

Texas Public Policy Foundation

The Endangered Species Act in Texas: A Survey and History



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TEXAS PUBLIC POLICY
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The Endangered Species Act in Texas: A Survey and History

by Megan Ingram, *Policy Analyst*

Executive Summary

Since its first enactment in 1973, the Endangered Species Act (ESA) has been the preeminent tool used by the federal government to identify and protect endangered species. The ESA enables the federal government to manage private and state land use—a task for which it has proven poorly equipped—through the listing of species. Lack of good science has been a hallmark of the ESA listing process, leading to federal control of private property and the undermining of human welfare. Environmental stewardship and human use of the environment are not mutually exclusive. On the contrary, each benefits the other.

To understand the unnecessary conflict that has arisen between environmental conservation and human need due to the ESA, Texans should track the progression of three key species currently considered for listing. These are the spot-tailed earless lizard, the monarch butterfly, and—perhaps most pressing—twelve species of freshwater mussels.

The spot-tailed earless lizard is a telling example of a species officially identified as a “candidate” for listing, despite the fact that it is virtually unknown to the scientific community. Federal listing of the lizard could have major consequences in the shale fields of Texas. Its habitat overlaps significant areas of the Eagle Ford Shale, one of the state’s leading areas of energy production. The lizard has moved through the first step of the listing process, and its petition remains active.

The monarch butterfly is well-known for its annual migration across North America. Less well-known is the fact that along their migration path, traveling populations become much more concentrated in Texas, making the state a landmark stop for the species. Due to dwindling population numbers, the monarch was petitioned for listing and is in the second step of the listing process.

There are 12 species of freshwater mussels in Texas under review for ESA listing. Viewed in the aggregate, their habitat encompasses almost 75 percent of Texas’ counties, touching at least 15 of the state’s river basins. The U.S. Fish and Wildlife Service (FWS) has published its proposal to list the first of the 12 species, the Texas hornshell, as endangered. The fate of the Texas hornshell likely foreshadows the remaining 11 mussel species. Their listings could lead to water restrictions and other federal regulatory barriers across the state.

Environmental conservation is best achieved at the state and local levels through voluntary action, as those most capable of ensuring the protection of endangered species are private landowners, who are intimately familiar with their property and with the species in question. Congressional initiative that would return the decisions about how to balance all the factors involved to state and local officials and private individuals is the best path forward.

The Texas Legislature should urge the Texas congressional delegation to reform the ESA—an outdated environmental law almost 50 years old. At the state level, Texas can serve as an example by promoting state authority over its own agencies and their actions. Litigation has proven to be an effective strategy against federal control. Texas

Recommendations

- The potential ESA listing of Texas spot-tailed earless lizard, monarch butterfly, and twelve freshwater mussel species could threaten Texas’ economy, natural resources, and private land.
- The ESA draws its power from a broad interpretation of the Commerce Clause and because it minimizes consideration of human need, leads to takings of private property without just compensation.
- The ESA has, since its inception, proven an inefficient tool for protecting endangered species. The act’s use of questionable science and foundation in punitive action often achieve the opposite of its intended goal.
- Market-based conservation programs could be helpful in protecting both species and private landowners, but function only as concessions to the existing, ineffective framework of the ESA.
- The Texas Legislature should work to actively support congressional reform of the ESA that provides transparency to the listing process and that facilitates respect for private land use, consideration of economic impacts, and pursuit of quality science.

leaders should support legal efforts that promote sound scientific research in decisions about the listing—and delisting—of plants and animals.

Introduction

Today, the majority of federally listed species exist on private land. And as in many other instances of federal regulation, the ESA often achieves the opposite of its intended goal.

The act's foundation is rooted in punitive action, making the presence of a listed species on one's land a risk instead of a potential benefit. Motivated by the threat of prison time or fines, landowners are incentivized to eliminate signs of endangered species and their habitat—instead of working to preserve them.

Efficient and fruitful species conservation can be achieved through greater respect for private land use and greater dependence on markets. Improvements have already begun in Texas, where market-based approaches to conservation have seen meaningful results.

This report will lay the groundwork for understanding the ESA as a legislative mechanism, analyze its policy roots and application, and evaluate the various ways these have affected species and property owners alike. It will also provide an overview of three species in Texas that are being considered for listing under the act, examine how their listings could change Texas' economy and environment, and provide recommendations for reducing the act's negative impacts on species and humans.

A History of the Act

According to the FWS, the ESA's "ultimate goal is to 'recover' species so they no longer need protection" ([FWS 2013a, 1](#)). The law's track record for recovery, however, tells a different story. In more than four decades, less than two percent of all listed species have ever been delisted.

