

Erin Welsh

Hi, I'm Erin Welsh and this is This Podcast Will Kill You. Welcome everyone to the latest installment of the TPWKY Book Club, my absolute favorite club where we get to read fascinating popular science books and then chat with the authors of those books. We've gotten to talk about why we saw COVID coming yet were not able to stop it, whether sweat could be used as evidence in a criminal investigation, what the public image makeover of neanderthals has to do with race science, and how uterus pancakes can help us communicate more clearly about menstruation. It's been so much fun so far and I hope you all are enjoying these as much as I am. And it just keeps getting better because this episode I'll be chatting with one of the best and arguably the funniest science writers out there, the one and only Mary Roach.

Whether she's covering what happens to cadavers after they get donated to science in her book 'Stiff', the science of sex in 'Bonk', how space travel affects all aspects of human life in 'Packing for Mars', or any of the other topics covered in her other best selling and award winning books, Roach strikes that delicate balance between engaging and educational, all while being human and gut busting hilarious. Seriously if you haven't read any of her books before you should go get them all, you'll thank me later. In today's episode though, Roach joins me to chat not about cadavers or the alimentary canal but about her latest book 'Fuzz: When Nature Breaks the Law' published in 2021. Human wildlife conflict can come in all shapes and sizes, from charismatic megafauna doing uncharismatic things like elephants destroying property or leopards attacking people, to less flashy incidents like gulls destroying flowers, quote unquote "danger trees" exploding, well, dangerously, or that deer in your headlights.

You may have even been involved in human wildlife conflict at some point yourself. I for one have been attacked by dive bombing birds while on a run, with forehead scratches to prove it, I've had to dash back to the truck when a herd of elephants made a sudden appearance during tick sampling, and I've been rushed by Canada geese on a walk around the park. To this day the sight of a goose on the path in front of me sends my heart racing. And those are just the vertebrate examples I can think of, don't get me started on wasps and acacia ants and cockroaches. The way we often frame these adverse encounters with wildlife is by placing ourselves, humans, in the role of victim and the animal in the role of aggressor. I just did it in the examples I gave and I did it without even thinking.

But is that really the case? Was I attacked by a dive bombing bird or did I get unknowingly too close to the bird's nest, prompting it to defend itself? Do bears break into dumpsters and wreak havoc or did humans destroy what used to be bear habitat and place dumpsters there as an unintentionally reliable food source? The bottom line is that these animals are breaking laws that they don't know exist. And since we humans created those laws, we also have the responsibility to find a way to enforce them or adjust them in ways that minimize harm to both humans and wildlife as much as possible. Part of this involves changing the narrative around human wildlife conflict, maybe reconsidering the roles of wildlife as perpetrator and human as victim, or at the very least acknowledging the part that we play in creating this conflict. And part of it is from a practical standpoint, how to limit the conflict in the first place, which includes encouraging humans to change, a notoriously difficult task, and how to humanely diffuse a situation.

In 'Fuzz', Mary Roach takes readers on a wild ride through the incredibly varied field of human wildlife conflict with stopovers in Reno, Nevada where a wildlife attack crime scene forensics conference is held; downtown Aspen, Colorado where breaking and entering bears are a common occurrence; Delhi, India where Roach herself has a close encounter with one of the many macaques in the city; Vancouver Island where danger trees live up to their name; the Vatican where bird scaring is taken incredibly seriously; New Zealand where the humaneness of different rodent traps is considered, and so many other places. Because human wildlife conflict is of course found wherever there are humans and it has existed as long as humans have been around. Over time, our methods of dealing with conflict have changed substantially as have our attitudes towards the troublesome wildlife.

In 'Fuzz', Roach takes her readers through space and time, exploring a bit of the history of the field of human wildlife conflict and touring the globally diverse mitigation methods and mindsets towards these encounters. On the surface, 'Fuzz' is about the many creative ways humans have tried to deal with wildlife eating their crops or destroying their property or flying into airplane engines. But underneath the humorous and bizarre stories of bird repellent lasers at the Vatican or choosy bears cruising the fridge in the house they broke into, are philosophical musings about what makes a pest a pest, the changing nature of conservation, what peaceful coexistence could look like and whether it could ever be achieved or sustained. Mary Roach is one of my heroes of science communication and I am so excited to get to chat with her today. So we'll take a quick break here and then get right into the interview.

