



THE ARIZONA WILDLIFER

2017 Issue I

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Winter Edition

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The President's Message

Greeting and salutations,

With the 50th JAM closing in, the Parent Society conference coming to Albuquerque next fall, and our chapter's 50th anniversary following in 2018, I was hoping to use this platform to highlight some positive stops on the track in front of us. Unfortunately there was this train wreck in November that's making it difficult to be optimistic about the track we're on.

On a related note, all of a sudden, I'm wishing this was a "director's message" or "chair's message" instead of a "president's message" as my current title seems somewhat less dignified now.

Our organization does not enter into partisan politics, nor should it. But we are committed to develop and apply sound science in order to best manage our natural resources. The looming administration has shown a disdain for science and was elected on a virulently anti-regulation platform. True, some environmentally-focused regulations are less than ideal. Many can even be obstructions to efficient wildlife management. There is ample room for improvement. But these regulations are often the only leverage that prevents industry and development from obliterating our ecosystems and our wildlife. The loss or weakening of the Endangered Species Act, the National Environmental Policy Act, or other natural resource protection legislation would undermine past wildlife management and conservation successes and would cripple efforts to maintain biodiversity into the future.



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Presidents Message cont...

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The nominees for cabinet positions in the incoming administration question the science that has generated the overwhelming consensus on human-caused global climate change. They have supported unregulated extraction of fossil fuels and elimination of environmental protections. Many have displayed clear antagonistic tendencies toward the very departments they are preparing to lead.

Another campaign promise was to use a hiring freeze to shrink federal agencies. I have witnessed firsthand how crippling that approach can be on the ability of an agency to pursue its mission and vision effectively.

It sure looks like reductions in positions, available funding, support, and eventually in natural resources to study and manage are going to make it difficult to be a wildlife biologist in the near future.

This is the part where I'm supposed to motivate everyone by saying that if we try really hard and contact our legislators twice a day, we can keep this all from happening. If you buy that, I've got ocean front property in Arizona I'd like to sell you. It'll be ocean front soon anyhow. Please do contact your legislators and convince them to fight for sound science, and maybe we can keep from slipping that much farther backwards. But we're going to have some dark times ahead of us, regardless.

Maybe the one thing we can do is dig in and prepare to be a voice in defense of science. A large and active TWS membership will be critical to being heard. So I encourage all of you to get involved. Join us at our 50th JAM this February, hosted by the AZ/NM Chapter of AFS. In 2018, AZTWS will be hosting the 51st JAM and celebrating our 50th anniversary. Through plenaries, symposia, and other activities, we have opportunities to draw attention to issues that are critical to the future of conservation. In order to make these suc-

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Regional News:

Highlights from SW Section Representative to TWS Council

By: Fidel Hernandez

When I wrote this, the autumn semester had just ended, and a quietness surrounded campus. Most students had traveled home for the holidays, and, although I enjoy the interaction with students and the energy they bring to campus, I also relish the quietness that descends upon campus when semesters

end, particularly the autumn one. There's something about the winter weather that adds to this sense of solitude and tranquility. So, as I enjoy this slowing of time, I take the opportunity to catch you up on the latest happenings of The Wildlife Society since we last visited.



TWS CONFERENCE: RALEIGH

I had the opportunity to attend the 23rd Annual Conference of The Wildlife Society in Raleigh, North Carolina, during October 2016. What a privilege. It was a five-day conference jam-packed with activities and meetings. The conference offered 961 educational and training opportunities that included 44 contributed paper sessions featuring 360 presentations, 25 symposia featuring 239 presentations, 10 workshops, 10 films/videos, five plenary/keynote sessions, three panel discussions, and more than 330 posters! It seems that with each passing year, the TWS conference gets better and bigger. For example, the number of concurrent sessions increased from eight just two years ago to 12 this year. In addition, the conference in Raleigh was well attended, with more than 1,800 registrants. This attendance placed the Raleigh conference in the top five in TWS' history in terms of attendance.

President Gary Potts's theme of Expanding the Partnership provided an excellent framework and focus for the conference. The conference effectively show-

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Presidents Message cont...

(Continued from page 2)

cessful, we need involvement of more than just a dedicated board. It takes a multitude of hard-working committee members to pull together successful and meaningful events. So please contact us about getting involved. And be ready to raise your hand at the business meeting in Farmington at which we'll start things in motion.

