Greetings, AZTWS, and Happy Spring! Another exciting year of wildlife fun is upon us. I am thrilled and honored to step into the role of Chapter President and I look forward to serving you during our 50th year as a chapter! Before discussing some of our plans for the year, though, I want to give a brief recap of recent happenings.

First, the 51st Joint Annual Meeting (JAM) of the Arizona and New Mexico chapters of The Wildlife Society and the AZ/NM chapter of American Fisheries Society was a huge success! Sincere thanks to everyone who participated, a job well done to all who presented oral or poster presentations, and congratulations to everyone who won an award or competition! This event would not have been possible without the work of Kay Nicholson and the extraordinary team of coordinators who planned and implemented the meeting. It takes a small village to put together this conference, and I am truly impressed by the creativity and tenacity of all who were involved.

Second, I want to thank all of our outgoing board members for their fantastic work during 2017. I could spend much of this message singing their praises, but I’m guessing you’d rather read the rest of the articles in this newsletter than endure my warbling, so I’ll try to keep this brief:

Kay Nicholson was an inspirational and deeply involved Chapter President, always available to answer questions and quick to get the word out to the board and members about opportunities and needs; I am so thankful for her guidance as I assume this position. Jessica Moreno assumed several roles during her time as Corresponding Secretary; she helped grow our social media and web presence, worked to improve our membership and communication

(Continued on page 2)
One of my fondest memories growing up on a ranch in the western part of the Edwards Plateau of Texas is the blooming of Texas mountain laurels (Sophora secundiflora). Each spring, around mid-February, thousands of acres of piñon-juniper rangeland would become filled with the distinctive fragrance of Texas mountain laurels. Some field guides describe the fragrance as reminiscent of an old-fashioned grape soda. To me, the smell is more like a mixture of lavender with maybe some hints of jasmine. Whatever the fragrance molecules, I carry a fond childhood memory of riding horseback along a high-elevation ridge and catching a never-ending breeze of Texas mountain laurel blooms from the canyons below. I can smell them to this day.

Well, as luck would have it, there happens to be a native plant garden between the ag buildings here on campus and, as I was walking to my office last week, I caught a faint whiff of that unique fragrance. My immediate thought was one of excitement, “The mountain laurels are blooming!” Spring definitely has arrived in Texas.

I’ll be headed to Norfolk, VA, later this
Presidents Message cont...

(Continued from page 2)

ence with a variety of wildlife techniques. This year, more than 60 students got to learn about telemetry, net guns, forensic ornithology, wildlife tracking, invertebrate ID, field survival, orienteering, and much more! Huge thanks to Holly Hicks for once again orchestrating this event and to all of the instructors and volunteers who helped out. Stay tuned for details for next year’s workshop!

BioBlitz – A full 24 hours of searching for cool critters? Sign me up! If you’re not familiar with the BioBlitz concept, it’s just that – people survey an area in order to catalogue as many species of plants and animals as they can during a 24-hour period. This is an excellent way to help determine how many species occur in an area, to help educate and inspire participants, and to have fun. We are investigating the possibility of teaming up with Arizona land managers to participate in and perhaps help coordinate annual BioBlitzes. This year, we hope to participate in a BioBlitz at Petrified Forest National Park in August. Interested in getting involved? Contact Scott Sprague at ssprague@azgfd.gov.

Outreach – As you hopefully know, our chapter has a lot to offer to people interested in wildlife and resource management. We want to share this information with more people! To do so, we are investigating ways to increase our outreach, both in-person and virtually. As mentioned above, we have been increasing our social media and web presence, but we are also looking to expand our in-person outreach through events and other contacts. If you’re interested in helping with these endeavors, please contact me.

Youth Engagement – Related to the above, we also want to get more youth involved in wildlife opportunities. We do a pretty good job of reaching out to college students, but I would love to see us engage people before they even reach that stage. I’ve heard from a number of college students that they never even knew it was possible to have a career working with wildlife. Educating people about natural resources and opportunities is vital month to attend the TWS Council meetings that occur each year just prior to the start of the North American Wildlife Conference. I’ll include those updates in my next update (summer issue) so you’ll have to stay tuned. But for now, here is a brief update on the latest TWS happenings since we last chatted:

TWS ANNUAL CONFERENCE: CLEVELAND

Mark your calendars for the 25th Annual Conference of The Wildlife Society to be held 7–11 October 2018 in Cleveland, Ohio. The Conference will include workshops, symposia, panel discussions, oral presentations, posters, student research-in-progress posters, and so much more. The theme for the Conference is Recognizing and Sustaining Conservation Success. If you have a presentation or poster that aligns with this year’s theme, then be sure to submit your abstract for consideration. The deadline to submit abstracts is Sunday, 22 April 2018, at 11:59 p.m. Central Time. For more information, please visit the conference website at http://bit.ly/2HTji4l.