While ineffective at recovering species, the ESA has spawned extensive federal regulatory restrictions over private land use—at times, amidst natural disaster. In 2011, measures to protect the federally listed Houston toad took precedent over protection of human safety during the most destructive fire in Texas history that leveled 1,700 Bastrop County homes, a time when emergency safety measures were needed most ([White, 2](#)). The discovery of a single Braken Bat Cave meshweaver, an endangered eyeless spider, immediately halted the construction of the remaining 1,500 feet of a six-mile, \$11 million pipeline meant to transport water to San Antonio ([Persellin, et al., 578](#)). In 2012, oil

and gas operations in the Permian Basin of west Texas were threatened by the potential listing of the dunes sagebrush lizard.

Market-based approaches to conservation have seen meaningful results.

Williamson County, Texas, is now in the midst of its own battle against the continued ESA regulation of the Bone Cave harvestman, the tiny cave arachnid species whose endangered status costs local taxpayers tens of thousands of dollars a year to manage. Under the ESA, purposefully harming a harvestman or its habitat can result in up to \$50,000 in fines and one year in prison. Unintentional harm to protected species can pack just as heavy a metaphorical punch. Mitigation permits to cover within 345 feet of a known harvestman cave cost \$10,000 per acre and forty times more (\$400,000 per acre) within 50 feet ([Weldon 2016](#)). In November 2015, the Texas Public Policy Foundation's Center for the American Future (CAF) filed a suit challenging the constitutionality of ESA regulation of the harvestman on behalf of Williamson County and a local landowner. CAF's suit more broadly questions the constitutionality of the ESA, which operates on the premise that even purely intrastate species, like the harvestman, have an impact on interstate commerce.

Stories like these are becoming increasingly common as the number of federally listed species in Texas increases.

The Commerce Clause: Where the ESA Draws its Authority

Article 1, Section 8, Clause 3 of the United States Constitution, the Commerce Clause, grants Congress power to regulate commerce "among the several states." Over the last century, federal agencies have relied on an expansive interpretation of the Commerce Clause as rationale for their regulation of virtually any activity that is, even indirectly, traded across state boundaries. Regulation of endangered species has been no exception: if a species a) has habitat in more than one state or b) is traded or collected across state lines, then it can be regulated by Congress ([Weldon 2015](#)).

Two decisions out of the U.S. 5th Circuit Court of Appeals have further widened the use of the ESA as a tool with broad and inconsistent authority. In the first, a 2003 case over Texas intrastate invertebrates, the court furthered Congress' Commerce Clause power through a two-fold ruling:

- Firstly, the court held that all species are interconnected—that is, activity affecting any single species will, in turn, affect other species.
- Secondly, it ruled that considered as an aggregate, all species affect interstate commerce.

The court combined these two ideas in its final ruling, concluding that activity affecting any one species will have a “requisite substantial effect on interstate commerce” ([GDF Realty Investments, LTD. v. Norton](#)).

The problem with the court’s approach lies in the fact that such an extensive use of the Commerce Clause, in practice, gives the federal government unlimited authority ([Weldon 2015](#)). In the words of a federal district judge in Utah: “The Commerce Clause empowers Congress ‘to regulate commerce,’ not ‘ecosystems’” ([National Ass’n of Home Builders v. Babbitt](#)).

In the second case, a 2016 decision, the court ruled 2-1 to uphold FWS’ designation of 1,544 acres of private Louisiana property as critical habitat for the dusky gopher frog, despite the fact that the land is “manifestly not suitable” for the species. The Pacific Legal Foundation represents the property owners “in challenging this unjustified federal targeting of their land” ([PLF 2017](#)).

In her dissent, Circuit Judge Priscilla Owen cited the FWS’ own findings that “considerable uncertainty exists regarding the likelihood of a Federal nexus for development activities’ . . . and that only the ‘potential exists for the Service to recommend conservation measures if consultation were to occur.’” She argued that the majority opinion interpreted the ESA to allow for federal restrictions on private land that 1) the endangered species does not occupy, 2) is not near areas that the endangered species does occupy, 3) “cannot sustain the species without substantial alterations and future annual maintenance, neither of which the Government has the authority to effectuate, as it concedes”, and 4) plays no part in supporting current habitat for the species ([Markle Interests, L.L.C., et al v. U.S. Fish and Wildlife Serv, 42, 65](#)).

Such an extensive use of the Commerce Clause, in practice, gives the federal government unlimited authority.

She objected to the court’s support of designation of critical habitat based on theoretical possibility, concluding that “land that is not ‘essential’ for conservation does not meet the statutory criteria for ‘critical habitat’” and that the “the

language of the Endangered Species Act does not permit such an expansive interpretation and consequent overreach by the Government” ([Markle Interests, L.L.C., et al v. U.S. Fish and Wildlife Serv, 42, 43](#)).

In February 2017, the court voted 8-6 not to rehear the case en banc, eliciting lively dissent from the six minority judges written by U.S. Appeals Court Judge Edith Jones. Judge Jones deemed the panel majority’s rule inconsistent, noting that “this kind of misinterpretation is, frankly, execrable, and contrary to the Supreme Court’s Scalia-inspired and rather consistent adoption of careful textualist statutory exposition” ([Krochtengel](#)).

