Passport

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

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Message from the Chair

IWMWG Chair Scott Brainerd with his favorite study species, the European pine marten (Martes martes).

Greetings, and Happy New Year to you all. A new year, and new opportunities for the International Wildlife Management Working Group. This is my first letter to you as Chair, from snowy Norway! I have big shoes to fill, after the awesome efforts of the outgoing chair, Dr. Melissa Merrick. I want to thank Melissa for her outstanding leadership. Under her guidance, the IWMWG organized and held a workshop at the Society for Conservation Biology meeting in Kuala Lumpur in 2019. In addition, she led efforts to organize IWMWG symposia during the annual meetings. During this past year, she led the effort to survey attitudes regarding TWS international engagement that resulted in a report with recommendations on TWS international involvement during the next ten years. Thanks for your hard work and enormous contributions, Melissa! I look forward to your guidance and insights in your new role as past-chair. You have set the bar high!

I also wish to thank Claire Crow for her efforts as editor of the Passport. I have been very impressed with the professional quality of this newsletter. Absolutely brilliant! While we are sad to see her step down after this issue, we are very happy to welcome our incoming editor, Dr. Daniel Scognamillo. Thank so much for stepping up! We are looking forward to collaborating with you.

Next, I wish to congratulate Allie Burnett for serving a second term as our secretary-treasurer. Thanks so much for your willingness to continue in that role, Allie! We greatly appreciate all you do. And thank you, Jason Lombardi, for running! Jason has graciously agreed to manage our social media presence on Facebook and Twitter. Thank you, Jason, for this service. We hope that you will consider running for officer positions with us again next time around!

Finally, I wish to welcome Masahiro Ohnishi, from Japan, as our new Chair-elect. I look forward to working with you in the time to come, Masa. The IWMWG board now represents a larger segment of the globe, with European, Asian and North American perspectives. Thanks also to Shane Mahoney, from Newfoundland, for stepping up as a candidate. I look forward to our continued collaboration and dialogue with him through our participation in the TWS International Involvement Liaison Ad Hoc Committee, and as a key player in TWS joining IUCN. TWS is in the process of defining the way forward regarding its international profile. The IWMWG is committed to working with TWS leadership to help define what that will be.

Last year was tough in many ways – COVID-19 disrupted the world in fundamental ways and continues to do so in 2021. It has made international travel difficult, but simultaneously, it has stimulated the use of digital meeting technology. Our first-ever TWS digital annual meeting last year was a great success and bodes well for greater participation by participants that may not be able to travel to the annual meetings otherwise. Since our WG board is now spread across many time zones, digital meetings have been essential to conduct business. In addition, virtual conferencing can greatly facilitate future collaboration holding international conferences with other organizations with similar goals.

It is encouraging that under the leadership of President Carol Chambers, that TWS is renewing its engagement and involvement in the international arena. In the January issue of The Wildlife Professional, President Chambers emphasized that TWS is indeed an international organization, with members in 30 different countries. She stated "*During my tenure as president, I want to emphasize the international scope of TWS and see us increase our international engagement, representation, relevance and visibility*." To that end,

"During my tenure as president I want to emphasize the international scope of TWS and see us increase our international engagement, representation, relevance and visibility."
- Carol Chambers
TWS president

she has charged the TWS International Involvement Liaison Committee (led by TWS President-elect Gordon Batcheller) with the following goals: 1*) Develop an approach for involvement in IUCN and engage in IUCN, and 2) Assess the TWS International Wildlife Management Working Group recommendations and develop a path forward to implementing ideas as appropriate.* The IWMWG has forwarded a list of priority recommendations, and discussed them with the committee this month.

As of January, we have 128 IWMWG members from 12 countries. Here is a breakdown of our membership outside the USA: Australia (2), Canada (7), Japan (2), Mexico (2), Netherlands (1), Norway (1), Poland (1), Sweden (1), Switzerland (1), South Korea (1), and Poland (1). We appreciate our 108 USA members, including five currently working overseas. However, given TWS membership from 30 countries, I hope more TWS international members will consider joining the WG and broaden our international perspective.

I am excited to see the formation of the first student chapter outside of North America at the Inland Norway University of Applied Sciences Evenstad campus, where I am an associate professor in the Department of Forestry and Wildlife. You can read more about it in this issue, as well as a profile on Jennifer Angoh, a new PhD student from the island nation of Mauritius who will study pine martens!