CALL FOR TWS AWARD NOMINATIONS

This is a friendly reminder that the deadline for nominations for several TWS awards is in the horizon (1 May 2018). Here is a brief description of these awards:

• Aldo Leopold Memorial Award: This is the highest honor bestowed by TWS for distinguished service to wildlife conservation. The basic selection criterion is the significance of an individual’s contribution to the wildlife field.

(Continued on page 4)
for protection and proper management of wildlife and habitats. If we don’t motivate the public to become invested in the resources and secure support for best management practices, our work has limited impact. We are looking into ways to engage high schoolers and younger ages and would love your help! If you’re interested, please let me know.

Diversity – Similar to the above, we also want to increase our reach with all people. All classes, races, genders – everyone. We need your help to make this happen. Do you have ideas on how we can expand or modify our work to be more inclusive? Please let us know! You can contact Jessica or me.

So, in a nutshell, those are our plans for the year. **Now this is what we need from you: be involved!** Not just with our chapter but with our world. Speak out for what you believe in. We are facing some exciting but also some very scary times. The priorities of decision-makers are often in conflict with science and with the protection of our natural resources. We need you to help speak up for what is right. Speak up for wildlife and habitat. Speak up for science. Speak up for resource management based on the best available science we have. Don’t just sit back and hope that everything will be okay. Be involved.

With that said, I hope that the articles in this newsletter give you some ideas of ways to be involved. If you have ideas you would like to share in our newsletter, please contact our Editor, Jeremy Krones, at aztwseditor@gmail.com. If you have any other ideas or feedback you’d like to share with our chapter, please reach out to me at tasprague@gmail.com. Thank you!

Sincerely,

Tiffany Sprague
AZTWS Chapter President

Regional News cont...

(Continued from page 3)

- **Caesar Kleberg Award For Excellence in Applied Wildlife Research:** The Caesar Kleberg Award recognizes those who have distinguished themselves in applied wildlife research and is focused on those whose body of work, in both inquiry and discovery, has resulted in application of management and conservation “on the ground.”

- **Chapter of the Year Award:** Active state chapters are needed to achieve TWS goals, many of which are best addressed at the state, provincial, or local level. The State Chapter of the Year Award pays tribute to these chapters and recognizes exceptional achievement.

- **Conservation Education Award:** Conservation education covers a wide diversity of activities. It encompasses particular works of great merit and programs representing sustained effort that can achieve great significance over the years. The Conservation Education Award is given in each one of the following categories on a four-year-rotation basis: writing, audiovisual works, media, and programs.

- **Distinguished Service Awards:** The Wildlife Society Distinguished Service Award recognizes TWS members who have made a long-term commitment to the Society based on at least 20 years of membership and their actions to further the mission of the Society.

- **Diversity Award:** The Diversity Award recognizes an individual or organization for outstanding efforts in promoting ethnic and gender diversity in the natural resource professions, especially wildlife conservation and education. Recognized activities may focus on encouraging ethnic and gender diversity in

(Continued on page 5)
Regional News cont...

(Continued from page 4)

the workforce, academic enrollment, or organizational membership.

- **Donald H. Rusch Memorial Game Bird Research Scholarship**: This scholarship was established to honor the memory of Don Rusch and to continue his legacy by contributing to studies of game-bird biology. The award is presented annually to a graduate student studying any aspect of upland game bird or waterfowl biology and management.

- **Excellence in Wildlife Education Award**: This award celebrates exemplary teaching and contributes to the improvement of wildlife education by honoring individual faculty members. Eligible faculty should be actively engaged in undergraduate and/or graduate wildlife-related education with outstanding performance in at least one of the following categories: teaching, advising, research, academic program development, or educational leadership.

- **Honorary Membership**: Honorary Memberships recognize continuous outstanding service to any area of concern of TWS by a TWS member who is a practicing or retired wildlife professional.

- **Jay N. “Ding” Darling Award for Wildlife Stewardship Through Art**: This award is intended to be a lasting recognition of the heritage established by Jay N. “Ding” Darling to promote wildlife and habitat conservation through art. His legacy of artwork and associated conservation messages were instrumental in achieving significant wildlife conservation measures. Among them were the creation of the Federal Duck Stamp Program, National Wildlife Federation, Cooperative Fish and Wildlife Research Unit Program, the groundwork for today’s system of National Wildlife Refuges, and many broadly-recognized cartoons advocating land and water conservation.

- **Jim McDonough Award**: This award is presented to a TWS member who is a Certified Wildlife Biologist and a member of the section and chapter where the individual resides. The recipient is recognized for making a significant contribution to the wildlife profession by being an active member/participant of TWS, especially at local levels and through program implementation and development of new techniques or approaches in an area, state, or province. Additionally, the recipient is the kind of person recognized by his/her fellow workers as a solid contributor and a “true professional,” but who has gone without major awards, citations, or prominent recognitions.

- **Special Recognition Service Award**: This award honors a person or group who has made an outstanding contribution over the short or long term to one or more of the following areas: the wildlife profession; general areas of wildlife conservation, management, or science; or a specific area of endeavor, species, community, ecosystem, region, etc.

