Epilogue: Roadkill Changed My Life

Seriously, roadkill changed my life. And I’m not just talking about the fact that I now carry a coyote tongue kit in my car, that I can’t pedal past a worm[[1]](#footnote-1) without stopping to help it across, or even the fact that roadkill made me write this book. I’m talking about a radical shift in the way I look at the tough things in life.

Those putrid mounds of flesh, bones, and fur shouldn’t get all the credit, though. A chunk of credit goes to some young people who showed me how to be brave.

Let me explain.

It was April again, an entire year after I had held that dying snapper. I’d learned so much, seen such cool ways to prevent wildlife-vehicle collisions, and convinced myself that I *could* write a book about roadkill. I would highlight the Samango monkeys, tapirs, Tasmanian devils – animals I’d never even seen but care so, so much about.

I was riding my bike slowly, letting Piper do her morning business and stewing over the best way to write this story. We were on my little country lane – yep, the same lane where I met the rattlesnake who started this whole obsession – I spotted a gray and white fluff ball blowing toward me. Bunny tail. I instinctively tightened Piper’s leash. Raw meat messes with her tummy and I’d be the one cleaning that up off the floor.

Two feet further along, a brown blotch added a fibrous crust to the asphalt. Guess someone pooped his pants. Hey, you would too if a monster 1,200 times your weight[[2]](#endnote-1) [[3]](#endnote-2) was barreling down on top of you. 4 feet further, 2 white splats let me know the vultures had visited and left their bit of nitrogen to fertilize the asphalt.[[4]](#footnote-2) Then all that was left was a naked scapula and a wrung rag of fur with a bunny bone[[5]](#footnote-3) sticking out.

The lower edges of my eyelids prickled.

There was no bridge built for him. No tunnel constructed for him to hop, hop, hop on through. No group standing guard to get him across. As amazing, educational, and inspiring as this research journey had been, I *still* didn’t know what to do when I saw a little guy like that.

I knew what Francois would do. Eleven-year-old Francois who lives in South Africa, he’d pick it right up,[[6]](#footnote-4)[[7]](#endnote-3) take it home, and turn it into something of value. He’d stick it in water with dish soap and let it soak for 2 weeks. Just like Dr. Stocker did with those salamanders in a salsa jar. When the flesh had all turned to mush, he’d pull the bones out and degrease them with ammonia and soak them again. Then, with a small pocketknife, he’d flick off any flesh that had refused to let go. After bleaching with peroxide, then drying in the sun, the bones would be ready for the real work to begin.

You see, ever since Francois was three, he’s been fascinated with bones. Imagine a towheaded toddler who is crazy about Musselcracker[[8]](#footnote-5) jawbones![[9]](#endnote-4) Nowadays he collects about one roadkill a month and turns it into a showpiece.

“We used to drive along the road and see something orange and think it is just a cat or a dog,” Francois tells me,[[10]](#footnote-6) “but when you actually stop or look at it, it is a caracal or a bat-eared fox.”

Spreading the bright white bones out on the family picnic table – yes, he got his parents’ permission – Francois re-builds the skeleton. He works on all the usual animals – aardvark, grysbok, honey badgers[[11]](#footnote-7) – well, usual for South Africa. He’s run into a few problems along the way, like the fact that you can’t go down to the local library and check out a book on which honey badger bones are toe bones and which are tail bones.

To Francois, the bones are a puzzle. Sometimes he has a diagram to help out; many times he doesn’t. There is always something new to figure out.

“I did find out that there is a collar bone in some animals but not all animals have it.[[12]](#footnote-8) Only the ones that need to roll their arms have it. So animals that climb trees – um, primates – but a cat has got one called a flying collar bone that is not a real collar bone because it is not attached to any bone.”

COOL!

When he’s got the bones all lined up, Francois’ got to hitch them all together. Out comes the superglue. He usually uses wooden rods to add stability, but when he re-built a giraffe – that’s right an entire giraffe[[13]](#footnote-9)[[14]](#endnote-5)– he had to work a bit harder. He got his dad in on it and his uncle who’s an engineer. That thing was big! His 6-foot tall father could walk under its belly without ducking. Imagine trying to get it to stand up! Remember it didn’t have any muscles or ligaments or tendons to hold it together any more. They ended up running steel tubes up through the bones.[[15]](#footnote-10)

After what could be months and months of work, Francois wouldn’t stick the skeleton in a closet. No, this kid has got his own museum space at a nearby zoo.