I also encourage you to continue learning and exploring the science of our world. As part of that, please enjoy the articles in this issue of the newsletter. If you're interested in reading past issues or in learning more about the Arizona Chapter, check out our ever-improving website at <http://aztws.com>. And please consider submitting an article to the newsletter. If you have suggestions regarding improving any aspect of the Arizona Chapter of The Wildlife Society, I welcome your comments. Please email me at ssprague@azgfd.gov.

I'll close my final "director's" message by encouraging you all to track down a copy of *Last Chance to See*. An underappreciated book with some inspiring and challenging perspectives. Hope to see you all in Farmington!

Scott Sprague
AZTWS Chapter President

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

"The bats are doing just fine. There are hundreds of them. I have a terrible feeling that we are in trouble." ~*Last Chance to See* by Douglas Adams & Mark Carwardine

Mark your calendar for our 2017 Wildlife Techniques Workshop!

When: Saturday, April 15, 2017

Where: Horseshoe Ranch

Cost: FREE! (\$6 annual membership requested)

For more information, contact
Holly Hicks at hhicks@azgfd.gov.

Regional News cont...

(Continued from page 2)

cased the progress that TWS has made toward expanding partnerships. In President Potts's address to the general membership, he noted that TWS partnerships had grown from only two a few years ago to about 30 today. This expansion occurred in all areas including state, federal, and private conservation sectors. President Potts also noted that partnerships bring TWS communication and marketing opportunities, collaborative work, shared messaging, joint conferences, funding, and much more. As he commented, "Expanded partnerships help move TWS in the direction of becoming the go-to organization for wildlife." It appears that TWS has made huge strides toward this end.

Regarding awards, the Southwest Section shined at the annual conference (like always), bringing home quite a few awards:

- **Student Chapter Advisor of The Year:** Scott E. Henke (Texas A&M University-Kingsville)
- **Wildlife Publication Award (Monograph):** *Effects of harvest, culture, and climate on trends in size of horn-like structures in trophy ungulates*, co-author James R. Heffelfinger (Arizona Game and Fish Commission)
- **Distinguished Service Award:** Brian L. Hanson (retired, US Fish & Wildlife Service)
- **TWS Fellow:** Carol Chambers (Northern Arizona University)
- **Honorary Member:** Terry Blankenship (Rob and Bessie Welder Wildlife Refuge)

A hearty congratulations to all awardees!

GENERAL OPERATIONS

Finance. The Wildlife Society continues on an upward trajectory that began in 2013 (a year that sometimes is referred to in Council as the "turnaround" year for TWS). To provide a conceptual framework for the TWS budgeting process, the budget is developed by the TWS Executive

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Regional News cont...

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Director, and TWS operates on a July–June fiscal year. The Executive Director presents the budget to TWS Council, which then discusses the budget and votes to approve/disapprove. Following is a brief overview of how TWS fared financially during the past fiscal year.

TWS finances for the 2015–2016 fiscal year (July 2015 to June 2016) were strong. Total revenues were \$2.6 million, and total expenses were \$2.4 million. This produced a net revenue of \$202,397. Unfortunately, the total investment yield of TWS investments was -\$19,005 due to poor market performance. This reduced the net revenue and resulted in an overall surplus of \$183,393 for the year. Thus, despite the market underperformance, TWS was able to come underbudget and with an ending balance in the black for the 2015–2016 fiscal year. To be honest, I never had a true appreciation for the planning and budgeting process that guided TWS. Serving as your Southwest Section representative gave me this opportunity, and I must admit that I was impressed with the current budgeting process and current leadership of Executive Director Williams. TWS certainly has righted the ship under the current leadership.

Update: Executive Director Search. Unfortunately, Executive Director Williams will be retiring in July 2017. On the plus side, however, he provided TWS leadership with plenty of notice (one year) of his upcoming retirement. The Executive Committee of TWS has been engaged in succession planning since Executive Director Williams' announcement. A position announcement was created and distributed through several mediums and closed on October 2016. More than 25 applications were received, and the search committee is busy evaluating them. Interviews are planned for this spring 2017. Please stay tuned for updates on this search in future newsletter articles.