The Taking Provision: How the ESA Applies its Power

A species may be listed for federal protection under one of two categories: “endangered” or “threatened.” An endangered species is defined as “in danger of extinction within the foreseeable future throughout all or a significant portion of its range” ([FWS 2015](#)). A threatened species is one that is deemed likely to become endangered.

Once a species has been listed as endangered, FWS may then designate its critical habitat, the “geographic areas that contain the physical or biological features that are essential to the conservation of the species” ([FWS 2013a, 2](#)). The Interior Department’s FWS and the Commerce Department’s National Marine Fisheries Service are charged with administering the law.

The ESA’s most fundamental provision lies in Section 9—the taking provision. This section makes it a felony to “take” any species that is listed as threatened or endangered. The act defines unlawful take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct” ([FWS 2013a, 1](#)). The Supreme Court has upheld FWS’ broad definition of “take” and further expanded it to also include any activity that disrupts the habitat of the species or interferes with usual feeding and breeding activity.

Violation of the take provision is triggered by both intentional and nonintentional acts. Inadvertent and temporary disturbance of listed species’ habitat has led to control over landowners’ basic use of private property, raising the issue of a better known kind of taking under the Fifth Amendment of the U.S. Constitution: “nor shall private property be taken for public use without just compensation.” Both the Texas Constitution and the U.S. Constitution prohibit regulatory action found to take private property without just compensation.

State Application: Texas Law

Species federally listed under the ESA as endangered or threatened are protected by both federal and state law. In Texas, provisions for species protection fall under the Texas Parks and Wildlife (TPW) Code and the Texas Administrative Code ([TPWD 2016a](#)).

- **Protection of State-Listed Species - TPW Code Section 68.002** - “Species of fish or wildlife indigenous to Texas are endangered if listed on: 1) the United States List of Endangered Native Fish and Wildlife; or 2) the list of fish or wildlife threatened with statewide extinction as filed by the director of the [Texas Park and Wildlife] department” ([TPW 68.002](#)).
- **Prohibitions on Take of State-Listed Species**
 - **TPW Code Section 68.015** - “No person may capture, trap, take, or kill, or attempt to capture, trap, take, or kill, endangered fish or wildlife” ([TPW 68.002](#)).
 - **Texas Administrative Code Section 65.171** - “Except as otherwise provided in this subchapter or Parks and Wildlife Code, Chapters 67 or 68, no person may take, possess, propagate, transport, export, sell or offer for sale, or ship any species of fish or wildlife listed by the department as endangered; or . . . in this subchapter as threatened” ([TAC 65.171](#)).
 - **TPW Code Section 1.101(5)** - “Take, except as otherwise provided by this code, means collect, hook, hunt, net, shoot, or snare, by any means or device, and includes an attempt to take or to pursue in order to take” ([TPW 1.101](#)).
- **Penalties: TPW Code, Chapter 67 or 68** - The penalties for take of state-listed species are:
 - First offense: Class C Misdemeanor
\$25-\$500 fine
 - One or more prior convictions: Class B Misdemeanor
\$200-\$2,000 fine and/or up to 180 days in jail
 - Two or more prior convictions: Class A Misdemeanor
\$500-\$4,000 fine and/or up to 1 year in jail

A Fundamentally Flawed Act

The ESA has proven to be a controversial law since its enactment in 1973. Funding for the ESA was originally required to be reauthorized every five years, but Congress

has done so only in one-year increments since 1993 ([Czech & Krausman](#)). This suggests a sharply divided Congress that has lacked a majority to reauthorize and appropriate funding for implementation of the law.

Since its enactment, Congress has revisited and amended the ESA five times but without substantial change. More than three decades have passed without any significant improvements ([NESARC](#)). An Endangered Species Act Congressional Working Group in the House recently released a report summarizing the needed reform and recommending change in four categories: greater transparency and focus on recovery and delisting; reducing litigation and fostering settlement reform; encouraging decision making by states, tribes, local governments, and private landowners; and lastly, accountability of ESA data and science ([Vetter](#)).

Without greater respect for private land use and consideration of economic impacts, the ESA will remain an ineffective and increasingly destructive mandate.

The most succinct statement of the ESA’s purpose and main problems remains a 1978 Supreme Court ruling regarding ESA protection of the snail darter. The Court held that “the plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, *whatever the cost*” ([Tennessee Valley Authority v. Hill](#); italics added). According to the Court, Congress spoke explicitly in the ESA to make preservation of listed species inviolable and without a mechanism to balance economic impacts or human welfare in listing decisions and recovery actions ([Shogren](#)).

Before the last decade, most listings and recovery activities under the ESA were predominantly confined to federal land in the western states. Since then, FWS has dramatically increased the number of candidate or listed species with habitat on private lands.