- **Student Chapter Advisor of the Year**: This award recognizes exceptional annual mentorship by a TWS student chapter advisor.

- **Student Chapter of the Year Award**: Active student chapters are needed to achieve TWS goals, many of which are best addressed at the state, provincial, or local level. Chapters also strengthen the Society’s membership recruitment and retention efforts by providing opportunities for member involvement in Society activities. The Stu-
Regional News cont...

(Continued from page 5)

dent Chapter of the Year award pays tribute to and recognizes exceptional achievement.

We have many outstanding people in the Southwest Section who contribute considerably to TWS at various capacities. Be sure to nominate a deserving colleague. Visit the TWS Award website (http://bit.ly/2u51gKo) to get more details, learn of past honorees, and download nomination applications.

**TWS ADMINISTRATION, FINANCE, AND GENERAL OPERATIONS**

**Business Relations.** Part of TWS’ strategic plan for long-term financial stability is business relations (development). These business relations and partner support are essential to the advancement of TWS and its missions and program initiatives. The financial contribution of these partners allow TWS to provide better services and member benefits ranging from contributed website and magazine content to discounted products and services. They also help TWS to progress issues that are vital to the growth of the Society. The Wildlife Society has made excellent strides toward this end in the past few years, adding critical support from several important businesses and organizations.

Below is a brief summary of some of the major activities happening in this arena for the month of January 2018:

- Net income from organizations and businesses was $377,000 from the beginning of the fiscal year through January.

- TWS was successful in booking two advertisers, 17 exhibitors, and six sponsors for the 2018 Annual Conference.

- TWS received one contribution and three verbal commitments for a total of $12,750 for the conference.

- Duke Energy agreed to provide financial support of the conference as a Leading Sponsor and discussions continue with other organizations.

- With the addition of a $6,000 contribution and a $5,000 verbal commitment in January, TWS has exceeded the budget goal for Native American Student Travel Grants!

**Membership.** TWS continues to slowly grow its membership toward the society’s goal of 10,000 members. The year-to-date paid member count is 9,791 members, which represents a 4.3% increase compared to last year (February 2017). If members enrolled in the Give Back Program are included (612 members), then the total member count increases to 10,403 members. TWS is continually trying to improve member experience, and automatic renewal is one such improvement in services that is provided to members. TWS is excited to learn that many members—4,347 members to be exact or 44% of total membership—are currently enrolled in Automatic Renewal. Please make use of this handy option when renewing your membership to avoid membership lapses!

(Continued on page 7)
Government Affairs. The Program of Government Affairs and Partnerships is lead by Director Keith Norris. Director Norris and his team are responsible for overseeing TWS’ policy activities, providing support to TWS Chapters and Sections on conservation policy issues, strategically expanding TWS’ engagement with other organizations, and providing direction to the Society professional development and certification programs.

Below is a brief summary of key TWS policy priorities advanced during the beginning months of 2018:

- Met and conferred with several House member offices on co-sponsorship of the Recovering America’s Wildlife Act (RAWA) (H.R. 4647).
- Engaged the Conservation Affairs Network in support of RAWA and launched TWS webpage on member engagement with RAWA.
- Helped lead a webinar with American Fisheries Society (AFS) staff titled “Support of the Recovering America’s Wildlife Act - A Guide to Grassroots Advocacy” to educate TWS and AFS members on the campaign and encourage their own advocacy efforts.
- Submitted testimony to the House Federal Lands Subcommittee legislative hearing in support of RAWA and raised concerns about a portion of the Modernizing the Pittman-Robertson Fund for Tomorrow’s Needs Act.
- Met with Department of the Interior officials to discuss TWS, the Department’s reorganization efforts, the importance of federal employee engagement in professional societies, and concern over funding for key conservation programs.

TWS Book Release

In closing, I take the opportunity to highlight the recent release of a new book, State of Wildlife Management and Conservation, that is part of TWS’s book-series agreement with the John Hopkins University Press. This book is an edited volume by Thomas J. Ryder. In this edited volume, the long-time member and former Assistant Wildlife Division Chief for the Wyoming Game and Fish Department, Tom Ryder, brings together wildlife leaders from practical, policy, and academic backgrounds to tell the story of state wildlife agencies and chronicles their efforts to restore and protect our nation’s natural resources. The book is a comprehensive, nationwide account of state management efforts that will aid people in developing a better understanding of what it means to be a state wildlife biologist. For more information on this book, please visit: http://bit.ly/2u9Pxdz.

Well, that is all for now.

Until next time,

Fidel Hernández

Fidel Hernández, Southwest Section Representative to TWS Council
DENVER — Things are looking up for a rare Colorado River fish, the endangered humpback chub. The U.S. Fish and Wildlife Service (Service) recently completed a species status assessment (SSA) and a 5-year status review that concluded the current risk of extinction is low, such that the species is not in danger of extinction throughout all of its range. The SSA explained that the largest population of humpback chub, which is found in the Colorado and Little Colorado rivers in the Grand Canyon of Arizona, is a stable population of about 12,000 adults.

