# WILDLIFE VOCALIZATIONS



# CELEBRATING

ONE

YEAR

THE
WILDLIFE
SOCIETY

2021 | Special Collection

#### WILDLIFE VOCALIZATIONS

# STORIES OF

## PASSION

INGENUITY

&

# PERSEVERANCE

Cover images top to bottom: Trinity Smith, photo by Ryan Thompson Travis Booms, photo by Caitlin Davis CHECK OUT WILDLIFE VOCALIZATIONS ON THE WEB BY VISITING:

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# WILDLIFE VOCALIZATIONS: CELEBRATING ONE YEAR OF STORIES THURSDAY, NOVEMBER 4, 2021 12:30 PM ET

#### The importance of community...

Wildlife Vocalizations grew from a desire to highlight the diverse voices of the wildlife profession and provide more opportunities for connection and authentic representation. The program was created as an opportunity to build community and to help cultivate a sense of belonging within The Wildlife Society. The Women of Wildlife community and TWS Staff worked together to develop a structure that would support a long-lasting program with the hope that it would grow and evolve over time. Stories shared through Wildlife Vocalizations follow the varied, and sometimes winding, paths that have led all of us to where we are now and give us a glimpse into the future we would like to see for our profession.

This collection was made in commemoration of the first year of Wildlife Vocalizations and to complement the panel hosted during the 2021 TWS Annual Conference, *Wildlife Vocalizations: Celebrating One Year of Stories of Passion, Ingenuity, Tenacity, and Perseverance.* We hoped the panel would be a space to celebrate, connect with, and listen to the many voices of those in the wildlife profession. We thought that the conference would be a great platform for wildlifers to reflect on the last year, share their stories and experiences in greater detail, discuss common themes, and envision the future of the wildlife profession.

We could not be more grateful to all of you that have chosen to share your stories with us and are looking forward to continuing this dialogue. We do not take lightly the time, energy, and thoughtfulness involved in sharing your personal journey and thoughts in a public forum. We have already seen the positive impact your stories have had on the TWS community and thank you for being a catalyst for conversation and connection.

While Wildlife Vocalizations was an idea that had been taking shape for some time already, the launch of the program during 2020 was a much needed bright spot. The summer of 2020 was an especially difficult time for many of us with growing concerns surrounding COVID-19 and a stark shift in our social consciousness around historic and continued bias, discrimination, and oppression. Throughout this time, I have been grappling with my own emotions as we continue to adapt and remain physically isolated from many of our loved ones, and working to process my feelings regarding aspects of current social discourse as someone who identifies as a Black straight cis-gender woman. I have taken a step back to think about what TWS has done to date and what kind of impact our organization could really have. Working on a program like Wildlife Vocalizations has helped to demonstrate how fulfilling our work can be even when we are feeling overwhelmed and has emphasized the importance of community.

I am fortunate enough to be able to read through all of the inspirational stories that have been shared with us and hope they bring you some level of hope, support, and guidance, too. We are so excited to see how Wildlife Vocalizations grows over the next few years, especially with the introduction of Local Wildlife Vocalizations through TWS Sections and Chapters. We cannot wait to hear your story!

Thank you,

Jamila Blake, AWB® She | Her | Hers Professional Development Manager

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### INSPIRATION

Describe a time when your cultural background clashed with prevailing wildlife science and management. How did you reconcile these differences?	<u>Deandra Jones</u>
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Describe an experience you tie most closely to your love for wildlife management.	<u>Carolyn Decker</u>
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# DEANDRA JONES





#### Describe a time when your cultural background clashed with prevailing wildlife science and management. How did you reconcile these differences?



I grew up in a small, one room Hogan (a traditional, sacred house of the Diné) with five other family members. I remember bathing in a large, silver tub filled with water because we didn't have running water during that time. I remember herding livestock to our winter and summer camps that were both more than 10 miles away. I remember having to sit on a school bus for about three hours just to get to high school. But to me this was all normal. Growing up on the Navajo Nation, I

learned to take in all the beauty that our Mother Earth has to offer—from the rainwater that helped our crops grow, to animals that fed the family, to plants that heal our people.

Yá' át'ééh shík'éí dóó shídine'é. Or in English, hello family and friends. I grew up in Round Rock, located on the Navajo Nation in northern Arizona. I am a member of the Navajo Nation; I identify myself as Kinłichíi'nii born for Ashįįhí (I am of the Red House People and born for the Salt People). For as long as I can remember, I have always loved animals and our Mother Earth. Never in a million years did I imagine myself helping in some way to conserve an endangered species in this world.

I am currently attending the University of Arizona pursuing a master's degree in wildlife conservation and management. I am investigating the potential for parasite-mediated competition and related hypotheses in native endangered Mt. Graham red squirrels (Tamiasciurus hudsonicus grahamensis) and introduced Abert's squirrels (Sciurus aberti). There is little understanding of parasite loads between invaders and endemic species, including the Mt. Graham red squirrels and Abert's squirrels; I am identifying and quantifying parasites in this important system. From this research, I hope to gain better insights into possible parasite transmission routes and the role that parasites play in biological invasion. When we understand all factors that contribute to extinction risks, we can better inform future conservation management strategies for many threatened and endangered species.

One challenge I face almost every day with the research I do is the conflict with my traditions and culture. I was taught at a young age that there are certain things that I am not supposed to do with wildlife. For example, working with coyotes in any way is taboo, because in my culture the coyote is a symbol of trouble and was considered a trickster to our Diyin Diné'e (Holy people). I honestly don't know if there is a way to reconcile this conflict because it's consistently been a struggle to balance my beliefs and science, especially with the research I do. Regardless I am thankful for my parents who support my life decisions because they understand the chances I'm taking and that what I'm doing needs to be done.



# MEGAN HELSEL







#### What is the biggest lesson life has taught you to date?



The biggest lesson that life has taught me is that "if it doesn't challenge you, it doesn't change you."

I began working for USDA Wildlife Services as a field technician in 2015 and quickly learned how challenging the wildlife field can be. Over the following years, I adjusted to the physical challenges that come along with working in the field and settled into various positions.

Then, in October 2018, I became paralyzed from the waist down over the course of a week. I learned after going to the emergency room that I had a tumor inside my spine, that it had ruptured, and I would need emergency spinal cord surgery. My first question was "when will I be able to kayak again?" because all I could think about was getting back to work and doing what I loved. I was told that I'd never walk again. Mentally, I wasn't ready to give up and was ready to push myself physically to do whatever I needed to do in order to be able to return to field work. Six months later, I defied the odds and returned to work.

I was still partially paralyzed, with only one leg functioning close to "normal" and my other leg in a brace from my hip down to my foot. I needed to use two canes to walk. I thought I had gotten through the hardest part of the journey by getting back to work, but the challenges were just about to start.