Partnership Engagement. The Government Affairs and Partnerships (GAP) program of TWS is engaged in numerous formal and informal coalitions and partnerships. Because there are numerous organizations TWS could partner with and issues it could tackle, the GAP program prioritizes its involvement in coalitions to ensure it's delivering the most benefits to TWS and its membership. The basic criteria that determines TWS GAP involvement is whether 1) TWS has something to offer and 2) TWS obtains a direct benefit for the advancement of the society's policy objectives. This results in TWS GAP taking an active leadership role in some coalitions and only a participating role in others. It also means that GAP cannot participate with all worthy coalitions because it needs to maximize the benefits it can deliver to TWS members. Following are a few examples of coalitions in which TWS plays a current role:

- **National Horse and Burro Rangeland Management Coalition** (*TWS role: lead*): focused on improving the management of wild horses and burros and achieving appropriate management levels to support rangeland health.
- **Teaming with Wildlife** (*TWS role: lead*): supports funding for wildlife conservation, in particular the State and Tribal Wildlife Grants program.
- **National Cooperators Coalition** (*TWS role: lead*): alliance of nonfederal cooperators and other supporters of the Cooperative Fish and Wildlife Research Unit Program.
- **Cooperative Alliance for Refuge Enhancement** (*TWS role: lead*): focused on operations and maintenance of funding for the National Wildlife Refuge System.
- **American Wildlife Conservation Partners** (*TWS role: lead*): national organization that supports hunting, fishing, and trapping as part of science-based management in North America.

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- **National Environmental Coalition on Invasive Species** (TWS role: *participating*): a broad collection of groups focused on preventing the spread of invasive species.
- **USGS Coalition** (TWS role: *participating*): an alliance of scientific organizations with the goal of ensuring proper funding for USGS to continue providing critical data and services for the US.

24TH ANNUAL CONFERENCE: ALBUQUERQUE, NEW MEXICO

Mark your calendars...the 24th Annual Conference of The Wildlife Society is coming to the Southwest!!! The conference will take place during 23–27 September 2017. Current TWS President Bruce Thompson has identified his conference theme, and it is, “*Wildlife Conservation: Crossroads of Cultures.*”

We are excited about having the conference in the Southwest Section. Bringing the conference back to Albuquerque is even more special knowing that the very first annual conference in TWS’ history happened in Albuquerque in 1993.

A local committee has been formed to assist TWS with conference planning. Logistical planning is being led by Quentin Hays (Quentin.Hays@enmu.edu), and fundraising is being spearheaded by Ginny Seamster (Virginia.Seamster@state.nm.us). Please contact either Quentin or Ginny if you want to become involved and assist with the conference. To find out more about the conference, please visit the conference website at <http://www.twsconference.org>.

We look forward to a great conference and giving TWS a true Southwest welcome!

Until next time,

Fidel Hernández

Fidel Hernández
Southwest Section Representative of TWS

AZTWS Continuing Education Grant

Applications may be submitted at any time and will be reviewed quarterly by the Committee in January, April, July, and October. Applicants will be notified of the Committee’s decision 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.

Total available grant amounts are limited to \$2,000 per year with the maximum individual grant capped at \$1,000. Grants are limited to Chapter members.

Grant application forms are available on the Chapter webpages at <https://aztws.com/resources/continuinged> or may be obtained from Chair of the Continuing Education Committee, Stan Cunningham (Stanley.Cunningham@asu.edu).



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

The Arizona Wildlifer Deadlines

<u>Issue</u>	<u>Deadline</u>
Spring 2017	Mar 17, 2017
Summer 2017	Jun 16, 2017

Email submissions to aztwseditor@gmail.com.

Our Neck of The Woods...

Give the Deer a Bone

By Melanie Tluczek, Assistant Director, McDowell Sonoran Conservancy Field Institute



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As a wildlife ecologist, I am always intrigued and delighted when a wildlife species does something unexpected, something that either has not been widely documented or that challenges popular perceptions. In February 2016, McDowell Sonoran Conservancy partnered with Arizona Game and Fish Department Contracts Branch and City of Scottsdale to place radio collars on 32 mule deer in Scottsdale's McDowell Sonoran Preserve (MSP). The purpose of the study was to determine mule deer habitat preference, use of urban features, and corridor use between the 30,100-acre preserve and the adjoining Tonto National Forest and McDowell Mountain Regional Park. The collars will remain on the deer until February of 2018.

As can be expected, some of the collars began putting out mortality signals a few months into the project. By six months after the initial collaring, a number of deer mortalities had occurred near one spot – a wildlife catchment in a mountainous location of the MSP. City of Scottsdale staff placed a wildlife camera near the catchment to see if they could determine what was causing so much mortality in that particular location. Although the camera did not catch any photos of predators or poachers, it did capture an odd mule deer behavior that perplexed the team. Several deer appeared to be chewing on and licking bones and even carrying the bones in their mouths.