When I ran for the Chair position, I was keen on developing collaborations with organizations with similar goals worldwide. My main experience with international conservation and research is from Scandinavia, where I have worked in management, research and education for over twenty years. I have been involved extensively with policy initiatives through the Council of Europe (Bern Convention), IUCN thematic groups (SULi and SUME) that address global topics related to conservation and sustainable use, as well as Nordic and European hunting organizations on various topics. This fall, I reached out to the organizing committee of the International Union of Game Biologists to discuss the possibility of collaborative meetings in the future. The IUGB holds large international meetings every other year in different locations around Europe. It serves a similar function to the TWS annual meetings in North America, as a venue for scientific exchange and networking among primarily European wildlife biologists and managers. Unlike TWS, IUGB is not a membership organization, and it has limited funding. It does, however, have some collaboration with the International Council of Game and Wildlife Conservation. We are discussing the possibility of a collaborative meeting in September, when the IUGB will hold its meeting in Budapest, Hungary. Possible themes for sessions include certification standards for international wildlife biologists, and challenges in recruiting the next generation of wildlife professionals. The COVID-19 situation may not be resolved by next fall, so we will have to see how things develop. Another possible venue for TWS international activity is the Nordic Congress of Wildlife Research. It is a big meeting with participants from Finland, Norway, Sweden, Denmark and Iceland. It was to be held this spring in Uppsala, Sweden, but it has been postponed now until 2022. I hope that TWS can have a role in that meeting, perhaps by hosting a special symposium or workshop. I am well connected to the organizers of that conference and am happy to facilitate.

Going forward, our board has discussed ways to increase outreach to membership and potential new members with an interest in international wildlife conservation. We are currently developing our ideas, including blogs, podcasts and other ways to convey the exciting work and dedicated personalities working on important topics and projects worldwide. If you have any ideas, or wish to participate, please reach out. You can contact me at scott.brainerd@inn.no. My best wishes to you all in the year to come. I hope we will see an end to the pandemic, and that we can continue to work on behalf of global wildlife resources.

-Scott Brainerd

Note from the Editor: Since the inaugural issue in Oct 2012, your *Passport* has attempted to engage and connect wildlifers around the world. I have learned a lot and made a lot of friends along the way! I'm excited to include two prize-winning articles in my final issue. I am very grateful to Daniel Scognamillo for stepping in to keep the newsletter going!

A Global Conservation Experience Master's Degree Program

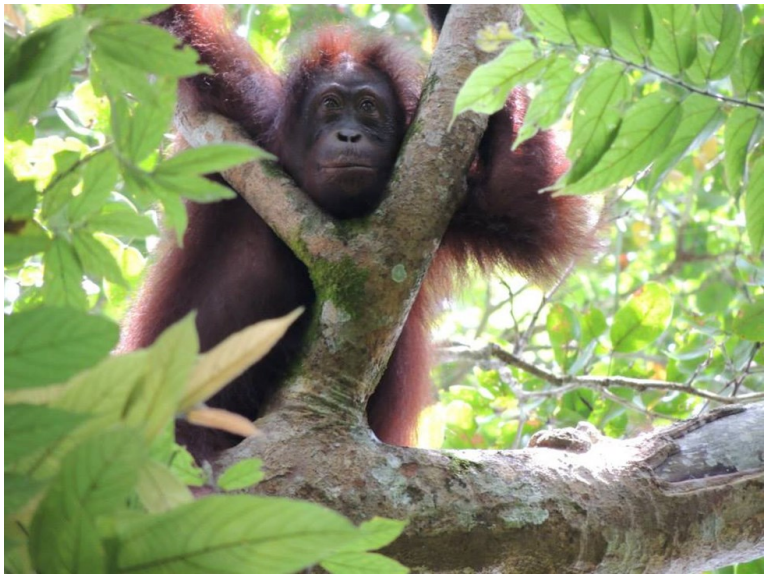
By Claire Crow **Photos courtesy of Priscilla Gomes**

Priscilla Gomes grew up surrounded by nature in Brazil. Interested in conservation since childhood, Priscilla earned a degree in Biological Sciences and enrolled in a Master's degree program that combined online courses and summer field courses at wildlife conservation hotspots around the globe. I interviewed Priscilla to learn more about the experiences and lessons that came from participating in Miami University's Project Dragonfly Global Field Program, which included summer field courses in Belize, Malaysia and Kenya, as well as leadership development in Tanzania.

Priscilla Gomez beneath a black howler monkey (Alouatta nigra) in Belize.

In the "Approaches to Environmental Stewardship" course in Belize (2012), Priscilla spent time with a small rural community focused on balancing species conservation with sustainable tourism and developed an understanding of how to motivate positive changes in environmental behavior. "When I learned that I would be traveling to Belize in 2012," says Priscilla," I began researching the projects that were being developed in there and became very interested in the Community Baboon Sanctuary (CBS). At that time I was planning on focusing my master plan on primate conservation, and I was amazed by the method they found to protect the black howler monkeys (*Alouatta nigra*). Some locals signed a voluntary pledge to maintain part of their land in order to protect the black howler monkey, and in return, these farmers could benefit from ecotourism. However, some local residents were not satisfied with the project. They felt excluded and did not want to cooperate." For the course, Priscilla researched projects similar to CBS that were being developed in Brazil, hoping to find sustainable alternatives that would be more inclusive and had potential to succeed in Belize. "I realized that community participation is essential to the conservation of biodiversity" says Priscilla, "showing the community alternatives to destructive land management… through environmental educational programs… not only helped them understand the benefits of preserving the land for the monkey, but also made them proud of what they were doing, resulting in an increase of self-esteem and well-being."

"I liked learning more about the concept of community-based conservation. I've always loved an NGO in Brazil that does this kind of work, but I hadn't learned the concept until this trip. I believe this is how we should work in conservation."



