SAVING ENDANGERED SPECIES:
Voluntary Solutions to Conservation

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Primary Investigators:
Randy T Simmons, PhD, Utah State University
Megan E. Hansen, MS, Strata Policy
Grant Patty, BS, Strata Policy

Student Research Associates:
Jacob Caldwell
Matthew Crabtree
Jordan Floyd
Melissa Funk
Ryan Lee
Richard W. Poll
Madison Smith
The Endangered Species Act (ESA) is simultaneously a powerful and ineffectual piece of legislation. While the act has had some success protecting species, this success comes at a cost that can extend to entire communities. At the same time, the ESA often results in high costs for private landowners and local economies, creating perverse incentives that discourage landowners from conserving species.

Government regulation, however, is not the only option available for conserving species and their habitats. Voluntary private action can help protect species and the landscapes they rely on to survive. Individuals and organizations across the U.S. and internationally are working to find creative solutions to conservation problems that do not rely on top-down government regulation. We examine six cases of private species conservation.

Economic Impacts of the ESA

Private landowners’ property rights can be heavily restricted as a result of species protection under the ESA. The ESA permits the Secretary of the Interior to designate land as critical habitat, indicating the area is vital to a species’ survival and should be protected. If private land is designated as critical habitat, landowners may be severely limited in what they can do with their property.

Critical habitat designation can also impact local industries and communities that rely heavily on land use. For example, the 1990 designation of the northern spotted owl, followed by the 1992 critical habitat designation in Pacific Coast forests in Oregon and Washington, received intense opposition from the local logging community. One 1991 study estimated that the spotted owl’s critical habitat designation would result in over 28,000 lost jobs by 2000 and losses totaling hundreds of millions of dollars. Critical habitat designations have reduced the amount of usable land available for landowners and businesses.

Perverse Incentives

The ESA’s top-down, one-size-fits-all approach creates conflict between people and endangered species. This conflict can actually make things worse for the species the ESA aims to preserve and protect. The threat of land-use restrictions following critical habitat designation can cause landowners to act in ways that harm the recovery prospects of endangered species. For example, a study on the harvesting of timber in North Carolina found that the closer a population of ESA-protected red-cockaded woodpeckers is to a landowner’s property, the more likely the landowner will prematurely harvest their timber resource, thereby decreasing the woodpecker’s habitat.

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Beyond habitat destruction, some landowners go so far as to kill endangered species when they discover them on their land, a practice known as “shoot, shovel, and shut up.” Many landowners would rather risk the potential punishment of harming a species than face land-use restrictions from the federal government.\(^5\)

The only real tool agencies have for protecting species on private land is to discourage actions that harm species, most commonly through the threat of punitive regulation.\(^6\) The punitive nature of federal conservation efforts on private land fosters distrust and discourages cooperation between federal agencies and landowners.\(^7\) Despite these challenges, many private individuals and organizations have taken action to conserve endangered species.

**Private Action: Efficient Voluntary Species Conservation**

Voluntary action on the part of individuals and organizations can provide innovative and effective solutions to today’s conservation challenges. Private organizations across the U.S. and internationally are working to fill the gaps left by government conservation attempts. The case studies below show evidence that these groups have been able to work efficiently with local landowners and communities to target unique problems facing species. The six case studies included in this report provide a small cross section of the work being done by passionate individuals and organizations all over the world to help preserve the species they care about.

**The Coral Restoration Foundation**

In 2007, local activist Ken Nedimyer founded the Coral Restoration Foundation, a non-profit organization dedicated to restoring and preserving the endangered elkhorn and staghorn corals in the Florida Keys area.\(^8\) The foundation helps coral fragments grow by nurturing them in its coral nurseries. Once fragments are healthy and viable, corals are re-planted on the reef.\(^9\)

In 2012, the Coral Restoration Foundation restored the first nursery-raised elkhorn coral. Eighteen first-generation corals were taken from the foundation’s nurseries to a reef south of Key Largo.\(^10\) The corals have been closely monitored and have shown signs of successful growth.\(^11\) As of 2015, the Coral Restoration Foundation has re-planted 21,500 staghorn and 15,000 elkhorn corals, a significant achievement.\(^12\)

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11  Ibid.
Conservation Northwest, Defenders of Wildlife, and the Gray Wolf

The reestablishment of wolves throughout North America has led to the expansion of wolf territory into cattle grazing land. Without physical boundaries to separate wolves from livestock, cases of wolf attacks on livestock have become more frequent, spurring conflict between ranchers and wildlife.\(^\text{13}\)

To protect their livestock and their livelihoods, many ranchers have no other choice but to kill wolves that are on or near their land. The ESA has no mechanism for reimbursing ranchers for their wolf-related losses of cattle or property. This increases conflict between ranchers and wolves, as ranchers have an incentive to kill wolves to protect their property.