There is no handbook for being disabled in a field position and not a lot of modifications that can be made without having full use of your legs. I had to think outside of the box to come up with creative ways to do every aspect of my job. For example, my position involves a lot of kayaking, but at first I couldn't carry the kayak. I had to put it on a cart, tie a ratchet strap from the cart to my waist, and pull it to the water. Now, as I've gotten stronger, I am able to carry it again. Another challenge is carrying bags of corn when I am baiting for projects because I need my hands to use canes. I learned to carry the bags of corn in a backpack to complete the task.

If you asked me four years ago if I thought I'd be where I am now, I would have said there was no way it was possible. I joke that working for Wildlife Services is "spinal cord injury bootcamp," but I don't think I would have had the same physical gains if I had not returned to work. Every year, new projects come up that I need to think of creative modifications for, but I have become physically, and mentally stronger with each one. The challenges that I have faced because of my spinal cord injury have been the greatest challenges of my life, but I would not change any of it because they have changed me into a stronger person than I ever thought was possible.



# PHOTO BY BILLY POPE

# MERCEDES BARTKOVICH



#### What advice do you wish you could give to others or your 18-year-old self?



The wind beat my face as the skiff skipped across the lagoon. The brightest stars I had ever seen illuminated bats swooping after insects and night herons fishing from the lily pads. I was out on the boat searching for red eyes, the telltale sign of crocodiles, but I was captivated by everything. My captivation brought questions: What constellations am I seeing? How do herons spot fish in the dark? Are the bats catching only certain types of insects?

The child in all of us can relate to asking lots of questions. Sometimes, that child wanted to become a wildlife biologist. For those of us that do, we spend many years cultivating skills necessary to pursue success in this field of study. Knowledge, determination, writing and communication skills ... all great qualities for a wildlife biologist to have. But what makes a successful wildlife biologist? Something we've had all along: curiosity!

Wildlife biology is all about asking questions and passionately searching for answers to those questions. For example, the simple question "How does light pollution affect birds?" has directed me to interesting studies on circadian rhythm, metabolism, physiology and avian health. I spent this summer in a partially illuminated barn measuring and drawing blood from barn swallow chicks in search of answers to that question. Finding slower growth rates for chicks in the light, I can then ask, "How does light pollution affect protein allocation in the body?" I love how asking questions leads to discoveries and understanding, which can in turn lead to more complex questions. Anyone who follows this scientific cycle can find success.

Curiosity for the natural world is the backbone of this field of study. That's why I think curiosity is the quality that makes a successful wildlife biologist.

"Wildlife biology is all about asking questions and passionately searching for answers to those questions."





# KELLY VANBEEK





#### As an underrepresented person, what was one challenge you faced in the profession and how did you surmount it?



I've always joked that I wish I could wear a label as my way of announcing to the world that I am gay. That would remove the repeated awkwardness that comes with coming out over and over again as I move through life. A big, boisterous coming out was never my style and still isn't. I just want the ease of not having to declare my sexuality every time I meet someone new, which is the default experience for straight people in our heteronormative society. Given that coming out is not a single event in our culture, it is inevitable that some of those instances would

be more painful and awkward than others, and for me they certainly were. One such example that many LGBTQ+ people share is working up the courage to come out to a family member or friend, only to find out that someone else has already outed you to this person. At the same time, not telling people, especially people who have known me from a young age, sometimes felt like a burden, and people making seemingly benign suggestions about my lack of a male companion felt like microaggressions. The more comfortable I got with my sexuality, the more I wanted to speak out about this inner conflict, perhaps not for myself but for all the others that surely felt the same way.

You may have seen the article by Travis Booms about being an out, gay biologist, and I'm so grateful that Travis was brave enough to share his thoughts with The Wildlife Society. The TWS annual meeting has always felt like a safe space for me because it felt like a relatively clean canvas — a place where I wasn't hiding in the shadow of what I thought I needed to be in order to fit in at work. With the knowledge that straight allies were indeed present, I always felt a bit more comfortable being out at the conference. I'm lucky to feel that way, and I know that not everyone has had that experience.

A TWS meeting in Raleigh occurred when all of these varied emotions — my inner conflict about living out versus the irritation I felt to keep coming out, combined with my relative comfort with being exactly who I wanted to be at the conference — finally went from a simmer to a boil. I was sitting in a presentation about, coincidentally, microaggressions and folks were being asked to share some examples. I whispered my example about people assuming I partnered with men to a great friend sitting next to me and how if gender is removed when people ask if I have a partner, I immediately feel at ease. She encouraged me to share, so I raised my hand for the mic and essentially outed myself in a room full of over a hundred people. For the first time in my life, I felt a rush of relief for sharing my story.

Several strangers came up to me throughout the rest of the conference and shared how important they thought it was to share an insight into what it means to assume someone's orientation or gender in casual conversation. I remember every word they said and the look on their faces as they spoke. Their validation and acknowledgment meant more to me than they will ever know. In those moments, I realized how much power there was in speaking my truth. Our truth. There's been no looking back, and for that I am proud.



PHOTO BY GAEL SANCHEZ



#### As an underrepresented person, what was one challenge you faced in the profession and how did you surmount it?



My name is Gael Sanchez, and I am a bisexual Hispanic woman and wildlife biologist. Let me say first that I have lived a very privileged life. Despite this, I have often found over the years that my name and my birth place of New Mexico often cause people to have a very different expectation of what I will look like and who I will be before I get to a job or interview. I, as many other women have probably experienced this, have often found myself working twice as hard as the male

technicians and biologists to prove that I too can do the job. I have kept my own sexuality quiet as I've worked my way through my career, which many people do not have the privilege of doing. It's only been in recent years that I have felt established and comfortable enough being my full self in my career. There have been so many steps forward to make this field more open and available to people of differing racial, sexual and financial backgrounds, but we have a whole lot more work to do every day. I want to make this field one that is easier and more accepting for those coming up behind us. We should never expect that because we struggled at any point others should also have to.

"I want to make this field one that is easier and more accepting for those coming up behind us. We should never expect that because we struggled at any point others should also have to."

#### WILDLIFE VOCALIZATIONS



# Afsheen Siddigi

#### What advice do you wish you could give to others or your 18-year-old self?

As a wildlife biologist working for the State of Hawaii Department of Land and Natural Resources Division of Forestry and Wildlife, I have the pleasure of working with some of the most dedicated and passionate people. I, like most biologists, came into the profession dreaming of working outdoors, being where the action is. Yet today, I find myself in an office setting doing conservation work behind a desk. I am not complaining. I truly have found my dream job and career, but I wish I had spent more time as a field tech. I remember one of the first temporary field jobs I had and the feeling that came over me on my first early morning awake before my study. I was so happy observing and waiting to catch the first bird in our morning traps for the purposes of a long-term population study. I have had some amazing field experiences, including one that took me to the breathtaking remote seabird paradise Kure Atoll or Hōlanikū in the Northwestern Hawaiian Islands, where on my time off, I would often sit and observe my surroundings. I treasure these experiences, and they are the source of my passion in my job today. So to all the young biologists, I wish I would have known at 18 that I should do more and more temporary field jobs to learn new techniques, gain professional experiences and see the world. Field tech jobs are really the best. The more on-the ground work you can accomplish, the more connected you become with the earth. Start early and get involved out there!