Bornean orangutan (Pomgo pygmaeus) in Borneo. Photo by Priscilla Gomes.

The following summer (2013), the Primate Conservation course in Malaysian Borneo gave Priscilla the opportunity to work with researchers and villagers of the Kinabatangan region engaged in community-based efforts to preserve orangutans (*Pongo pygmaeus*) and other species, and to develop new ways to engage communities worldwide in saving these species.

Priscilla researched models of community level payments for environmental services (PES) that could address deforestation due to palm oil production, simultaneously benefiting local citizens and wildlife species. "Previous studies have shown that PES by itself is not competitive. However, several approaches combined could be the solution for deforestation in Borneo. The demand for sustainable palm oil is increasing. Society has demanded more respect not only for the environment, but also for the surrounding community." Priscilla

concluded that policymakers should encourage the industry to adequately compensate local villagers for environmental services as a mitigation for deforestation and other environmental impacts of their operations. If the industry and the government invest in the community by providing items like electric generators and building materials, Priscilla found, poverty may be alleviated while negative impacts to wildlife are reduced. Priscilla developed a presentation titled "Palm oil: the hidden ingredient", which was seen by over 1500 people. Most people said they did not know that palm oil was present in so many products, much less that the use of palm oil that is not sustainable has been responsible for so many threats to biodiversity. "I felt very proud of this presentation because I could share some of my knowledge with people from all over the world.".

Another aspect of the course was the experience of cultural immersion. "I loved observing the differences between cultures," said Priscilla, who stayed in a Muslim home. "And the opportunity to see orangutans in the wild while working with local community to find ways to preserve them was an amazing experience."

Priscilla and Maasai house in Kenya

In 2014, Priscilla had the opportunity to spend 2 months in Africa: a month in Tanzania developing a Leadership Challenge, 11 days in Kenya for the "Wildlife and People in an Integrated Landscape" course, and then back to Tanzania for a safari. This final portion of the Master's degree program was life altering.

"This trip was extremely important for the formation of the person I am today, both personally and professionally. It changed my values, my own interpretation of society, and made me appreciate things that previously passed unnoticed, for example: taking a hot shower and using a flushable toilet. I, like most people I met, ate food with little nutritional value: for breakfast I had 3 slices of bread and tea; for lunch and dinner a lot of rice, with very little vegetables or fruits, and a little piece of chicken or fish. And this was much better than what I saw others eating. Electricity was also a privilege. Only a few houses were provided with power, and almost every day there was no power for a few minutes or hours in 'my own' house. It was during these times that I enjoyed my life in Africa the most: I turned off my computer and did whatever the local people were doing. I learned how to cook, I learned Swahili, and I spent time with my African family. But when I went back to my reality and reflected on the time spent in Africa, I realized that the lack of basic sanitation, poor nutritional quality of the meals, the dirt of the streets, the lack of electricity and other goods, all this directly affects health and quality of life of these people."

Working with an NGO in Tanzania that was looking for creative ways to find economic independence for widows with HIV, Priscilla completed the leadership development portion of her degree by proposing a small-scale greeting card production and leading a group of widows in creating 300 cards to be sold to tourists.

"My experience in Kenya was also amazing. After one month in Africa I had the opportunity to see African wild animals for the first time. More than that, I could see how people like the Maasai have coexisted with them for thousands of years. I learned to respect the cultural differences even more, and I understand that every person deserves to be respected regardless of their practices, which are often quite different from those in which we are accustomed."

Priscilla looked at how local businesses can promote sustainability in a developing economy, observing that in the fast-growing nature-based tourism industry in Kenya, "companies not only help their own business by improving quality and quantity of biodiversity and environmental services, but they also help local sustainable development." Priscilla concluded that "incorporating biodiversity into corporate decision-making (can) benefit businesses, and that many companies with long-term visions have already started doing it, and also addressed social issues."

Returning to Brazil with its globally outstanding biodiversity of fauna and fauna, as well as its huge social inequalities and rapid economic growth, it became evident that this juxtaposition was shared in Belize, Borneo, Tanzania and Kenya. In order to help ensure that developing countries develop in responsible and sustainable ways, Priscilla aims to increase the awareness of sustainability in communities through environmental education that addresses economic prosperity, social equity and environmental protection. Reflecting on the success of the small-scale greeting card enterprise in Tanzania, on how focusing on just 6 people had made a difference, Priscilla founded Grupo de Voluntarios Mais Amor in Brazil. The volunteer group created a play that teaches children why it's important not to litter. Priscilla made a lot of connections during the degree program, not only net-

working with people but also recognizing patterns and complexities, and the value of multiple approaches. Priscilla continues to leverage these tools to address large-scale problems like sustainable and responsible economic development by forging individual relationships and sharing concepts to support the global application of local-scale models. Priscilla is currently responsible for the environmental education program, as well as the birdwatching and research programs, at a protected area in Brazil, involving the local communities whenever possible. The area is recognized as a UNESCO natural world heritage site, a Key Biodiversity Area, and an Important Bird Area. "I am now, more than ever, sure that we need people to protect nature. And this is what I am doing: trying to connect people with the forest, show them the environmental services animals provide and talk about endangered species and why we should protect them. We are all linked to each other!"

