

# Passport

The Newsletter of the International Wildlife Management Working Group of The Wildlife Society

**Volume VII, Issue I**

**December 2018**

## Message from the Chair

### Greetings IWMWG Members!

I want to thank you all for your continued interest in and support of the International Wildlife Management Working Group and to wish you a very happy New Year. 2018 has been a year of opportunities and we as a working group are poised to help shape the role of TWS in the international wildlife conservation and management community. Reflect on our 2018 activities, I hope you enjoy this latest issue of the Passport which feature our travel grant awardees, leaders in the field, future plans for 2019, and ways you can be involved.



IWMWG Chair Melissa Merrick (left) with Chair-Elect Scott Brainerd at the IWMWG meeting in Cleveland.

Thanks to our fabulous members, we received more nominees for the Chair-elect position than ever before – including three nominees from Mexico, one from India, and two from the U.S. A special election sub-committee selected two nominees for the vote. So many excellent nominees made for a very tight election, and we are pleased to welcome Dr. Scott Brainerd from Alaska Department of Fish and Game. We are fortunate to have his considerable international wildlife policy and management experience.



IWMWG officers, left to right, Scott Brainerd, Melissa Merrick, Jonathan Derbridge and Allie Burnett.

This issue of your Passport includes reports from the field on conservation in Africa as well as conference highlights from our three travel grant awardees: Irene Castaneda, Pranav Tamarapalli, and Alex Beatty. Your US\$10 working group dues go almost exclusively to supporting international student travel to the TWS Conference and other career development opportunities. We are delighted to make a meaningful difference in this way. You will also find highlights from our business meeting and sponsored symposium on grassroots community engagement at the TWS national conference – another great WG-sponsored symposium! We are always interested in suggested topics for future symposia.

Our checklist for 2019 includes:

- Symposium Proposal on grassroots community engagement for the International Congress on Conservation Biology (ICCB) in Kuala Lumpur, Malaysia. Accepted!
- Symposium proposal co-sponsored with Wildlife Damage WG and (hopefully) Urban Wildlife WG on global urban wildlife ecology and conflict reduction for the 2019 TWS National meeting in Reno, Nevada.
- Continue working with the TWS Future of International Involvement Ad-hoc Committee to assess how TWS can best serve the international community, including a survey on TWS international involvement.
- Pilot implementation of a buddy/mentoring system for international conference attendees.
- Other ideas, feedback, or suggestions? Send them our way!

I am humbled to assume the role of Working Group Chair and I absolutely could not make any progress without the support of our members and Working Group leaders including past chairs Jim Ramakka, Robin White, and Jonathan Derbridge, Chair-elect Scott Brainerd, Treasurer Allie Burnett, and newsletter editor Claire Crow. Your energy and passion motivates me and promises good things for 2019.

Sending warm wishes and all the best to each of you in the New Year.

- Melissa

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## Estimating Flight Height of Old World Vultures

By Morgan Pfeiffer, photos courtesy of Morgan Pfeiffer



Morgan Pfeiffer is a postdoctoral researcher for USDA Wildlife Services National Wildlife Research Center.

What is the animal's home range? How far does the animal travel? What time of day is the animal most active? These are common research questions that biologists ask about the animals they study. For those of us lucky enough to work on aquatic, arboreal, and aerial species, we ask these questions on a 3-dimensional scale. Because GPS technology is still relatively expensive and new for animals other than terrestrial mammals, refinements specific to tracking 3-dimensional movements are still being developed. For example, horizontal error with some GPS transmitters can be as small as 5 m, but vertical error (based on the resolution of the digital elevation models available) can be as large as 50 m! This becomes an issue when trying to estimate flight height of aerial species at the altitudes where they are most likely to conflict with anthropogenic structures and aircraft (< 152 m). Collisions with structures such as power lines and wind turbines can be a major source of

mortality for certain species.