Weak science has undermined the effectiveness of ESA regulatory measures to recover species. The language of the act does not ensure high quality science: it stipulates that listing decisions be made “solely on the basis of the best scientific and commercial data *available*” ([NOAA](#); italics added). This wording is easy to overlook, but paramount in understanding ESA issues. What may qualify as best available science

In Depth: The Listing Process

Petition: anyone can submit a formal request that one or more species be considered for listing as endangered or threatened.

FWS has 90 days upon receipt of the petition to complete a review. It leads to one of two results: 1) “substantial” finding, or 2) “not substantial” finding, which warrants no further action and the process ends for the species under consideration.

If the 90-day review leads to a substantial finding, the FWS then begins its 12-month status review during which it gathers information and allows public submission of comments on the proposed listing. FWS must publish all specific findings in the Federal Register. The 12-month review can lead to one of three possible outcomes:

- 1) “not warranted,” where no further action is taken,
- 2) “warranted but precluded” (this means the species is precluded by listings of higher priority and is deemed a candidate species that is reviewed annually until FWS can make a listing decision), or
- 3) “warranted.”

A positive finding of the 12-month review means the FWS has found that the listing of a species is “warranted.” FWS begins a second 12-month period during which FWS publishes the proposed rule to list the species in the Federal Register and opens a 60-day public comment period. By law, the FWS must either

- 1) determine that the species does not warrant federal protection under the ESA, and withdraw the proposed rule, or
- 2) list the species as threatened or endangered, and publish a final rule listing the species. Species’ listing becomes effective 30 days after the final rule’s publication.

may be only superficial and conjectural. Such a rubric allows what would otherwise be inadequate, outdated science to drive listing decisions. This manifests itself in two aspects of the listing process. First, FWS does not utilize standards that require a minimum level of quality or reliability for data. Second, many petitions for listing involve rare, therefore relatively unknown, species without much existing research about their biology or habitat. In these cases, minimal research is the best available research.

A growing number of ESA stakeholders agree that without greater respect for private land use and consideration of economic impacts, the ESA will remain an ineffective and increasingly destructive mandate ([Loyola](#)). Modern reform of the ESA based on what has been learned in the last four decades should be a priority.

Texas’ Key Potential Listings

As of July 2016, there were 96 species in Texas pending federal review for listing ([TPWD 2016c](#)). In developing science superior to that of the FWS, designing sophisticated voluntary conservation plans, and catalyzing strategic litigation, Texas has successfully defeated unfounded listings.

There are three key species in Texas that FWS is currently reviewing for possible listing. Federally listing these species could have a substantial effect on the state’s economy and natural resources.

The Texas Spot-Tailed Earless Lizard

The spot-tailed earless lizard (*Holbrookia lacerata*) was petitioned by WildEarth Guardians for federal protection in January of 2010. In May of 2011, the FWS published its substantial 90-day finding, determining that the petition presented “substantial scientific or commercial information” to indicate that listing the lizard “may be warranted” ([90-Day Finding, 5](#)). The petition is still active.

The FWS considers five main factors when examining petitions as part of its 90-day review. When published in the Federal Register, the finding should present the five categories and analyze whether each presents substantial information to warrant the possibility of a species’ listing ([90-Day Finding](#)). The five factors are:

1. Present or threatened destruction, modification, or curtailment of habitat or range.
2. Overutilization for commercial, recreational, scientific, or educational purposes.
3. Disease or predation.
4. Inadequacy of existing regulatory mechanisms.
5. Other natural or manmade factors affecting continued existence.

The spot-tailed earless lizard is a prime example of the unreliable scientific research present throughout the listing process. In the lizard’s 90-day finding, FWS found that in four of the five categories, the peti-

Figure 1: Range of spot-tailed earless lizard habitat overlaid with Eagle Ford Shale resources



Adapted from: [Energy Information Administration](#) and Texas Comptroller of Public Accounts

tioners failed to provide substantial information indicating that the species may warrant listing. Yet it still published a positive finding.

This means that FWS issued a positive finding for the lizard after finding merit for listing in only one category: disease or predation. FWS stated that the petition provided enough information to prove that fire ants “occur across a large part of the spot-tailed earless lizard’s range” and may “pose a threat to the spot-tailed earless lizard through direct predation on adults, hatchlings, and eggs” ([90-Day Finding](#)).

For the remaining four categories, there is little to nothing known about the species. What scientists do know is that the lizard’s habitat range encompasses large swaths of the Eagle Ford Shale, which is fast approaching the 1 million barrels-per-day mark for crude oil production ([Hiller](#)) and supports more than 47,000 local full-time jobs ([IER](#)). Listing the lizard would intertwine the fate of one of Texas’ most prominent oil-producing areas with that of a virtually unknown species whose unproven vulnerability most likely stems from fire ants rather than from energy production.