TPWKY

(This Podcast Will Kill You intro theme)

Erin Welsh

Mary, thank you so so much for joining me today. I am beyond excited. Your books line my shelves, you are one of my favorite writers of all time. You're hilarious, you're incredibly informative. I don't know how you do it but this is a dream come true honestly.

Mary Roach

Oh stop. I'm blushing. Thank you so much. I'm delighted to be here.

Erin Welsh

I'm super excited to chat with you today about your latest book 'Fuzz: When Nature Breaks the Law'. So tell me what is the origin story for this book, if there is one? And when did you first get the idea to write a book about human wildlife conflict?

Mary Roach

Well it's kind of a roundabout meandering origin story. I wasn't mauled by a cougar or anything exciting like that. When I finish one book, I never know what I'm gonna do next. I'm always looking for some new little sliver of science that I've never heard of before. I arrived at human wildlife conflict indirectly, I thought I was maybe going to do something on wildlife forensics but not the forensics of an attack scene which I do cover in the book, but the forensics of when somebody discovers contraband, like it's a pelt or it's like a horn, and what is that sort of forensics? And I got interested in that because I've come up upon this paper called 'How to tell real versus counterfeit tiger penises'. This is like a paper that's used as a handbook for these people who work in the wildlife forensics laboratory up in Ashland, Oregon.

There's this woman there and she's really good and so am I now at identifying real vs counterfeit tiger penis, which is something you need to do because the organ of the tiger is sometimes used to make traditional medicine as a cure for virility or impotence. This is traditional medicine that doesn't, as far as far as I know have any um actual virility properties but it's something that does get uh made into a soup. So it's important for somebody to know when they find a box of what appear to be penises, are they from an endangered species or are they not? And it's actually, you'll be happy to know, it is almost always counterfeit. It's usually deer or horse or cow because first of all they're easier to come by and second of all they're big, they're inspiring. And the tiger has a pretty surprisingly small penis.

Erin Welsh

Who knew?

Mary Roach

I feel like it's rude to say that about tigers but they've got pretty small penises. Anyway so that led me up to this lab. And I thought well this is kind of interesting, maybe there's a book here. But as it turns out I wouldn't be allowed to tag along on an actual investigation. And I wanted to be able to tag along, I like to be there and to be reporting in the moment. And I was envisioning a sting operation where myself and the officer would be like breaking into this back alley, dimly lit room where people would be bending over and making fake tiger penis. Which somebody does that because they have to notch them because cats have barbed penises. See this is not a tidy origin story, Erin.

Erin Welsh

I love it. I love it. I am so entranced.

Mary Roach

Anyway, so the whole tagging along with the professionals wasn't going to work for legal reasons I was told. So I kind of came back home thinking well that's disappointing. But around that time I came upon a book from 1906 called 'The Criminal Prosecution and Capital Punishment of Animals', which I thought initially was a hoax because it's this book about bears being excommunicated from the church and pigs being put on trial, caterpillars being assigned legal representation when they were vandalizing and stealing from farmers. So it was some combination of all of this made me think what about if we turn it inside out and the animals are the perpetrators, not the victims like this? So that led me to human wildlife conflict, a branch of science I had no idea existed, had never heard of. There are conferences and textbooks and experts and careers. And I was like this could be fun.

Erin Welsh

And it certainly is. And it seems like the research for this book took you on incredible adventures all over the world to like Vatican City in search of how to scare birds the best way. It's amazing. So I wanted to ask you what your process was like for deciding what trips to take and what goes into writing a book.

Mary Roach

It's pretty straightforward. It is me going what's gonna be most fun for me and for the reader by extension? Like what's gonna be surprising, fun, far flung, exotic, weird, frightening, whatever. So it's really me almost doing like a scouting for a location in a sense. It's me contacting lots of different people in this world and sort of finding out who's gonna be out in the field and who will let me come along and be there. So really if it wasn't fun, funny, surprising, it didn't make the cut. Also there's places that appealed to me more than others. I was always curious as a lapsed Catholic, I was always curious about the Vatican. So I came across some misbehaving gulls in Vatican City and I thought let's go see what the Vatican has to say about misbehaving wildlife. And yes, they were having some problems with vandalizing gulls, gulls vandalizing the floral displays at Easter, this massive floral display at the Easter Sunday mass in Saint Peter's. So that's gonna be in there. It wasn't so much the goals or the crime in that case, it was just the juxtaposition of wildlife conflict in Vatican City.