On this page and the next are the five pictures taken in September and October of 2016 across four different days. They show what appear to be two or three different deer interacting with the bones. They were taken at different times of day, two in the very early morning and three in the evening. There is at least one female and possibly two males. Interestingly enough, four out of the five photos show the deer interacting with one particular bone! My personal favorite photo is the one in which the

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Give the Deer a Bone cont...

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Images taken by camera traps over four days showing deer sniffing, licking, and chewing on bones. Photos courtesy of City of Scottsdale.

McCullough³ reported white-tail deer foraging on alewives, a type of fish, which had washed up on a beach after a storm. The authors also cited seven previous studies that described isolated cases of deer foraging on birds, lady-bird beetles, and fish. Finally, Furness (1988)⁴ described sheep and red deer on several islands off the coast of Scotland biting off the heads and legs of seabird nestlings and selectively chewing on and ingesting bones. Furness postulated that this was linked to mineral deficiencies, lending support for the conclusions of our group.

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deer is facing away from the camera with the bone sticking out of its mouth like a cigar.

The photos were circulated among biologists from Arizona Game and Fish Department, Phoenix Zoo, Arizona State University, and Northern Arizona University. This sparked a lively discussion about why deer would be chewing, carrying, or licking bones. No one knew the answer, but the prevailing hypothesis was that they were gaining calcium, phosphorus, and other minerals. As one biologist pointed out, rodents are famous for this behavior. Another biologist had seen bighorn sheep chew bones and stated that this had been documented in caribou as well. Another had a picture of a deer chewing on an antler, and yet another had seen gopher and desert tortoise eat bones and even bits of shell in an effort that “looked very painful.” One contributor even had photos of a deer leg bone that had been stuck between the jaw and lip of another deer and had been worn down in the process.

A quick look into the available literature added another interesting layer to the story. White-tailed deer have been documented in two different papers consuming bird eggs and nestlings. Ellis-Felege et al. (2008)¹ videotaped deer consuming eggs of northern bobwhite quail in Georgia. Pietz and Granfors (2000)² caught video of deer eating the nestlings of five different species of grassland songbird in North Dakota. In 1987, Case and



Deer leg bone worn down from being stuck between jaw and lip of a deer. Photo courtesy of Jim Heffelfinger, Arizona Game and Fish Department.

Give the Deer a Bone cont...

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So much for the sweet, helpless deer of the popular imagination! The natural world is much more varied, complex, and surprising than we can ever imagine, and it is great to know that there is always more to discover.

Thanks to Randy Babb, David E. Brown, Stan Cunningham, Eric Green, Russell Benford, and Jim Hefelfinger for comments and insights. Thank you to Scott Hamilton from City of Scottsdale for permission to use the photos and for the article's title.

¹ Ellis-Felege, S. N., J. S. Burnam, W. E. Palmer, D. C. Sisson, S. D. Wellendorf, R. P. Thornton, H. L. Stribling, and J. P. Carroll. 2008. Cameras identify white-tailed deer depredating northern bobwhite nests. *Southeastern Naturalist* 7(3):562–564.

² Pietz, P. J., and D. A. Granfors. 2000. White-tailed deer (*Odocoileus virginianus*) predation on grassland songbird nestlings. *The American Midland Naturalist* 144(2):419–422.

³ Case, D. J., and D. R. McCullough. 1987. The white-tailed deer of North Manitou Island. California Agriculture Experiment Station, Division of Agriculture and Natural Resources, University of California.

⁴ Furness, R. W. 1988. Predation on ground-nesting seabirds by island populations of red deer *Curvus elaphus* and sheep *Ovis*. *Journal of Zoology* 216(3):565–573.

Standing Invitations!

Call for Award Nominees

Submit your valued co-workers and partners for one of our Chapter Awards (see categories and criteria by visiting <http://aztws.com> and clicking on "Awards"). Let's recognize our finest! Submit your nominations to our President Elect, Kay Nicholson (knicholson@logansimpson.com).



Call for Chapter Officer and Board Member Nominees

Also: Please consider becoming active with the Chapter as an officer or board member. You can learn about positions and responsibilities by visiting <http://aztws.com> and clicking on "About," then "Executive Board Positions." Nominations are due in November of each year, with elections occurring in January. Contact Kay Nicholson (knicholson@logansimpson.com) to register your interest. We'd love to have you on our board!



Student Voice

Update from Northern Arizona University Student Chapter

By Harlan Tso, Northern Arizona University Student Chapter Vice President



Left: Harlan Tso, NAU Student Chapter Vice President. *Right:* Bryan Begay, NAU Student Chapter Treasurer. Photos by Harlan Tso.

