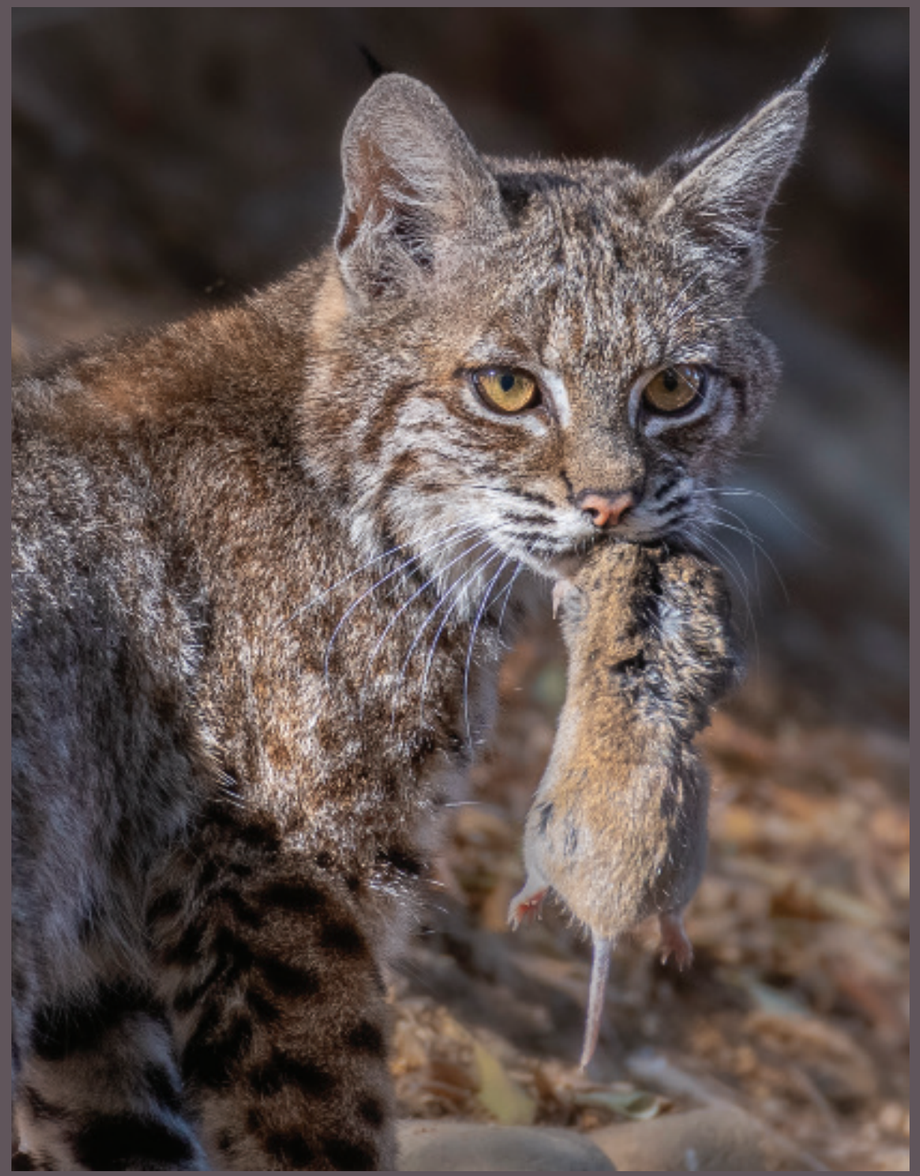
COLLATERAL DAMAGE



In a study by the California Department of Pesticide Regulations, 88% of bobcats tested, had rodenticide poisoning.

Rodenticides kill more than just their intended targets. They also harm birds of prey and other predators like bobcats, coyotes and mountain lions. Ironically, these same species are the best solution we have for managing rodent populations.

BY MARCIA SIVEK
PHOTOGRAPHS BY VISHAL SUBRAMANYAN

ONE SUMMER EVENING six years ago, my husband and I were watching the sunset from the deck of our Santa Cruz mountain home. Rat poison was the last thing I thought we would be discussing. The topic arose when we both commented on how lucky we were to see a large, stocky bobcat walk by our bedroom window the night before. For a moment, we sat in silence. I assumed my husband was contemplating our good fortune too, but out of the blue he said, "I'm glad the bobcat last night looked healthy."