The majority of Old World vultures are experiencing major declines across their ranges. One such species is the Cape Vulture (*Gyps coprotheres*), which is endemic to southern Africa and listed as endangered. My colleagues and I have been investigating the ecology and conservation of the Cape Vulture in the Eastern Cape Province of South Africa since 2012. This research is a collaboration between the University of KwaZulu-Natal, Nelson Mandela University, and my current position with USDA APHIS WS National Wildlife Research Center. The latest research endeavor is part of a PhD project to more accurately estimate flight height of wild Cape Vultures. Previous research has suggested that in addition to GPS technology, radar and traditional human observers are also inaccurate at estimating the flight height of bird species. Therefore, the PhD project involves photogrammetry, which is the science of using photography to take measurements. A recent study in Wyoming was able to successfully use camera technology to identify eagles from 250 m away in seconds. Our project in South Africa aims to use a similar technology to estimate the flight heights of Cape Vultures. The aim is to increase the accuracy of the flight estimates to improve bird collision models. While the research team and I applaud the effort of South Africa to reduce their dependency on fossil fuels with wind energy, it is essential that the turbines are situated strategically to avoid mortalities with endangered species like the Cape Vulture. In fact, one of the major successes of this project is the willingness of wind energy companies and the South African government to participate in research efforts. One of the biggest challenges is funding, especially with a project that aims to test a new technology. Hopefully the outcome of this project will be just one more piece of the puzzle to prevent raptor mortalities from collisions with anthropogenic structures.



## International Involvement Opportunity for Students

The TWS Student Development Working Group seeks a Chairperson and Committee Members for their International Committee. The International Committee represents the opinions and concerns of students outside the United States by facilitating communication between the SDWG and international students, collecting information from international students, and working with the Communications Committee and the Newsletter Committee to create featured stories from international student affairs, where appropriate. Preference will be given to a student living outside the US to serve as Committee Chair; no preference based on location for Committee Member positions. Interested persons should contact Phillip Stephenson, Associate Wildlife Biologist®, Past Chair Student Development Working Group, at [philipleestephenson@gmail.com](mailto:philipleestephenson@gmail.com).

# Community-based Conservation Success in Tanzania

By Derek E Lee

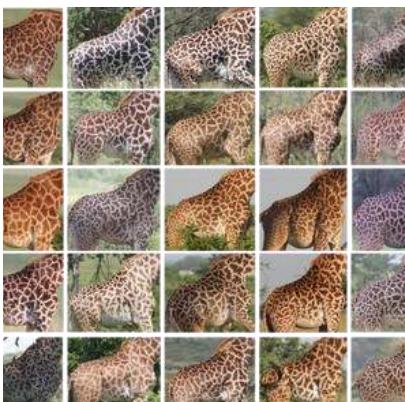
Derek Lee, PhD, is a quantitative wildlife biologist with expertise in conservation demography and population ecology. His current research investigates Masai Giraffe and other large mammal populations within a fragmented landscape in Tanzania. This work examines how births, deaths, and movements of ungulates are impacted by increasingly fragmented wildlife habitat, and what conservation actions are most effective. He is the principal scientist of Wild Nature Institute and an Associate Research Professor at Pennsylvania State University.



Photo: wildnatureinstitute.org

Community-based natural resource management is promoted as a conservation tool and has become one of the dominant paradigms of natural resource conservation worldwide. In Tanzania, decentralization of wildlife management to local communities has been attempted through the creation of Wildlife Management Areas (WMA), in which several villages set aside land for wildlife conservation in return for the majority

of tourism revenues generated. It is important to quantify wildlife responses to Wildlife Management Areas, in order to evaluate both the effectiveness of specific projects and the general concept of community-based natural resource management. In Burunge WMA, Tanzania, I compared densities of wildlife and domestic livestock species within and outside of the WMA, and before and after a change in management practices within a portion of the WMA. Measured by distance sampling, densities of wildlife were greater inside than outside the WMA, and densities of domestic livestock were greater outside than within the WMA. Tree and shrub cover were sparse outside of the WMA, and denser within, which suggests that the right place was designated to maximize conservation of remaining woody vegetation, and that management is succeeding. A management change was implemented in the WMA in 2014–2015, replacing the previous sport hunting operations with photographic tourism, and providing training and equipment to resource protection rangers for the purposes of protecting wildlife and fuelwood from poaching and preventing livestock encroachment. Analyzing 6 years of distance sampling data, I found that wild ungulate densities were higher, and domestic ungulate densities were lower, after the management change than they had been prior to the change. Giraffe (*Giraffa camelopardalis*) survival and population growth, measured over 5 years via photographic capture-recapture, increased after the management change.