First TWS Student Chapter Outside North America Established in Norway with Members from Five Countries

By Claire Crow

Paige Hellbaum and Darwin Mayhew, graduate students from the USA at Inland Norway University of Applied Sciences (INN University), have established the first TWS student chapter outside of North America. With charter documents filed, the INN University chapter will soon be officially registered, and the group's first meeting is scheduled for this month.

The group is motivated to provide career support and growth opportunities for its members and build a good reputation with students and early career professionals. Their initial objectives are recruiting members, increasing awareness of TWS among students and faculty on campus, and informing students about the activities, support and benefits the chapter can provide them. "I hope one of the main draws for students will be our speakers and our focus on practical skills seminars and/field trips," says Paige, and the tentative schedule includes some exciting speakers lined up for monthly meetings. Members are interested in sharing their birding, plant identification, camera trapping and other expertise with the rest of the chapter. The group plans to attend the International Union of Game Biologists conference scheduled for Budapest in September, if the COVID-19 situation permits. "We also hope to collaborate with established European student initiatives and citizen science networks," says Paige.

Left to Right: David C. (charter member), Darwin M. (Founder), Aslak G. (charter member), Cecilia M. (charter member), Paige H. (Founder), Emma D. (charter member), and Nadine C. (charter member).
Not pictured are: Scott Brainerd (Faculty Advisor), Jon Swenson (TWS Liaison), Line K. (charter member), Erik V. (charter member), and Roy D. (charter member)

International collaboration in wildlife management and conservation is important, says Paige, because wildlife, zoonotic diseases and habitat do not heed geopolitical boundaries. Coming to Norway for graduate studies, Paige was surprised to find not only many of the same species, but many of the same conversations about, and conflicts with, wildlife. Paige's research will focus on moose that winter in Sweden and summer in Norway.

With members from Australia, Belgium, the Netherlands, Norway and USA, the new student chapter is sure to encourage international networking and exchange. This is an exciting development in TWS; it is encouraging to know that student chapters may be formed in countries outside of North America.

Parties interested in starting a new student chapter should see the template Petition to Form Student Chapter and model Bylaws document at https://wildlife.org/next-generation/student-chapters/resources/, and contact Mariah Beyers at msimmons@wildlife.org.

Interview: Collaborating with an Open Mind to Conserve Wildlife Globally and At Home

By Sandy Slovikosky **Photos courtesy of Jerrold Belant**

This article won the author a free copy of *International Wildlife Management: Contermporary Challenges in a Changing World,* edited by John Koprowski and Paul Krausman

"As a species we are becoming more global and working in isolation is inherently limited...gaining experiences globally can only improve what we do."

Dr. Jerrold (Jerry) Belant is a Camp Fire Conservation Fund professor at the State University of New York's College of Environmental Science and Forestry. As director of the college's newly formed Global Wildlife Conservation Center, as well as an advisor to many graduate students conducting research internationally, he has extensive experience engaging in wildlife conservation efforts across the globe.

Jerry's research primarily focuses on applied wildlife science, human-wildlife conflict, large carnivore and ungulate ecology, and population and habitat ecology through resource selection. His work has spanned many countries including South Africa, Malaysia, Costa Rica, Argentina, Colombia, Tanzania, Nepal and Pakistan. Research projects have included spatial ecology of felids (Tanzania), occupancy of pangolins (Nepal), habitat associations of badgers (Malaysia), species richness of terrestrial mammals (Argentina), and trends in mortality of wildlife across North America resulting from anthropogenic activity.

The Global Wildlife Conservation Center partners with organizations around the world to research:

- *Climate Change*
- *Response to Human Development*
- *Human-Wildlife Conflicts*
- *Species Recovery*
- *Informing Resource Management*
- *Other Wildlife and Biodiversity Issues Across the Globe*

As someone who has served in leadership positions with the International Federation of Mammalogists, the International Association for Bear Research and Management, and various branches of the IUCN, Jerry has experienced firsthand how wildlifers within the U.S. can reach beyond borders to establish collaborations that will result in fruitful conservation actions for generations to come. Through working in a variety of settings and cultures, he is able to not only enhance conservation of threatened species, but also to build capacity and train individuals in local communities to become effective scientists, conservationists, and leaders. He finds this to be one of the most rewarding aspects of the work.

Moreover, aside from the lessons learned from wildlife-related work, Jerry points out that there is just as much value in increasing one's awareness of other societies and traditions that leads to a stronger appreciation of humanity. Issues that will have impacts globally, such as climate change, highlight why engaging internationally is important.

"As a species we are becoming more global and working in isolation is inherently limited," says Jerry. "Gaining experiences globally can only improve what we do." With regard to engaging other people and groups, he adds, "Unless we can break through norms and cultures and be accepted as respecting those, we can't advance conservation."

Collaboration and understanding beliefs and values of local communities can not only advance conservation efforts abroad, but also help wildlifers apply locally what they learn overseas.