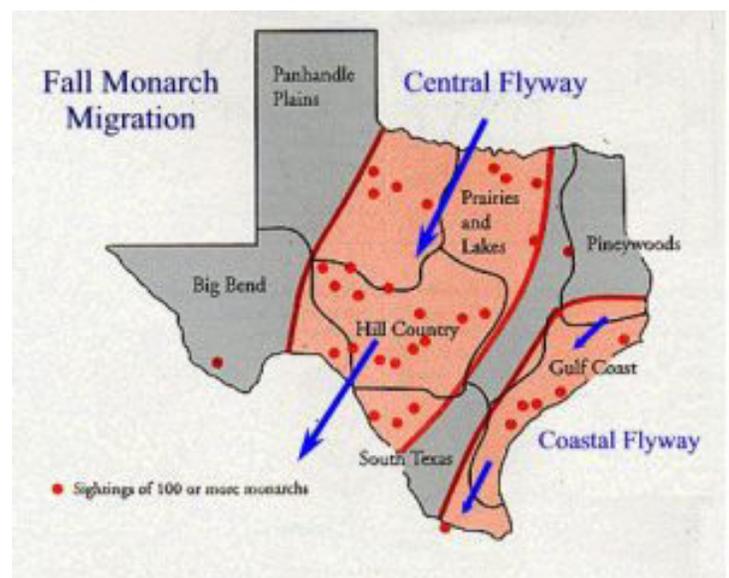
Because research is still in its earliest stages, more information is needed before FWS should continue to move the spot-tailed earless lizard through the listing process. In June 2014, the Texas Comptroller of Public Accounts awarded a grant of \$233,531 to the University of Texas at Austin to further study the species ([Hiller](#)).

To prepare for what could be in store for the Eagle Ford Shale, one can take a look at what’s happened in the West Texas Permian Basin. The country’s most productive oil field, the Permian overlaps the habitat of the lesser prairie-chicken, a grassland grouse that was listed as threatened in 2014 ([Hiller](#)). In July 2016, the chicken was officially delisted. The delisting was the fruit of the labor of industry groups, ranchers, landowners, and agencies in five states that allocated thousands of acres of rangeland for the lesser prairie-chicken as part of a voluntary conservation plan. The victory was shared by the Permian Basin Petroleum Association and other oil and natural gas groups that successfully sued FWS on the grounds that listing the chicken under the ESA was not scientifically justified. The court’s ruling also invalidated FWS’ expansive 4(d) rule governing actions violating the take prohibition. Together, robust science, voluntary conservation programs, and litigation achieved both protection of the species and energy production.

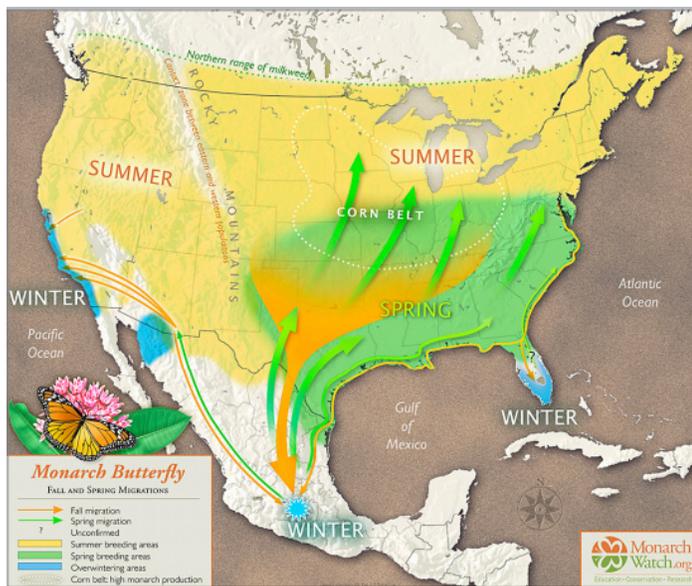
The Monarch Butterfly

In August of 2014, FWS received the original petition for listing the monarch butterfly (*Danaus plexippus*) as a threatened species under the ESA. The petition was submitted by the Center for Biological Diversity (CBD),

Figure 2: Texas migration pathway for monarchs



Source: [Texas Parks and Wildlife Department](#)

Figure 3: National migration pathways for monarchs

Source: [Environmental Defense Fund](#)

the Center for Food Safety (CFS), Dr. Lincoln Brower, and the Xerces Society for Invertebrate Conservation. After reviewing the petition, FWS determined in its 90-day finding that the butterfly may warrant protection and thus began its 12-month status review. When March of 2016 came and went without a final decision, CBD and CFS filed a lawsuit against FWS over its failure to meet the review's statutory 12-month deadline. On July 5, 2016, FWS was given three more years to evaluate the need for the monarch's listing.