"Yeah, definitely," I answered, then paused, confused. Wait, why was he concerned about the health of the bobcat? Why wouldn't it be healthy? My husband then started talking about second generation rodenticides (aka "rat poisons") and how they cause a rodent that eats it to slowly bleed to death from the inside out because its blood cannot coagulate. The poison pellets are so lethal that the animal will usually die within 24 hours, he told me.

He must have seen the perplexed look on my face and asked me, "What eats rodents?" Before I could guess, he replied, "Bobcats, and raptors." He continued on, saying that when large carnivores, such as bobcats, mountain lions, coyotes, foxes, hawks and owls, eat poisoned rodents, the poison accumulates in their body and they eventually become sick, but their death is not quick. It can take days or even weeks of suffering before they die. I had no idea. I was ignorant in believing we had learned our lesson about the effects of poisons in the environment when DDT was banned.

"But there is hope," my husband added. He had just read that the Environmental Protection Agency was prohibiting retail stores from selling second generation rat poison by March 2015. What neither of us knew then was that stores could continue selling existing stock until they ran out and that pest control companies could still obtain and use second generation rodenticides. Another disturbing discovery we made later was that first generation rat poisons, which are less potent and take longer to kill than second generation rodenticides, can still be sold in retail stores.

Fast forward to the present and my recent sighting of another bobcat, only this one was stricken with mange and crossing Highway 1 on the west side of Santa Cruz. It was lethargic, skinny and had what looked like sores or bare patches around its face. The bobcat was later found and rescued by a wildlife rehabilitation organization after I called in its location. They told me that the bobcat had died soon after they brought it into their hospital and the cause of death was likely rat poison.

After the bobcat tragedy, I wanted to learn more about what's being done to stop the killing of wildlife by rodenticides. I invited Lisa Owens Viani of Raptors Are The Solution (RATS) to be a guest on the podcast I produce, BeProvided Conservation Radio. Owens Viani, along with Allen Fish, Director of the Golden Gate Raptor Observatory, founded RATS in 2011 after Cooper's hawks began dying of rodenticide poisoning in her Berkeley, California, neighborhood. RATS's mission is to educate the public about the dangers of rat poison in the food web and to encourage businesses, municipalities and communities to stop using rodenticides and switch to non-toxic methods of rodent control. RATS, together with the Center for Biological Diversity and the Animal Legal Defense Fund, is co-sponsoring a bill in the California State Legislature, AB1788, the California Ecosystems Protection Act, which would expand the ban on second generation rodenticides to include use by pest control companies. I spoke with Owens Viani about the legislation and other issues in October 2019; here are excerpts from our interview.

Marcia Sivek: Why did you name your organization Raptors Are The Solution?
Lisa Owens Viani: There are ways to control rodents besides using poison. We need to let birds of prey and other wildlife predators do what they do in the ecosystem. One red-shouldered hawk can consume 30 rodents a month. In one breeding season alone, a family of barn owls can consume as many as 3,000 rodents. Barn owls are mouse killing machines. Every time we wipe one out with rat poison,

we're destroying part of the best solution for controlling pests and rodents in a toxin-free way. The idea behind Raptors Are The Solution was never to say, "Oh, we don't need to do anything else," but to say, "Let these animals do their job."

MS: I've read studies that say 80 to 90% of predators, like mountain lions, bobcats and raptors, have been exposed to more than one second generation anticoagulant.

LOV: That sounds about right. But bobcats, mountain lions and other mammalian predators are also being exposed to first generation anticoagulants.

MS: Can you explain the difference between first and second generation rodenticides?

LOV: Second generations—brodifacoum, bromadiolone, difenacoum, difethialone—are designed to kill a rodent in one feeding. It's a very toxic load. If you think about it, any animal that eats [a poisoned rodent] is going to be a toxic time bomb running around [until it's caught by a predator]. And when those toxins get into a predator, they bioaccumulate and end up in the animal's liver.

First generations clear through the system faster. You have to use more of them to kill rodents, a single dose isn't enough. But when they get in an animal's bloodstream, like a bobcat or a mountain lion, it leads to immune system suppression, which in turn can lead to things like mange, which is a skin parasite.