Two private organizations have recognized this problem and taken action to reduce conflict between ranchers and wolves. Conservation Northwest, a private organization in Washington, is promoting the conservation of wolves by non-lethal methods. They employ and help pay for riders on horseback who patrol ranchers’ lands, scare away wolves, and help avoid potential conflicts between wolves and livestock.\(^\text{14}\) Conservation Northwest’s project has successfully reduced incidents between wolves and livestock throughout Washington.

Another private organization known as Defenders of Wildlife has reimbursed ranchers across the Northern Rockies for livestock losses due to wolves. From 1987 until 2011, the Bailey Wildlife Foundation Wolf Compensation Trust, a fund run by Defenders of Wildlife, compensated ranchers for their confirmed livestock losses due to wolves.\(^\text{15}\)

These private organizations mitigate some of the ESA’s flaws by encouraging private landowners to conserve species, rather than destroying the species or their habitat. Conservation Northwest and Defenders of Wildlife illustrate that voluntary action can be a viable means for achieving species conservation goals.

Private Conservation of Non-Charismatic Species

Hidden in the depths of the ocean near Australia, the blobfish achieved cult media stardom in 2013 when it was deemed the “world’s ugliest animal” by the Ugly Animal Preservation Society.\(^\text{16}\) The blobfish’s award may be humorous, but it carries a purposeful message. Charismatic species such as pandas, wolves, and grizzly bears receive the vast majority of attention by research funders, conservation researchers, and the general public.\(^\text{17}\) Simon Watt, the president of the Ugly Animal Preservation Society, used the blobfish’s strange appeal to draw attention to other non-charismatic species—that is, species without cultural significance or public appeal.

Since its “world’s ugliest animal” campaign in 2013, the Ugly Animal Preservation Society has continued to promote the conservation of non-charismatic species by holding public comedy events encouraging support of “ugly” animals through organizations like the World Land Trust and the IUCN Red List of Threatened Species.\(^\text{18}\)

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While the Ugly Animal Preservation Society works to conserve non-charismatic species through comedy, the EDGE (Evolutionarily Distinct and Globally Endangered) of Existence program works to conserve species that are genetically unique. By 2016, the EDGE program had 12 projects focused on conserving “some of the world’s most extraordinary and unique amphibians and mammals that are receiving little or no conservation attention.” The EDGE program also contributes to advocacy by implementing educational programs in areas inhabited by non-charismatic species, and provides funding and research for many non-charismatic species.

The Ugly Animal Preservation Society and EDGE are examples of private organizations filling gaps in conservation left by the ESA. The private conservation work being done by both organizations helps to fulfill the conservation needs of non-charismatic species that are often overlooked by conservation researchers and funders.

Private Conservation of the Torreya Taxifolia

Of the 2,280 species the ESA lists as either threatened or endangered, 902 are plants. These species receive less attention, particularly when compared to charismatic megafauna. Vivian Negrón-Ortiz, a botanist at the Panama City Ecological Services Office, found that “[w]hile the majority of species listed under the ESA are plants, they received less than 5 percent of the total funding for species recovery from federal and state agencies.”

In response to the lack of governmental support, private groups like the Torreya Guardians are taking action to help endangered species survive. The Torreya Guardians, a self-organized group of naturalists, ecologists, and botanists was founded by Connie Barlow after she visited Florida and learned about the endangered Torreya taxifolia.

Once abundant, the Torreya taxifolia population has declined from over 600,000 trees to less than 600 found along the Apalachicola River near the Florida-Georgia border. The Torreya Guardians are searching for and testing new areas that might allow this plant to grow to maturity and reproduce in the wild.

The Guardians take seeds that have been collected from healthy specimens that were grown in greenhouses and transport them to areas that will best support the Torreya taxifolia. Sites in North Carolina and Tennessee have been the most promising. A site in Greasy Creek, Tennessee, has seen nine successful plantings, and a site in Waynesville, North Carolina, has only lost two of their 21 plantings.