Computer recognition of unique patterns on individual giraffes enables capture-recapture data.  
Photo: wildnatureinstitute.org

The results indicated the WMA is effectively providing habitat and protection for wild ungulates while generally excluding domestic livestock. Ungulate densities, and giraffe survival and population growth rate over time indicated the management changes enacted in 2014–2015 resulted in positive effects for wild ungulates. These combined results indicate the ecological effectiveness of Burunge WMA and provide evidence that community-based natural resource management can have positive effects on wildlife populations, particularly when support to grassroots law enforcement is provided. Hopefully these results will encourage more community-based conservation efforts.

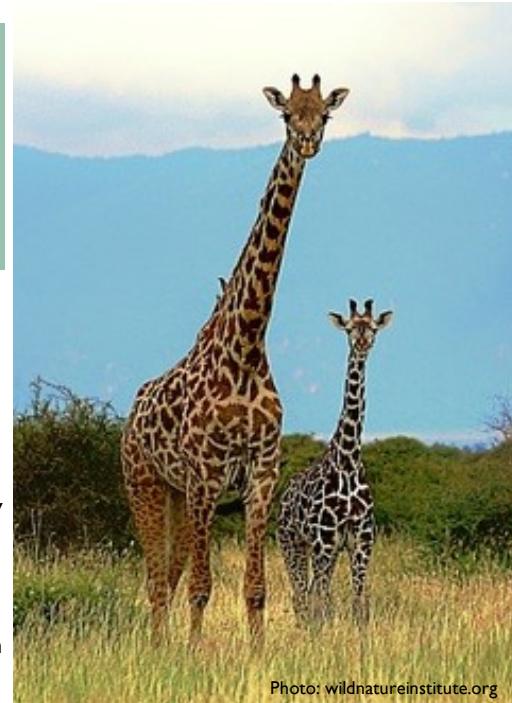


Photo: wildnatureinstitute.org

**“It’s important to quantify wildlife responses in order to evaluate both the effectiveness of specific projects and the general concept of community-based natural resource management.”**

## TWS Conference a Boon to Early Career Professional

Interview by Claire Crow, Photos courtesy of Irene Castañeda

**"The exchange of knowledge among individuals from different parts of the world may provide more diverse ideas to improve established wildlife management procedures, and also to develop new ones."**



Irene Castañeda earned her Ph.D. from Paris South University and the Natural History Museum of Paris. She received a travel grant from IWMWG to present "Overlooked Dietary Overlap between Populations of Two Medium-Sized Mammalian Carnivores in Urban and Suburban Habitats" at the annual conference in Cleveland.

### Please tell us about your research.

My research is focused on understanding the trophic ecology of red foxes (*Vulpes vulpes*) and domestic cats (*Felis silvestris catus*) within suburban areas in the South of Paris (France). Red foxes and domestic cats are among the most abundant medium-sized carnivores in urbanized habitats. In Europe, they play the role of apex predators in these habitats due to the lack of large predators such as wolves, bears or lynx. Studying the trophic ecology of these carnivores in urbanized habitats is worthwhile in order to understand and quantify their predation behavior that can be disturbed under high anthropogenic pressure. To do this, I carried out two consecutive years of field work monitoring the diets of red fox and domestic cats and the availability (density, richness and diversity) of their potential prey (lagomorphs, small mammals, birds and invertebrates). I assessed that foxes and cats consumed the same principal prey (earthworms by minimum number of individuals consumed, and small mammals by total ingested biomass). Surprisingly, these carnivores presented a relative narrow diet breadth (B) (red foxes: B = 0.323 and domestic cats: B = 0.342), likely as a consequence of their high consumption of earthworms. I found a high degree of diet overlap (O) between foxes and cats (O = 0.781) supporting the similar diet composition previously described. These results suggest that foxes and cats can exert a synergistic predation pressure over some of their prey. Consequently, assessing the impact of these carnivores on their main prey is the next step needed to model predator-prey dynamics and the consequences on prey population viability.

### What was your experience at the TWS annual conference?

The TWS was my first international conference outside of Europe and it was amazing to see the great dynamism of parallel keynote sessions, poster sessions, working-group meetings, workshops and so on (although sometimes it was hard to have to choose between several of them!). Moreover, the two major networking events in the evening were really great opportunities to connect with many different people. I really enjoyed learning more about US wildlife and especially discussing urban carnivore ecology with many peers in this field. The biggest benefit of attending was having the opportunity to establish a professional network to carry out future collaborations.