PHOTO BY MISTY SUMNER

# JAMIE KILLIAN





#### What advice do you wish you could give to others or your 18-year-old self?



Imposter syndrome can be defined as a collection of feelings of inadequacy that persist despite success. Someone experiencing imposter syndrome has an allencompassing fear of being found out to not have what it takes (American Psychology Association). If I could tell my 18-year-old self anything, I would say "be confident." As a young professional, I had trouble believing that I was worthy, and I felt very alone in my feelings of inadequacy. I suffered in silence and refused to ask for

help, pinning myself to a hell of a steep learning curve.

It was easy to feel inadequate when I consistently felt the need to prove myself to my male colleagues. Can you feel the eyes on you when you put that truck and trailer in reverse? It was difficult to ask for help when I had no female role models who may have shared similar experiences. After several years, I finally realized that many of my colleagues also suffered from imposter syndrome regardless of their gender. Over time, I found mentors and champions, both male and female.

My mentors taught me so much. Learning that even the most respected professionals don't know all the answers really changed my perspective. In fact, it takes a certain level of intelligence to realize how much you don't know. I also came to realize that many of my male colleagues did not have the mechanical, carpentry or hunting skills that I assumed that they had simply because they were men. That's not to say that they were not qualified; my point is that we were all qualified. Once I realized this, I had the courage to ask questions and volunteer for things that I had no prior experience doing. We only know what we are taught, and I believe that each person brings something different and valuable to the table.

It certainly took time (years) to come to these realizations, even longer still to put them into practice. At times, I still struggle with feelings of inadequacy. However, the biggest shift in my mindset occurred when a summer intern started asking me for advice. I could tell that she was nervous, and I realized that she was nervous because of me. I had become the more experienced person. In that moment, I finally grasped that all the people who I looked up to and aspired to follow had started out as young professionals. When I was younger, I allowed my own fear to prevent me from asking questions when my mentors were more than happy to help me. Instead of viewing my mentors and other professionals as superiors, I began to see them as people. Most importantly, people who want to see me succeed. Just like my mentors guided me, I try to be an example and a resource for young professionals so that they do not have to suffer alone. So, to 18-year-old me and to you, you ARE adequate. You are capable. You are competent.



# LISETTE WAITS





#### What advice did a mentor give you that reverberated and directed your actions?



In 1991, I joined an interdisciplinary PhD program in molecular biology at the University of Utah. This program provided me a lot of flexibility in picking my thesis project. During my first year, I worked in the field of human population genetics trying to uncover genes and alleles that predisposed people to heart disease and hypertension.

During my second year, I started working on a different project, studying the genetics of grizzly bears in Yellowstone National Park, and I had the amazing opportunity to spend time viewing and trapping bears with biologists in the park. I also had the opportunity to teach grizzly bear biologists about phylogenetics and genetics of bears at a summer training program at Yellowstone.

At the end of my second year, my thesis advisor told me that I needed to make a choice between the two. I told him that if I considered financial opportunities and the current job market, I would stick with the human genetic work. But if I followed my heart, I would choose the bear genetics project. "Follow your heart," he told me. "Pick the one you are most passionate about, be very, very good at it, and everything will work out."

This was such great advice that transitioned me from the field of human genetics to wildlife conservation genetics and molecular ecology. Since I completed my PhD in 1996, the fields of conservation genetics and molecular ecology have exploded in their applications and contributions to wildlife conservation and management, and I am so happy and proud to be part of that change. I was the first faculty member with a non-traditional wildlife background (and with genetics experience) to be hired into our fish and wildlife department in the College of Natural Resources at the University of Idaho. Before that, I had never been to a TWS meeting or considered being a member.

Now, I am serving as the first woman department head for the Fish and Wildlife Sciences Department at the University of Idaho and the first woman president of the National Association of University Fish and Wildlife Programs. I am also one of the founding members of the TWS Molecular Ecology working group and the Women of Wildlife. My career path was not a traditional one for a wildlife biologist, and at times I worried that those differences might lessen my credibility. But I think those differences gave me unique insights, and I am thankful to have been welcomed into the TWS community and Wildlife Sciences where I can influence the next generation of wildlife scientists and managers.





#### Describe an experience you tie most closely to your love for wildlife management.



On May 1 in Rhode Island, it was still chilly and overcast — the spring of 2020 was slow to warm. I was feeling lucky to continue my field work amid the COVID pandemic, working alone in the field, sweeping the habitat for any sign of the hatchling diamondback terrapins (Malaclemys terrapin) I was tracking. Since October, all have remained hidden, buried under the sand and leaf litter in their overwintering sites. Now, in spring, I wondered: Would I see them again, survivors of the long brumation period, fed by nothing but the remnant energy in their yolk sacs? Or, would I find only their predated remains?

For the last thirty years, local community science volunteers have monitored the nesting female terrapins of this population, protected their nests, and counted the emerging hatchlings. But no one knew where the hatchlings of this state endangered species went next. Such small and cryptic animals proved too elusive to monitor effectively. Did the hatchlings stay on land? Did they go immediately to the marsh? Without scientific evidence to guide the refuge's terrapin management practices, decisions about hatchlings were based on anecdotes and well-intentioned guesswork.