Erin Welsh

The Vatican. It's amazing. Yeah, I mean there were so many amazing places that you went and cool conferences that you tagged along to. And I was wondering if you had one that stuck out in your mind as either the most fun or the most memorable or the weirdest or anything like that in the process of research for this.

Mary Roach

Well the one that I think was surprising to me and completely fascinating, I went to this conference on the practice of forensics at attack scenes. In other words, if somebody is mauled by a bear or a cougar, it's usually a bear or a cougar in this country anyway, the wildlife professionals arrive on the scene and they do things that you would see in a police procedural, like on CSI. There's the yellow tape that's securing the scene, they're going in and they are collecting evidence, they're removing the body so that they can take it to the lab and look at it, examine the bite marks and the injuries which tell you a lot about who committed this quote unquote "crime", who did this.

So they know everything about how these different animals kill. So it's pretty easy for them to figure out what species it was. Was it a man? Was it a cougar? Was it a wolf? Was it a bear? What kind of bear was it? And then they take it further and they're trying to figure out specifically which individual. They may have an animal in custody and they're gonna be gathering DNA off of the victim or the victim's clothes and they're gonna get a match. And if the "suspect", I'm using air quotes, if the "suspect" is found to be not the actual "criminal", again air quotes, they're released.

And I had no idea that anybody does that. So we had this conference where we learned all these techniques, we had fake attack scenes and we had mannequins, these soft touch mannequins that on them, the actual injuries, which were some of them quite gruesome, had been crafted on these bodies so that we had these simulated victims that we then were doing our forensics on, looking at the bite marks and looking at is this the hallmark of a cougar vs a bear? And we're in this big room and right next to us there's a large bingo game going on and the people from the bingo game will sometimes walk down to the bathrooms and sort of look in and there's these naked bloodied full-size human forms and they're like what's going on in the Ponderosa room? So that one, that's just for me pure gold to write up. It's so interesting and it's funny in its way. And so I think that one stands out as a lot of fun. And just interesting.

Erin Welsh

Absolutely. I was laughing out loud on the couch while I was reading it and my partner kept being like what are you reading? Like what's happening over there? I kept having to read quotes out loud and I was just like you gotta read this. It's absolutely hilarious. Which I feel like that's such a hallmark of your writing is you are so funny and I feel like it's a silly question to ask how are you so funny, why are you so funny? So instead maybe I'll ask what role you think humor plays in the way you communicate science?

Mary Roach

I think humor is just when it comes to science sometimes people need a little enticing. I think people wrongly I believe, but they think that science is dull because they're basing it on, I don't know, their chemistry textbook or whatever it is. So they might need a little enticing and so I think humor is one way to kind of pull people in and kind of entertain them a little bit while they're learning. It's also more fun for me to write it that way. So much of the humor though really has to do with the research. What do I decide to put in the book and what do I decide to leave out? There's so many different, all over the world, so many different human wildlife conflicts and so many different species that people struggle with, so many different solutions. But I was looking for things that might have some fun, some humor. So humor is important to me. It's the way that I make the book a fun read or I hope that I make it a fun read.

Erin Welsh

So we've so far talked a lot about or a little bit about human wildlife conflict. But I don't know if we've broadly defined what it is and it seems like it could be potentially a tricky question because on the outset you have this concept of okay, well it's where there's some sort of detrimental outcome when humans and wildlife interact. But who decides what that is? Did you run into this sort of almost a philosophical dilemma in writing this book?

Mary Roach

Not really because it's typically one of two things. It's either a situation where human beings are being badly harmed or killed or it's a situation where somebody's bottom line is threatened, somebody's financial. So it's largely economical. So if you look at the National Wildlife Research Center which is under the USDA and the animals that they focus on are ones that damage crops, ones that kill livestock, ones that threaten somebody in agriculture, it's a threat to their bottom line, their economics. So that's typically where you find animals in the category of nuisance. If you look at their listing, that's what's there.