### How do you think attending the conference might impact your future work?

As I have just finished my PhD, my next step is to find a post-doctoral grant to continue working on urban carnivore ecology. I would like to work outside of Europe in order to enrich my professional career. For this reason, the TWS conference was very valuable to me. I met many peers working in my field, and established a professional network which broadens my chances of future collaborations and job opportunities outside of Europe.



Irene Castañeda

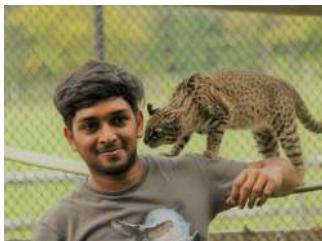
**"The TWS conference was very valuable to me (because) I established a professional network which broadens my chances of future collaborations and job opportunities outside of Europe."**

The urban environment presented the challenge of obtaining access from private landowners. Even more challenging was obtaining diet data from domestic cats: Irene knocked on doors asking cat owners for permission to collect the feces of their pets. Only a few people agreed, which made for a small sample size. Irene would like to see more citizen science studies of urban wildlife and domestic cat impacts on wildlife.

## TWS Conference “Great Stage” for International Exchange

By Pranav Tamarapalli, Photos courtesy of Pranav Tamarapalli

Pranav Tamarapalli is Lead Field Conservationist for the Fishing Cat Conservancy, and is pursuing his Master's degree in Marine Biology at Andhra University. He received a travel grant from IWMWG to present "Testing alternative livelihoods to help protect endangered fishing cats and their small, fragmented mangrove habitat patches in coastal Andhra Pradesh, India".



Pranav interacted with captive fishing cats and other wild cats at Hawk Creek Wildlife Center in New York before returning to India after the conference.

The Wildlife Society's 25th annual conference was a great event that I participated in. Thanks to International Wildlife Management Working Group for inviting me to present in the “Grassroots Community Engagement” symposium, and for providing me with a travel grant. It was a really great stage to interact with thousands of wildlife scientists, researchers and students from around the world. The conference has exposed me to many conservation strategies and methods that I was unaware of. The best thing is that it provided me an opportunity to showcase Fishing Cat Conservancy's work which helps in letting more people know about this lesser-known cat! This global exposure will give a big boost to my career in wildlife conservation. I

wish to continue coming to this event every year and interact with other wildlife scientists and conservationists, sharing plans and strategies to give a little contribution in making this planet greener and sustaining ecosystems.

*Editor's Note:* Pranav's presentation was about his work testing sustainable crab harvest in the mangroves as an alternative livelihood for local people in coastal Andhra Pradesh. This alternative, currently being piloted, would incentivize reforestation of the mangrove forests that serve as habitat for fishing cats and smooth coated otters.



*“The conference has exposed me to many conservation strategies and methods that I was unaware of.”*



Pranav on the panel at the IWMWG's symposium.

## Canadian Student Capitalizes on Travel Grant Opportunity

By Alex Beatty, photos courtesy of Alex Beatty

Alex Beatty is an MS candidate at the University of Alberta, Secretary-Treasurer of TWS Alberta Chapter, and Vice President and Webmaster of the University of Alberta TWS Student Chapter. Alex received a travel grant from IWMWG to present "Terrestrial Habitat Selection of Adult Female Polar Bears in Western Hudson Bay, Canada", which was previously recognized as Best Student Oral Presentation at TWS Alberta Chapter's annual meeting. Alex's career goal is to work in academia as a university ecology professor.



The October 2018 TWS Annual Conference was my first Parent Society meeting, my first international conference, and also happened to be the largest conference I had ever attended! I was able to learn about international research being conducted in the U.S. and throughout the world. I presented my own research in a 20-minute talk, Terrestrial Habitat Selection of Adult Female Polar Bears in Western Hudson Bay, Canada.

The Western Hudson Bay polar bear population in the Canadian Arctic spends ice-free summer months on land. While onshore, they move infrequently to conserve energy. As freeze-up advances, bears migrate from land to newly forming sea ice. Climate change is altering sea ice phenology, which forces polar bears to spend an increasing amount of time on land. Therefore, understanding the terrestrial habitats used by polar bears may become increasingly important for conservation planning.