Our SSA also explained that four smaller populations in the Green and Colorado rivers of the upper Colorado River basin have persisted and do not appear to be in immediate danger of extinction. All five populations are wild, persisting without the need for hatchery stocking. These population-monitoring results, when coupled with ongoing flow management and nonnative predatory fish control, mean that the humpback chub will be considered for reclassification from endangered to threatened in the next year.

Although this unique fish is making a big step toward recovery, it still needs help. Conservation work by a diverse group of stakeholders has been one of the key contributions in recovering this native fish. State, tribal, federal, and private stakeholders collaborate via the Upper Colorado River Endangered Fish Recovery Program (established in 1988) and the Glen Canyon Dam Adaptive Management Program (established in 1997) to continue the monitoring programs and to reduce threats to this species’ recovery. “Endangered species recovery in altered and heavily managed ecosystems like the Colorado River is a complicated endeavor,” said Service Mountain-Prairie Regional Director Noreen Walsh. “Our best chance for continued success rests in the power of these collaborative partnerships.”

The humpback chub, which was first described as a unique species from collections in the Grand Canyon in the 1940s, was not discovered in the upper Colorado River basin until the 1970’s. It was placed on the original list of endangered species in 1967. Humpback chub prefer canyon-bound reaches of river where they complete their life cycle in swift, turbulent currents. The species gets its name from the fleshy hump behind its head. That adaptation coupled with large, curved fins allows the species to maintain position in the turbulent flows. Habitat alterations (from changes in river flows and inundation of canyon reaches) and competition and predation from invasive species are the greatest threats to the humpback chub.

In the 5-year review, the Service also recommends that the species recovery plan be revised to incorporate the best available scientific information on the species needs and actions that will be necessary to eventually delist humpback chub. Efforts to propose reclassification and to revise the recovery plan will be ongoing in the coming year. The proposed reclassification rule and the revised recovery plan will be made available for public comment in the future.

To review the SSA and the 5-year review, please visit www.fws.gov/mountain-prairie
Meet Your 2018 AZTWS Board!

Tiffany Sprague, President

Tiffany Sprague has devoted her life to protecting our natural world while educating and inspiring others to do the same. She has a B.S. in Wildlife Sciences from University of Arizona (Go Wildcats!) and an M.S. in Applied Biological Sciences from Arizona State University. As a wildlife biologist, she has worked with a variety of wildlife and habitat restoration projects with the National Park Service, Arizona Game and Fish Department, Arizona Army National Guard, and others with projects ranging from bats to snakes to black-footed ferrets and more. For the past decade, she worked for the Arizona Chapter of Sierra Club, seeking to educate the public and policy-makers on environmental issues. She now serves as Field Institute Manager of McDowell Sonoran Conservancy, focusing on research and education to manage and protect the largest urban preserve in the nation, McDowell Sonoran Preserve. She has served on the AZTWS board since 2013 and looks forward expanding her involvement in the organization through this new role. Her goal in life is simple: she wants to save the world.

Jessica Moreno, President Elect

Jessica Moreno is a wildlife biologist and science communicator with 10 years of experience in non-invasive carnivore research and wildlife corridor conservation in the Arizona and Sonoran borderlands. She served on the AZTWS Board as the Corresponding Secretary for 2017 and was an active member and officer of the 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 like 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.

(Continued on page 10)
Andrew Jones, Treasurer

Andrew Jones was born and raised in Wyoming, earned a bachelor's degree in wildlife management from Washington State University in 2008, and joined the Research Branch of the Arizona Game and Fish Department in 2009. From 2010–2014, he led a research project that evaluated the impacts of off-highway vehicle road networks on kit fox space use. Currently, he is leading a four-year research project evaluating predator-prey interactions between desert bighorn sheep and mountain lions. Additionally, he recently finished his Master's degree at Northern Arizona University, for which he focused on spatial predictions of desert bighorn sheep habitat quality in Arizona. Andrew is looking forward to being more involved in our professional organization, serving as a resource for early-career professionals, and contributing to the planning and organization of successful TWS joint annual meetings.

Holly Hicks, Corresponding Secretary

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 The Wildlife Society in various roles since 2010. She is also the Chair for the annual Wildlife Techniques Workshop that is offered to students and young professionals and the state Chapter’s Student Liaison.

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 with regards to wildlife responses to forest treatments, wildfires, invasive species, habitat connectivity, and grazing and other management plans. She started her career with the Arizona Game and Fish Department in the Research Branch, where she worked in Flagstaff for seven years (2003–2010). While working with the Arizona Game and Fish Department, she conducted research on several projects, including migration routes of bald eagles, low-level military flights on pronghorn, and forest restoration effects on several species including bats, turkeys, mule deer, and elk.