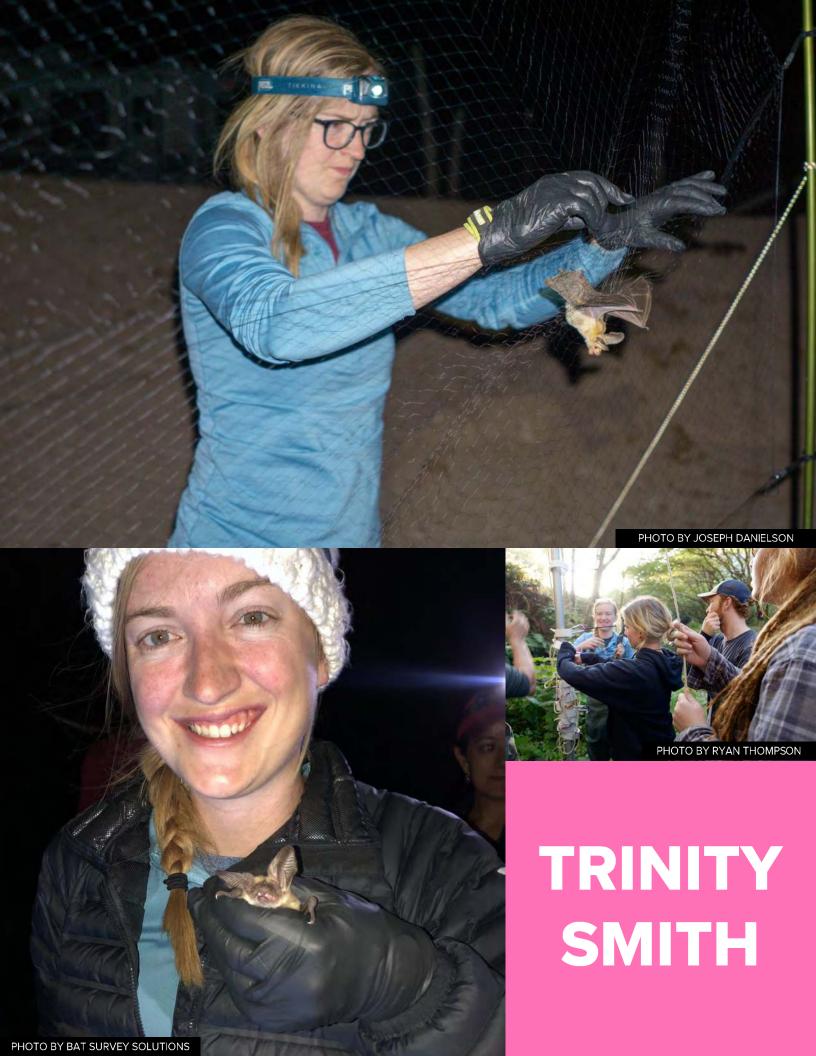
How did management practices at this wildlife refuge need to change to better protect terrapins, including hatchlings? It was my job to find out.

For months, I had wandered the marsh and the adjacent upland with my radio telemetry equipment and my PIT tag sweeper shaped like a metal detector. When I chatted with visitors to the refuge, many assumed I was treasure hunting, and in a way, they were right. Whenever I homed in on the signal from the hatchlings' tiny radio transmitters, I felt rich, tantalized by the mysteries of these wild animals and their wild places.

In addition to the tagged hatchlings I tracked over the fall, winter and spring, I continued to check known terrapin nest sites. Despite efforts to protect these nests, no hatchlings had emerged from them last summer. Based on the work of other terrapin researchers, I wondered whether some hatchlings might still be in that natal nest cavity, remaining in the dark since the moment they hatched out of their eggs nine months prior. Or had they perished any number of ways, or never developed? Without disturbing the nest, there was no way to know. So, I watched, and waited for spring.

Midmorning on May 1, I saw a quarter-sized hole in the sand. Peering into the hole, I notice a brown pencil-eraser-like lump wiggling back and forth. At last, the hatchlings that had indeed overwintered in this nest are emerging, and I was there to witness it! The hatchling raises a forelimb shaped like a deflated corn kernel and wipes across its head. The black bead of an eye opens to see the bright gray world for the first time.

Six hatchlings emerged from nest #30 that day. I measured them, photographed them, and watched them wander off toward the salt marsh. Hopefully, with more luck and good management, they will grow and live long productive lives.





#### Describe the most interesting place you have traveled to for work and why.



I have traveled to many breathtaking places for work, but the most interesting place isn't the remote wilderness of Nevada, mountains of Utah, or the High Sierra. Instead, the California Central Valley has piqued my interest the most.

I'll admit that the Central Valley was not the top of my list of places to work. There was something about the "wall to wall" agriculture that lacked appeal. Going into

the field season, I was highly skeptical. After all, what could possible live in this growing region besides vegetables and fruit trees. Driving through the area for the first time, I was even more disappointed. After all, I did not sign up to work with people living in human landscapes when I joined the wildlife profession.

The area slowly started to grow on me as I realized the diversity of this region. The biodiversity we encountered in this area was impressive, but the aspect that interested me the most, despite my introversion, was the people. Throughout my wildlife education, "the public" was often talked about as a hurdle to overcome. This introduced a lot of cynicism into my view of what working in a human-dominated landscape would be like.

During the six months I spent working in the Central Valley, I worked with a variety of landowners. I heard a multitude of stories from ranchers, duck hunters, land managers, and farmers. All these stories shared a common thread, a passion for conservation of the lands they worked on. Although the language used was different, the intentions of the people I encountered was the same. They all had a deep understanding of their land and were making targeted decisions toward a certain goal, but we were speaking a different language. This appreciation was contagious as we spoke more.

This experience was highly transformative for me. As a wildlife professional, I realized I need to stop thinking of working lands as a "lost cause." Many of the people I spoke with had an interest in protecting and conserving wildlife on their lands but did not know where to start. Often, they felt that wildlife protection was not compatible with their goals.

As I continued working in the Central Valley, I realized that there is much work to do. Working lands are not a lost cause; however, conservation in these areas will not be achieved with an "us versus them" approach. Rather, during this work I realized that conservation will only be successful if we approach the situation with a humble attitude and willingness to learn the language.





#### Describe a pivotal moment that made you want to become a wildlife biologist.



There are so many moments in my career that have solidified my love of wildlife biology, so I have chosen to talk about what made me want to become a wildlife biology professor. The future of wildlife conservation doesn't just lie in the hands of the current biologists, it also depends on those that will follow in our footsteps. My desire to teach wildlife biology began over 10 years ago when I started teaching as a volunteer instructor for the Northeast Section of The Wildlife Society Field

Course at Camp Kehoe in Vermont. I was in the middle of my dissertation research and not quite sure where I wanted to go with my degree. I knew there was something I was meant to do, but I hadn't quite put my finger on it yet. So when Past TWS President John McDonald ask me if I was interested in becoming a volunteer instructor, I jumped on the chance.