"It's just so important to keep an open mind," Jerry states. "As a scientist to be critical of everything and at the same time open to everything. We're constantly learning, and attitudes, opinions, values, and specific practices can help expand our individual worldviews and compare and contrast what works and what doesn't."

International research doesn't come without its challenges, however. When asked about some of the biggest challenges he has encountered in his work, Jerry stressed the logistics. Getting equipment halfway around the world, maintaining regular communication in remote settings, and meeting permitting requirements are only a handful of things that must be taken into account. Added to the importance of being familiar with what is and isn't appropriate within a country, there are many opportunities to not only learn from other cultures, but also to grow on an individual level.

"You become an expert in patience," says Jerry. "You work much harder with a mindset of, 'this will take much longer to do than at home.'" He then adds an important piece of advice, one that is easily overlooked in the daily ups and downs of the conservation field: "Keep an eye on the long-term."

Jerry also emphasizes that while international wildlife management is rewarding, we shouldn't overlook the beauty of the natural world and need for conservation efforts within our own countries. Many of the threats facing wildlife and their habitats abroad can be found within our own country, and so one of the best ways members of The Wildlife Society can support wildlife management on an international level is by starting locally and working as informed and engaged citizens within our own backyards.

"We all basically have the same endgame, and each of us can do our part collectively. Learning what other people think, and how they behave and why, is huge. And by increasing our knowledge of those we can better do our job to fill our piece of the puzzle."

As a recently named voting member of the IUCN, Jerry hopes to further establish partnerships on the international stage that will enable him to apply his expertise as a scientist to policy on a global level. There is still much work to be done, but through keeping our long-term goals in mind, persevering through the daily joys and headaches of conservation work, and, importantly, through collaborating and maintaining a love of learning, the fruits of our efforts will show.

Sandy Slovikosky is a graduate student in Environmental and Forest Biology at State University of New York (SUNY ESF), Syracuse, and a member of TWS IWMWG. She earned her BS in Natural Resources at the University of Arizona, where she studied Mexican woodrat movement in relation to disturbance ecology. Her research interests primarily center on human-wildlife conflict, endangered species conservation, international work, and population and community ecology.

Photo courtesy of Sandy Slovikosky.

Conserving Conservationists and the Wildlife Profession

By Claire Crow **Photos courtesy of Jessie Panazzolo**

Jessie Panazzolo started something. Since childhood Jessie had focused her energy, intellect, creativity and resources on conserving primates. She attended a wildlife-focused high school, did overseas conservation work in the summers while earning a degree in biodiversity and conservation, and took an honors degree in north Sumatra studying the impacts of restoration efforts on orangutans. She worked in numerous short term and volunteer positions, making significant contributions. And yet it seemed impossible to break into a paid career position. She had talked to friends who had experienced the same disheartening phenomenon and so in response to her frustration and her curiosity, Jessie created a website inviting people to post their stories of challenges breaking into a conservation career. She added an Instagram page to allow a supportive community to form. The response was a big surprise – people from all over the world contributed their stories. It became obvious that she was far from alone, she had created and nurtured an online community providing peer support. Lonelyconservationists.com is now a platform of over 4,000 people trying to establish their careers. "It occurred to me very quickly that conservationists all over the world were struggling to get where they wanted to be and nobody was looking out for them," says Jessie. "Lonely conservationists can be mothers, fathers, students, hobbyists, citizen scientists or professionals. Everyone has a story to tell and everyone has faced some kind of hurdle in establishing themselves in the industry."

Jessie Panazzolo

Building on that success, Jessie has now published a book *How to Conserve Conservationists*. Although evolving from the blog whose main audience is the "lonely conservationists" themselves, Jessie's book provides relatives, partners, friends and neighbors insight into the perspectives of conservationists who are struggling to match their knowledge, skills and experience with career security, economic security, and opportunity for long-term success. The book also reminds established conservationists what it's like to get started in our profession; this could help build intergenerational support.

As Jessie shares her experiences, the book reveals some challenges that are specific to, or are exacerbated in international wildlife work. For example, cultural isolation while working in a remote part of a far-away country, trying to learn the language and the social norms, the lay of the land and which plants and animals might kill you, as well as everything you can about your study taxa. And then returning home to find another type of cultural isolation: your friends and family can't relate to the life you were just living. Jessie writes about the strange phenomenon of family members perceiving her life as so foreign and adventurous that they are unfazed to hear that she had narrowly escaped a tiger attack. The book is designed to help people understand and support the conservationist(s) in their life.

Proper care of conservationists includes self-care, of course. Jessie extolls the benefits of rest: "I will never forget the shame of listening to myself talk about avoiding burnout on *The Ecoscientist Podcast* while I lay in bed burnt out at that very moment." It was a self-imposed week of rest that inspired her to write the book. The book also touches on perfectionism, pressure to publish, and imposter syndrome. "You may feel as if you are getting nowhere and achieving nothing, but in reality you are an important part of a community that is trying their hardest to make a positive impact for our planet and that means that you're a hero. I think it's time that we all showed ourselves as much love as we are showing our planet."