But then there's also scenarios where if animals are... A good case I think in point is the coyote in this country. The populations have, it seems either the populations have gone up, I didn't cover coyotes in the book. But there's been a lot of urban coyotes that are getting close to people in a way that has been perceived as a threat to children. Because a coyote is not gonna go after a full grown adult but a small child is around the size of something that a coyote would prey on. And so there have been some cases where they're coming closer and/or I think biting children. And so now that that's happening, there's a lot more focus on coyotes. What do we do about coyotes? When they're just kind of in the background running around, you see them, you're like whatever they get into trash sometimes but they're kind of cool. But now that people feel that their kids are in danger, now that's put them in the crosshairs.

One of the things that kept popping out to me is that when there is a particular instance of human wildlife conflict that keeps happening, like a bear keeps getting into trash or something like that, it seems to signal that okay, something has to change in order to protect both the human and the wildlife. But most of the time it seems like, and maybe this is my misperception, it seems like it's the animal's behavior that's targeted more than the human's behavior. Why is that? Is it just impossible to get a human to change their ways? So yeah, why do you think it is more the animal behavior that's targeted?

Because humans don't want to bother to change. We don't want to take inconvenient steps. We don't want to change. We would rather just pick up the phone and have somebody deal with it by and large. And it's ironic because it's so much easier to get a person to change their behavior than an animal. I mean an animal that is following its instincts, whether it's after food or a warm place to give birth, it's very hard to dissuade that animal. You can't reason with them, you can't find them, you can't read them the riot act. You can try to haze them but if what they're after is really enticing like a big dumpster behind a restaurant, you can shoot rubber bullets at them and they'll be like ow, okay, but I'm still gonna go after it.

So hazing doesn't work that well, the things that you can do don't work that well. It's much, much easier but also still hard to get people to change their behavior either by fining them or educating them or both. So we ought to look, that should just be what's done. It is done more and more because over the years the solutions that have tried to change the behavior of animals or just kill lots and lots of them have been shown not to work. So people and their behavior is really the place to keep your focus. Yeah.

Erin Welsh

Yeah. It was interesting to read about how relocation is kind of one of the least humane things that you can do sometimes for an animal. And yet so much of it is like there's that balance between keeping the public happy and providing a service that is valuable and also not angering the public and just it seems very challenging to strike that balance.

Mary Roach

Yes. Yeah. And relocation or translocation is also, there's liability issues. If you as a wildlife agency are informed that a bear has been getting close to people's yards, it may have swiped at somebody but not injured them, and you go you know what? We'll monitor this situation, we're not gonna do anything but we'll monitor it. Now if that bear comes in again and in fact harms somebody in a serious way or kills them, you as the agency who didn't take action can be liable. Similarly if you do take action and you relocate that bear and now it goes to the community closest to that forest where you've relocated it and it gets into the same kind of behavior and somebody's harmed there, again you would be liable. And there have been pretty big lawsuits with pretty big payouts. So that is also a factor, yeah. So yeah, there's no easy answers unfortunately.

Erin Welsh

Yeah. Yeah. Some of these human wildlife conflicts that you describe in your book seem almost Disney-like, right? You know, a bear breaking into a house and delicately sifting through the fridge and putting some things aside and only choosing certain items. And then others are very much less so, like some of these quote unquote "man-eating cats". What makes a cat man-eating and how is this term maybe not the best to describe a cat?

Mary Roach

Yeah. The term man-eating or maneater was coined by one of those big game hunters, Jim Corbett, who wrote a lot of books about his adventures tracking and killing these creatures. I should say this is set in India, in a particular region of India where leopards sometimes do attack humans, in the Middle Himalayas. Elsewhere in India it's rare that somebody is killed by a leopard but up there these attacks do happen. It's a misnomer to call it a maneater because in reality, at least in the scenario that I reported on up there while I was working on the book, it's almost entirely children and women because they're out working in the fields, they're out with the livestock and they are the ones. And also old people. But it's easier prey. So men, big strapping men like Jim Corbett are not gonna get attacked. So maneater is kind of... Also it's a bit of like this was a career choice of the leopard. Like you know what, I'm gonna be a maneater. None of these deer, hell to that, I'm going for the men.