This is not all about making him famous. No, Francois does it because he likes learning how skeletons work.

He hasn’t stopped there, though. This eleven-year-old has started sharing his story. He did a presentation to all the 4th through 6th graders at his school. He’s got a whole website to teach people about it. He’s been on national TV! When Francois saw how many bat-eared foxes were DOR in a national park, he got brave, wrote an article, then submitted it to a conservation organization. His newsletter article has been read by people all over the world.[[16]](#footnote-11)[[17]](#endnote-6)

*And,* I reminded myself, he was just a little kid when he started it all.

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Back on my lane, Piper was straining at her leash. She’d found the rest of the rabbit’s skeleton. A thumb-sized skull was attached to a zig-zag of vertebrae. It wasn’t an aardvark, a grysbok, or a honey badger, but Francois had inspired me. I poked a stick through the rabbit’s orbit[[18]](#footnote-12) and lifted it up. Hey, he’s dead – he can’t feel it! Pedaling toward home the spinal column waved like a flag at the end of my handlebars. I wanted to try that technique, the soaking it till it becomes mush technique. How bad would it smell?

CRUNCH. Halfway home my tires rolled over an opossum who was as flat as a smashed coke can. It wasn’t the first time. This was a hot spot for possums. The spot Piper went when she wanted to get stinky.[[19]](#footnote-13) Why here? I glanced around. An overturned, lidless trash can gave me a wide-eyed stare.

A pizza box, juice can, blood-crusted bandage – stuff was spewed across the ground. A half-eaten strawberry in a clear baggie had been drug partway across the pavement. Strips of plastic showed me where hungry little claws had torn into it.

Oh.

For years I’d been passing that can on Piper’s morning walk. I’d never made the connection. That trashy smell I usually held my breath against?

Like fresh-baked brownies to an opossum.

That gooey wrapper flapping against a fence post?

Like a fast food sign: Open! Open! Open!

Those watermelon rinds that had been sent shy high with an overhand jump shot towards the can? They added to points to the roadkill scoreboard.

Now, don’t get me wrong, I wasn’t blaming that family. People might not love opossums too much, but those folks were no animal killers. How were they to know? I had been studying roadkill for a long, long time and just now put two and two together.

Maybe, I thought, I can pick up the trash from around their can. If I do it at night they wouldn’t notice. I don’t want them to think I’m judging them.

Maybe, I thought, I can get a lid and sneak it onto their can. No, that might make me seem like a jerk.

I guess maybe I could tell them? Explain about the roadkill? No, they’ll think I am such a weirdo – it is one thing to have strangers think you are weird, but these are people who might know me![[20]](#footnote-14)

Besides, I began to pedal faster, they’re not home. I can’t tell them anyway. I dragged Piper home.

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It must have been all that thinking about Francois that got me thinking about other brave kids. In 1999, two nine-year-old girls started an organization called Kids Saving the Rainforest (KSTR). They began a project to save the critically endangered Titi monkeys.[[21]](#footnote-15)

A national park in Costa Rica called Manuel Antonio is home to those Titi monkeys. You’d think a national park would be a safe place for monkeys to scamper, but those white sandy beaches and dark leafy rainforests attract lots of people too. People = roads = you know what!

The greatest threats to the monkeys are: (1) electrocution and (2) being hit by cars – surprise, surprise.[[22]](#endnote-7)

I watched a video about KSTR.[[23]](#endnote-8) 5 kids, each holding a clipboard, stood beside a gravel road. Hands pointed into the canopy, fingers scribbled notes. Those kids had joined the KSTR team and were out on a mission.

“Oh, look, that one, right there,” the tallest girl said. Daviana had spotted motion behind purple flowers. A gray monkey with an orange back and big black lips leapt to the tip of a branch loaded with berries.

“The titis are the smallest monkey in Costa Rica so they are really cute and really playful,” Daviana said.