In 2010, she took a Research Associate position at Northern Arizona University (NAU). Her research at NAU included wildfire and grazing effects on small mammals, fire connectivity and modeling, forest resto-
ration 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 working many years in research, she decided it was time for a change and, in January 2017, accepted the position of District Wildlife Biologist for the Springer-ville Ranger District in the Apache-Sitgreaves National Forest, where she currently works.

Audrey Owens, Board Member

Audrey Owens is the Ranid Frogs Project Coordinator at the Arizona Game and Fish Department. She has worked for the Department since she moved to Arizona in 2007. She has a BS in Wildlife Ecology and Conservation from University of Florida and an MS in Forest Resources from University of Georgia. She has been a member of The Wildlife Society since 2002, and has served on the AZTWS Board in several positions over the years. She is pleased to serve on the board again because she believes the chapter has an important role in fostering professionalism, leadership, and communication in new and established wildlife professionals in Arizona.

Melissa Merrick, Board Member

Melissa is a senior wildlife biologist 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, 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 AZGFD’s black-tailed prairie dog reintroduction program, antelope jackrabbit surveys, and bat research on DOD 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, becoming more involved in chapter leadership, and helping the chapter grow and serve its diverse membership.
2018 JAM Review

Student Voice

University of Arizona Student Chapter
By Victoria Hoaglin, Chapter Treasurer, and the University of Arizona Fish and Wildlife Society

Our student chapters had a fin-tastic time at the 51st Joint Annual Meeting, no trout about it! For several of our members, it was their first time attending a professional conference. It was a great opportunity to meet and get to know some of the professionals, especially while attending the student mentor lunch. We all enjoyed getting to hear about a variety of topics along with the latest research and studies that are occurring within the field of fisheries and wildlife management. Many of our members attended workshops and had the chance to brush up on their resume writing and interviewing skills as well as learn how to handle venomous reptiles. Our teams had a wonderful time at Quiz Bowl, and can’t wait to compete again next year. We look forward to volunteering again and attending the next JAM.

Until next time,

The University of Arizona Fish and Wildlife Society

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, Jessica Moreno (jamoreno@gmail.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 Jessica Moreno (jamoreno@gmail.com) to register your interest. We’d love to have you on our board!
Arizona State University Student Chapter
By Chandler Smith, Chapter Vice President, TWS of the WRSA

The beginning of February 2018 commenced the 51st Joint Annual Meeting of the Arizona and New Mexico chapters of The Wildlife Society and American Fisheries Society. This year’s JAM took off with an exciting and informative plenary session highlighting the theme of “Advocating for Conservation.” Students, biologists, and managers from across Arizona and New Mexico attended this session to learn from talented conservation professionals. These professionals discussed the importance of raising your voice in policy making and management decisions that affect conservation issues in today’s political environment. The Assistant Attorney General of the Arizona Game and Fish Department, Jim Odenkirk, and Regional Director of the United States Forest Service, Steve Hattenbach, began the session with “The Do’s and Don’ts” for both state and federal employees. The session then continued with featured speakers including Sharon Buccino, the Director of the Natural Resource Defense Council, Environmental and Regulatory Policy Advisor of Snell & Wilmer L.L.P. Amanda A. Reeve, Executive Director for the Center for Western Priorities Jennifer Rokala, and the President/CEO of Backcountry Hunters & Anglers Land Tawney. The session was very informative and gave students and professionals insight on how they can become involved in the policy making and management decisions that directly affect conservation efforts.

The conference continued with presentations from both students and professionals that focused on significant topics such as habitat research, wildlife management, and the recovery efforts of endangered species. Wildlife students filled the poster session with outstanding presentations showcasing their own research and inspired us all.

New Mexico State University celebrated at the JAM this year when they took home the title of the 2018 Quiz Bowl champions. The competition was fierce but a team of students from New Mexico State’s Department of Fish, Wildlife, and Conservation Ecology persevered to the top.

We are proud to say that Arizona State University had a record attendance of 19 current and former students attend JAM, 17 current and two recent graduates. Three of these students displayed their own presentations on their master’s projects, and ten students volunteered to help with the auction, raffle, and registration over the course of the conference. Our new WRSA members who attended the JAM for the first time had a wonderful experience at the conference and look forward to participating again next year.

Following the events of the JAM, the students of WRSA are looking forward to broadening our efforts of making impacts on wildlife conservation, increasing student involvement, and strengthening connections between professionals and other student chapters as we are all working towards a common goal of protecting our wildlife. The members of WRSA, old and new, are excited for the events to come at the 2019 JAM and the next Annual TWS Conference.
Student Quiz Bowl at AZ-NM Joint Annual Meeting

By Heather Bateman, JAM Quiz Bowl Chair

This February at the Joint Annual Meeting (JAM) of the AZ and NM Wildlife and American Fisheries Society Chapters in Flagstaff, student participation accounted for nearly 50% of all registrants. Attending local, regional, or national conferences is an excellent way for students to meet and interact with professionals and future employers in the natural resources field and to present and receive feedback on their research. This year, JAM hosted the 5th Annual Student Quiz Bowl competition.