It's really a situation where I was at least where a lot of people have out migrated to cities. And so a lot of villages are very sparsely populated. So the people who are left who are working the fields and tending livestock, they're few and far between. They tend to be on their own. Also the brush is grown in around these fields and leopards need to conceal themselves til they get pretty close and then they sprint up an attack. So this out migration has created a scenario that's easier for leopards to prey on something different. And there's also the prey that they normally feed on because of deforestation is dwindling. So they're kind of forced to find other things to eat. And that happens in California when you have a situation where a cougar is injured or sickly, it starts coming into a human community. Normally you wouldn't see a cougar coming in that close to a human settlement except on your doorbell camera late at night. So it's usually something's gone wrong, it's not just a personality quirk like I'm gonna be a maneater, I like how that sounds.

Erin Welsh

So as a result of your global travels for this book, you got to see a huge variation in the way that human wildlife conflict is handled. And I was curious to know what you thought about how much the strategy depends on either the region or the animals that are most commonly involved in the conflict and who decides between coexistence and this town ain't big enough for the both of us? How much does that vary based on these different factors?

Mary Roach

I think it's very much a red state, blue state situation in this country. You can't generalize for the United States. There are states where the Department of Natural Resources, I'm thinking of I think it was Michigan, they're basically you got a gun on your property and you got a bear that's bugging you, it's up to you, you take care of it. There's that. And then you have California where a ballot measure was put forth to put cougars back, mountain lions back on the endangered list even though in some counties they are doing fine, in other counties they're not. It shouldn't be statewide, it should be sort of county by county because there's a lot of difference. So it's very much cultural.

In states where people are raised in a hunting culture, they're more likely to support killing the animals. Our history is tame the wilderness, go west, make it your own, do what you have to do. And wildlife, wild animals, big mammals in particular were viewed as either competition, they were they were taking deer that people wanted to hunt or they were taking livestock or they were just varmints that were better off dead. So that's kind of our history. In India though, Hinduism has a number of gods that are represented as animals. And two of those are big nuisance animals, monkeys and elephants.

But because of the Wildlife Protection Act and because people have kind of a reverence and a fondness for animals because of this association, they're much more conservative and they don't even like attempts to come up with birth control for monkeys. They don't want anybody messing. They want the problem fixed, they don't want these animals coming into their apartments and trashing things and throwing things around, they don't want that, they want them to go away but they don't want them messed with in any way. And it's very difficult for the people in the government to deal with that, to figure out something that will seem humane but also solve the problem. So it's very culture specific and I think that is what determines what happens. In this country it's state by state and I imagine in India as well. But that's true anywhere you go in the world, people have culture specific feelings about animals.

Erin Welsh

Yeah. Have you ever been personally involved in a human wildlife conflict interaction?

Mary Roach

I was mugged by a macaque in India but I had it coming because I went up to this, there's a fort up on the hill outside this small city where I was, Bundi, and everybody was talking about oh don't go up there, there's a lot of monkeys, a lot of monkeys, be careful, carry a stick if you go. And I'm like oh I wanna see what that's like, to get mugged by a monkey. So I walked up there with a shopping bag full of bananas. So I was definitely asking for it. And it was very interesting, it was not scary, it was just over so fast and it was impressive because there were two of them. One of them kind of popped up from behind a rock and stepped in my path and I'm focused on that monkey and this other one dashes out from behind me and grabs the bag. And I was like slick, you guys.

Erin Welsh

I'm not even mad, I'm impressed. That's amazing. Okay, we are going to take a quick break here but stick around because we've got so much more to chat about in the world of human wildlife conflict.

TPWKY

(transition theme)

Erin Welsh

Welcome back everyone. Let's just jump right back in. So Mary, the world of human wildlife conflict is filled with some of the most varied and unusual jobs. What are some of the ways that you could get into the human wildlife conflict biz and what would you want to do?

Mary Roach

Oh yeah, there's a lot of them there. I mean the most obvious one is working for a wildlife agency. Every state in this country has it's either fish and wildlife or fish and game or they all have their own sort of take on that. But those are the people who are called in when there are issues. And that's a tough one though because if you're interested in this career because you love animals, you love wild animals, you love the outdoors, it has definite perks. But on the other hand, when an animal has crossed the line in the eyes of the agency, it's you who has to kill the animal. And I've talked with people who have to do that and it's so hard and they feel horrible about it, it's an awful thing to have to do. Plus they get a lot of hate mail and threats from people who don't feel that that animal should have been killed. So that's a tough one. But there's other ways to be involved in it.

