



**Bad for Species, Bad for People:
What's Wrong with the Endangered
Species Act and How to Fix It**

by

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Executive Summary

The Endangered Species Act (ESA), passed in 1973, was designed to recover species to a level at which they are no longer considered endangered and therefore do not require the Act's protection. Unfortunately, the law has had the opposite effect on many species. The ESA can severely penalize landowners for harboring species on their property, and as a result many landowners have rid their property of the species and habitat rather than suffer the consequences.

Over 1,900 species of plants and animals — 1,351 domestic and 570 foreign — are currently considered by the federal government to be in danger of extinction. Once a species is listed, they are subject to a variety of conservation efforts, including federal recovery plans that can include a wide variety of measures including habitat protection. However, these conservation efforts rarely, if ever, consider the total costs of species recovery to federal, state or local governments, and especially to private landowners.

The greatest problem with the Act is its land-use control provisions. These provisions penalize public and private landowners by:

- Fining landowners up to \$100,000 and/or sentencing them to up to one year in jail for harming one eagle, owl, wolf or other protected species, or even its habitat, whether the habitat is occupied or not.
- Prohibiting, or tightly regulating, otherwise normal and legal land uses, such as farming, lumbering, construction, human habitation or even visiting the land.
- Providing no compensation landowners for the loss of land value, loss of income or lost use of land.
- Extending regulations to land that isn't currently occupied by an endangered species — but might be suitable for the species' breeding, resting, roosting or feeding.
- Subjecting millions of acres and millions of human residents to land use regulations for a single protected species.

Yet, private landowners are the key to successful endangered species conservation, because 78 percent of these species are found on private land. However, because landowners are penalized for harboring species, many of them take actions to rid their property of the species either by killing them or by applying a "scorched earth" policy that makes actual or potential habitat unsuitable through such activities as plowing, prematurely cutting trees or clearing brush.

The ESA's punitive nature also helps explain the Act's sorry record conserving species. Proponents of the ESA cite species that have recovered due to the Act. Yet, almost invariably these claims are untrue or exaggerated. For example, the U.S. Fish and Wildlife Service officially claims 46 delisted species — 19 due to recovery, 17 due to data error, 9 due to extinction and one due to partial recovery/data error. In reality, the delistings were due to the following:

- Twenty-seven species have been removed due to data error — including the American alligator, which was delisted soon after its initial listing because it was found to be abundant, clearly indicating it was never endangered and was improperly surveyed.
- Nine species were determined to be extinct.
- Five species were delisted due primarily to factors unrelated to the ESA, including the ban on the pesticide DDT.
- Five species were delisted for a variety of other reasons including: private conservation; state, not federal, conservation efforts; and recovery despite harm done by the ESA.

Congress and others have offered cosmetic reforms to improve the ESA's effectiveness — tacitly admitting that the Act's punitive approach has failed and that new approaches are needed. However, these reforms will do little to remove the penalties that undermine the ESA.

The key to future success for endangered species protection is to set a new course based on the recognition that landowners will be cooperative and even helpful when they benefit from, or are at least not harmed by, conservation initiatives. This means stripping the ESA of its land-use controls.

One critical way to provide a new direction for the ESA is to promote innovative wildlife conservation in the United States and in foreign countries. In America, private wildlife conservation initiatives successfully saved the bison from extinction, reintroduced bison herds and increased the numbers of eastern blue birds and wood ducks. Led by a number of countries in Southern Africa, much of the rest of the world is heading 180 degrees away from the command-and-control model of wildlife conservation epitomized by the ESA. These countries have realized that successful wildlife conservation depends on devolving authority over wildlife to local governments and private landowners. The reason: If the people who bear the true costs of living with wildlife are able to benefit from it, then these people will conserve it.

America's landowners are ready, willing and able to conserve endangered species. Sadly, the main impediment to doing so is the Endangered Species Act.

Introduction

Majestic bald eagles, powerful grizzly bears, stately gray wolves — these and other charismatic species typically come to mind whenever the Endangered Species Act (ESA or the Act) is discussed. Beneath this feel-good veneer, however, lies the troubling reality that the ESA has been detrimental to the very species it is supposed to protect. The reason: The law's harsh penalties induce landowners to rid their property of species and habitat. In short, because the ESA is bad for people, it is bad for species.