Each chapter ends with advice on what to do if you see a conservationist in the wild. Quick quiz - what should you do "if you ever see a conservationist in the wild sipping a drink and looking at the sunset, or on a couch reading a fantasy novel or even playing hopscotch in the yard", in other words, taking gentle care of themselves? Jessie's answer is "Please use your language to reinforce how productive they are being and how proud you are of them. Let's face it, they deserve to know."

Jessie Panazzolo is the founder of Lonely Conservationists, author of How to Conserve Conservationists, and a sessional educator in sustainability to schoolchildren across Australia. She has created How to Conserve Conservationists podcasts and a conservation psychology and workshop series. Jessie holds an honors degree in ecology and environmental science from the University of Adelaide and a Bachelor of Biodiversity and Conservation from Flinders University.

Summary Notes: IWMWG Business Meeting at TWS Conference Oct 1, 2020

Kira Hefty (KH): IWMWG's Wildlifers Without Borders peer mentoring program was designed around physically meeting at the TWS annual conference, so suspended until the next in-person meeting, which will likely be Spokane, WA, USA in 2022.

Allie Burnett (AB) gives update on budget balance: $3026. There were no real expenses this past year.

MM summarized international report: We recommended being present and involved with other international societies (SCB, IUGB, AZA, AFS, AFWA, etc.) We can combine efforts to have more international engagement. Also interest in professional development opportunities, international representation on council, peer reviewers, and editors, and having international focus in TWS journals/newsletters. We interviewed some other agencies to see how they do things- AFS has a much more engaged international section and convene a world fisheries council of all organizations focused on fisheries.

MM opens the floor to the membership.

Scott Brainerd (SB) pushes for more Council involvement. MM suggests integrating some of our working group initiatives, like Wildlifers Without Borders, into a society-level program, like the Leadership Institute program.

Shane Mahoney (SM) expresses frustration that the issue of international involvement has been raised for years but we're still focusing on the same issues. How can we move forward?

MM, John Organ (JO), and SM discuss the need for advocacy from Council. There are no strong advocates for IWMWG on the Council. We had some budgetary restrictions in the past, but TWS finances are more secure now. With virtual conferences being the norm now, international conferences could be much more feasible and TWS has more capacity to plan conferences than many European-based societies, which could be key for partnership.

SM: it is clear that academics think international involvement is important, but we need to poll Council and see what they think, since they are making the decisions. Are TWS Council values in line with the membership in this arena? Does TWS have a desire to contribute toward global conservation policy?

MM & SM discuss TWS's position in IUCN and how it offers an enormous opportunity for TWS to be involved in global agenda & policy. The next step is to build a framework for how we plan to engage.

MM & Harriet Allen (HA): an issue is no liaison in Council. The ad-hoc committee on international involvement was disbanded. Today's meeting has representatives of that committee, but no representatives from Council. HA emails Council to remind them that our meeting was in session and asking for their input. HA: Council's ten-year plan helps set the Council agenda. Need to check in with Council about the status of this plan and what international position it adopts. SM points out that as a new member of the IUCN, TWS has chosen to be an international player.

Matt brings up the importance of cost when making decisions-– has there been any discussion over the financial means necessary for increased international involvement? MM provided rough estimates in the international report, but we don't know how much TWS is willing to invest and it could be very costly.

SB argues that we need to do more on our own level. He has talked with colleagues from IUGB about a potential collaborative event in Hungary next year focusing on young professionals. They want to provide a platform for TWS to share their vision.

Evelyn Merrill (EM) from Council arrives: Council was enormously impressed by the international report, are taking our suggestions seriously but are currently focused on the Canada section and Mexico chapter.
MM: How can we communicate better with Council to draft these more formalized agreements?
EM suggests working on prioritizing the suggestions in a one-on-one with Carol Chambers (incoming TWS president)
HA asks EM: Is it possible to bring up the need for a liaison at the next Council meeting? What's your understanding of the status of International Involvement in the next ten years?
EM: Council hasn't discussed that in great detail. Suggests we talk to TWS president Carol Chambers about immediately.
SB asks whether a proposal & budget detailing the symposium in Hungary should be submitted to Council, and JO suggests bringing it forward in conjunction with an official conduit to Council to strengthen our position.
MM: we may need to draft an official position statement on international involvement. And develop a short mission statement.
HA: TWS CEO Ed Thompson sent an update – approval of IUCN application is anticipated in the next week. Then TWS Council will vote on a number of initiatives and will be asking IWMWG for advice on how to vote.

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A Walk Down Conservation Lane

By Jennifer Angoh

The author radiotracking in southern Ontario, Canada. Photo copyright Christina Davy.

To date, I still have vivid childhood memories of spending days on end exploring forests, sandy beaches, and rocky shores in Mauritius. I believe these fond memories were precursors of the numerous adventures I ended up embarking on later during my conservation biologist career.

"Growing up on an island which was once home to the dodo, I became aware of how impactful our actions can be at a very young age."