Quiz Bowl is a student competition in which schools compete in wildlife and fisheries trivia. Questions include topics about wildlife and fisheries management, techniques, ecology, policy, and Chapter presidents and history. Bonus questions often involve identification of specimens, taxonomy, and natural history.

Arizona Game and Fish Department and Arizona State University contributed mammal and bird skins, fish specimens, skulls, and equipment to be used for questions. Reconyx and Arizona Audubon provided funds and items to support awards for the first and second place teams.

We first held Quiz Bowl in 2014 and all three chapters (AZ TWS, NM TWS, and AZ-NM AFS) have supported the competition. This year the chapters contributed to support a dedicated competition buzzer system. Quiz Bowl has consistently drawn 7 to 9 teams from schools and universities around Arizona and New Mexico and the event draws large crowds during Thursday evening of JAM. This year in Flagstaff we had nine teams in the competition which included 45 students and their coaches. This year’s champion was Team 1 from New Mexico State University.

Quiz Bowl has been a great success because of the dedication of professionals who help compose questions and run the logistics of the competition. Many thanks are due to the committee this year, Audrey Owens (Moderator), Bill Dunn, Tiffany Sprague, Kent Mosher, and to Scott Sprague and Brett Montgomery (Specimen Wranglers). Several students volunteered during the event to help with specimens, scoring, time keeping, and running the buzzers. We had three professionals serve as judges in the case of challenges; thanks to Tiffany Sprague, Jim Ramakka, and Ryan Follmuth. Four professionals agreed to compete in one “final round” of good humor against the student champs.

It is our hope that Quiz Bowl continues to be a strong interest to students and a way to encourage students to be involved in their local TWS and AFS chapters. And, remember, professionals and non-contestants are always invited to attend – cheering is allowed!
Congratulations to the 2018 Photo Contest Winners!

This year’s Arizona/New Mexico chapters of The Wildlife Society and American Fisheries Society Joint Annual Meeting photo contest was full with some great shots! This year’s photo contest included the traditional wild animal and landscape categories taken in either Arizona or New Mexico and Remote Cameras. There was also a new category for photos taken outside our state borders.

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<td>1st — Sarah Grubel <em>(below, right)</em></td>
<td>1st — Andrew Antaya</td>
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<td>2nd — Keaton Davis</td>
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<td>2nd — Amy Chando</td>
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<th>Wild Fish</th>
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<td>1st — Cameron Madrea</td>
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<td>2nd — Ryan Hill</td>
<td>2nd — Lola Van Pelt</td>
<td>2nd — Brian Blais</td>
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<td>3rd — Cameron Madrea</td>
<td>3rd — Andrew Antaya</td>
<td>3rd — Valerie Burton</td>
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<th>Remote Cameras</th>
<th>Caught In the Act</th>
<th>Beyond Borders</th>
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<td>1st — Jon Hanna</td>
<td>1st — Thanchira Surigamongkol</td>
<td>1st — Deb Buecher</td>
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<td>2nd — Brian Blais</td>
<td>2nd — Landon Estridge</td>
<td>2nd — Jennifer Presler</td>
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<td>3rd — Kathy Granillo</td>
<td>3rd — Ryann Smith</td>
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**BEST OF SHOW**

Andrew Antaya *(below, left)*

Don’t forget to start capturing those memories into photos for next year’s photo contest! The upcoming 2019 photo contest will include all of the 2018 categories. Start snapping away and see you next year!
2017 AZTWS Chapter Awards

This year marked the 51st Joint Annual Meeting of the Arizona and New Mexico Wildlife and Fisheries Societies, hosted in Flagstaff, AZ. We encourage our members to nominate deserving people or organizations for these annual awards, and as has been the case in the past, our chapter was privileged this year to receive numerous nominations for well-deserving individuals working in the wildlife management field. Below are summaries of each award, awardee, and the outstanding achievements for which they were nominated.

We congratulate each of our deserving 2017 awardees!

David Patton

David E. Brown Lifetime Achievement Award

The David E. Brown Lifetime Achievement Award recognizes an individual for his or her accomplishments in wildlife biology and management over their lifetime.

David Patton is the second recipient of this award.

“Dr. Patton’s passion and engagement in wildlife management in Arizona has not dimmed over the 50+ years since he began his career. Although he has ‘retired’ several times, his definition of retirement seems to be ‘to keep working in a different capacity.’ He has not yet stopped working in his quest to help the wildlife resource and the people working in the profession,” says Cecelia Dargan Overby in a joint letter of support for this award nomination. “A brief summary of David’s educational experience and key positions held sets the stage for describing the influence he has had over not just wildlife resources, but also many people working in the field of wildlife management in Arizona.”

Dr. Patton’s legacy of leadership and accomplishments in the field of wildlife management are truly outstanding and deserving of recognition. He is an individual who always leaves organizations stronger when he leaves than when he arrived. In addition, his history of mentoring younger students, scientists, and managers is exemplary.

