in the TWS chapter.

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Scott Sprague, President-Elect

Scott Sprague is a Research Biologist/Road Ecologist for the Wildlife Contracts Branch of the Arizona Game and Fish Department. Scott has been working for AGFD since 2002 when he was hired as a technician on the southwestern willow flycatcher project. He worked on various AGFD research projects before joining the Department's Highways and Wildlife Connectivity group in 2006. Since then he has been a part of numerous projects across the state that focus on the relationships between roads and elk, deer, bighorn sheep, and pronghorn. In 2010, Scott got his master's degree from NAU, where he studied the effects of roads on the genetic population structure of northern Arizona pronghorn.



Meet the 2015 Arizona TWS Board Members cont...

Dana Warnecke, Treasurer

Dana has been with the Arizona Game and Fish Department 18 years, working for 3 years in the Fisheries Branch and 15 years with the Region VI Habitat Program. She is responsible for coordinating the review and evaluation of land and water development projects and represents the Department in negotiating and resolving habitat related conflicts and other resource issues; coordinating with various federal, state and local agencies; developing and implementing specific management strategies for wildlife habitat protection/compensation/mitigation; and conducting field investigations and research. Dana is the project manager for several ongoing conservation/restoration type projects within the Region including: the Canyon Creek Riparian Restoration Project; two juniper thinning projects (6,000 acres- Sycamore Mesa Juniper Thinning Project & Agua Fria Antelope Habitat Improvement Project) in collaboration with the Bureau of Land Management and Prescott National Forest; and the Horseshoe Ranch Adaptive Restoration and Community Stewardship Project. Dana has been a member of the AZ-NM Chapter of the American Fisheries Society (AFS) and/or the AZ Chapter of the Wildlife Society throughout her career, last serving as Newsletter Editor for AFS. Dana enjoys fishing, camping, kayaking, and traveling in her off time. Also spending time teaching her grandsons an appreciation of the outdoors and wildlife conservation.



Kay Nicholson, Recording Secretary

Kay received a BS in Animal Science from Oregon State University in 1996 and a MS in Environmental Resources from Arizona State University in 2003. For her MS thesis project, Kay studied small mammal abundance, distribution, and habitat selection at an urban-rural interface in northern Phoenix. She has been consulting since 2002 and is currently a wildlife biologist for Logan Simpson in their Tempe, Arizona office. She specializes in Endangered Species Act and National Environmental Policy Act compliance, and works with a wide variety of species and project types. She enjoys working in the field and has volunteered with the Arizona Game and Fish Department, U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation, and the Arizona Bat Working Group on various special projects with species such as the desert tortoise, Mexican gray wolf,

black-footed ferret, southwestern willow flycatcher, and an array of bat species. Kay has been a member of TWS since 2002 and has served on past JAM planning committees, was previously an AZTWS Board Member, and is now in her second consecutive term as the AZTWS Recording Secretary. This is also her fourth year serving as the Arizona Chapter Newsletter Editor.

Meet the 2015 Arizona TWS Board Members cont...



Ryan Revells, Corresponding Secretary

Ryan moved to Mesa from Fairbanks, Alaska and is motivated to make a positive impact on people and our natural resources. His enthusiasm for habitat and wildlife conservation led him to obtain his bachelor's degree in Environmental and Resource Management from Arizona State University in May 2014. Naturally outgoing, he enjoys working with others, especially when presented with opportunities to enhance our natural world and promote environmental awareness. As an ASU student he enjoyed participating in TWS workshops and the JAM as a member and as president of the Wildlife and Restoration Student Association, and is enjoying cultivating his involvement with the AZ Chapter as Corresponding Secretary.

Tiffany Sprague, Board Member 2015—2016

Tiffany's goal in life is simple: she wants to save the world. She discovered early on that such an ideological feat cannot be accomplished on her own, which is why she has devoted her life to not only protecting our natural world but also to educating and inspiring others to do the same. It is also why she has sought to be engaged with groups such as the Arizona Chapter of The Wildlife Society (AZTWS).

Tiffany's background is in wildlife biology. She spent a number of years in the field, working the National Park Service, Arizona Game and Fish Department, Arizona Army National Guard, and Northern Arizona University on a variety of wildlife and habitat restoration projects. Her primary field projects have focused on the Sonoran desert tortoise, endangered black-footed ferret, and various bat species. Since 2006, she has worked with the Grand Canyon (Arizona) Chapter of the Sierra Club, focusing on education and outreach regarding Arizona's environment. She continues her field work as a volunteer with a variety of organizations and species. She has also recently started pursuing her Master's degree, for which she will be assessing microhabitat use of northern Mexican gartersnakes.

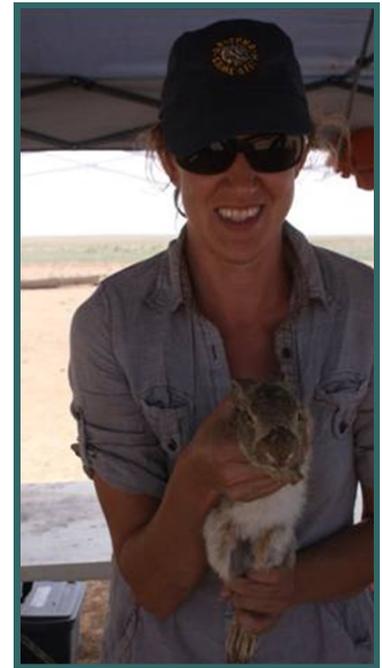
She has been honored to serve as a board member for AZTWS for the past two years. She thoroughly enjoys reaching out to fellow professionals and students about the diversity of opportunities available to engage in wildlife-related work. More than that, though, she enjoys learning and growing from everyone involved with this organization. She very much looks forward to her continued involvement with this group.



Meet the 2015 Arizona TWS Board Members cont...

Holly Hicks, Board Member 2014—2015

Holly Hicks received her B.S. from Arizona State University in Conservation Biology and has been working for the Arizona Game and Fish Department since 2007 with her main focus being small mammals, specifically prairie dogs. She has been actively involved with mapping and surveying Gunnison's prairie dogs in northern Arizona. Holly currently is the coordinator for the black-tailed prairie dog re-establishment project in southeastern Arizona. She has been responsible for the trapping, relocating, and monitoring of the newly re-established black-tailed prairie dogs colonies. Holly also is the coordinator for the Tarahumara frog re-establishment project. She has been continuing efforts towards recovering populations of Tarahumara frogs throughout its historic range in southern Arizona. Holly previously served as Recording Secretary for The Wildlife Society and has also held the position of Corresponding Secretary. She is also the Student Liaison for the universities and colleges in Arizona. Holly is enjoying serving on the board as a Board Member.



Photos submitted by Audrey Owens