*Transcript: Fuzz: Can an Animal be a Criminal?*

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**Justine Paradis: This is Outside/In. I’m Justine Paradis. Allow me to introduce -- Mary Roach, the kind of person who has information about wildlife that you would never find in a field guide.**

Mary Roach: There’s a lot of good stuff in a human refrigerator and freezer, particularly in a wealthy community. And apparently, the bears prefer the premium ice cream brands . The less expensive Western family ice cream… I'm probably going to get sued by Western family ice cream for saying the bears don't and will not even eat their ice cream.

[mux]

**Justine Paradis: Mary Roach is a non-fiction author known for her one syllable titles: works like “Stiff”, “Gulp”, and “Bonk”, each one covering the science behind one of life’s squirmiest subjects.**

**In Stiff, it’s research into death and decomposition, Gulp is all about digestion, and Bonk is a headlong dive into the science of sex.**

*Mary Roach: The orgasm reflex can be triggered by a surprisingly broad range of input. There’s such a thing as a knee orgasm in the literature. The most curious one that I came across was a case report that had an orgasm every time she brushed her teeth. Now you would think this woman had excellent oral hygiene. [crowd laughter]*

**Justine Paradis: That’s Mary from her TED talk, “10 things you didn’t know about orgasm.”**

**What makes all these books so fun to read is that Mary is almost always a part of the action - she’s either tagging along in the field, volunteering as a research subject - or occasionally - getting in the way.**

Mary Roach:  I think when people hear the word science, they think, Oh, I don't want to read that book. So I like to pull them in, get them reading about science without them really realizing that they're reading about science. And then they'll go, Oh it's interesting!

**Justine Paradis: Her latest book is called “Fuzz: When Nature Breaks the Law.”**

**And yes, it is interesting! Which is why it was our pick this time around for the Outside/In book club.**

Mary Roach: Essentially, It's a book about wildlife crime prevention. Animals break all of our laws, whether it's manslaughter, breaking and entering home invasion, jaywalking, littering. They do all that. Obviously, animals are following instincts and not our laws, but it does create problems both for them and for people, right?

**Justine Paradis: Problems. Problems both silly, and very serious.**

[mux]

**Today, a conversation with and about author Mary Roach, and her new book “Fuzz: When Nature Breaks the Law.”**

**As usual, you do NOT need to have read the book in order to enjoy the episode - but if you DO read it, you can share your own thoughts by emailing us a voice memo at outside in at nhpr dot org. And listen in during the break to hear what we’re reading next.**

[mux fade]

**Okay… our in-house book club members for this episode were Taylor Quimby and Jessica Hunt.  Hey you two!**

**Jessica Hunt: Hey!**

**Taylor Quimby: Howdy.**

**Justine Paradis: Take it away!**

**Jessica Hunt*: Fuzz,* by Mary Roach,is a book about wildlife science that - at least for a while - is masquerading as a book about law enforcement.**

**Taylor Quimby: It sounds like it’s about animal cops - and sure enough, the first chapter is focused on the forensics of animal maulings - how do authorities know if a mauled body found in the woods was killed by a bear, a cougar, or… another person?**

 **Jessica Hunt: But eventually, the book wanders into very different territory… We read about monkeys harassing people for food in India. We read about people that blow up dead trees to stop them from falling and killing humans. We read about the baffling efforts and at time appalling efforts we go through to eradicate rodents, rabbits, and birds that get in our way.**

**Taylor Quimby: And by the end, you’ll start to wonder - who, if anybody, is the criminal in this relationship?**

**Jessica Hunt: So we've picked out some of our favorite stories of so-called animal "crimes" from the book: bears burglars, murderous elephants, and littering, loitering, vandal birds - eating everything, and pooping everywhere.**

**Taylor Quimby: And first up...bears!**

*Winnie the Pooh [TV clip] : That is a very fine looking pot of honey you’ve got there.*