There are several ways to measure monarch populations, and while area of trees covered by the butterflies in overwintering sites is the most common, it is only an index of population size: not an actual number of monarch individuals. Since 1993, the WWF-Telcel Alliance and Mexico's National Commission for Protected Areas (CONANP) have collected data on the area of forest occupied every year by monarch butterfly colonies in Mexico. The data indicate that the monarch population has been declining. Between 1993 and 2014, the area of forest occupied by monarch colonies in Mexico decreased from 15.39 acres to 2.79 acres—although there were variations of these numbers, for example it also reached 44.95 acres occupied in 1996 and 27.48 acres in 2003 ([Rendón-Salinas et al.](#)).

Texas is an important state along the monarch's migration path. Located between the monarchs' northern breeding grounds and their overwintering areas in Mexico, Texas is the only state that every individual monarch must cross ([TPWD 2016b](#); [Journey North](#)). Here, the migration path narrows, and the number of monarchs becomes more con-

centrated before the species enters Mexico. The first of the two Texas monarch pathways stretches from Wichita Falls to Eagle Pass, while the second falls along the Gulf Coast ([TPWD 2016b](#)).

Environmentalists and petitioners have put their trust in an ESA listing, believing it will protect the monarch by requiring a permit before its habitat can be modified and by designating its "critical habitat" to help its numbers recover.

But while the end goal of the ESA is to protect species, the law's focus on punitive enforcement can be counter-productive. When FWS lists a species and defines its critical habitat over which regulatory control will be asserted and penalties imposed, landowners may be tempted to avoid having anything to do with the species in order to avoid punishment for basic land use on private land. In effect, landowners have nothing to gain and much to lose.

The loss of milkweed, a food source and habitat for monarchs, is one possible reason given for the butterfly's decline ([Rendón-Salinas et al.](#)). Should the monarch butterfly be listed and milkweed become part of its critical habitat, fines for takings of either could reach \$25,000 per violation or a year in prison. Texas landowners, because their state is a primary flyway for the monarch, would be particularly vulnerable to these repercussions.

The Monarch Butterfly Habitat Exchange is an example of efforts to lead the way in true conservation of species—it is an emerging market-like conservation plan that provides incentives for farmers and ranchers to plant milkweed on their land. By creating habitat for the monarch, these landowners earn what are called credits, which can be sold through the habitat exchange to potential buyers that include agribusiness, food companies, and chemical companies—all can benefit from participating in the exchange to help avoid an ESA listing.

The monarch is beloved both within and beyond America's borders. When it comes to solving issues of population decline, the federal government is the least suited to understand the complexities of species habitat on private land. While measurements of monarch populations from different sources can sometimes be conflicting or incomplete, there is some indication that the monarch has seen a recent population bump, potentially due to private conservation efforts. Between 2014 and 2015, the monarch's overwintering area in Mexico increased from the 2.79 acres as we saw above to overwintering area occupied by the monarch increased from 2.79 acres to 9.91 acres in 2015 ([FWS](#)).

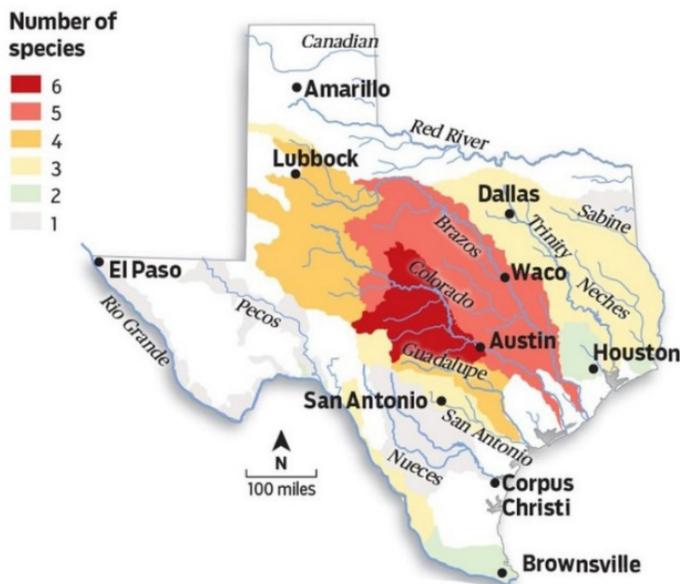
Private conservation efforts should be allowed to flourish without government interference.

Freshwater Mussels of Texas

The river basins of the Lone Star State are home to 12 freshwater mussel species currently under review for ESA listing. Their habitat has been documented in 190 out of the state's 254 counties ([Sementelli](#)).

Figure 4: Texas migration pathway for monarchs

Range of freshwater mussels in Texas



On August 10, 2016, FWS published its proposal to list the Texas hornshell as endangered. Known to reach more than four inches in length and live up to 20 years, the Texas hornshell is now only found in 15 percent of its historical range, which once included New Mexico and its Rio Grande River Basin, Texas, and coastal area rivers of Mexico ([Endangered Species Status for Texas Hornshell](#)). Today, it can be found in the Rio Grande River downstream of Big Bend National Park and near Laredo in Webb County, as well as in the Devil's River in Val Verde County.