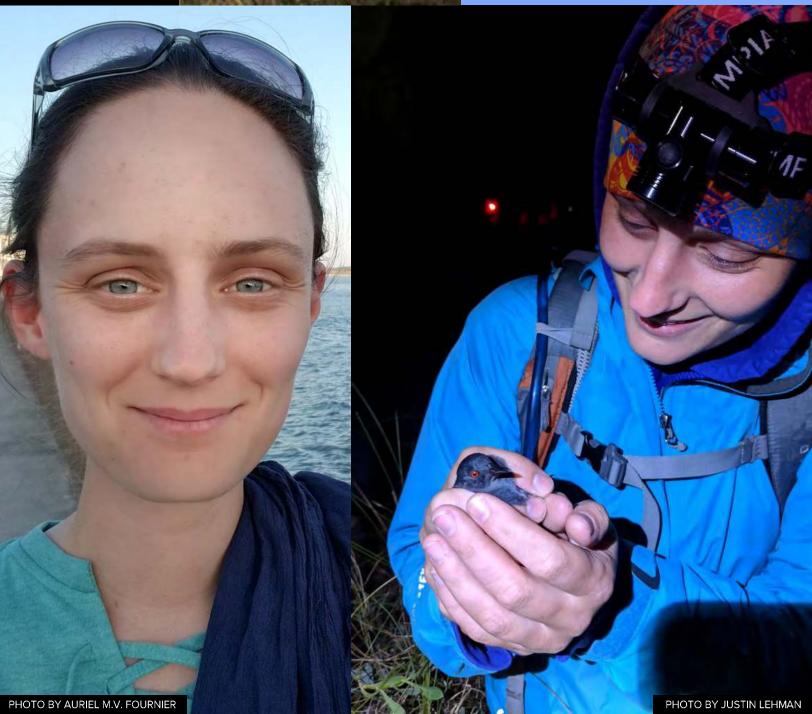
I will never forget crossing the border into Vermont for the first time. Of course, I was a little nervous because I wasn't sure how my lecture prior to going in the field would go, considering I wasn't very experienced when it came to lecturing about anything. That first year, I was only running the herpetology workshop, so I was able to observe and learn from other instructors. My first workshop was very well received, and we had a beautiful day for scouting for reptiles and amphibians (which can be difficult in May in Vermont because the weather can be so unpredictable). I really felt after that experience that teaching was where I was supposed to be heading. The field course gave me the opportunity to teach students about concepts and animals that I love very much, while instilling my excitement into the next generation of not only biologists, but people that will be making decisions and voting to protect our wildlife and wildlands.

This experience also made me realize that a smaller college or university with smaller classes was the better option for me. After finishing my PhD, I ended up at Green Mountain College just down the road from Camp Kehoe for 5 years until it closed in 2019. I have since moved to Keystone College Pennsylvania, and I'm excited for the adventures that lay ahead of me.

Teaching at a small school certainly has its ups and downs, but the ability to get to know my students and really give them hands-on field experiences is really rewarding. Don't get me wrong, the resources at large schools, and the faculty to teach the courses that they offer, are exceptional, but for me, and many of my students, the atmosphere of a small, intimate campus, and the relationships you form can be life changing. There is really nothing else like being a professor and teaching students the history, present and future of wildlife biology, and being involved in the NETWS Field Course is what started it all for me.



# AURIEL FOURNIER





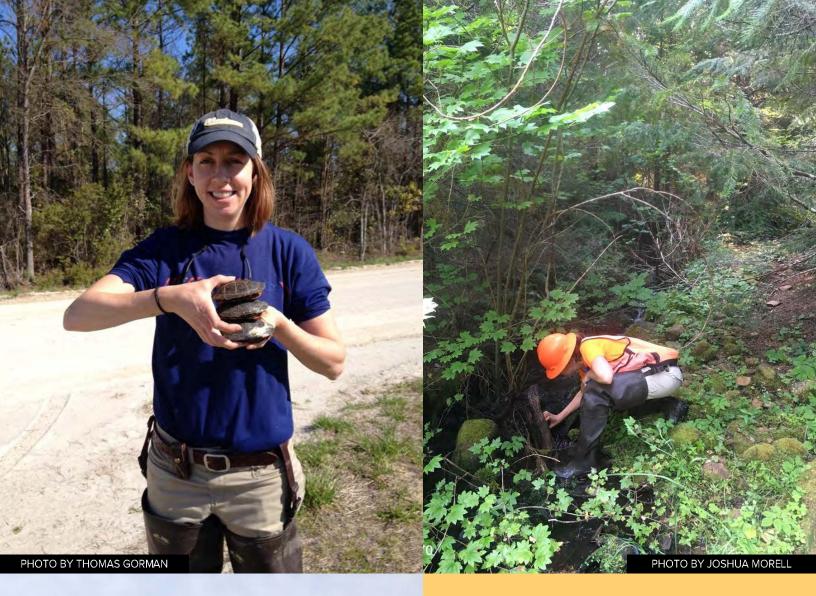
#### What changes would you like to see in the wildlife profession?



I would like to see us critically think about the lessons we take from those that taught us, before we pass them on to those we teach. Our field has ingrained many lessons that make our science worse, and that hurt our colleagues, and only with conscious evaluation of the choices we make and lessons we teach, can we improve things. For example, we should value every person in our field's labor, from the intern, to the social scientist, to the environmental educator to the state

game biologist. All of these people make important contributions every day to our field. Our field is more diverse than it was decades ago, and our fellow wildlifers are more likely to have student loan debt, to be supporting a family member financially, to have dependents, etc. As a result, if we want to be a field that all can enter, we need to pay everyone, starting with our interns and technicians, not just in experience, but in money. That way not only those who either put themselves further into debt, or have outside sources of funding, can take these positions, a group which is white, maler, straighter and more able bodied, which then limits the diversity of our future field.

"I would like to see us critically think about the lessons we take from those that taught us, before we pass them on to those we teach."





# JESSICA HOMYACK



#### Tell us your definition of or how to be a successful wildlife biologist.



My definition of success in life and as a biologist is a shapeshifter. Early in my student and professional career my focus was on education, field experience, and publishing research. As I've moved into mid-career status I focus more on the intangibles – the collaborative relationships, bringing people together and building up the careers of others, expanding my leadership skills, and contributing to a professional culture where all feel valued. The foundation of well-

thought out and disciplined science is there and underpins all I do, but now I truly understand what others mean when they say wildlife conservation "is about the people." Success is cultivating the curiosity about the natural world, about people, and all the things that motivate people to weave them into conservation action. For me, being a successful biologist is not about counting the publications or grant dollars, but it is about leaving a legacy of inclusion and personal growth.

"For me, being a successful biologist is not about counting the publications or grant dollars, but it is about leaving a legacy of inclusion and personal growth."





# OLIVIA BENNETT





#### What changes would you like to see in the wildlife profession?



While attending a conference on wildlife damage, I was speaking with several colleagues from another state about my job as a wildlife technician. I was explaining that I was part of an all-male team working to eradicate feral swine. I was listing off my basic work duties, such as building coral traps, placing bait, responding to trap catches, collecting biological samples, etc. Midway through, I was interrupted with, "you can do that?!" I looked around to see their surprised expressions. I was

equally taken back, but for a different reason.

Why is it such an astounding thought that a woman could do that type of work?