*Owl [TV clip] : And so remarkably gooey...*

**Taylor Quimby: So Jessica you’ve lived in New Hampshire for…  how long have you lived in New Hampshire?**

**Jessica Hunt: Forever.**

**Taylor Quimby: Forever. Okay, so have you ever seen a black bear in the wild**

**Jessica Hunt: Yes, I have seen one outside my house at one point when I lived in the middle of nowhere. It was like the size of a dog and I was terrified.**

**Taylor Quimby: It seems like a rare thing to see a bear - even in a place where there are lots of bears.**

**Jessica Hunt: Yes, and you know what, I just read a description of them called “the black ghost.” And I think they’re super quiet and don’t want to interact with us.**

**Taylor Quimby: Unless they’re just chugging down your birdfeeder.**

**Jessica Hunt: Right, you’re giving them maple donuts.**

**Taylor Quimby: So I was pretty shocked to read recently that there are more than eight-hundred thousand black bears in North America - that’s more than scientists think there were when colonists first arrived on the continent.**

***But* - here’s the thing - black bears only occupy about half of their former range. And that means there are more bears, in closer proximity to more people - than ever before.**

Mary Roach:  Well, people have become more tolerant of bears, but it's very in the words of a bear researcher in Michigan, I think it was it's hard to be tolerant when there's a bear in your kitchen.

[mux]

**Jessica Hunt: So let’s set the scene - towards the start of the book, Mary Roach takes readers to Aspen, Colorado.**

**For humans, Aspen is known as a ski resort town and mountain playground of the rich and famous.**

**For hungry bears, Aspen is a town known for its excellent nighttime dumpster diving.**

**Taylor Quimby: I bet the dumpsters in Aspen are great.**

**Jessica Hunt: Yeah!**

Jessica Hunt: So you have some spent some time in Aspen, Colorado.

Mary Roach: Yes.

Jessica Hunt: What kind of conflicts did you see there?

Mary Roach:  Well, I know that over the summer that I was in Pitkin County, I mean, I came there at the end of summer. So starting from when the bears came out of hibernation in the spring to when I was there in, I believe it was late August. I think 421 complaint calls about bears breaking in and damaging property.

[mux swell]

Not necessarily 421 bears. The bears that figure this out are doing that every day. Once they figure it out, they're like, Hey, this is my gig. Forget about acorns and crab apples. I'm going for the garbage. I'm going for the dumpsters. And so there's a lot of recidivism.”

[mux swell and fade]

**Taylor Quimby: Recidivism! Or perhaps, repeat offenders. Or if we’re thinking about this from the wildlife perspective - adaptation. These are just smart bears, really.**

**Jessica Hunt: Yeah!**

**Mary spoke with a researcher named Stewart Breck, who is with the National Wildlife Research Center.**

**He told her there was this wave of car-break ins at Yosemite National Park from two thousand one to two thousand seven … bears forcing their way in to look for food and whatnot.**

**He said there were something like eleven-hundred break-ins in total. But Breck said they believe that all of those break-ins were perpetrated by just. Four. Bears.**

**Taylor Quimby: Those bears must be… must be legendary, in the bear community. The other bears are like “Bobby and Janet over there, can you believe the cars they’re breaking into?”**

**Jessica Hunt: There’s so much I want to know about this. Like, what kind of cars were the most vulnerable for example.**

**Taylor Quimby: Well Mary said there was a preference to minivans. Which is maybe not surprising, because there’s more likely to be food in there. But it could be that they’re easier to break into, for some reason. Like they have that big handle.**

**Jessica Hunt: That sliding door.**

**[mux]**

**Here’s Mary Roach, reading from the book. In this scene, she’s walking around Aspen at three in the morning, with Stewart Breck, the same researcher from before. They look down an alleyway just in time to see a couple of bears who’ve broken into a supposedly bear-resistant restaurant dumpster.**