In order to streamline the listing process, FWS has grouped the Texas hornshell and the remaining 11 mussel species into three primary listing packages:

1. *Central Texas mussels package*: the golden orb, smooth pimpleback, Texas fatmucket, Texas fawnsfoot, and Texas pimpleback.
2. *East Texas mussels package*: the Louisiana pigtoe, Texas heelsplitter, and triangle pigtoe.

3. *Rio Grande mussels package*: the Texas hornshell, false spike, Mexican fawnsfoot, and Salina mucket.

The fate of the Texas hornshell's listing will shed light on FWS' decision-making process for the other 11 species, whose habitat ranges stretch across many of Central Texas' major rivers. Experts say that if the hornshell is successfully listed, the rest will likely follow, leading to designation of special habitat protections. Habitat protection for the mussels could mean widespread ramifications for allocation of surface water affecting agriculture, industry, and municipalities across the state.

A 2013 study commissioned by the Texas Comptroller analyzed the potential environmental flows that would be diverted to protect mussel critical habitat in the Brazos, Colorado, and Guadalupe-San Antonio river basins. The study found that for Bexar, Medina, and Tom Green counties alone, one-year losses in the commercial, industrial, municipal, and agricultural sectors could range from \$37 million to \$80 million ([Thornton, 1](#)).

Figure 4 shows the breadth of the areas of Texas that could be affected if the mussels are federally listed. Final listing decisions for the remaining mussels are not far behind; they are expected to be made after fiscal year 2017.

Recommendations

How the Texas state government will act to limit encroachment on private land, property rights, and vital economic activity has been a controversial issue in the previous two legislative sessions. A threshold question is the extent to which state agencies, universities, local governments, and private players should determine the state's response to the ESA, considered the crown jewel of federal laws among environmental activists. The relative value of reform of the ESA, litigation, enhanced science, and voluntary conservation plans to preempt or accommodate federal ESA actions are among the points of disagreement.

★ ***A federal effort: the Texas Legislature should support the work of its congressional members to reform the ESA.***

Reforming the ESA would be more effective in the long-term than forming solutions that fit within its current framework. The Legislature should make supporting the efforts of Texas congressional members to reform the ESA a priority.

In February 2017, the U.S. Senate Committee on Environment and Public Works held a hearing entitled "Oversight: Modernization of the Endangered Species Act", where Senators expressed their concern over the act's limited species

recovery rate, its impact on farmers, businesses, and landowners, and the need for its amendment. In his opening statement, Chairman John Barrasso of Wyoming asserted that “the Endangered Species Act is not working today.” Among the five-member panel were former Wyoming Governor Dave Freudenthal and North Carolina Wildlife Resources Commission Director Gordon Myers. The two called for prioritizing the role that states can play in fulfilling the ESA’s purpose. Myers articulated the need for clearer differentiation between “threatened” and “endangered,” and for a more effective listing process that facilitates successful delistings. Focus remained on uplifting collaboration with state and local authorities, and ensuring that listing decisions be rooted in science instead of litigation.

U.S. Senator John Cornyn from Texas has introduced two bills aimed at revamping the ESA by making the process more transparent and regulations more consistent for landowners:

- *S. 375, the Endangered Species Act (ESA) Settlement Reform Act* would amend the ESA to give a voice to states, counties, local governments, landowners, and other affected parties during the ESA settlement process in citizen suits against the Department of the Interior and the Department of Commerce.
- *S. 376, the 21st Century Endangered Species Transparency Act* would require the research, scientific and commercial data, and other bases involved in listing determinations for endangered or threatened species to be made publicly available online.

Texas’ U.S. Representative Pete Olson has reintroduced a bill calling for economic review in prioritizing petitions for listing species:

- *H.R. 717, the Listing Reform Act*, would grant the Departments of Interior and Commerce the discretion to decide the order in which petitions are considered and to preclude the listing of species as threatened, based on analysis of economic effects that would result from listing or designation of critical habitat of the species.

★ ***A state effort: the Texas Legislature should promote legislation and programs that uplift the state’s authority over state agencies.***

The ESA contains general language that encourages “cooperation to the maximum extent practicable with the States” and that unless “the State program is not in accordance with this act, he [the Secretary] shall enter into a cooperative agreement with the State for the purpose of assisting in implementation of the State program” ([FWS 2013b](#)). While

this suggests some degree of deference to existing state programs, such yielding has rarely been seen in application and should be more often pursued.

For example, in 2005, FWS Regional Director, Governor Rick Perry, and the TCEQ signed a “no-take concurrence” agreement. In this letter, FWS agreed that existing state law and rule on groundwater quality provided the most effective means of protecting a variety of water species in Central Texas. Rather than “a delegation of the USFWS’s responsibilities under the Endangered Species Act (ESA),” the letter was a federal recognition that Texas rule aimed at protecting “the existing quality of groundwater . . . consistent with the protection of public health and welfare, propagation and protection of terrestrial and aquatic life, the protection of the environment, the operation of existing industries, and the maintenance and enhancement of long-term economic health of the State” was also the best way to preserve the health of the species in question ([TCEQ, TAC 213.1](#)).

