

Democracy works for Endangered Species Act, study finds

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When it comes to protecting endangered species, the power of the people is key, an analysis of listings under the U.S. Endangered Species Act finds.

The journal *Science* is publishing the analysis comparing listings of "endangered" and "threatened" [species](#) initiated by the U.S. Fish and [Wildlife Service](#), the agency that administers the [Endangered Species Act](#), to those initiated by citizen petition.

"We found that citizens, on average, do a better job of picking species that are threatened than does the Fish and Wildlife Service. That's a really interesting and surprising finding," says co-author Berry Brosi, a biologist and professor of environmental studies at Emory University.

Brosi conducted the analysis with Eric Biber, a University of California, Berkeley School of [Law professor](#) who specializes in [environmental law](#).

Controversy has surrounded the [Endangered Species Act](#) (ESA) since it became law nearly 40 years ago. A particular flashpoint is the provision that allows citizens to petition the [Fish and Wildlife Service](#) (FWS) to list any unprotected species, and use litigation to challenge any FWS listing decision. Critics of this provision say the FWS wastes time and resources processing the stream of citizen requests. Another argument is that many citizen-initiated listings are driven less by concern for a species than by political motives, such as blocking a development project.

The study authors counter that their findings bolster the need to keep the public highly involved.

"There are some 100,000 species of [plants and animals](#) in North America, and asking one federal agency to stay on top of that is tough," Biber says. "If there were restrictions on the number of citizen-initiated petitions being reviewed, the government would lose a whole universe of people providing high-quality information about species at risk, and it is likely that many species would be left unprotected."

The researchers built a database of the 913 domestic and freshwater species listed as "threatened" or "endangered" under the ESA from 1986 on. They examined whether citizens or the FWS initiated the petition, whether it was litigated, and whether it conflicted with an economic development project. They also looked at the level of biological threat to each of the species, using FWS threat scores in reports the agency regularly makes to Congress.

The results showed that listings resulting from citizen-initiated petitions are more likely to pose conflicts with development, but those species are also significantly more threatened, on average, than the species in FWS-initiated petitions.

"The overriding message is that citizen involvement really does work in combination with the oversight of the FWS," Brosi says. "It's a two-step system of checks and balances that is important to maintain."

The public brings diffuse and specialized expertise to the table, from devoted nature enthusiasts to scientists who have spent their whole careers studying one particular animal, insect or plant. Public involvement can also help counter the political pressure inherent in large development projects. The FWS, however, is unlikely to approve the listing of a species that is not truly threatened or endangered, so some

petitions are filtered out.

"You could compare it to the trend of crowdsourcing that the Internet has spawned," Brosi says. "It's sort of like crowdsourcing what species need to be protected."

Many people associate the success of the ESA with iconic species like the bald eagle and the whooping crane.

"To me," Brosi says, "the greater accomplishment of the act is its protection of organisms that don't get the same amount of attention as a beautiful bird or mammal."

For example, the FWS turned down a petition to list the Mojave Desert population of the Desert Tortoise, *Gopherus agassizii*, but that decision was reversed. The Desert Tortoise is now in the ESA highest threat category, and populations of the entire species are thought to have declined by more than 90 percent during the past 20 years.

"One of the biggest threats it faces is urban and suburban expansion, which could have made it politically challenging for the FWS," Brosi notes. "And yet, the [Desert Tortoise](#) is a keystone species that helps support dozens of other species by creating habitats in its burrows and dispersing seeds."

Provided by Emory University

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