Despite being protected by the ESA, many plant species like the Torreya taxifolia are overlooked by conservation efforts and funding. The work being done by the Torreya Guardians is an example of private individuals helping to fulfill those conservation needs.

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Safe Harbor Agreements and the Houston Toad

In 2003, landowners in Bastrop County, Texas, were engaged in a tense fight with the U.S. Fish and Wildlife Services (FWS), which was threatening to regulate private property in order to preserve the Houston toad. Few would have expected that “gun-toting, redneck, Texas Republican preacher” Bob Long would become a local conservation leader on his Texas-based ranch, but because of a Safe Harbor Agreement (SHA), this Texan took up the cause of a small endangered amphibian known as the Houston Toad.

SHAs, allow property owners to agree to maintain or improve their land so that it provides potential habitat for endangered species. In exchange, the FWS guarantees it will not further regulate that land if the conditions of the SHA are met. SHAs allow for landowners to draft and propose their agreement to the FWS.

Under his agreement, Bob Long planted trees and grass on his 550 acres to provide shade and soft soil necessary for the Houston toad. He also voluntarily reduced his cattle herd to prevent the cows from scaring away or harming the toad, and fenced off ponds during the toad’s breeding season to protect tadpoles as much as possible while they grow and develop.

SHAs give landowners assurance that their property rights will be respected if they voluntarily take actions to protect species habitat. Long was the first property owner in Bastrop County to enroll in a SHA, but others soon followed. Within a year after the first SHA was signed, two other Bastrop Country farmers and more than 1,000 acres of private land in Texas were enrolled in SHAs to protect both the Houston toad. By 2012 there were 1,900 acres of land being maintained for the Houston toad.

SHAs have been successful in aligning conservation incentives for several species, including the Houston toad. Instead of top-down dictation from the federal government, landowners work alongside the FWS to find solutions in both parties’ best interest. In 2014, SHAs covered over 3 million acres of private land. Because most endangered species live on or rely on private land for the majority of their habitat, SHAs may prove to be an important policy tool going forward.

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26 Ibid.
30 Ibid.
The American Prairie Reserve

In 2001, Sean Gerrity, a Silicon Valley entrepreneur and Montana native, teamed up with conservation biologist Dr. Curt Freese to create the American Prairie Reserve, a non-profit organization whose goal is to create a wildlife reserve in Northeastern Montana. When completed the reserve will be larger than Yellowstone. American Prairie Reserve helps native species thrive by conserving their habitat. To do so, the organization raises money from individual donors. As a non-profit organization, American Prairie Reserve is funded by donations from individuals, organizations, and businesses from across the world that believe in its mission of preserving species and habitat. Individuals from all 50 states and 12 other countries give financial contributions to American Prairie Reserve.

With the funds it raises, the American Prairie Reserve buys private lands from willing sellers and obtains leases to public grazing lands. American Prairie Reserve’s goal is to acquire about 3.5 million acres — roughly the size of Connecticut. In May 2016, American Prairie Reserve consisted of 353,104 acres — about 10 percent of the land needed to reach its goal.

Today, there are about 400 animal species living on the reserve including three endangered species and nearly 700 hundred bison. American Prairie Reserve is also trying to restore the endangered black-footed ferret to the area by increasing prairie dog populations — the ferret’s main food source.

American Prairie Reserve demonstrates that private organizations can and do take the initiative to conserve and are capable of creating results. The model of private land ownership for the purpose of conservation is a promising one that could be adopted by other organizations or individuals who seek to preserve species and their habitats.

Conclusion

Since the ESA was passed over four decades ago, the federal government’s approach to species conservation has largely been to restrict the action of individuals and organizations through regulation. This approach has created unintended consequences that often impose real costs on local economies and can negatively impact the same endangered species the ESA was meant to protect. Some species merely get overlooked, as funding is focused on charismatic species.
Most people assume the only tool available to help species recover is government regulation, but another incredibly flexible and efficient tool has emerged in the form of individuals and organizations that care about species preservation and are doing something to help. These people put their own time, money, and effort into conserving endangered species by creating non-profit organizations with the goal of preserving species and their habitats through voluntary action. Creative agency officials have also taken action to help species by finding innovative ways to work with existing regulation to encourage landowners to preserve species and their habitats. The emergence of these voluntary solutions to species conservation are encouraging to anyone concerned about the preservation of endangered species. Regardless of what reforms are possible or likely within the framework of the ESA itself, letting these creative solutions grow and thrive would likely benefit species and their habitats well into the future.