During my presentation, I discussed that adult female polar bears prefer riparian areas and freshwater ponds when on land, and avoid the Hudson Bay coast. My research indicates selection for riparian areas during the ice-free period provides important water sources, while adult females with cubs

Alex Beatty with polar bear cub during fieldwork near Churchill, Manitoba, September 2017. All animal handling occurred in accordance with standard animal care procedure under the Canadian Council on Animal Care guidelines and were approved by the University of Alberta BioSciences Animal Care and Use Committee.



Alex Beatty (left) receiving resume advice from Mags Rheude of USFWS. The resume review is one of the many benefits available at the TWS Annual Conference. Photo by Claire Crow.



Alex Beatty monitoring polar bear during fieldwork near Churchill, Manitoba, September 2017.

**"One of the goals of the IWMWG is to exchange conservation and management information...it is crucial to share research among countries to better manage and preserve Arctic biodiversity."**

avoid the coast to decrease the risk of infanticide by adult male bears. It was rewarding to share my research at the conference. I am grateful for the funds provided by IWMWG that ensured my attendance to share my research.

One of the goals of the IWMWG is to exchange conservation and management information, and sharing my research on an international scale is important, because polar bears are a species that exists within the boundaries of 5 different nations. It is crucial to share research among countries to better manage and preserve Arctic biodiversity.

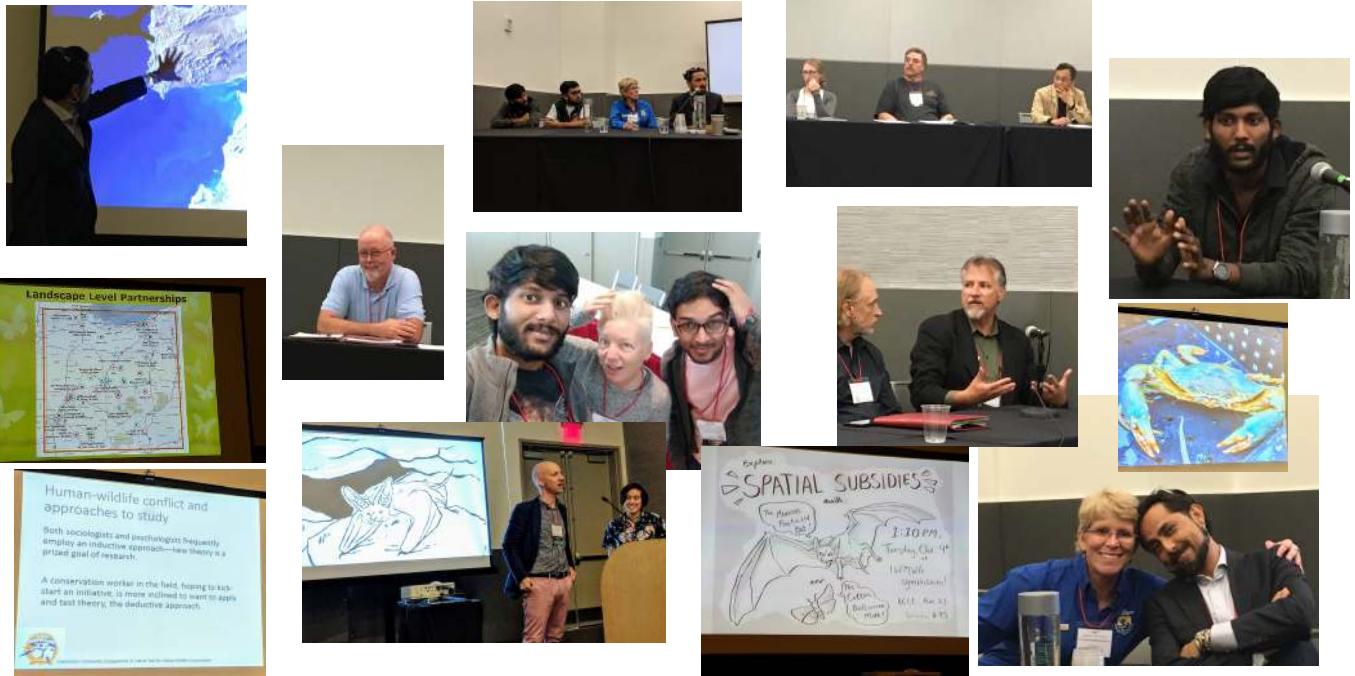
Networking opportunities were also abundant at the conference, at the Rock and Roll Hall of Fame, the Student-Professional Networking Event, and the Closing Trade Show Event. Those events were fun, provided an opportunity to learn about many varied technologies, and were important to help me build future partnerships to navigate my early professional career.