Instead of relying on “at any cost” protection of endangered species stemming from the federal government, FWS’ no-take concurrence acknowledged that state rule focused on ensuring water quality for public health, environmental protection, health of species, industry operation, and economic vitality was the best path forward.

In a habitat exchange, landowners benefit from the presence of listed species on their land, which become a commodity instead of a likely risk of financial harm.

Outside of this instance, “at any cost” species protection in rule has resulted in a systematic lack of attention to human considerations. Since 2011, the Texas Comptroller of Public Accounts has been responsible for monitoring endangered species within the state. To some, this seems an inappropriate role for the state’s top tax and accounting office to play. But when a species is federally listed, economic development is also affected. It is precisely the Comptroller’s fiscal jurisdiction that provides for the investigation of what federal protection of species might cost Texas.

In 2013, the 83rd Legislature considered HB 3509, a bill that would have delegated oversight jurisdiction over federally listed endangered species to the Texas Parks and Wildlife Department (TPWD). Unlike many other states’ wildlife

agencies, Texas has long resisted giving TPWD regulatory authority that would interfere with private land use. In contrast, TPWD has encouraged landowners' voluntary conservation plans on private land. Legislation like HB 3509 would facilitate using state employees to enforce federal ESA programs. HB 3509 passed both the House and Senate, but was ultimately vetoed by Governor Perry. His veto helped to protect Texas' state sovereignty and property rights.

★ *Texas leaders should support litigation efforts that value quality science.*

Litigation has proven to be a successful strategy for resisting scientifically unfounded listings under the ESA.

The Texas dunes sagebrush lizard is just one example of successful litigation that led to the FWS' withdrawal of the proposal to list the species in 2010. The decision not to list the lizard was based on a combination of Texas' plaintiff's development of superior science and the voluntary conservation plan developed by the state in response to the proposed listing. Taking legal action, Defenders of Wildlife and the Center for Biological Diversity challenged FWS to reverse the court's decision. Both the federal district court and the D.C. Circuit Court of Appeals denied the environmental plaintiff's petition and upheld FWS' decision not to list the lizard.

It is worth noting that this success was reached despite the fact that the west Texas oil fields of the Permian Basin and New Mexico are the dune sagebrush lizard's preferred habitat. As a means of fighting against listing the lizard under ESA protection, landowners and oil companies designed and implemented voluntary, cost-effective solutions through which habitat conservation and industry activities could coexist.

★ *Texas should encourage proactive state, local, and private strategies to conserve wildlife by means of rigorous science and voluntary habitat conservation programs.*

Until reform of the ESA can be achieved through the U.S. Congress, common sense solutions focusing on robust science, and voluntary conservation efforts may offer the most pragmatic response. These approaches aim to minimize harm to economically productive use of private land by taking proactive measures to conserve species. The use of market-like mechanisms to achieve such a balance appears promising.

"Habitat exchange" systems represent one such market-like mechanism. The idea underlying habitat exchanges is to

allow landowners and developers to offset their alleged impact on a listed species' habitat through mitigation measures in a different part of its habitat. This interplay between impact and mitigation is facilitated through a "crediting system" ([Loyola](#)). Credits essentially serve as financial compensation for landowners who have conserved habitat. In this way, landowners benefit from the presence of listed species on their land, which become a commodity instead of a likely risk of financial harm.

While programs such as habitat exchanges offer pragmatic responses to the current legal reality of the ESA, it is important to recognize the distinction between market-like measures and a genuine market. The first remain, at their core, commercial exchanges bound by federal authority of the ESA.

Conclusion

Crafting policy that aims for protection of natural resources is best handled at the state and local levels—not by the federal government. Implementation of the ESA has demonstrated that federally driven environmentalism "at any cost" typically fails to identify, protect, and recover the now 1,652 species listed under the ESA. Improving human welfare and upholding constitutionally protected private property rights must drive environmental policies.

Enacted in 1969, the National Environmental Policy Act (NEPA) was the first federal law devoted to environmental policy. In the 45 years that followed, implementation of subsequent environmental laws have increasingly strayed from NEPA's still sound human-centered goal: "to create and maintain conditions under which man and nature can exist in productive harmony" in order to "stimulate the health and welfare of man" ([U.S. Senate, 3](#)). As applied, the ESA has become the poster child for federal environmental authority that disregards the primacy of human welfare as the touchstone of genuine environmental protection. The inflexible ESA has stifled economic growth and job creation fundamental to human well-being.

Texans have taken a different tack. We have improved environmental equality, economic growth, and job creation by means of competitive markets and clear private property rights. That legacy has stimulated development of high quality science—a necessary foundation for effective environmental stewardship whether in air quality, water, or wildlife protection. ★

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