There are people who have founded nonprofits that promote coexistence, for example the wolf situation is quite a contentious one in certain parts of this country. There are folks who try to bring together people on both sides of the divide, the people who are speaking for the wolves and don't want the wolves harmed and then the people, ranchers often, who are not only suffering economic fallout from wolves eating livestock but also it is an emotional thing. Your life is sheep or whatever, goats, and they keep getting killed. So bringing those people together to have a conversation and try to not just talk but listen and try to understand where the other person is coming from. And there are people, this is again not a job I want, but there are people who are really good at moderating, who are good at facilitating conversations between people with very different viewpoints and trying to come to some kind of compromise and some compromise-based solutions that everybody could be happy with. So there's a number of those groups out there that do really good work.

What else? You could be somebody who tries to design effective deterrents, like the person who was working in India on using something you would use for early earthquake detection, using that to know when elephants are coming your way, toward your village, about to raid your crops. So because you wanna herd them off before they get there and you don't want people sort of running out trying to scare off 17 elephants because that doesn't go well for the people. Which I thought that was creative. There's creativity and engineering that can be applied to it. I think if I had to do anything, I would want to be one of those people who, even though it's kind of grizzly, the attack forensics, the person who shows up on the scene, puts up the yellow tape and collects the evidence and does that work. I think that sounds most interesting to me.

Erin Welsh

Yeah. The field of human wildlife conflict is massive and I think you brought up one of the really interesting ones which is this development of creative deterrent or elimination strategies for certain wildlife. And I was curious if you had one in mind that you thought was the most interesting or the most creative that you came across when you were writing this book?

Mary Roach

You know, what was most interesting to me is that the classic scarecrow, not only does it not work because the birds quickly figure out and they call your bluff, like nah, that thing's not moving. But beyond that, birds start to, apparently some birds see a scarecrow and it's kind of like Bob's Big Boy sign. It's like a hello, food here, pull over here while you're migrating for a tasty treat. So in fact it kind has the opposite effect, it's like a signpost that there's lots of good food right here. I did like I learned a lot about effigies which are bizarre. It works very well with vultures, certain birds, a little bit with roosting gulls if you're trying to clear a place where they're all hanging out.

An effigy is if you were to take a dead version of that bird, hang it by its feet, I mean again not a lovely thing, but just sort of hang it there by its feet with the wings spread out, no other birds of that species are gonna come anywhere near for quite a while. Nothing is permanent but I forget how long it was, months and months that vultures were kept away when this was done. And it was figured out accidentally, we don't have to go into the story but you can now purchase effigies or you can just buy a styrofoam body and stick the wing, because the feathers seem to be important and the tail and the wings. But you can buy a body because the bodies rot quickly with all the viscera. You can fashion your own and hang it up there. It's effective but the thing is it creeps people out.

Down in the Everglades there's this place where people pull up with their boats and launch their boats and in the parking lot there were a lot of vultures ripping up people's windshield wiper blades or the caulking around the sunroof, this is something vultures do, we go into that in the book, we don't have to kind of do that now. But they do this and it's annoying for people. So the park people hung up some effigies and it was effective. But then they spent all day talking to people about why there are these creepy dead birds strung up in the parking lot. Somebody strung up a dead vulture in the parking lot, what's going on? And then they'd have to explain the whole thing. So eventually they just put a bunch of tarps out and said hey, vultures attack your cars, put a tarp over it. Which works very well.

Erin Welsh

Yeah, I think it's interesting that in what may be the best solution in the lab may not be the best solution when actually tested in real life.

Mary Roach

Yes. Yeah. Sometimes it's just better to go with a simple solution. Put a freaking tarp on your car.

Erin Welsh

Yeah. It seems like a lot of the animals that are involved in these conflicts, some of them are charismatic like bears and cougars I think and elephants are quite lovely and wonderful. And then others kind of get a bad rap, like vultures and gulls. How much do you think that plays a role into the solutions we end up going with or the way that we handle these conflicts?