We are doing fine here up at Northern Arizona University (NAU). After a semester of The Wildlife Society at NAU, I am glad to say that we are doing very well and have had some successful events. Our meetings are scheduled once a week, and we are still going strong. NAU TWS hosted a fundraiser at a local business of Bigfoot Barbeque in downtown Flagstaff and had a trip to Ashurst Lake in the early part of last semester. We have several small committees: bird watching, fishing, hiking, and photography. The photography and hiking committees have been quiet so far. The bird-watching committee has met with Jay's Bird Barn in Flagstaff and is coordinating a trip out to Mormon Lake for a falconer demonstration. The fishing committee has made several trips down to Oak Creek near Sedona to practice catch and release fishing, with our members catching on average at least one fish.

Throughout the semester, we have had several speakers come to our meetings to talk about their research. Kathleen Hunt, Ph.D., a professor at NAU, talked about her research on baleen hormones and the record of endocrine history of reproduction and stress in large whales. Dr. Hunt conducted her research by drilling holes in whale baleen and using the dust to test certain chemicals. Another speaker we hosted was Clarissa Starbuck. Clarissa is a Ph.D. student in Dr. Carol Chambers' lab. Clarissa's research involves recording acoustic calls that bats make in potential wind energy development areas in Northern Arizona. We sadly had to cancel our last meeting of the semester due to weather conditions. Pilar Walters was supposed to do a presentation on her research at the Arizona Game and Fish Department. Pilar will do her presentation next semester, and we are looking forward to learning about her research.

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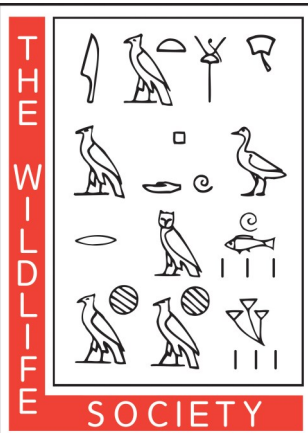
Student Voice, cont...

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We are in the beginning stages of planning another fundraiser at Bigfoot BBQ in downtown Flagstaff. We look forward to next semester and are very excited to attend JAM and are also trying to look into participating in the parent society wildlife conference in September.



Oak Creek. Photo by Harlan Tso.



Give Back Program Now Live!

With the TWS **Give Back Program** now live, members of the parent society will be able to gift a six-month complimentary membership upon their renewal to a friend or colleague!

The program allows members to share the TWS experience with non-members and has the potential to grow and strengthen the Society's network of professionals. Visit http://bit.ly/TWS_give_back for more details, and start thinking about whom you can nominate!



ARIZONA / NEW MEXICO CHAPTER

of the American Fisheries Society



presents
the 50th Joint Annual Meeting of the
Arizona–New Mexico Chapters of the
**American Fisheries Society and
The Wildlife Society**

FEBRUARY 9–11, 2017

MARRIOTT, FARMINGTON, NM

Plenary Session:

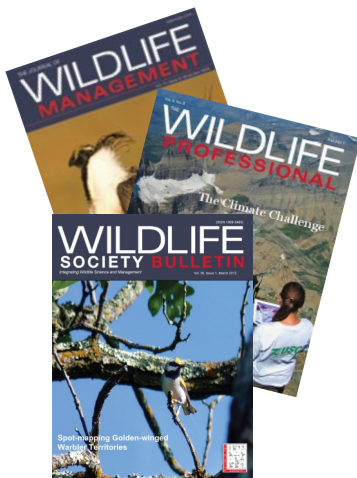
*Celebrating 50 Years of Fish and Wildlife
Management in Arizona and New Mexico*

Plenary and Panel Session | Workshops | Paper and Poster Presentations
Second Call for Papers/Posters deadline Jan. 20, 2017
Register your student team for Quiz Bowl by Jan. 27, 2017!

Learn more and register at

<https://arizona-newmexico.fisheries.org/2017-jam>.

For more information, email aznmafs@gmail.com.



Access your FREE TWS journals!

With the start of the new year, your membership with TWS (parent society) became even more valuable! Follow these easy steps to access any of the Society's journals or publications, free of charge!

1. Go to wildlife.org.
2. Click LOGIN at the top right of the page and log in with your TWS username and password.
3. In the navigation bar at the top of the page, click on the PUBLICATIONS dropdown menu and select desired publication. You will be redirected to a new page.

Enjoy!