

Bob Long may not be ready to trade in his extended bed diesel pickup for a Japanese hybrid, but the 64-year-old Texas rancher and minister can rightfully add "environmentalist" to his curriculum vitae.

t's part of my personality and my faith to take care of the land," says Long.
"Adam and Eve were put in the Garden of Eden to enjoy and steward the land, plants and animals. God provided for them."

Long is a non-denominational Christian minister; he serves as president of World Ministry Fellowship, which accredits and licenses ministers; and he runs a modest cattle-and-calf operation on 500 acres in Bastrop, Texas. His property here happens to contain some of the best known habitat for the endangered Houston toad.

In 2002, Long became the first private landowner in Texas to take part in the Fish and Wildlife Service's Safe Harbor Program. The program features legal assurances that land management restrictions will not be imposed on private landowners should those landowners partake in conservation measures designed to help an endangered species. In this case, the program, in essence, creates a safe harbor for both Bob Long and the elusive toad.

The Houston toad was discovered in the late 1940s, though for eons the secretive little critter has been laving low in wetlands and woods, making its presence known less by appearance than by a high-pitched trill mating call. The toad's coloration and rough skin provide excellent camouflage from natural predators such as turtles, snakes, owls, large spiders, and even frogs. Its evolutionary discretion, however, has been no match for burgeoning development. Paved road replaced wetlands; pastures replaced woodlands. The Houston toad was listed as an endangered species in 1970.

"Although the status of the Houston toad has undergone significant declines over the past 60 years, we believe we can prevent its extinction," says Fish and Wildlife Service recovery biologist Paige Navjar. "We are working toward its recovery through effective planning and active landowner participation."

Bob Long remembers first hearing about the government's recovery efforts for the Houston toad in the late 1990s. "Initially, when the Fish and Wildlife Service came down here to Bastrop saying the toad was here and that we had to do something about it, we were concerned. It kind of became this contentious federal-landowner debate that was not very friendly, at first."

After a committee was formed and people started meeting one another face to face, Long says, "tensions eased. The feds realized they'd have to really work with landowners. Texas has more than 95 percent privately-owned land, as opposed to, say, Arizona, which has a lot more federal land. So there's a whole different mentality here, and the Fish and Wildlife Service has to have different mentalities for different locations. Texans like their guns and their land, and if you threaten to take their land, they're quick to show you their guns."

Helping to ease the tension was the Environmental Defense Fund, which plays a crucial role in crafting and administering Safe Harbor agreements. "Initially, we served as a kind of liaison between landowners and the feds," says senior scientist for the Environmental Defense Fund David Wolfe. "We'd been doing Safe Harbor work with landowners elsewhere in Texas, for the black-capped vireo and golden warbler, with great success. So, we met Bob at a meeting and he learned about our incentive-based tools and became interested in knowing how they could help landowners in "toad" country."

Keeping an open mind, Long saw potential in the program for both his land and for the toad, and decided to take the first step. Per the agreement, for about five months out of the year for the past six years now, Long has been keeping his cattle fenced away from the wetlands that are so vital to the toad. The toads and their toadlings, says Long, typically come out from burrowing in December and remain above ground until late spring.

Results followed. Wolfe remembers that, "Just three months after a fence was put in, the largest chorus of toads on record was heard from that pond."

Long has also cut down the size of his herd and continues to rotate grazing patterns. With a lot of help from the Environmental Defense Fund, he has overseen a series of prescribed burns and he has been active in brush removal projects. He has also agreed to plant only native grasses should the need to replant overgrazed pastures arise. Most recently, Long helped build a ditch to carry overflow from a creek directly to the toad's favorite wetland, making good use of the water that often rises above the creek banks.

Of course, Mother Nature certainly plays a role too, and, unfortunately, drought conditions for the past few years have inhibited breeding success.

But, for his part, Long is taking all of the work in stride, hardly griping about the concessions he's made. To him, they are but minor ecological investments in the land—and in his grandchildren's future. "I love the land. My children love the land. My grandchildren love the land," he says. "Improving the habitat for the toad improves habitat for duck and deer. It improves the land. The toad doesn't hurt the land and it doesn't hurt me."

As important as the work on his property, Long serves as a powerful symbol for the potential of private landowners to affect successful conservation, a symbol not lost on the Environmental Defense Fund. "Bob was willing to serve as a kind of model for the program," says Wolfe.

The minister's public speaking skills didn't hurt either. The Environmental Defense Fund sent Long to the North Carolina, to share his experiences with a national audience at a 10-year anniversary ceremony in honor of the first Safe Harbor agreement that has benefited the redcockaded woodpecker there. Also, the group sent Long to Washington, DC, in 2004 to speak on the merits of the incentive-based conservation program.

Closer to home, Long has been the springboard that launched a good deal of interest from other local landowners. "In going through the process with Bob, we now have quite a lot of interest from landowners," says Wolfe. "Two other landowners have signed up for their own Safe Harbor agreements. And there may be enough interest for us to create a 'programmatic' Safe Harbor agreement."

By creating a broadscale plan, the Environmental Defense Fund would help consolidate the individual plans into a single agreement and increase its role in administering on-the-ground efforts, relieving much needed resources for the Fish and Wildlife Service.

While Long has been essential in protecting an important and growing toad population on his land, work has continued away from his property. In recent years, Texas State University has conducted research that has produced valuable information on habitat use, distribution and density of adult toads and juveniles, larval survivorship rates, the effects of predation, and population genetics.

"This information will be instrumental to the Service as we begin developing an updated recovery strategy for this species," says Navjar. The updated recovery strategy will likely include some new specific land stewardship practices, captive breeding and reintroduction of the Houston toad to what remains of its historic range.

One promising component of the revised strategy is what Navjar calls "headstarting," which borrows from methods used in sea turtle recovery efforts. "Headstarting involves the collecting of eggs as they are hatched. Keeping them in a controlled environment will keep them safe from predators, disease and other possible dangers. Thus, these toads are given a bit of a 'head start' in life."

In addition, in March 2008 the Service began a Houston Toad Recovery Initiative to involve multiple state and federal agencies, academic researchers, nongovernmental organizations, landowners, and other stakeholders in recovery efforts. The initiative is designed to increase information sharing, promote landowner involvement, and allow for discussions of collaborative opportunities for the Houston toad.

The Environmental Defense Fund has been working with others, like the Pines and Prairies Land Trust, as Wolfe puts it, "to leverage our efforts as much as we can." Latest efforts to match the growing landowner interest includes trying to get the Natural Resources Conservation Service involved in creating incentive programs with the toad in mind.

For Navjar, the job and the hand-in-hand spirit she sees through it, keep her optimistic. "The best thing about working on this species is the relationships I have with our partners," she says. "From the researchers to the landowners, there are so many dedicated people working hard to recover this species that just being around them and being a witness to their hard work keeps me motivated. I am optimistic about the toad's recovery. It will be a challenge and will probably take a long time to get there, but if I didn't believe we could achieve it, there wouldn't be a reason for all of our partners to be working this hard."

As all of the parties involved in the Houston toad saga have learned, change requires hard work, and it takes time. And Bob Long especially knows it starts at home. \Box

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