Leading from my encounter, I would love to see a change, or shift, in the years ahead of distancing ourselves from the idea that women in the wildlife profession cannot do the same style of work that our male colleagues do. There have been times that I have been challenged in my position, for example, not being able to lift a full barrel of shelled corn. However, challenges can foster adaptability. It might take an extra couple of minutes, as I break the barrel of bait down into buckets to carry instead, but the job will get done. Through conversations with other women in the wildlife field and experiences that I've had personally throughout my career, the ideology that women might not be capable of success in a certain wildlife position because of the work load requirements seems to happen far more frequently than it should. As women, we are applying or working towards a specific job because that's where our passion lies. That is what should count most when considering employees, not gender, but rather do they have the knowledge, attitude, and work ethic to be successful. Some positions in the wildlife field are physically demanding, and sometimes better suited for a stronger build. Instead of letting that aspect dictate whether a person is considered for a position, start with thinking about what tools and processes could be used or changed to let any person, regardless of statue, be able to do that job.

Charles F. Kettering once said: "People are very open-minded about new things, as long as they're exactly like the old ones." This mindset needs to change and my hope is with this ideological shift, it will open the door for a more diverse workforce in the wildlife field. This needs to happen. My colleagues should not have been so surprised to hear that a woman was doing the same thing they do as part of her normal wildlife career duties. Maybe it will take 5 years, 10 years, or even longer, but the change will continue to advance our efforts in working with wildlife. We are all extremely passionate about what we do for a living. That needs to be at the forefront of every employee. Individuals in this field need to be seen for their potential of what they can do, rather than what they cannot do.



# MURRY BURGESS





#### Tell us your definition of or how to be a successful wildlife biologist.



One piece of advice that I would specifically give to those that wish to go to graduate school is to take the time and effort to find the right advisor. Even if the research sounds like your dream position, it can become a nightmare if not with the right person. I cannot emphasize enough how important this is because not only is this someone you will spend the next few years working for, but this individual will also play a big role in your academic and professional

career. If you are interviewing for a graduate position, remember that the interview goes both ways. Take the time to meet with your potential advisor and get to know him or her. Think about how you work best. Do you prefer someone that checks in often or someone that is hands-off? Do you need encouragement or freedom? If possible, I even recommend meeting with his or her current graduate students to hear from them about what their likes and dislikes are about that lab or advisor.

I went to graduate school myself, and luckily my advisor at Alabama A&M University, Dr. Yong Wang, knew the weight of this decision prior to my committing to the program. He scheduled a campus visit where he met with me one-on-one, he had his current students gather together to meet with me without him present, and lastly had one of his current students give me a tour of the town. While I recognize that time is precious, especially in academia, any potential advisor should respect your interest in getting to know them before committing. Find an advisor that challenges you and knows your value. I didn't understand this fully until I was working in Beijing, China for three weeks on my own per my advisor. He saw an opportunity for me to grow and be with experts in a focal part of my thesis. It ended up being one of the most rewarding experiences I've ever had, and I am thankful that my advisor believed in me even when I didn't believe in myself. Graduate school can be an incredibly rewarding experience. It is a great time to perfect your leadership skills and can equip you for the professional field. You owe it to yourself to find a graduate advisor that will help you thrive.

# "Find an advisor that challenges you and knows your value."





## MARIANA NAGY-REIS





#### As an underrepresented person, what was one challenge you faced in the profession and how did you surmount it?



I was born and raised in Brazil, where heavy rain, dense forests and wildlife somehow collide with one of the largest metropolises in the world. My hobbies as a kid involved collecting insects and rescuing street animals. But it was after watching Gorillas in the Mist, a movie that portrays Dian Fossey's journey working to save the mountain gorillas in Africa, that I decided to become a biologist. At the time, I was 9 years old and I just wanted to be like her — a strong female leader dedicated to saving endangered species.

I have a background in biological sciences and a master's and PhD in ecology, all from Brazil. Throughout my career, I have worked with a variety of species, from neotropical monkeys and small carnivores to iconic Canadian species such as the woodland caribou.

As a graduate student, I spent most of my days in the field, following monkeys from sunrise to sunset, collecting fruits and scat and deploying camera traps. As part of my PhD, I have also worked closely with Brazilian local communities and stakeholders to evaluate wildlife habitat requirements and support decision making.

I felt I was on the right track towards a successful career, but after my graduate studies, I faced a real struggle in finding opportunities in the job market. I'd say that science is neither valued nor a priority in Brazil, and finding opportunities as a woman makes things incredibly harder given implicit (and explicit) society biases. In fact, if you do science in Brazil, people often ask you why you don't get a "real job," as if working 40 hours a week on research projects wasn't an actual job. After about two years of intense planning, my partner and I were able to move to Canada, where we were both lucky enough to meet professors who trusted in our abilities and gave us an opportunity to start over.

In Canada, I did a postdoc on big game habitat and management. Soon after that, I started working with species-at-risk recovery at the Alberta Biodiversity Monitoring Institute, in partnership with provincial and federal government agencies. I have recently joined the TWS Alberta Chapter's Conservation Affairs Committee and the TWS Wildlife and Habitat Restoration Working Group. I also represent the TWS Inclusion, Diversity, Equity and Awareness Working Group at the committee of The Native American Research Assistantship Program and I am part of the 2020 cohort of the TWS Leadership Institute.

When I look back at my experiences, where I was and where I am today as a wildlife professional, I identify several barriers, but I also identify critical tipping points where amazing well-established wildlife professionals showed support and changed my life simply by giving me a chance. I learned to embrace and share my uniqueness and to trust my rich perspective. As a Latin American female and a newcomer, my professional goal now goes beyond protecting wildlife. I now also want to be that professional who gives a hand to early-career professionals and empowers them to become part of the solution.



# TRAVIS BOOMS



#### WILDLIFE VOCALIZATIONS

### What advice did a mentor give you that reverberated and directed your actions?



"Don't be reasonable" is guidance I was not expecting to receive from my graduate advisor as I sat down to think-up my master's research proposal. Figuring this was my first formal foray into the scientific endeavor that would hopefully become my career, I was prepared to think carefully, cautiously and in a measured way like any good scientist. Sample sizes, power analyses, feasibility assessments, risk assessments, literature searches, objectiveness and outlines that flow through

the scientific process should be the way I figure out how to draft my first research proposal, right? I sat down with a sharp pencil and blank piece of paper at my office desk and failed miserably to write anything useful. And that's when my advisor stepped in.