The camera panned to a curly-haired boy wearing a white volunteer t-shirt. “As you can see, the monkey is crossing the electrical wire safely,” a squirrel-like cutie pranced over the road behind the boy. Bikes, pedestrians, and a motorbike scooted underneath. “However, sometimes it goes wrong and the monkey touches two of the electrical wires and gets electrocuted.”

The kids of Manuel Antonio were pretty concerned.

So, they got brave and did something. They faced up to the adults. They talked to the electric company. Over the next ten year Kids Saving the Rainforest installed 130 blue rope bridges to give the monkeys[[24]](#footnote-16)[[25]](#endnote-9) a safe way across.

But the job wasn’t over. Rope bridges require constant care. The team in the video was doing an important job: monitoring bridges. They were on the lookout for drooping or frayed ropes.[[26]](#footnote-17) They also recorded how many monkeys are in the area and how many crossed the bridge.

A hand-painted sign beside one rope read: Bridge Donated by Miss Debbie’s 2nd and 3rd Grader Class.

Monkeys don’t need signs. They have learned to look for the blue ropes as safe routes across.

Something’s working.

KSTR reports that the number of monkeys in Manuel Antonio grew from 1200 to about 3000.[[27]](#endnote-10) The monkeys have been moved from the “critically endangered” list to the “endangered” list.[[28]](#footnote-18) [[29]](#endnote-11)

WOW!

What an inspiration.

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Later that day I was battling some thorn-covered trees that had been invading my land like leafy versions of pentastomes. Cutting, hacking, wrenching them right out of the ground. As sweat pin-pricked my scalp, Big Dave’s words echoed inside my mind: “Knowledge is power.”

I had the knowledge, all right – more knowledge about roadkill than I would ever desire.

Swip, swip, swip.

The saw blade ate only millimeters of tree with each stroke. I was on tree number eight.[[30]](#footnote-19) My forearm twitched. The blister blooming on my palm burned. The muscles between my shoulder blades screamed.

“With great power,” another quote from another great guy wheeled around the cage inside my skull.

Swip.

“…comes . . .”

Swip.

“. . . great . . .”

Swip.

“ . . . RESPONSIBILITY.”

I dropped the saw. “I’m writing this book. What else can I do?”

Crick. The tree started to lean.

Crack! It picked up speed – but not in the right direction.

CRASH! I dove into the bushes.

I’ve cut a lot of trees down in my day and I usually can tell what direction they’ll fall. This one had a mind of its own. Instead of falling towards my house as planned, it fell towards that house down the road with the lidless trashcan – and almost on top of me.

I sat there stunned. A two-inch thorn vibrated in front of my face.

“With great power comes great responsibility.”

O-kay. You’ve got my attention.

Images flashed like an old-fashioned slide projector:

The plump yellow belly of one squished frog.

The plush velvet of that bobcat’s fur.[[31]](#footnote-20) [[32]](#endnote-12)

The eye of Mama snapper – a sickening canyon zigzagging across her shell.

“What?” I asked aloud. “What else can I do?”

Piper snuck up and licked my face. She knew she wasn’t supposed to – dog spit YUCK! – but how could I scold her for such compassion?

I had tracked down information from around the world. I’d given DOR animals years of my life. I had faced gut-wrenching pain watching an animal die, for goodness sake!

But I hadn’t, it hit me, followed one simple rule: Think globally, act locally.

Why not? Why hadn’t I followed the lead of sixth grader Guatam? When he and his Brainy Bots team were picking their Lego robotics project, they could have chosen to help Asian monkeys, South American tapirs, or Tasmanian devils. But they didn’t.

No, Guatam, David, Advaith, Allan, and Evan, made a different choice.

“We thought deer kill was the best one to choose because it is kind of local to where we are,”[[33]](#endnote-13) Guatam told me. This team of middle schoolers got brave and took on a problem in their own neighborhood. They designed a model deer detection system with towers that sent radio transmissions right into people’s cars to warn a driver if a deer is beside the road.[[34]](#footnote-21)[[35]](#endnote-14) [[36]](#endnote-15)

That’s when it hit me. To save lives, I didn’t need to spend years and years researching and writing a book. Simple acts save lives: picking up litter, driving slower, removing scraps of a rabbit’s body off of the road. Every day, I could save an animal’s life.

It couldn’t wait.

I needed to open my mind, my heart, *and* my mouth.