Mary Roach

Oh a huge role. Just by calling an animal a pest, whether it's a species of bird or a rodent or bats getting into your attic, you call it a pest or a nuisance, you categorize it that way and it gives people permission to just think of it not as an animal but as something to be dealt with. Just call in an expert and make it go away. So that is a huge part of it. And also the rat is not as charismatic. Charismatic animals are typically cute, typically big. Rodents... And a lot of people don't like birds, I'm a bird lover but my friend Anne's like I hate birds. Wait a minute, all birds? Yeah. I don't know if she thinks they're dirty or what. She's like I hate birds. So yeah, that term pest, I don't like it. Because people don't have to really think about it, they can just call up somebody to set a trap or put poison out. They can very easily just have somebody deal with it. But it's not an it, I mean it's an it I guess, but it's an animal like a cougar, like an elephant. It's just smaller and maybe more annoying to you at the moment.

Erin Welsh

Yeah. I loved the part in your book when you talked about how this hilarious irony of how there are so many bird quote unquote "pest control" that goes into sunflower farming when the sunflowers are there to make birdseed.

Mary Roach

Yeah.

Erin Welsh

It's just like what?

Mary Roach

Yeah.

Erin Welsh

How is this happening?

Mary Roach

Yeah, yeah. You're like well, because the sunflower farmers, there are a lot of them in North and South Dakota, right in the migration path of literally millions, tens of millions of blackbirds and crows and cowbirds. And they are all passing through and they're like hey, huge feel of birdseed down there, let's go. I guess that wasn't the consideration when they were planning what to plant there. And it's been a disaster for the industry and for the birds. And the smart farmers decided to grow something else because it's very, well we don't have to get into the trials and tribulations of birdseed farmers. And by the way, actually the main thing they do with sunflower seeds is make oil. It's a small percentage of sunflower seeds that go into birdseed. But nonetheless, the irony is rich.

Erin Welsh

Quite rich, yeah. We talked about how a lot of animals are more valued than others or maybe viewed more or less as pests. Do you think that this has changed a lot over in the US, I'll say specifically in the 20th into the 21st centuries? And has that sort of shaped the way that we have handled some of these conflicts?

Mary Roach

Oh yeah, it's changed a great deal. I mean if you look back to the 1800s and early 1900s, there were bounties on cougars, bears, coyotes, whatever. Not just the big ones but anything that was proving vexatious to farmers or communities or ranchers. There were bounties and people were encouraged, the government encouraged people to poison, to shoot, to do all of that. Fast forward to the 1960s and the dawn of the conservation, the environmental movement and also animal welfare groups, that has changed the perspective and that has made a huge, huge difference to the point where these populations have recovered enough that now they're starting to really get up in people's business again. So it's kind of there's been this embracing of wildlife and protecting wildlife and encouraging wildlife. And now that the populations have recovered and also we are expanding into their territory, so it's all combining to kind of erode people's patience and keenness to have these animals around. So it's almost because of the scale of the change from back then til now that we are starting to see more conflict.

Erin Welsh

It's interesting to think about how what we envision as the ideal ecosystem or the ideal number or amount of this animal vs this animal and how that, like is there anything actually ideal? Or what is the disconnect between what we imagine as ideal and then when we actually live in that quote unquote "ideal" space, how it is not so great for anyone involved.

Mary Roach

Right. Yeah, that's a tough one to figure out. Because invasive species, they are everywhere. And how far do you let them go in situations? The one that I talk about in the book quite a bit is New Zealand because New Zealand, it's an island with a unique set of flora and fauna, fauna in particular we're talking about. They've got flightless birds and also a lot of reptiles but it's the flightless birds that are particularly vulnerable to these animals, stoats and weasels and ferrets, feral cats, these creatures that are all invasive. The country has sort of as a nation agreed to eliminate stoats, rats, and possums because if they don't, they're heading into a situation where they aren't going to have any unique animals and birds left. But it's kind of heartbreaking because they themselves, going back to the early 1900s, they themselves imported these creatures. They imported the stoats to kill the rabbits that they'd earlier imported that populated the landscape far further than they wanted them to.