David has been a member of The Wildlife Society (TWS) since 1959 when he was an undergraduate student and went on to become a TWS Certified Wildlife Biologist. David’s professional career began in the Southwest in 1963, when he and two others were hired as the first wildlife biologists in the Southwestern Region of the Forest Service. He was stationed on the Santa Fe National Forest in New Mexico, where he worked for about a year and a half. His next move was to Tempe, Arizona, where he completed a 22-year career as a wildlife biologist and Project Leader at the U.S. Forest Service Rocky Mountain Research Station. After his retirement from the Research Station, he took a position at Northern Arizona University as the first professor of wildlife in the School of Forestry. He eventually was appointed Dean of the School of Forestry. Once again “retiring” in 1999, Dr. Patton took a job as Director of the Center for Wildlife Management in Kenya, and later as Director of the Center for Rainforest Studies in Australia. In 2003, he was asked to come back to NAU, where he served for a period of time as the Interim Dean of the School of Forestry during a transitional period of reorganization at the university.

(Continued on page 17)
J.D. Greenberg

**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.

**J.D. Greenberg** is not a professional biologist nor a paid environmental advocate. She is a citizen of Yavapai County who is always present to speak on behalf of wildlife threatened by development. She is a voice for bringing together diverse stakeholders to make informed decisions that can balance the needs of development with those of natural resources. J.D.’s efforts led to the creation of Yavapai County’s Ecosystem Connectivity and Mitigation Advisory Committee, which will study and advocate for ecosystem connectivity in land use planning and transportation projects. We are pleased to recognize and thank J.D. for her efforts through this award.

Haley Nelson

**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.

Technological advances have untapped potential for the field of wildlife management. People with a solid wildlife foundation and a mastery over these new technologies will lead us into the future. **Haley Nelson** is one such person. As an example of this, last fall, Haley built a full suite of digital tools to improve the safety and efficiency of large-scale ungulate captures. Her integrated toolset allowed for real-time tracking of aircraft, capture support teams, animal observations, and collar deployments. These improvements helped to minimize both the cost and safety risks associated with extended helicopter operations. Haley’s work has the potential to radically influence many of the processes and procedures all of us in the room will follow over the next decade and beyond.
Bill Mannan

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.

Dr. Mannan is a talented educator and accomplished researcher. He began teaching at the University of Arizona in 1982 and, ever since, has contributed to the wildlife profession through university-level education, avian research, and administrative leadership. He is an accomplished author, co-authoring the wildlife-habitat relationships textbook and publishing more than 60 peer-reviewed publications. He has long been involved with TWS, serving on the board of the AZ Chapter and as faculty advisor for the UofA student chapter. Bill has previously received three AZTWS awards—WILDHARE (2002 and 2006) and Scrapping Bear Award (2005). However, his contributions to and sustained nature of efforts for our profession— as well as his announcement of his impending retirement— make him eminently qualified for another. We are pleased to bestow him with one more recognition.

Erin Zylstra

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.

Erin Zylstra has more than a decade of experience studying and working with wildlife in Arizona. She is already an accomplished scholar, having published six papers in top peer-reviewed journals, with two additional papers in review—a strong record for a PhD student. She is an accomplished speaker and has received Outstanding Student Paper at three different scientific conferences. She also has a remarkable aptitude for quantitative methods and is a go-to person for fellow students as well as professors. Erin’s intellect, creative perspective, and a combination of practical skills, life experiences, and innate drive made her the perfect recipient for this award.
Colin Beach & Chad Loberger

Wildlife Habitat Relationships (WILDHARE) Award

The WILDHARE Award is given to a professional wildlife biologist in Arizona for their contribution to understanding or applying habitat principles to the management of an animal species or group of species. The recipient receives a check based on the interest generated for the year in the Habitat Relationships account.

This year, we had a tie and the award was given to two deserving individuals. Thanks to Chad and Colin’s tireless efforts, wildlife populations across the Southwest stand a better chance of survival into the future, and we are honored to recognize both of them with this award.

Chad Loberger is one of the core pillars of the Arizona Game and Fish Department’s road ecology program. His contributions have helped the program become and remain an international leader in the mitigation of habitat fragmentation. Chad has been the boots-on-the-ground for numerous efforts, including the flagship U.S. Hwy 93 desert bighorn sheep project. He has also served as liaison with agency personnel from Utah, Nevada, and New Mexico for ongoing AGFD road projects in those states.

Colin Beach leads field operations for other projects in the Arizona Game and Fish Department’s road ecology program, including the SR77 and MSP mule deer connectivity studies. Colin has designed and implemented tools that improve data collection accuracy and efficiency. In addition to those process improvements, the product of his recent Master’s degree is a step toward enabling the use of wildlife movement data to quantitatively derive where wildlife movement barriers may occur. This will help direct millions of dollars and thousands of hours of labor to areas where they will have the greatest benefit.