So, I marched myself right out my driveway, swallowed my shyness, and shared the apple core story with my neighbors.

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That’s how they did it, those smart kids and those animals who lost their lives. They got me to stop wasting energy worrying that I might not save the entire world and got me, instead, to do one little thing at a time. But it wasn’t until I started writing it all down that I realized how much more my new dead friends had changed my life.

It went beyond this animal epidemic.

Those unblinking eyes that plead up at me from the gravel? They demand to know what else I shy away from. What other daggers – far from the road – have I walled my heart off against?

Those still lips whisper deep wisdom.

I’ve been listening.

To deal with those daggers, the tough things in life, I’m going to have to take control of the wheel. To not get blinded by headlights. To get brave and face the world head-on.

1. This always turns into 5 or 10 or 50! How come there are so many? [↑](#footnote-ref-1)
2. "Eastern Cottontail Rabbit." National Geographic Society, n.d. Web. 18 July 2017. <http://www.nationalgeographic.com/animals/mammals/e/eastern-cottontail-rabbit/+>. [↑](#endnote-ref-1)
3. "Honda CR-V Specifications." (n.d.): n. pag. *Automobiledimension.com*. Honda Corp. Web. 18 July 2017.Page 3. <http://www.automobiledimension.com/car-comparison.php>. [↑](#endnote-ref-2)
4. Nitrogen is a key ingredient in bird droppings. It’s a key nutrient, too – every cell of your body needs it – and it has to come from somewhere. Of course the road doesn’t need it, but that stuff runs off to fertilize something. Maybe the crops that grow beside the road . . . . One more impact of roadkill. [↑](#footnote-ref-2)
5. A funny bunny bone? A bunny funny bone? Nothing funny about it. [↑](#footnote-ref-3)
6. Yep, where he lives you can do that. Nope, he doesn’t ever, ever kill anything, just works with bodies in need of recycling. Mostly it’s his dad who does the collecting. Safety first and all, you know. [↑](#footnote-ref-4)
7. Malherbe, Francois, and Donnie Malherbe. "Roadkill Skeletons." Telephone interview. 22 Jan. 2016. [↑](#endnote-ref-3)
8. A type of fish that lives off the coast of South Africa [↑](#footnote-ref-5)
9. Malherbe, Donnie. "About Us." *Roadkill Skeletons*. N.p., 2013. Web. 18 July 2017. <http://www.roadkillskeletons.co.za/index.php/about-us>. [↑](#endnote-ref-4)
10. Francois lives 8,000 miles away from me so I was pretty grateful for an app that let me visit with him for free. Thank you, internet! [↑](#footnote-ref-6)
11. Don’t feel bad, I didn’t know what any of these animals looked like either, but I check out his online gallery and got to know their bones up close and personal. [↑](#footnote-ref-7)
12. I don’t know how he figured it out but I picture him at that table digging and digging in a pile of aardvark bones till sunset, searching for a collar bone that just isn’t there. [↑](#footnote-ref-8)
13. The giraffe was *not* roadkill, thank goodness. Can you imagine how scary THAT would be? When animals at a local wildlife reserves die of natural causes, the staff ask Francois to process the skeletons for them. [↑](#footnote-ref-9)
14. Trail Kids. "Roadkill Skeletons: Reconstructing a Giant." *YouTube*. YouTube, 20 July 2015. Web. 18 July 2017. <https://www.youtube.com/watch?v=IisipV9iDrk>. [↑](#endnote-ref-5)
15. In that hollow part where marrow would be if the animal were alive. [↑](#footnote-ref-10)
16. It’s how I found out about this amazing young man and am able to share his story with you. [↑](#footnote-ref-11)
17. Malherbe, Francois. "My Strange Hobby." Ed. Wendy Collinson. *The Green Mile* (Sept. 2015): n. pag. Print. Endangered Wildlife Trust. [↑](#endnote-ref-6)
18. Orbit: eye socket [↑](#footnote-ref-12)