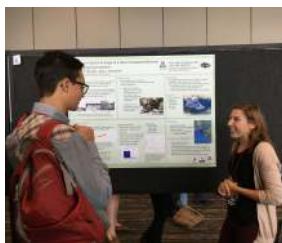
In addition, the conference had numerous professional development options. My resume was reviewed at the conference and I was provided feedback from the perspective of a US Federal Agency. I anticipate this will assist me in securing work in my field after graduation from my MSc degree studies. I also attended a workshop on "Tips for Writing Manuscripts That Get Accepted and Published", which was a positive learning experience to assist with this other aspect of sharing research that I will be embarking on soon, as I begin to submit my research to journals for publication.

I greatly appreciate the generosity of the TWS International Wildlife Management Working Group for my travel grant, which made it possible for me to attend the conference. I hope this is the first of many TWS Conferences I attend in the future. Thank you!

## Photos from the Conference, Symposium and Meeting

Photos by Melissa Merrick, Claire Crow and Srikanth Mannepru





## Highlights from IWMWG Meeting at TWS Conference



The meeting started with the transition of Chair from Jonathan Derbridge to Melissa Merrick. Melissa welcomed incoming Chair-Elect Scott Brainerd, expressing WMWG's commitment to keeping the engagement of the enthusiastic people from India, Mexico, Japan and the US who were interested in running for the position, perhaps by forming international liaison positions that provide input and feedback.

An Ad-Hoc International Involvement Committee (IIC) of members of TWS Council are working to develop a vision statement for how TWS will engage international community of wildlife professionals. IWMWG is fortunate to be in a position to work closely with this committee to be the conduit between our members and the international community. Immediate Past President of TWS John McDonald will be returning to the IIC. The committee's focus has shifted away from holding an International Wildlife Management Congress, due to lack of an international host. The current focus is on TWS applying for membership in the International Union for Conservation of Nature (IUCN) and planning an engagement strategy.

Rick Baydock reported that the Canadian section is experiencing gradual growth, and is enhancing membership resources and training. Al Arsenault is doing a curriculum review of Canadian universities. Canadian members have difficulty meeting the requirements of TWS certification, which is based on US curricula. Most international members may have the same issue. Certification should be achievable for wildlife professionals across the globe. Some Canadian students have pointed out that the quiz bowl questions seem US-centric (*please contact me if you'd like to help with this concern - ed.*).

Scott Brainerd has contacts in Norway who may be interested in an International Wildlife Management Congress. Shane Mahoney suggested that while such one-time events are important, focusing on long term impacts by holding symposia at international conferences and supporting the regular attendance of members may be the most effective way of engaging internationally. TWS General Manager Cameron Kovach said once we have a host, discussion with TWS CEO Ed Thompson can begin.

Scott suggested IWMWG consider involvement in The International Union of Game Biologists Congress, which will be held in Lithuania in 2019, and possibly Poland in 2021. Eastern Europe is well integrated with the rest of Europe, Asia, India, Australia and Africa. Participating in this established biannual event could strengthen international membership.

Fidel Hernández, the Southwest Section's representative to TWS council, will attend Mexico's first national conference on wildlife ecology and management in November. If the conference continues annually, IWMWG would like to participate.

The International Society of Conservation Biology meeting will be in Kuala Lumpur in July. Another session on grassroots engagement and how sustainable use can incentivize conservation efforts in the community would fit with the conference theme "Conservation Beyond Boundaries." Pranav Tamarapalli works with an ex-poacher who combines traditional ecological knowledge with modern conservation science. We need 6 presentations on cutting-edge research to make a symposium or we could hold a 1.5-hour discussion group. (*IWMWG board's proposal for a symposium has since been accepted! - ed.*)

Melissa has been leading the IWMWG's effort to revisit surveying membership on future TWS international engagement. The survey will ask for feedback on ideas like: 1) Collaborating and partnering with other organizations' conferences. Funding or support from TWS providing travel grants for TWS members to present symposia, workshops, and papers at international conferences may be cheaper than hosting an international congress. 2) Providing more literature resources and English translation services. 3) Grants for international travel to conferences and for conducting international wildlife research. The survey would likely go out to IWMWG membership first, then perhaps to all TWS members.