*“The lighter-colored bear is working a crab leg, while its colleague noses through cabbage leaves. “What have these bears just learned?” Breck is saying. “I can eat garbage with people standing and watching me and nothing bad happens.” When Breck first joined the  National Wildlife REsearch Center, he did some human-bear conflict research in Yosemite National Park. In the park;s early days, he says, staff would set up bleachers and lights around the garbage dump and charge visitors for the show: twenty or more black bears gorging and pushing each other around. Right now, we’re the people in the bleachers. We’ve just given these two a little less reason to worry about humans.”*

**Taylor Quimby: I guess this book made me think of as I was reading it is how much I underestimate how fast animals can habituate to human society. Like you hear about the bears, but there are other examples in the book too, where something eats a plate of human food, and it seems like they just change their whole lifestyle in a second.**

**Jessica Hunt: Yes, I agree and I don’t know why I found it striking that the bears recognize the wildlife officials car sounds. And like scatter - they’re like, “oh - here he comes! Let’s get out of here!” Like that’s amazing to me! On the other hand, my dog can also tell the UPS truck, but… yeah.**

**Taylor Quimby: But this is why prevention is so important - once a bear learns to love human food, tearing into the sticky center consoles of a minivan in Yosemite is just a gateway crime to bigger and better hauls.**

Mary Roach: Speaker1: They get bolder and they eventually some of them take to actually breaking into houses. Sometimes when people are there and occasionally when people are sitting down to a meal, the bear comes in through the door, grab something off the table and leaves.

**Jessica Hunt: Mary writes that in Pitkin County…**

**Taylor Quimby: That’s where Aspen is located...**

**Jessica Hunt: ... they call French door handles “bear handles” because they’re so easy for them to open. If doorknobs are hollow, they’ll literally crush them. If they can’t get in on the ground floor, they’ll climb up and jiggle the handle on the deck.**

**Taylor Quimby: It’s like that scene in Jurassic Park with the raptors.**

**Jessica Hunt: There is no handle that is not a bear handle. And yet, once inside - some bears leave a surprisingly clean crime scene.**

**Taylor Quimby: Mary got to witness such a crime scene herself - and described how the bear broke in.**

Mary Roach: came in through the a big window off of a lower deck and then made its way up the stairs through the house to the kitchen without knocking anything over, without really other than the broken honey jar and the empty ice cream container and the cottage cheese on the floor and the kitchen really did very little damage.

**Taylor Quimby: Possibly my favorite image from the book is a description of a crime scene in which the culprit took pains to unwrap Hershey's kisses. Or nother that opened a refrigerator, and in order to get to the good stuff,  set aside a carton of eggs without breaking any.**

**Taylor Quimby: It’s funny - but also really serious, because the eventual penalty for bears that break and enter is the death penalty.**

**There are different folks in every state who do this work - fish and game agencies, or people from the departments of natural resources… If someone reports a bear in their garbage or kitchen, they’ll trap and tag the bear. Repeat offenders will get darted and put down.**

**Jessica Hunt: And often, it’s the scientists who are trying to reduce conflict between bears and people that have to do the very dirty work of killing them when things go wrong.**

Mary Roach: You’re the person who in a conflict situation, where the animal is perceived to be the threat, you the person who loves wildlife is the one who has to come in and destroy the animal, and it’s really hard. And on top of that, these folks will get death threats from people in the community who are angry about the bear getting put down. So it’s a very emotionally challenging job.

[mux post]

**Taylor Quimby: So to get back to the gentle bears - the ones who are breaking in without doing any actual breaking - this is the silver lining: Folks don’t always call the authorities when a conscientious bear just takes a little food but slips away quietly. Because they know what will happen if they do.**

Mary Roach: So that's kind of a promising thing because those bears live longer. The aggressive, really aggressive bears tend to get put down fairly quickly. So not having as many cubs. So I'm wondering, I kind of wonder, you know, are bears going to eventually kind of evolve toward through natural selection evolved to be more mellow? And eventually, could we have a situation where they're kind of like just like big raccoons, you know that we could live with them? I don't know. It's kind of Pollyanna of me, but I I took some hope out of that.