We need your help

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

The Arizona Wildlifer Deadlines

<table>
<thead>
<tr>
<th>Issue</th>
<th>Deadline</th>
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<tr>
<td>Summer 2018</td>
<td>Jun 15, 2018</td>
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<td>Fall 2018</td>
<td>Sept 21, 2018</td>
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Email submissions to aztweditor@gmail.com.
The Wildlife Confessional

The Wildlife Society – Western Section is excited to announce that *The Wildlife Confessional* anthology, a collection of short stories by dyed-in-the-wool wildlife biologists that endeavors to show the humor and poignancy in our day-to-day adventures that sometimes define and enlighten the profession or that, sometimes, we’d rather forget, is now live.


The anthology is a collection of fifteen stories by thirteen biologists, including Western Section members Brian Cypher, Ivan Parr, Matthew Bettelheim, and the late Thomas A. Roberts. It also includes contributions by published authors Marcy Cottrell Houle (*Wings for my Flight, One City's Wilderness, The Prairie Keepers*) and J. Drew Lanham (*The Home Place: Memoirs of a Colored Man’s Love Affair with Nature*), and a memoir of the late Dr. Charles Jonkel, co-founder of the Great Bear Foundation.

The authors whose stories have been collected here represent men and women from all walks of wildlife biology – State and Federal biologists, consultants, students, professors, interns – and take place across North and Central America, from the Gulf of Alaska to San Ignacio, Belize, from the tropics of the Hawaiian Islands to the deserts of Arizona, and in the desert springs, coastal bluffs, national parks, stock ponds, pick-up trucks, tramp lines, doctor’s offices, roof tops, outhouses, and bombing ranges scattered everywhere in between.

This anthology is a labor of love. One of the primary reasons the authors and editors behind *The Wildlife Confessional* have undertaken this project is to educate and attract students to enter the field of wildlife biology and to apply money raised through book sales to support student involvement in The Wildlife Society by funding scholarships, grants, and training opportunities. Your support will help us realize those goals.

You can also follow the project on Facebook: [https://www.facebook.com/The-Wildlife-Confessional-1070767069681846/](https://www.facebook.com/The-Wildlife-Confessional-1070767069681846/)
A lot of factors go into choosing where to publish your wildlife research findings. TWS wants to make our journals your first choice in 2018.

Here’s what we are doing to encourage members to publish in one of the Society’s three scholarly journals: The Journal of Wildlife Management, Wildlife Society Bulletin and Wildlife Monographs.

**Reduced page charges for members**

As a TWS member, you are eligible for **40 percent off** the standard page charges. In 2018, we have also eliminated all color page charges.

The following page charges and publication fees apply to all manuscripts, except Letters to the Editor, Invited Papers, and Book Reviews, that go into production after Jan. 1, 2018.

**Journal of Wildlife Management**

If any author is a member of The Wildlife Society:

- $90 per published page for the first 8 pages
- $150 for every page thereafter

If none of the authors are a member of The Wildlife Society:

- $150 per page

Authors also may choose to publish the manuscript under TWS’ and Wiley’s open-access option; the fee for publication will is $3,000 in lieu of page charges.

**Wildlife Society Bulletin**

If any author is a member of The Wildlife Society:

- $50 per published page for the first 10 pages
- $80 for every page thereafter

If none of the authors is a member of The Wildlife Society:

- $80 per page for the first 10 pages
- $130 for every page thereafter

Authors may choose to publish the manuscript under TWS’ and Wiley’s open-access option; the fee for publication is $3,000 in lieu of page charges.

(Continued on page 22)
Wildlife Monographs

Beginning Jan. 1, The Wildlife Society reduced the publication fees for Wildlife Monographs from $10,000 to $7,500 and eliminated color page charges to encourage authors to publish their work in this highly regarded journal. The journal's 2016 Impact Factor was 5.75 and it ranked number one of 162 publications in the zoology category and 12 of 153 in ecology.

And for the first time, we have created an open-access option for Wildlife Monographs, which allows anyone to read the published paper in the Wiley Online Library. The publication fee for this option is $10,000.

Streamlined guidelines for authors

We know author guidelines are no fun to read, so that’s why the journal editors and editorial staff have revised the guidelines and put all information you need for quick-reference at the very beginning of the guidelines.

High visibility

Your published work can be seen by 10,000 of your peers because all TWS members have online access to TWS journals. Plus Wiley offers tips for how to get more publicity for your published work. Check out this free promotional toolkit. TWS also works with Wiley to promote newly published papers to world-wide media outlets.

And did you know that over 4,200 institutions subscribe to the Journal of Wildlife Management/Wildlife Monographs and more than 1,500 to the Wildlife Society Bulletin? This means that virtually the entire wildlife community can access your published work.

Supporting TWS’ Strategic Plan

There’s one more important reason to publish in TWS journals that members may not think of often. One of TWS’ strategic themes is being a recognized and trusted organization for expertise on science-based wildlife management and conservation. When you publish with your Society, you are lending your support to our strategic plan.

With your help, we can grow the impact of TWS journals on achieving a positive impact on the sustainability of wildlife populations for future generations.