A researcher at UC Santa Cruz, Laurel Serieys, has found a link between first generation anticoagulants in the bloodstream and immune system impacts, which is the reason mange is becoming such a problem. If your immune system is depressed, you're going to be much more vulnerable to something like a parasite that normally you could fight off. When you're weakened by a huge load of anticoagulants in your bloodstream, you're not going to be able to do that as effectively.

MS: Is warfarin first generation or second generation?

LOV: It's first generation. The first generation are diphacinone, chlorophacinone and warfarin. And the one that's come up repeatedly in testing [wildlife] is diphacinone. They're all bad, but that's the one that, for whatever reason, is being used more often.

We have a lawsuit right now against the California Department of Pesticide Regulation where we're asking them to re-evaluate both second generation and first generation anticoagulants, due to these impacts on non-target wildlife. We believe that they need to fully analyze all of the affects that these products are having under the California Environmental Quality Act. They've agreed to re-evaluate second generation, but not first generation, yet. So, our lawsuit is proceeding.

MS: Weren't second generation rodenticides taken off store shelves in 2014?

LOV: Yes. The state of California removed second generations from consumer shelves in 2014. And then the Environmental Protection Agency removed them from consumer shelves throughout the country in 2015. This was due to the huge amount of evidence showing that there's a problem with these products bioaccumulating and going up the food chain. But unfortunately, there's a loophole in the law, which we commented on at the time, that allowed professional pest control companies to keep using these products. Their argument was, "Well, we use these products carefully, so they don't cause a problem. It's the consumers that are misusing them and causing the problem." That's ridiculous because it's the poison that's the problem, not who uses it.

The problem is continuing. There's been no decrease in wildlife poisoning since the consumer pull, which pretty clearly speaks to the point that it's the poison, not the user.

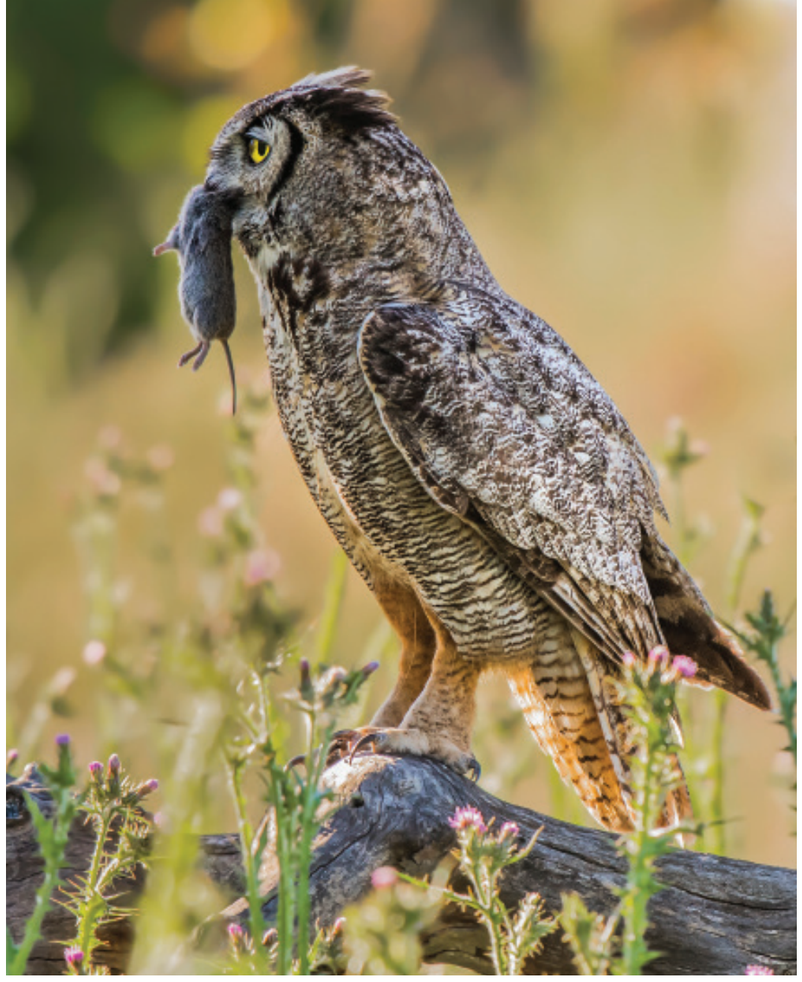
MS: What are some other methods that can help control rodent populations without poison?