[mux]

**Taylor Quimby: Climate change is actually reducing the average length of hibernation. By 2050, bears could be active for a full forty days more than they are now.**

**That means more time spent foraging, and more time spent wandering into towns and cities.**

**Black bear attacks are incredibly rare, but they do happen. There have been around 70 black bear deaths in North America since the year 1900.**

**Jessica Hunt: So when people leave food out, or fail to lock up the dumpster, they are putting themselves in more danger - but not much.**

**More likely, it’s the bears who are going to wind up dead.**

[mux post]

**Okay, so what about an animal that maybe doesn’t sound as dangerous… but is actually a much bigger threat?**

**Taylor Quimby: Bigger, in every way**

[elephant trumpeting SFX]

Mary Roach: just sort of stunned me because I think of elephants as - I grew up with them as Babar and Dumbo, National Geographic... And then I was hit with this statistic that 500 people a year in India are killed by elephants.

**Taylor Quimby: 500 people per YEAR.**

**When an elephant attacks - which is not really fair, they’re not really attacking - sounds like a bad Discovery channel show, When Elephants Attack! But it can be just because they’re walking and stumble into someone and trample them to death. It can happen sometimes because they’re drunk.**

**Elephants are apparently drawn to I think it’s pronounced haaria, a fermented rice beer stored in barrels outside village homes in India.  They’ll drink it up and stumble around, maybe crash into someone's house. Or if they do actually attack, it could be because they’re in a state of hormonal rage. Male elephants, called bulls, can become very aggressive during an annual phase of development where their testosterone levels spike by as much as ten times normal.**

Taylor Quimby: You described I think it was bull elephants during their sort of it's almost like the rut. Yeah. How do you…

Mary Roach:  Musth

Taylor Quimby: Musth? This was one of those words where I read it each time I thought, I don't know how to pronounce this word yet.

Mary Roach: : Yeah, musth.

**Jessica Hunt: Elephants in musth might actually chase after and kill humans if they’re feeling threatened. The descriptions of these deaths… are graphic. Let’s just say Elephants are very good at pulling things apart.**

**Taylor Quimby: That is graphic. But whereas in America, we put down bears for breaking open the honey jar if they do it in the wrong time, in India their relationship with wildlife is so so different.**

Mary Roach: They are represented in Hinduism as gods. The Hanuman is the monkey god, ganesh the elephant. So that has that creates this lovely relationship with nature from an early stage among Hindus in India and. That has seemed to influence what actions are taken and how these situations are dealt with.

[mux]

**Taylor Quimby: Like in the US, habitat loss in India is one of the major drivers of human-wildlife conflict. Where there was once forest that stretched across borders, now herds get trapped in isolated patches. And so elephants have little choice but to start wandering into populated areas, either searching for food or just on accident. Just doing what they’ve got to do.**

**Jessica Hunt: Mary tells the story of the Gopalpur Tea Estate. Every day, more than two-thousand workers collect tea leaves there . It’s not drunk elephants those workers are concerned about - it’s hungry ones.**

Mary Roach: They're not eating the tea. The tea leaves are quite bitter, but they're damaging a fair amount of the plants. But more than that, they come in to the workers, villages and the workers live in houses that aren't very sturdily built, and they sometimes have produce and grains that they use to feed themselves. And the elephants will come in sometimes just knocked down a wall and raid the place. And I talked to this woman. I saw the aftermath of this, her bodega, where she had grains and things for sale to the workers community.

**Taylor Quimby: The woman’s name was Padma, and her bodega was just flattened. The company is supposed to compensate workers who lose money to elephant attacks - but when Mary met her, they hadn’t yet paid her for damages.**

Mary Roach: : And I said, Does this anger you and do you wish that someone would kill these elephants? And she said, Why would you kill a God? We just say Namaste and please go away.  Her anger was toward the company that she worked for. Not the elephant.