So they brought in the stoats, the stoats got there, looked around and said yeah, there's some rabbits, but you know what? These flightless birds are much more appealing and so easy to get. So they were decimated, these bird species. Also some reptiles. But that's a lot of animals to wipe out. It's called Predator Free New Zealand 2050 there, the hope is to wipe out stoats, rats, and possums by 2050. And not everybody's on board with that. And like you were mentioning, you're bringing it back to a point in time but things have already changed from there. Anyway, how do you freeze time? I mean these things are always evolving. But that said, I could certainly understand how, if you lived in New Zealand, you wouldn't want to lose all of those birds and reptiles that are going extinct. So yeah, an invasive species, that's a tough one. Whole books are written on that one.

Erin Welsh

Yeah, yeah. We've covered at least one on the podcast before, well more in the context of rabbits and myxomatosis and the way they dealt with that in Australia. But I really feel like often this piling on of adding another animal to control this animal that was introduced and then this animal and this animal, I think it just goes to show how not great we have been historically and maybe still are today not the best at predicting animal behavior or what animals will do.

Mary Roach

Right. And also having a thorough enough understanding of the whole ecosystem. When you're gonna remove one piece of the chain, are you sure you've looked at all the side effects of that, all the repercussions? Are you sure? Because it seems like in the past often it's those unknown unknowns. And there's the example of the mongooses, mongeese?

Erin Welsh

Your guess is as good as mine.

Mary Roach

Were brought into, was it the sugarcane fields in Hawaii to control rats I think it was. But the one species is nocturnal and one's diurnal. So never the twain met. And that seems like maybe somebody should have thought of that in the beginning. And again, I didn't report on that so I may be oversimplifying how that all unfolded. But it didn't go well, let's just say that.

Erin Welsh

Yeah, yeah. No, it all seems so glaringly obvious in retrospect.

Mary Roach

Yeah.

Erin Welsh

So speaking of past attempts at controlling or mitigating human wildlife conflict, how do you feel about the future of it? Are you generally optimistic or pessimistic?

Mary Roach

I'm actually optimistic partly because I see how far we have progressed from the 1800s and early 1900s. I do feel like that is the trend over the long haul that people, more and more people, they value wildlife because it's wildlife for its own sake, not for what can I use it for or how is it bugging me? But just wow, how lucky are we to have these incredibly beautiful things on the planet with us? So again, of course that is not a universal opinion here in the US. But we have come a long way and I feel that if you look at some of the organizations that are charged with monitoring this and making the rules and deciding what happens, the National Wildlife Research Center and the USDA who runs that center have been of late hiring non lethal experts, not just to kind of pay lip service to oh if you were to build a pen for your chickens, a safe well made nighttime enclosure, they won't get nabbed, or if you were to trim this brush back or change the way you graze these sheep, I think it would help a lot.

So they're hiring these people and that's come out of some dialogues between the National Wildlife Research Center/USDA and the NRDC, Natural Resources Defense Committee, or is it Council? So there's been again those sort of coexistence meetings, people from kind of agencies that usually clash who are now sitting down and trying to work together. And I see that as a hugely positive development. Maybe I'm Pollyannaish but I think that's the best development, the most hopeful development I've seen. I forget the number of states and the amount of money budgeted but it seemed significant and it seemed that the mindset within the agency that is the USDA is shifting a bit. There's some of the newer hires and the younger people are less inclined to carry on the tradition of shoot, trap, and poison. I hope so anyway.

TPWKY

(transition theme)

Erin Welsh

What a dream come true. Seriously unbelievable. Thank you so, so much Mary for taking the time to chat. I had an absolute blast. Whoever said don't meet your heroes was very wrong. And I think that someone needs to use 'what's going on in the Ponderosa room' as the title of like their next murder mystery or something because it's just too good. If you all enjoyed this as much as I did and want to learn more, check out our website thispodcastwillkillyou.com where I'll post a link to where you can find 'Fuzz: When Nature Breaks the Law' as well as Mary's other books. And don't forget you can check out our website for all sorts of other cool things including but not limited to transcripts, quarantini and placeborita recipes, show notes and references for all of our episodes, links to merch, our bookshop.org affiliate account, our Goodreads list, a firsthand account form, and music by Bloodmobile.

Speaking of which, thank you to Bloodmobile for providing the music for this episode and all of our episodes. Thank you to Lianna Squillace for our audio mixing. And thanks to you, listeners, for listening. I hope you liked this bonus episode and are loving being part of the TPWKY Book Club. A special thank you as always to our fantastic patrons, we appreciate your support so very much. Well until next time, keep washing those hands.