LOV: First of all, if rats are getting into your house, you need to figure out how, where and why. They can get in through tiny holes less than the diameter of a quarter. Once you find how they're getting in, you have to put up hardware cloth around the hole to exclude them.

That's the first strategy. There are other things you can do, like pruning trees and branches away from your house so that rats don't get up on the roof and fall through a pipe. Keep vegetation away from your house, don't feed pets outside, clean up birdseed. Chicken coops are a big problem. Coops should be elevated by a foot and half off the ground so that there's not a way for rats to burrow and live underneath them. They love thick mats of ivy too, so it's good to remove it. It is an invasive plant anyway. Compost bins are another place that rats like to burrow under, so be aware of that.

There are other methods that can be used, but a lot of these methods are controversial, and a lot of groups don't agree with using these things. If you have a serious problem and you absolutely must do something, there are products that basically electrocute the rat. And then there are old-fashioned snap traps. All those methods have to be used with great care though, and only in places where other animals can't get into them.

There is a new product called ContraPest made by Senestech that I think may be the best solution out there right now, because it reduces rat fertility. It's not a hormone, it doesn't bioaccumulate, and it's not a poison. Rats are extremely fertile and reproduce really quickly. ContraPest basically just slows down rat reproduction in both male and female rats. [Senestech] has been testing it in various cities with good results so far. I'm hopeful for this solution because it doesn't involve the risk of trapping and all the things that go along with that. Right now, though, only professionals can use it. [Find a pest management company that uses ContraPest at senestech.com/contrapest/find-a-pmp/.]



RATS's Owl Wise Leader program recognizes businesses and communities that stop using rodenticides.

MS: What is the status of AB1788, the California legislation RATS is co-sponsoring?

LOV: AB1788 would close the loophole with the professional operators and add some further restrictions on first generation anticoagulants. You can imagine the amount of pushback that has been occurring from the industry. The bill was introduced this year [2019] by Assemblymember Richard Bloom (D-Santa Monica). It made its way through all the committees it needed to go through, like six. Then it reached the Senate Appropriations Committee, and [Bloom] was notified that various state agencies were concerned about how the bill would be enforced. Rather than letting the bill be killed in the Senate Appropriations Committee, he parked it.

We are trying to work with state agencies to address their concerns, which I personally feel are a red herring. I don't think there's any enforcement or very little enforcement going on now. It was very disappointing to have it stalled out like that. But it's not dead. We've made some suggestions about language and enforcement. We think they could fund enforcement by putting a fee on any users that are exempted. I'm really hoping that this issue can be fixed, especially since Governor Newsom identified it as one of his campaign issues. We'll be going forward again next year.

MS: What can people do to help the effort to pass AB1788?

LOV: We'll certainly be asking for the public's help as the bill moves forward and I'll be sending out action alerts. Check our website, raptorsarethesolution.org, and Facebook page, @raptorsarethesolution, and sign up for our newsletter. Our newsletter and Facebook are how we get out alerts. People can also email us at raptorsarethesolution@gmail.com, and we can provide more information.

MS: I read that there is a loophole for agriculture in the 2014 bill that may not be affected by AB1788.

LOV: It's a very unfortunate loophole. We're now in our fifth year [of drafting the bill], and since the very first year we were told, "Do not try to include agricultural use in this bill or it will not make it out of the first committee." We're not giving up on agriculture. If we can't address it in the legislation, then we're going to ramp up our public education and outreach efforts through billboards and other kinds of ads targeting agricultural areas.

MS: What gives you hope in the work you're doing?

LOV: When I started this effort in 2011, I felt like a lone voice in the wilderness, honestly. Since then, we've built an incredible coalition of organizations that are working together on this issue. There are so many groups now spreading this message, that it's really heartening. It's not just me anymore. I think I started a movement, and now it's spreading across the country. It's not just in California. We have people working on this issue in Washington, Massachusetts, South Carolina, Florida, New Mexico. It's really been great to see people become aware of this issue.

Every now and then, I do have moments of getting discouraged, but then I'll hear a barn owl overhead at night and realize, that's who I'm working for. **WH**

Listen to the full interview with Lisa Owens Viani at beprovidedconservationradio.libsyn.com.