**Taylor Quimby: This is all in the first third of the book, but in some ways it was the most interesting juxtaposition to me - the bears in North America and then the elephants and leopards in India.**

**There’s this basic assumption that here, even if people don’t want bears to be killed, that they are inherently more valuable than humans. And that’s just not shared everywhere in the world - like if a leopard accidentally kills someone in India, they don’t automatically trap and kill the leopard. The leopard didn’t necessarily do anything wrong, it was just being a leopard.**

**Jessica Hunt: You know we start out really strong with animals as “criminals” in the beginning of the book, but as we go along we actually sort of drop that framework. And I kind of get the impression Mary is a little uncomfortable with that as well.**

**Taylor Quimby: Like she knows that this is an interesting framing to bring people in but ultimately it leads to some dangerous thinking. The human criminal justice system is messed up and complicated as it is, do we really  need to be bringing animals into it.**

**Jessica Hunt: Right. There is more nuance there.**

**Taylor Quimby: Yeah.**

Taylor Quimby: You could have done almost all of the same scenes, same sorts of ideas and framed it as something like pests, you know, it could have been the science of nuisance animals or something like that. Did you intentionally steer away from that kind of thing?

Mary Roach:  Yeah, I did I don't like the word pest because it it just reduces animals to this to their status in our world, and it makes it really, I think, makes it very easy. It gives us permission to just call someone to deal with it, to just call the exterminator or call someone to set a trap and then just it magically goes away and who knows what this person does with that animal? And so I I don't feel like that's a fair way to sum up an animal, even a rodent.

[mux fades and new mux comes in]

Taylor Quimby: Coming up - we did bears, we did elephants, and next up: birds. On Outside/In.

**BREAK**

**Justine Paradis:  Before we get back to our conversation with author Mary Roach, we like to announce our next Outside-in Book Club pick.**

**Of course you do NOT have to read the book to enjoy the episode, but if you’d like to read along, our next pick is called *Rising: Dispatches from the New American Shore*, by Elizabeth Rush.**

**In Rising, Elizabeth profiles the places where sea level rise is already transforming coastlines - from the Gulf Coast, to New York City, to California’s Bay Area - and the people living on the margins -- the leading edge of sea level rise.**

**If you’re hearing this and thinking, woof, a book about climate change… I feel you. But I LOVED reading this book.**

**For a book on climate change, Elizabeth manages to straddle the line between bleak and beautiful, and even the funny. That’s no doubt a reason she took home the 2018 National Outdoor Book Award, and that she was a finalist for the Pulitzer Prize in general nonfiction.**

**So let us know if you’re reading along, and what you think -- You can email us or tag us on social media. We're at Outside-in Radio, on Twitter and Instagram. You can also use the hashtag Reading Outside-in.**

**OK, back to the show.**

**BREAK**

**Jessica Hunt: Welcome back to Outside/In, today for our book club episode we’re speaking with author Mary Roach about her new book “Fuzz: When Nature Breaks the Law.”**

**Taylor Quimby: I’m Taylor Quimby.**

**Jessica Hunt: I’m Jessica Hunt.**

**Taylor Quimby: So we’ve talked about bears and elephants, and in this second half we’re going to talk about birds. But before we do, Jessica, I must say one of my favorite things about Mary’s writing style is her absolute mastery of the footnote.**

**Uh - the book has tons and tons of footnotes. Each one is like a wikipedia wormhole in miniature - impeccably researched?**

**Jessica Hunt: it is rare to see half a page taken up by a footnote.**

Taylor Quimby: Are these little windows into how you actually do the research?

Mary Roach: Oh yeah, absolutely. There are things that feel like too much of a side trip to plug it into the text of the chapter, it feels like too much of a diversion, but I don’t want to let it go because to me kind of hilarious.