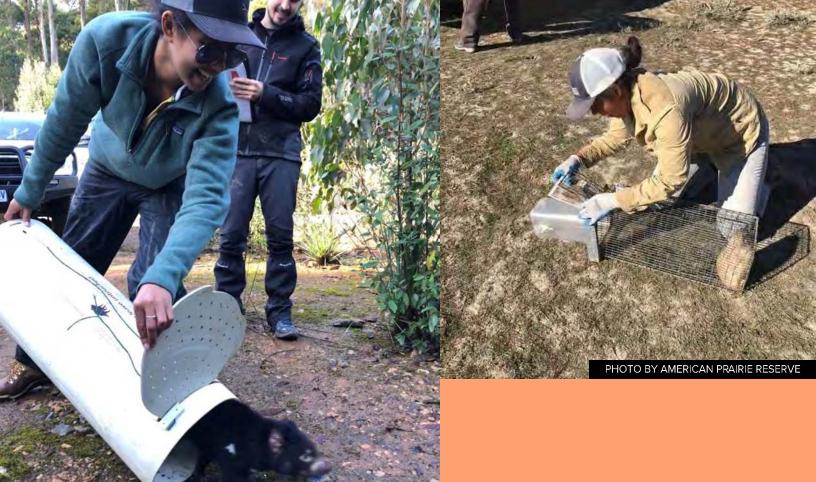
Little did I know that at least for this right-brained, straight-A nerd of a student who was raised to follow the rules, what I needed most was to allow my creative inner child who didn't care about failing and thinking up stupid ideas to take control of my brain and release the floodgates of imaginative brainstorming. My graduate advisor saw in me what I see in many young scientists: the results of cultural normativity in science that we are supposed to be serious and measured and emotionless professionals who sit down in a blank office and think of ingenious ideas. Sure, some of us can do such things, and if you can, I have huge respect for you. But I cannot and what my advisor saw in me is that I had to unlearn, or at least let-go of, these expectations and rules that formal education had beat into my brain to provide some space for imagination, ingenuity, and let's be honest, fun. To be sure, there are plenty of times in our profession when rule-following and seriousness is required, but we need to remember that occasionally, it's best to throw out the rule book and break out of the boxes to which we unconsciously confine ourselves. And not be so darn serious all the time.

I'm happy to report that I took his guidance to heart, succeeded in my master's research, and have continued to follow and share his advice to this day. It remains among the most powerful and useful pieces of guidance I have received to date and is responsible for many of my successes and all of my best ideas.

Find a creative space for yourself, let the inner child supersede your serious scientific self and start spewing questions, ideas and solutions no matter how far-fetched, illogical or unrealistic they may appear. Occasionally, a crazy idea pops up that isn't so crazy after all ...







# PHOTO BY RHIANNON KIRTON

## RHIANNON KIRTON



#### What changes would you like to see in the wildlife profession?



I would like to see the wildlife field become more diverse over the next 50 years. I hope by the time that I am retired it is common to see people of many different ethnic backgrounds contributing to this field. Having people with diverse perspectives and backgrounds can only strengthen our ability to address the diverse challenges which we encounter in wildlife ecology and management. I was drawn to this field because I felt that wolves and other predators were maligned and

misunderstood by society. Maybe I, as a young Black girl in a rural area, somewhat identified with them. I find that our connections with nature and our views on wildlife management are often a reflection of/interwoven with our views on society in a broader sense. Huge parts of wildlife management involve personal relations and social science. Thus, I think we have much to gain by committing to diversity initiatives and making efforts to foster greater diversity in practitioners coming into our field. Additionally, it would make it a whole lot less isolating for those of us already here.

"Having people with diverse perspectives and backgrounds can only strengthen our ability to address the diverse challenges which we encounter in wildlife ecology and management."







## Describe your inspiration and how you drew on it to sustain your dream in the face of adversity.



I imagine a world of peace, of happiness, of fairness, of equality, and of love. This is my vision for the world. Nothing will ever change that. Every day I wake up and I envision what could be. I think of all the things that I have and how lucky I am to be a Canadian woman living at this time in our history. I have been a university student for the last seven years and I have a great understanding of how the environment and how the planet that we call home works and functions. Earth is run by humans. This

species of Homo sapiens alters the course of the future. The future of the planet and the future of all species on Earth.

I've been told that as a child, it is natural to exhibit fear, but I was also told that you are supposed to outgrow many of these fears and have less fear as an adult than as a child. This is not the case for me. I am more afraid than I have ever been. Each day that I live, I learn more, I see more, I experience more, and I think more. I am afraid.

Therefore, each day I wake up and I envision what could be. I work hard. I try to do all that I can to create a better future for all. I know the road that lies ahead is a challenging one, but I envision a better world every day. All of these challenges don't knock me down, but they help me to rise and inspire me to work harder.

I make sure that I receive an education. I have a Bachelor of Environmental Science Honours Degree with a focus area of Wildlife Management from the University of Manitoba. And I am currently pursuing my Master of Environment degree from the UofM with a focus on Environmental Communications because I know that communication is absolutely critical to the future.

I became a member of The Wildlife Society in 2016 and have been a proud member of the Manitoba Chapter Executive since then holding the role of Treasurer, and Secretary. I have attended, volunteered, and presented at the last two Annual Conferences of The Wildlife Society in Cleveland, Ohio, and Reno, Nevada. I am also a proud member of the Canadian Section of TWS and have presented at a joint conference in Canmore, Alberta in 2019. I have networked with wildlife biologists from across the world and have made lifelong friendships along the way. I have spent the last four years working for environmental nonprofit organizations to help create a healthier ecosystem for all species.

I use music, one of my passions to help inspire people to get involved in environmental conservation. My friends and family know that this is me. This is who I am. I care about the environment and the species within it and I work hard to protect it. I am the Environmental Musician. Every day I wake up and I envision what could be.



PHOTO BY STEPHEN WOOD



## Describe your inspiration and how you drew on it to sustain your dream in the face of adversity.



Bold wildlife biologists know that rigor is made better by community inclusiveness. They inspire me because they are not afraid of complexity. In 2017, while protesting the Dakota Access Pipeline's violent dismissal of the Fort Laramie Treaty and the Standing Rock Sioux's right to protect their cultural and sacred sites, I felt a resounding call back to wildlife restoration. In my 10th year as a public health scientist with the Centers for Disease Control and Prevention, with a decades-old zoology degree and rusty

wildlife monitoring fieldwork from Equatorial Guinea, I sought to work with tribal, indigenous, and community leadership to monitor and restore wildlife only to find my combination of experiences didn't fit neatly in anyone's box.

As an enrolled member of the Lenape Nation (Delaware Tribe of Indians), represented by the wolf, turkey, and turtle clans, it is my dream to help protect these species and their many relatives. In 2018, I joined The Wildlife Society and earned my Master Naturalist certification from University of Georgia Extension Services. In 2019, I enrolled in the online Masters of Legal Studies in Indigenous Rights at the University of Oklahoma School of Law and was awarded The Wildlife Society's Native American Research Assistantship (NARA). NARA assigned me to the Siuslaw National Forest in Oregon, where non-invasive, bioacoustics efforts to assess the northern spotted owl population were ongoing.

