Keystone XL's Beetlemania

How an endangered species barely an inch long could be a big barrier to TransCanada's pipeline dreams.

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The carcass of a passenger pigeon weighed in at exactly the size they preferred. Dead prairie chickens did, too. They aren't so picky about the carcasses they bury: mammals will do as well as birds, but the bigger the carcass—which allows them to produce and feed more offspring—the better for our friend the American burying beetle.

The males find the carcasses and send out hormonal signals to attract potential mates. Coupled up, the largest beetles tend to win rights to a particular carcass, which they roll up, bury underground, and coat with preservative chemicals. When the couple's eggs hatch in an underground chamber they've dug adjacent to their carcass, the larvae have a sumptuous feast ready for them.

Once, these orange-marked beetles—the largest of the carrion beetles found on this continent—spread up and down America's east coast and through the Midwest. But now, no one knows quite why there are so few. Humans may be at fault, edging in on habitats and wiping out species like the passenger pigeon, leaving fewer carcasses to be found and more competition among scavengers. Listed as an endangered species since 1989, American burying beetles survive now only in a few states, including Rhode Island, South Dakota, Oklahoma, and Nebraska—in the Sandhills, right where TransCanada planned to route the tar-sands-oil—bearing Keystone XL pipeline.

These beetles, the type of endangered species few people would cry over, have earned the attention both of TransCanada and of environmental groups dedicated to protecting endangered species and interested as well in stopping the pipeline's construction. If TransCanada wants to build the pipeline through the beetles' habitat, it will have to move them. Each year, there are only two opportunities to capture American burying beetles—in the early summer, when they emerge from the ground to locate and bury carcasses, and in the late summer, when they come up once again to find a place to hide for the winter. Environmental groups are hoping the company will get stuck waiting for the beetles to show up, buying pipeline opponents time to mount legal challenges if the pipeline is approved.

"That's the game. If [TransCanada] can get it built really fast, they can beat the court," says Noah Greenwald, the Endangered Species program director at the Center for Biological Diversity. "If it does turn out that they have to move beetles and they get their permit in January and February, they wouldn't be able to start constructing the pipeline, because they would have needed to be moving beetles this summer."

Ernie Fellows has lived in the Sand Hills all his life, working as a farmer and running his own construction company until he retired a few years ahead of schedule to fight against Keystone XL. "Until this pipeline came along, I didn't know how many endangered species and plants we had in this area," he says. He knew about burying beetles but didn't pay any particular attention to the large ones with the distinctive orange markings—the ones that turned out to be endangered. "At first I thought, 'Endangered?? They've been around here all my life," he says. "When you're around something all the time, you don't think about it."

For the past few years, Fellows and other like-minded Sandhillers have been fighting back against Keystone XL, with the help of national organizations like CBD. Last summer, anti-pipeline activists in Nebraska reported that TransCanada had started work on the proposed pipeline route, even though the State Department had yet to approve the project. The company had mowed a wide strip through the prairie grasses along the route the pipeline could take, and the Omaha World-Herald **reported**that, with the help of a local biologist, they were moving the beetles, as well. "We wondered then why they were doing it so darn early," says Fellows.

In theory, companies like TransCanada shouldn't mess with endangered species until their proposed projects have undergone environmental review and received full approval. But TransCanada hired Dr. Wyatt Hoback, a beetle expert and a professor at the University of Nebraska Kearney, to capture and transport thousands of the creatures off the proposed pipeline route last summer.

Hoback, who has lived in Nebraska for almost two decades, started studying the American burying beetle back in 1998. "The American burying beetle is an amazing species," he says. "We really do need to work hard to conserve the species, because it does some neat stuff and potentially can benefit humans."

Outside of his duties at the university, Hoback runs a consulting company that has the dual aim of conserving the American burying beetle and allowing projects like road work, wind farms, and the installation of fiber optic cables to go forward. The pipeline project is the largest he's worked on.

Hoback hired five crews, 50 or 60 people altogether, and trained each member to identify, capture, mark, and release the beetles. Trapping the beetles **requires** a five-gallon bucket and a dead rat. The bucket must be buried in the ground, with four to five centimeters sticking up past the surface and a slope of dirt piled up from the ground to the bucket's edge. There needs to be a plank on top of the bucket, supported by two narrow sticks or boards and weighed down with a rock or additional soil. The bucket cannot be within ten feet of an ant colony—the ants might kill the trapped beetles. The bottom of the bucket must contain five to eight centimeters of moist soil for the beetles to burrow into. The dead rat goes on top, the cherry of the beetle trap sundae.

In this way, Hoback and his team captured and transported 2,500 beetles. He couldn't say, though, what portion of those could have been negatively affected by the move. "That's the big hole in current research," he says. "We had two die in the trap. They were senescent beetles that had reached old age. They weren't going to survive through the winter anyway."

Hoback and his team did all this work for TransCanada under the terms of a Fish and Wildlife Service research permit which allowed him to capture and transport the beetles.

"They were using the permit in a gray area," he says. "It wasn't really wrong, but it wasn't really right."

By October, 2011, a coalition of environmental groups had **filed a case** against the State Department, the Interior Department and the U.S. Fish and Wildlife Service, asking that they clear up that gray area.

"This type of permit is supposed to be for protection and remediation of endangered species," says Kim Huynh, the federal dirty fuels campaigner for Friends of the Earth, one of the parties to the lawsuit. The suit Huynh's organization filed, along with the Center for Biological Diversity and the Western Nebraska Resources Council, argued, essentially, that the company could not "use this permit, meant to protect endangered species, to pave the way for a project that would endanger them," according to Huynh.

For these groups, though, this particular tactic fit in with an overall strategy for pushing back against TransCanada and Keystone XL. "We took on this lawsuit not just to protect the American burying beetle but to protect the landowners who would be threatened by the pipeline and to protect our shared climate," Huynh says.

Transparency is also a big issue behind the lawsuit. Capturing and transporting the beetles might very well be the best strategy if the pipeline goes forward. "The problem is doing that before the decision making process is complete," says Amy Atwood, a senior attorney at CBD.

The lawsuit never went very far: it became moot after the State Department denied TransCanada's permit

request. But last month, they turned up evidence the Fish and Wildlife Service had taken their argument to heart: in issuing a new permit to Hoback, the agency stated very specifically that the "revised permit does not allow trapping and removal of American burying beetles for the purpose of removing beetles from harm's way of development projects."

It's not clear yet if Transcanada's revised pipeline route will have the same beetle problem as the original. Hoback's work in the Sand Hills turned up more beetles than anyone expected, but the soil there is more appealing to the beetles than the soil to the east, where TransCanada could now run the pipeline. The company will start over, first surveying the area for beetles, leaving the same sort of traps that Hoback uses out over a few nights. If they're there, these strange little beetles, barely more than an inch long, could end up causing a major snarl in the pipeline's construction schedule and give environmental groups that much more time to try to block it.