Growing up on an island which was once home to a renowned icon of anthropogenic extinction, the dodo, I became aware of how impactful our actions can be at a very young age. Indeed, along with the dodo, Mauritius has lost 98% of its natural habitats to sugarcane plantations and urbanization. Despite this, what I witnessed on my island was far from doom and gloom. I remember volunteering with the Mauritian Wildlife Foundation as a budding conservation biologist, and learning first-hand about how intensive wildlife recovery efforts can bring endangered species (e.g. Mauritius kestrel, *Falco punctatus*) back from the brink of extinction. Back then, this experience motivated me to keep moving forward on a career path that proved to be bumpy to say the least. Nevertheless, a decade, 4 continents, and multiple conservation projects later, I can attest to how rewarding conservation work can be.

"As a conservation biologist, I've had the opportunity to live in beautiful remote places and see rare elusive wildlife that very few people have had the chance to encounter."

As a conservation biologist, I've had the opportunity to live in beautiful remote places and see rare elusive wildlife that very few people have had the chance to encounter. I maneuvered my way through thick patches of invasive wetland macrophytes to radio-track endangered turtle species in Canada; conducted pollination experiments in the fragmented Fynbos habitats of South Africa; digitized and analyzed 10+ years of human-wildlife conflict data in Namibia; spent long hours recording breeding behaviors of scarlet macaws (*Ara macao*) in Costa Rica; and removed hundreds of invasive Pacific oysters (*Crassostrea gigas*) from the Oslofjord shorelines in Norway. Through these and other conservation projects, I gained valuable hands-on experience conducting ecological research in different international settings. Most importantly, I began to comprehend the intricacies of managing natural resources when several parties with different objectives are involved. I became fully aware of the need for strong collaborations with a diverse interdisciplinary team that would also include local communities. I realized that in the light of the current environmental crises plaguing us, we can all be drivers of change when given the right education and tools.

"We can all be drivers of change when given the right education and tools."

Spotted turtle in southern Ontario, Canada. *Photo copyright Jennifer Angoh.*

The author bird ringing (aka banding) in Fynbos, the heathlands in South Africa's Cape region.

Fast-forward to today: I am excited to be yet again embarking on a new adventure. This time, I will be using a combination of camera trap, DNA hair trap, and telemetry data to tease out the environmental and/or anthropogenic factors that may be influencing European pine marten (*Martes martes*) abundance and movements along a gradient of fragmented habitats in Norway and Sweden. Forest fragmentation and habitat loss are believed to negatively impact *Martes* populations. However, few studies have delved deeper into the possible causes of *Martes* population decline with respect to habitat fragmentation in Scandinavia. Also, to estimate pine marten population abundance, Norway and Sweden currently rely solely on harvest data. More reliable methods are yet to be developed to better monitor pine marten population trends in time and space. I am looking forward to chipping in and helping my new research group figure out the best possible ways to monitor and maintain healthy *Martes* populations.

Jennifer's PhD research on European pine martens will build on the PhD research of her advisor, IWMWG Chair Scott Brainerd. They hope to devise a method for estimating pine marten abundance based on camera and hair trapping, and to build an occupancy model from the large SCANDCAM data set. SCANDCAM is a Swedish-Norwegian collaboration with a network of game cameras spread throughout both countries. The Swedish partners are based at the Swedish University of Agricultural Sciences in Umeå and Grimsö Wildlife Research Station.

Photo at right: Scott Brainerd holding a pine marten after attaching a VHF radiotelemetry collar in the summer of 1989, in Sweden. No telemetry-based research has been done on the species since Scott's PhD research.

Photo courtesy of Scott Brainerd.

Jennifer Angoh is a PhD student in the Department of Forestry and Wildlife Management at Inland Norway University of Applied Sciences. Jennifer has a MS in Environmental and Life Sciences from Trent University in Canada, and a Master's degree in Conservation Biology from Fitzpatrick Institute of African Ornithology at University of Capetown in South Africa.

Photo courtesy of Jennifer Angoh

Perspectives:

Wildlife Management in the Republic of Korea and Globally

Interview by Claire Crow

Jee In Lee,
Photo courtesy Jee In Lee

Jee In Lee (LJI) is kicking off a career in wildlife conservation this month by graduating from Kongju National University, Republic of Korea* with a bachelor's degree in Companion and Laboratory Animal Science. Jee In wrote an undergraduate thesis on the current problems in native wildlife management in the Republic of Korea and methods that could help improve the model. The following interview was conducted by Claire Crow (CC) to learn more about the history of hunting in Korea and Jee In's perspective on international wildlife management.

CC: Tell us a little about the history of hunting and wildlife management in your country

LJI: During the Joseon Dynasty (1392-1910), nomadic hunters who did not farm crops were recruited as soldiers for the purpose of hunting large carnivores (mainly tigers and leopards), which were abundant and caused trouble in local areas. After the Korean War, hunting became a popular sport during the 1950s~60s. Legislation governing hunting activity was introduced in 1961. However, insufficient regulation measures led to rapid population declines in bears and other large carnivores. To recover these wildlife populations, hunting was prohibited for 10 years (1972-1981). After the ban, hunting grounds were set in each province, and an examination system for hunting licenses was implemented a few years later.