19. I read somewhere that dogs roll in stinky stuff in order to carry the scent with them. Why would they want that? [↑](#footnote-ref-13)
20. There’s that shyness rearing its head again. [↑](#footnote-ref-14)
21. I wouldn’t want a name that everyone laughed at, but their other name is the grey-crowned Central American squirrel monkey. What a mouthful! [↑](#footnote-ref-15)
22. "Sponsor the Maintenance of a Monkey Bridge." *Kids Saving the Rainforest*. N.p., n.d. Web. 18 July 2017. <http://www.kidssavingtherainforest.org/sponsor-the-maintenance-of-a-monkey-bridge.html>. [↑](#endnote-ref-7)
23. "KSTR Spokeskids Talking about the Titi Monkeys." *YouTube*. Kids Saving the Rainforest, 23 Mar. 2013. Web. 18 July 2017. <https://www.youtube.com/watch?v=Cn2GV16ymu0&feature=c4-overview&list=UUj\_nOjRTfmjI1nH7x4arErw>. [↑](#endnote-ref-8)
24. And at least 11 other species like porcupines, sloths, ants, iguanas, and snakes. [↑](#footnote-ref-16)
25. Martin Leon, Maria Pia, and Pablo Porras Penaranda. *Evalucion Del Uso De Puentes Para Monos Segun La Percepcion De La Cuminidad De Manuel Antonio, Quepos, Costa Rica En Julio Y Agosto Del 2012*. 2012. Poster. http://www.kidssavingtherainforest.org/uploads/7/1/6/3/71637731/monkey-bridge-poster.pdf [↑](#endnote-ref-9)
26. Think of what a frayed rope could do with all that electricity. [↑](#footnote-ref-17)
27. "Rehabbers & Vets." *Kids Saving the Rainforest*. N.p., n.d. Web. 23 July 2017. <http://www.kidssavingtherainforest.org/rehabbers--vets.html>. [↑](#endnote-ref-10)
28. Sure, the bridges probably aren’t the only variable in this recovery. But every saved life counts. [↑](#footnote-ref-18)
29. Cuarón, A. D., A. Morales, A. Shedden, E. Rodriguez-Luna, and P. C. DeGrammont. "Saimiri Oerstedii Ssp. Citrinellus ." *The IUCN Red List of Threatened Species 2008*. International Union for Conservation of Nature and Natural Resources, 2008. Web. 23 July 2017. <http://www.iucnredlist.org/details/19841/0>. [↑](#endnote-ref-11)
30. They *were* small trees, but I was using a hand saw – I don’t trust myself with the chainsaw. [↑](#footnote-ref-19)
31. Did you know that a bobcat will poop in the middle of a dirt road or at trail intersections? As if he is leaving a note for his buddy! More likely it’s a “Stay Out” sign for his rival. Who wants some other guy hunting out all the yummy bunnies from his territory! [↑](#footnote-ref-20)
32. Elbroch, Mark, Jonah Evans, and Michael Kresky. *Field Guide to Animal Tracks and Scat of California*. Berkeley: U of California, 2012. Print. Page 157. https://books.google.com/books?id=XwFDoJhezwAC&pg=PA160&dq=bobcat+scat+road&hl=en&sa=X&ved=0ahUKEwjdq4\_So6DVAhXL5YMKHXoICWwQ6AEILjAB#v=onepage&q&f=false [↑](#endnote-ref-12)
33. Rege, Advaith, David Ying, Gautam Namjoshi, Allan Zhang, and Evan Kreger. "Brainy Bots." Online interview. 2 Dec. 2016. [↑](#endnote-ref-13)
34. Another group, a group of eighth graders in Arizona used lasers and acid to build a prototype of their own design. Their idea was so intriguing it got passed around the scientific community. A guy in Sweden even commented about it.

    The group’s spokesperson, Dylan, told me, “If we took just one-tenth of what was spent on wildlife collisions last year, we could line both sides of a road with our device from New York all the way to our hometown in Arizona . . . seven times!”

    Those kids won $150,000 for their school district plus another $20,000 for being the school with the most votes from the public, plus another $35,000 to donate to a local non-profit of their choice. [↑](#footnote-ref-21)
35. Gagnon, Jeff. "[wftlistserve] Snowflake Junior High School Innovative Solution to Reducing WVC - Winners." Message to the author. 30 May 2017. E-mail. [↑](#endnote-ref-14)
36. Cotrell, Corynn. "Snowflake Junior High." Online interview. 4 Apr. 2017. [↑](#endnote-ref-15)