Shortly after committing, I received the exciting news I was pregnant. No one warned me of the field conditions. It was jarring to be tangled up in gnarly tree decay, constantly freeing myself from the dense, piercing vines. As my feet sunk into the loose soil, I scrambled across steep slopes to randomly generated GIS points. My pack held extra food and water. My body held back morning sickness on the winding logging roads. My mind focused on my footing as strongly as if there was molten lava beneath it. My spirit simply held on.

Alone on a ridge line one morning, I had a rare encounter with a female black bear. Holding her ground she stood on her hind legs vigorously huffing. She was not interested in my shouts or flailing hiking poles. Jarring her head she took a step forward. Facing her, I reached for my non-existent bear spray, and decided to retreat backward. She gracefully allowed. The camera trap later revealed that she was also a mother, guarding her young cub.

At 36, in career transition and my second trimester, I proved that I could complete a challenging summer field season. I came out injury free, without any loss or damage to equipment, and joked that pregnant women make the best field assistants. As I continue to build my career, our daughter Ntëmeyëm (Lenape for "my wolf"), who I nicknamed that summer in the forest, will forever remind me how important it is to embrace complexity and unpredictability before making any assumptions about what is possible.





#### What advice do you wish you could give to others or your 18-year-old self?



It is going to be uncomfortable to step into the void, to set a new standard for yourself and those to come. You may find yourself struggling to float in this uncharted ocean.

You may call for help and find radio silence on the other side. Those that you once called on can no longer relate to your new journey. You may want to cut yourself short, take the easy path that lays in front of

you, even if that is not the trail you want blaze. You may self-sabotage, just to avoid external failure. Breathe. You are just as capable as the person sitting next to you. You may not know it now, but soon you realize that the person in your class or on your field crew with their comfortable sense of belonging is not brighter than you. In fact, their entitlement clouds their judgment.

So, do it now. Take those hard classes that intimidate you. Take the risk that scares you and your loved ones. Use your voice. Ask your questions and share your ideas. You may come off too strong for others, too loud, too direct. But your life is not meant to be lived for their approval. Throw caution to the wind and allow your gut to guide you.

Be kind, but don't spend too much time fretting over who you may disappoint, whose life you need to attend to. Live for yourself, for your dreams and for your own happiness. Because it will go fast. Really fast. You do not want to wake up one morning and find that you have cheated yourself. That you allowed other to guide you onto a trail you never wished to be on. That you let others define your worth.

That is not you. You are sure footed. You are caring, curious and thoughtful. And you are scared to the core. And that is okay. You have already found yourself here. You have already hurdled over every other obstacle to be here. And you will never stumble over mountains, only pebbles.

# "Live for yourself, for your dreams and for your own happiness."







#### What advice do you wish you could give to others or your 18-year-old self?



I recently realized I am a first-generation student. Of course, I was well aware that I am the first in my family to successfully pursue a university degree, but, being born and raised in Italy, the concept of 'first-gen student' was completely new to me. However, despite not having a word to label it, I dealt with it my whole life, still do. Without people to guide me or act as examples, it took me years to understand that my passions could become my work, even more time to learn how. Nowadays, I am

still often dealing with the feeling that, given my upbringing, there is not a place for me in the scientific world. Where I grew up, there were not many wildlife professionals; actually there were none. The closest things were hard-core hunters that saw the nature with a very utilitarian vision: take whatever you want, kill your enemy— the predators— and use the (public) mountains as your private propriety. Not surprisingly, when it came time to decide whether to go to university and, if so, what to study, I was a little bit lost (we do not have school counseling in Italy). Keeping the university option open for consideration was already a great deal and it was possible only thanks to my parents' mind openness. The default option for kids with my background was to go to a technical school and find a job, whatever job. Nothing wrong with it, but I knew it was not enough to make me happy. Two things were clear in my mind: I loved nature and I loved learning about it. Full of doubts, I decided to enroll in biology; nature fits somewhere in there, doesn't it? It took me more than two years and a little bit of luck to put a name on the job I always dreamed of. It happened during the first lesson of a course required for the ecological track I chose. I went in without even knowing exactly what the class was about and came out thinking:

"This is what I want to do in my life!" The sense of relief I felt is indescribable. The class was Conservation Biology and was taught by Professor Boitani. I had finally found the path I wanted to follow and from there on ... it wasn't easy, but at least I knew where to put all my effort! Over the years, I learned that it does not matter if nobody you know has already done something; you can be the first. It will likely require effort, determination, luck, and some trials and errors, but can be done. You will find peers and allies along the path. Just do not be too harsh on yourself if it takes you a little bit more than other people, or if you are not the best in the world. You can still be part of the conversation. What you experience along the way will come useful in the most unexpected ways.

# "It took me years to understand that my passions could become my work."





## Describe a pivotal moment that made you want to become a wildlife biologist.



I've known I wanted to be a wildlife biologist since I was about 5 years old. I was born and raised in the Bronx in New York City and lived right next to the Bronx Zoo, and oh how I loved going to the Bronx Zoo. It was there that my love of animals and wildlife grew. Even at a young age I could recognize that zoos were important places for learning; animals were not simply caged up for entertainment, rather housed and protected for wildlife conservation education. At the zoo, I first learned how

endangered tigers truly were because of poaching, and how the American bison was nearly pushed to extinction.

Years later, I had another moment while studying abroad that solidified my commitment to pursuing a career in wildlife conservation. During the summer of 2016, I participated in a four-week long, tropical biology study abroad program in Costa Rica called Organization for Tropical Studies (OTS). My class and I spent nearly all our time in the forests of Costa Rica learning about wildlife and forest conservation, and conducting our own experiments each week. Soon after arriving at a new biological station we would go on a nature hike, immediately looking at our surroundings for inspiration for our next projects. During our last week of the program, our group walked through the tropical rainforest surrounding La Selva biological station, and as we were walking along a narrow path through the trees, I distinctly remember stopping and thinking that this was the kind of work I wanted to be doing in my life. When I was younger, I would envision myself being totally immersed in nature and studying wildlife up close, and whether it was weighing juvenile crocodiles, examining symbiotic relationships between ants and trees, or observing how passerine birds selected their food, here I was doing exactly what I'd imagined.

At the time, I wasn't completely sure what the path towards becoming a wildlife biologist exactly entailed, despite dreaming of it my whole life. I thought there were so many things I wasn't knowledgeable enough about yet. I wasn't a whiz at statistics and I didn't have a specific species I wanted to study, and that made me question whether I was really following the right path. But that moment in the rainforest reminded me of how much I actually did enjoy this work, and reassured me that this was a field I was still interested in pursuing. Since then, my passion for wildlife biology and conservation has only continued to grow.

"This was the kind of work I wanted to be doing in my life."

# WILDLIFE

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