Kira Hefty is leading the effort to create a peer mentoring program called "Wildlife Without Borders". It would connect experienced TWS conference attendees with first-time attendees from other countries. The matched wildlifers would email pre-conference, then meet face-to-face at the conference. Both would benefit from learning about one another's wildlife management, research and cultures. The seasoned TWS conference attendee would support the first-timer with information on TWS, IWMWG, and how to make the most of the conference, and by introducing them to other wildlifers.

Potential topics for a symposium at next year's TWS conference include: 1) joint symposium with Urban Wildlife Working Group, joint symposium with Wildlife Damage Management Working Group, symposium showcasing TWS's recent membership in IUCN, invite IUCN to participate (with potential follow-up plenary the following year).

Allie Burnett's Treasurer's Report ended the meeting. Current funds are \$2,054.71. We contributed \$2000 toward travel grant funds this year and received just over \$1100 in membership dues. If you are interested in fundraising, contact one of the officers.

#### Important upcoming deadlines:

**Feb 19 - Apr 5, 2019** Abstracts accepted. TWS-AFS Combined Annual Meeting. Reno, Nevada, USA. Sept 29 - Oct 3, 2019.

**March 1** Deadline for abstracts. 68th Wildlife Disease Association Annual International Conference. Tahoe City, California, USA. Aug 4-9, 2019. Submit abstracts at <https://wda2019.ucdavis.edu/>

#### Upcoming events:

International Urban Wildlife Conference. Portland, Oregon, USA. June 2-5, 2019. IV Bienal Conference WDA Latinoamérica (Wildlife Disease Association), San José, Costa Rica. July 16-19, 2019. <https://www.wdalatinoamerica2019.org/wpconf/wda-la-2019/> (en Español), <https://www.wildlifedisease.org/wda/Portals/0/Sections/Latin%20America/Flyer%20-%20Latin%20America%20Conference.pdf> (in English).

29th International Congress for Conservation Biology (Society for Conservation Biology), Kuala Lumpur, Malaysia. 21-25 July 2019. **Information on applications for travel awards will be posted in early Jan 2019** at <https://conbio.org/minisites/iccb-2019/registration/travel-awards/>

34th International Union of Game Biologists International Congress. Kaunas, Lithuania. Aug 26-30, 2019. Theme: Wildlife: Coexistent or Opposite? **Deadline for the submission of abstracts: 30<sup>th</sup> April 2019** at <https://www.iugb2019.mi.lt/programme/>

Membership in the TWS IWMWG includes a subscription to the *Passport* (the working group's newsletter) and opportunities to collaborate on international wildlife management-related topics. You can join or renew your membership by logging in to The Wildlife Society portal and adding the IWMWG to your annual membership; the cost is \$10.

Current TWS Members can join by:

1. Going to <http://wildlife.force.com/>
2. Enter your email address on file and password
3. Click on 'add memberships' on the bottom left
4. Scroll down to 'Working Group Dues' and select "International Wildlife Management Working Group"
5. Check out by entering your payment information

THE WILDLIFE  
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MANAGEMENT  
WORKING GROUP

**Editor:** Claire Crow  
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*I hope you enjoy your Passport.  
Please send me your comments  
and suggestions for future issues!*

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**International  
Wildlife  
Management  
Working Group**

## Vision

The IWMWG will increase collaboration among wildlife professionals around the world.

## Mission

The IWMWG will provide a forum for information exchange through expanded use of communication technologies.

## Goals

1. To promote meetings and electronic communication among professionals worldwide working in wildlife management and habitat conservation.
2. To sponsor symposia and workshops and to host forums at The Wildlife Society's Annual Conference and other affiliated meetings.
3. To assist TWS staff in preparing technical reviews, position statements and other materials related to international wildlife management issues.
4. To encourage wildlife professionals worldwide to become members and participate in TWS activities and events.

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## Working Group Officers:

**Chair:** Melissa Merrick ([mmerrick@email.arizona.edu](mailto:mmerrick@email.arizona.edu))

**Chair-elect:** Scott Brainerd ([scott.brainerd@alaska.gov](mailto:scott.brainerd@alaska.gov))

**Secretary/Treasurer:** Allie Burnett ([aburnett93@email.arizona.edu](mailto:aburnett93@email.arizona.edu))

**Past Chair:** Jonathan Derbridge ([derbridge@email.arizona.edu](mailto:derbridge@email.arizona.edu))