**Taylor Quimby: There’s a chapter about the ethics of eradicating so-called pests, there is half-page footnote about goose poop.**

**At some point while researching, Mary discovered a trail of increasingly wild and inaccurate internet claims about the quantity a single goose can defecate per day.**

**The *one* research paper she can find puts it at one-third of a pound per day, but an article in a New Jersey paper claimed that goose… gooses?**

**Jessica Hunt: Geese.**

**Taylor Quimby: Geese, thank you. That geese poop twice their body weight on a daily basis.**

Mary Roach:  That's 40 pounds of goose s\*\*t. That's ridiculous.

And I tried to contact that reporter and they changed. They went in and changed the story. It was from some small paper and she wouldn't speak to me, and it was like goose poop gate.

Jessica Hunt: Well, they say if it's not a good time, it's a good story.

Mary Roach:  So yeah, the most awkward, risky, disgusting, whatever experiences are always the most fun to write up and. I think more fun to read for people. So there's a silver lining to those experiences.

**Taylor Quimby: The goose poop footnote is relevant, and not just a fun distraction…. because a big chunk of Fuzz is devoted to birds: seagulls, blackbirds, crows, pigeons, turkey vultures.**

**These are animals that eat crops, will steal a sandwich out of your hand, make a mess on sidewalks, and sometimes just sort of knock stuff over and act like jerks.**

**Jessica Hunt: And while scarecrows have been around for literally thousands of years - scientists now understand just how quickly birds are willing to call our bluff.**

Mary Roach: They used taxidermied hawks and they looked at how long those hawks kept away smaller birds, and the answer was between five and eight hours.

**Jessica Hunt: Which is why there is an ever-expanding search for some sort of technology - some sort of silver bullet - that can finally scare off the birds for good.**

Mary Roach: Kites that look like a giant eyeball, which is supposed to scare the birds. These days, people are taking to using drones. There's a robotic peregrine falcon, which is awesome, which actually flies by the weight of it, by the just by its wings. It doesn't have rotors. Pyrotechnics are still used these days. Lasers. Effigies - we could go on and on about the weirdness of effigies and scaring away particularly vultures are freaked out by vulture effigies, it's a it's a pretty interesting and bizarre world,

Taylor Quimby:  And you're when you say effigy, you mean like a dead taxidermy bird that's been hung upside down with its wings out spread?

Mary Roach:  Exactly. Yeah, exactly.

Mary Roach: In the Everglades. There's a problem with vultures coming into landing on park cars and ripping off the rubber on windshield wipers and the seal around the sunroof.

**Jessica Hunt: A quick aside here on why vultures do this - one biologist Mary spoke to theorizes that it’s a type of vulture neck workout. Ripping the rubber seals from cars is similar to ripping meat and tendons from an animal carcass.**

**Taylor Quimby: It’s like vulture cross fit. You gotta work out by doin’ it.**

**Jessica Hunt: But regardless of *why* they do it…**

they do that and people get mad. So the folks at the park, the Everglades Park, hung effigies in the park around the parking lot, which was very effective, and the the vultures stayed away. But then the rangers spent all day. Talking to. Visitors who are freaked out by the vulture, dead vultures hanging upside down from the trees, so in the end, they just put a box of tarps out and said, Hey, put a tarp over your car because vultures are going to come and defile it.

**Jessica Hunt: And remember - these are just the attempts to stop birds without killing them. Throughout history, there are plenty of attempts to deal with unwanted birds through actual acts of war.**

**Taylor Quimby: There was crow-bombing - which is exactly what it sounds like, dynamite and metal shard stuck in cardboard tubes and planted in roosting nests.**

**In Texas in the 1950s, a single crow-bombing operation was said to have killed 50,000 birds.**

**During World War II, albatross - albatrosses? - were colliding with American aircraft on the Island of Midway in the Pacific Ocean.**

**In response, the military sent 200 hundred men to club the birds to death for quote, six to seven hours a day.**

**They killed some eighty-thousand birds - but the following year, they couldn’t even tell the difference. The birds were still causing problems for planes.**

**Jessica Hunt: iit boggles the mind. And it’s still happening today. In 2018, the USDA Wildlife services killed half a million redwing blackbirds in order to try and stop them from eating sunflower crops - literal birdseed, as Mary writes.**

