

He brings reality of extinction to life

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Michael Reed teaches the science of extinction at Tufts, but he tempers the doom and gloom lessons with some success stories and ways individuals can make a difference.

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By Billy Baker, Globe Correspondent | October 13, 2008

Michael Reed got up from his chair and pulled a shoebox off a shelf in his office at Tufts University. As he opened it, his voice took on an uncharacteristically somber tone.

"They might have been the most common land bird on the planet," he said as he lifted the lid to reveal a preserved carrier pigeon. He looked at it for a moment, grimaced, and closed the lid. "And we hunted off every last one."

Then he smiled again.

Reed, a biology professor, specializes in a deadly serious issue - the science of extinction. How he does this is somewhat unusual. Reed is not, like many biologists, a dour prophet of doom and

gloom. Even when discussing the carrier pigeon, perhaps the most tragic extinction story in the age of man, he is impossibly jovial.

"If you can divorce yourself from a tragedy, it's funny. But it's still a tragedy," he said as he leaned forward in his chair and took on a conspiratorial tone. "What's funny is that people have done this over and over."

Sure, he's angry; he wants to start a website called "Pissed off about extinction." But he doesn't cry over what's happened in the past; instead, he uses the data gathered from our failures to try to prevent them from happening again.

Reed, 49, is a conservation biologist known in the field for his work on population viability analysis - using mathematical modeling tools to assess the extinction risk for a species population under current conditions, or with intentional human management. "Basically, it's asking 'If I do this for the habitat, will things get worse or better?'"

Primarily, Reed is a bird guy. When he was in seventh grade, a family with three boys moved up the street from his home in Lancaster, Pa., and they were into bird watching, so he tagged along and got hooked. But his interest in biological extinction reaches into all corners of the animal kingdom.

"One of the things that is so great about Michael's body of work is that he gets excited about pretty much anything," said Chris Elphick, an assistant professor of ecology and evolutionary biology at the University of Connecticut who has been collaborating with Reed for two decades. "You can go to him with anything and he can bring in a unique perspective, because not everyone is thinking about the 25 broad areas of research that he's thinking about."

Reed has put in his hours in the field, tracking everything from desert tortoises in Nevada, to salamanders in Massachusetts, to water birds in Hawaii. He's well known for his work on the threat to wetlands and the birds who depend on them - but he's equally passionate about reaching students, particularly those who are not going to pursue a career in the sciences.

"I teach a non-majors a class called Environmental Biology, and I tell students they'll know I've given up when I change the name of the class to 'Get Yours While You Can,'" he said as he let go a deep belly laugh that sent his wavy gray hair flopping across his forehead.

"I want to haunt students. I want them to wake up five years after they graduate, having a bad dream because of something I said. I don't know if haunting is an approved pedagogy at Tufts, but that's the one I'm going for. I want them to know that extinction is preventable, and I want that to bother them."

He's famous for using the drivers ed approach in the classroom - show them a couple horror videos (in his case, the films are about extinction and not drunk driving) and hope it scares them to do the right thing. But he's learned that the scare tactics work best when he delivers them, with a big smile, balanced against stories of success.

This past summer, he took some students to North Carolina to revisit the sites where he'd done his doctorate work in the late 80s on the habitats of an endangered bird called the red cockaded woodpecker. Some sites weren't there anymore. But many were just as he'd documented them in his notes. He didn't dwell on the woodpeckers whose habitat had been destroyed; "it's the birds that were still there that I remember," he says.

Reed said he's still surprised at how many people simply shrug their shoulders about extinction. "You know, 'That's too bad. What's for lunch?'"

"So I've learned I can reach more people saying, 'You've done some bad, but here's some good you can do.' Individuals can make a difference," he says, if the world puts its mind to it.

"The only math you need to know is that six-and-a-half-billion times anything is a lot."

Fact sheet

Hometown: Born in Georgia and grew up Lancaster, Pa. Lives in Medford.

Family: Wife, Karlen, is an attorney in the telecom industry. Son, Ben, is 13.

Education: Undergraduate degree in biology from Millersville College in Pennsylvania in 1981; master's degree in zoology from University of Montana in 1984; doctorate in biology from North Carolina State University in 1989.

Hobbies: Bird watching, of course, and reading mysteries and books about the environment. ■