"Hunting became a popular sport in the 1950s –60s… insufficient regulation led to rapid population declines in bears and other large carnivores."

Nowadays, there are two ways to legally hunt in Republic of Korea: hunting designated species in designated areas during the hunting season or through a remedy/relief aid system. Hunters have the right to consume the felled game, but the meat cannot be sold. It is possible, however, to profit from hunting pest species in these systems.

In the first system, hunters must pay a certain fee to enter and hunt in the designated grounds. There are 'bag limits' – the number of game available for harvest is limited based on the population density. Since 2008, cities and provinces have put out rewards for capturing water deer (*Hydropotes inermis argyropus*). More recently, they have added bounties for wild boar (*Sus scrofa*). By hunting these two species, hunters can earn some money. The bounty amount changes every year and can differ by hunting ground.

"It is mandatory to store guns in a local police station...during hunting season… you have to return them before sunset."

The second system applies to a person (usually a farmer) who has suffered damage from pest animals - they can request permission to capture the animal(s). The case is registered in local municipalities and government employees visit the area to assess the damage. To avoid overexploitation, limits are made on the number of game, and the method/period/area of hunting, depending on the subject and area of damage (human/crop/livestock). For instance, crop damage is judged by the growth of the crop and the damaged area. After the damage is assessed, the farmer can hunt the animals, given that they have a hunting license. If not, expert hunters are elected to hunt the animals for them. After the animals are caught, hunters fill out a form verifying that they have captured the animal. Through this process, hunters receive a certain amount of money. The price varies on the hunted species and can also differ by city or province.

The hunting population in Republic of Korea is aging and participation is declining. Poaching, gun accidents, and the illegal disposal of carcasses are also posing a problem. In order to maintain a healthy management system, it will be necessary for the government to acknowledge the need for a change, and to assist in designing and implementing that change

"In the face of a global crisis, international cooperation and collaboration seems not only useful, but necessary."

CC: What is a surprising contrast in wildlife management between Republic of Korea and North America?

LJI: I would like to mention the method of regulating guns (firearms). In the Republic of Korea it is illegal to store guns in the house – it is mandatory to store registered guns in a local police station. The trigger is locked, and only the police are authorized to unlock it. During the hunting season it is possible to 'rent' these, but you have to return them before sunset.

***Editor's Note: Republic of Korea is often called "South Korea" in English**

Some hunters point out that these regulations are too strict. Guns need regular maintenance, but it is difficult to accomplish, as you have to go through a long, complicated procedure to retrieve the guns from the armory. Also, some people question the need for trigger locks, as they can be easily unlocked (without having to use the keys). In my research I found a thesis that suggests that these strictly enforced regulations may have contributed to the reduction in the number of people who hunt in the Republic of Korea (M.S. Kim, 2019).

CC: What do you see as some potential benefits of international cooperation and collaboration in wildlife management and conservation?

LJI: In managing local (native) wildlife, I think management/conservation models are able to focus more on the cultural and economical dimensions of the system. But what if we bump into a new obstacle, something that we have never encountered before? Climate change is affecting nature and as it does, it also affects the wildlife living in it. Extreme weather is causing skin disease in freshwater dolphins, and rising sea levels are posing danger to coastal species. This phenomenon brings up new large-scale challenges in both conservation and management. In the face of a global crisis, international cooperation and collaboration seems not only useful, but necessary. I believe we can work together to prevent/solve some of these problems by sharing our knowledge and experience in different fields. An extension of this idea would be to collect these data and create an international database that could inform big decisions and help to measure conservation success. Of course, this is merely just an idea, but nevertheless I do not think that it is completely unrealistic.

CC: How can nations learn from and apply one another's wildlife management systems?

LJI: Each country has its own economic status, landscape, cultural background, etc. These may have an effect on local wildlife management, as they can influence peoples' relationship with wildlife, for instance. Therefore, it seems only reasonable that we use different systems for different countries. That said, I do not think that these systems have to be entirely different from each other. We can learn a lot from each other's successes. I would like to think of it as wearing clothes - it's better to wear something that suits you better, and you can modify some parts so that it fits your taste. Likewise, if you were to implement a new system in a country, it will likely have a higher chance of being sustainable if it was chosen based on what other countries similar to yours have adapted, then make local adaptations and adjust techniques. This way, we could develop a 'different' model that could work even better than the original in the local area.

Kim Mi Sook (2019), Changes of Discourses on the Hunting Patterns and Wild Animals - Focused on the hunting systems from the Japanese colonial period to the present -, *Journal of Regional Studies* 27 (1), 167-188(22 pages). http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE07996494

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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

INTERNATIONAL WILDLIFE MANAGEMENT WORKING GROUP

Outgoing Editor: Claire Crow
corvid.feat@gmail.com

Incoming Editor: Daniel Scognamillo
dgscognamillo@sfasu.edu

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: Scott Brainerd (scott.brainerd@inn.no)

Chair-elect: Masahiro Ohnishi (masahiro.ohnishi@tamuk.edu)

Secretary/Treasurer: Allie Burnett (aburnett93@email.arizona.edu)

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