**Taylor Quimby: Half a million bird. That is just pretty hard to swallow.**

**Jessica Hunt: and again, the overall effect on crop damage - negligible.**

**Taylor Quimby: And just to be clear here, it’s not that the effect is negligible on the birds. There has been a dramatic reduction in the overall number of birds both rare and common, so what we’re really talking about is that you can reduce the number of birds but they’ll still cause the same amount of damage to crops unless you eradicate them entirely. Which is not what I think anyone wants?**

[mux]

**Jessica Hunt: Here is where you see Mary - as well as some of the folks she talks to - making the case that this kind of operation is futile, unnecessary killing. Regardless of how you feel about the ethics - it’s just not effective.**

**Taylor Quimby: There’s one epic story that Mary uncovered. In 1932, armies of emus - big ostrich-like birds - were eating and generally wrecking wheat fields in Western Australia.**

**A pair of military machine-gunners were dispatched under the authority of a Major G.P.W. Meredith.
But emus are fast and well camouflaged for the Australian Outback - so despite the firepower, and the fact that they can’t actually fly, he was only able to kill about 25 birds in two days.**

**On day three, the men set up an ambush by a watering hole.**

**Here’s Mary, reading from the book.**

*“When the birds were a few hundred yards out, Major Meredith gave the order to fire. As the dust settled, the men got up to count the bodies. An under-whelming fifty birds lay dead. Excuses were made. The machine gun jammed, someone told a reporter. Someone else conjectured that the majority of the bullets were passing harmlessly through the birds’ plumage, because the emu has “more feathers than flesh.” Major Meredith believed hundreds more had been hit but survived. He credited the emu with an almost supernatural ability to “face machine guns with the invulnerability of tanks.” He sounded wistful. “If we had a military division with the bullet-carrying capacity of these birds it would face any army in the world.” On day six, Major Meredith withdrew in defeat. “Emus appeared in huge flocks along the road,” observed the Perth Daily News, “as if to give a mocking farewell.”*

Taylor Quimby: The more and more I read the book, the more I found myself really rooting for the animals in almost every possible way.

Mary Roach: Yes.

Taylor Quimby: Did you find yourself on a similar journey as you wrote it?

Mary Roach:  Yeah, for sure. Absolutely, particularly with birds, because birds nuisance birds that eat crops, they just get poisoned and slaughtered and I mean, they did in the I mean, because they're huge populations in the millions, but you know, 500000 a year will be killed. And I just think. And nobody, because it's kind of under the radar, you know, we're very attuned to what happens to bears and cougars, you know, sort of charismatic, sparsely distributed wildlife.

Birds, people are people don't really give a lot of thought to that. And the more I read about something, some of the things that have been done over the past hundred years, I just thought, Oh, come on. It's like, you just want these guys to win.

They're just they're just trying to have dinner.

**Taylor Quimby: The only thing I’ll say is that I root for the animals, but I also have a lot of sympathy for the people who are in the thick of this science. You know the people who are often surveying or monitoring animals… are sometimes the same people who have to actually put animals down when there are conflicts.**

**Like we’re talking about biologists, not bounty hunters.**

**And they are smack in the middle of two groups. People who have an interest in controlling some wildlife population - you know ranchers or farmers or frightened homeowners…**

**And people who think they we ought to be protecting animals at all costs.**

**Jessica Hunt: Absolutely, I can’t imagine how they can balance those two things.**

**Taylor Quimby: Right, like conserving or killing animals is not a subject in which compromise feels good to either party.**

Mary Roach:  No, no, no. You're you're absolutely right. It's very it's very hard to find. Middle ground between those two approaches, you know, there's a line in the book that from somebody. There's a mountain lion researcher, and he's talking about mountain lions in California, and he said for some people. One is too many, and for some and for other people, ten thousand is not enough. All I can say is I would not want to. I would not want to have a career that puts me in between those two. Very polarized. Feelings.

[mux fade]