How the Endangered Species Act Works. The ultimate goal of the ESA is to help recover species to the point that they no longer require the Act's protection. The U.S. Fish and Wildlife Service (the Service) is the primary federal agency responsible for implementing the Act, under the direction of the Secretary of Interior. The Interior Secretary, in cooperation with the Secretary of Commerce, maintains a list of species, subspecies and specific populations of plants and animals in the United States and other countries that government officials judge to be threatened or in danger of extinction. Currently, 1,921 species — 1,351 domestic and 570 foreign — are listed.

The Service and other federal agencies can initiate the process of listing a species. Nongovernmental groups and even individuals can petition the Interior Secretary as well. Once a species is listed, the Secretaries are required to take such actions as they deem necessary for the species' recovery. For domestic species, this tends to include recovery plans approved by the Service — the “blueprints” that lay out the steps necessary, such as captive breeding programs and habitat protection, to achieve recovery. Yet conservation of species with plans, as well as those without plans, does not fully take into account the costs involved to federal, state and local governments, or to private landowners.¹

Recovery plans are not written for foreign species, which are usually listed under the Convention on International Trade in Endangered Species (CITES). CITES requires signatory nations, including the United States, to prevent the importation or sale of designated species.

The Achilles' Heel of the Endangered Species Act. The ESA is widely considered the most powerful environmental law in the nation, but in 1973 it passed Congress overwhelmingly because members “thought they were voting for legislation to protect eagles, bears and whooping cranes,” said Lynn Greenwalt, Service director. The problems with the Act were not immediately evident because few, if any, legislators understood the implications of the law's powerful and far reaching land-use control provisions, or were aware that such provisions existed.²

“The Endangered Species Act (ESA) turns landowners into the enemies of wildlife.”

The ESA's tremendous power became apparent with the landmark 1978 Supreme Court Case, *TVA v. Hill*, in which the snail darter, a two-inch species of fish, temporarily halted construction of a large dam by the Tennessee Valley Authority.³ As a result, it was clear that the Act could be used to stop a wide variety of activities, from timber cutting to home building to public works projects on both public and private land.

One might think that such a powerful law would benefit imperiled species because they often need concerted efforts to save them from extinction and return them to healthy self-sustaining populations. But this reasoning, and the ESA's feel-good image of protecting charismatic species like the bald eagle, ignores the Act's fatal flaw: It harms the very species it is supposed to protect.

The fate of imperiled species, and even some very common ones, rests in the hands of the Earth's most powerful and widespread species — humans. Therefore, to be successful, wildlife conservation must take into account the effects of preservation efforts on people, especially the landowners who harbor the wildlife on their lands. Unfortunately, the ESA does just the opposite by using a rather severe form of command-and-control:

“The ESA gives federal agencies the power to control private land use.”

- Landowners can be fined up to \$100,000 and/or sentenced to up to one year in jail for harming one eagle, owl, wolf or other protected species, or even its habitat, whether the habitat is occupied or not.
- Any land, private or public, which is a habitat for an endangered species is potentially subject to federal land-use controls. These controls can increase the cost of or prohibit entirely any activity, including farming, lumbering, construction, human habitation or even human visits to the land.
- Landowners almost invariably receive no compensation for the loss of land value or income or use of the land.
- ESA regulation extends to potential habitat — lands currently unoccupied by a listed species, but suitable for breeding, resting, roosting or feeding.
- Habitat protection for a single protected species can subject millions of acres and millions of human residents to land-use regulations.

Indeed, the ESA has turned private lands into defacto federal wildlife refuges. By contrast, the federal government usually pays fair market value when it wants to acquire private land to create a military base or even a National Wildlife Refuge, thereby adhering to the U.S. Constitution's Fifth Amendment, which says, in part, “...nor shall private property be taken for public use without just compensation.” But when it comes to housing endangered species, landowners foot the bill.

Making Enemies of Endangered Species

“Most of the habitat of endangered species is on private land.”

Private landowners are the linchpin to successful endangered species conservation. Some, or all, of the habitat of 78 percent of species listed are on private land. This is the largest percentage among all categories of land ownership, including federal, state and municipal governments, nonprofit organizations, Indian tribes and so forth.⁴ Uncompensated regulatory “taking” under the ESA creates a perverse incentive for landowners to do precisely what the law is intended to prevent. It turns endangered species into financial liabilities and landowners into their unwitting enemies. Predictably, landowners have taken actions to rid their property of endangered species; either directly, by killing them — known as “shoot, shove and shut-up” — or indirectly, by applying a “scorched earth” policy that makes actual or potential habitat unsuitable through such activities as plowing, prematurely cutting trees or clearing brush.

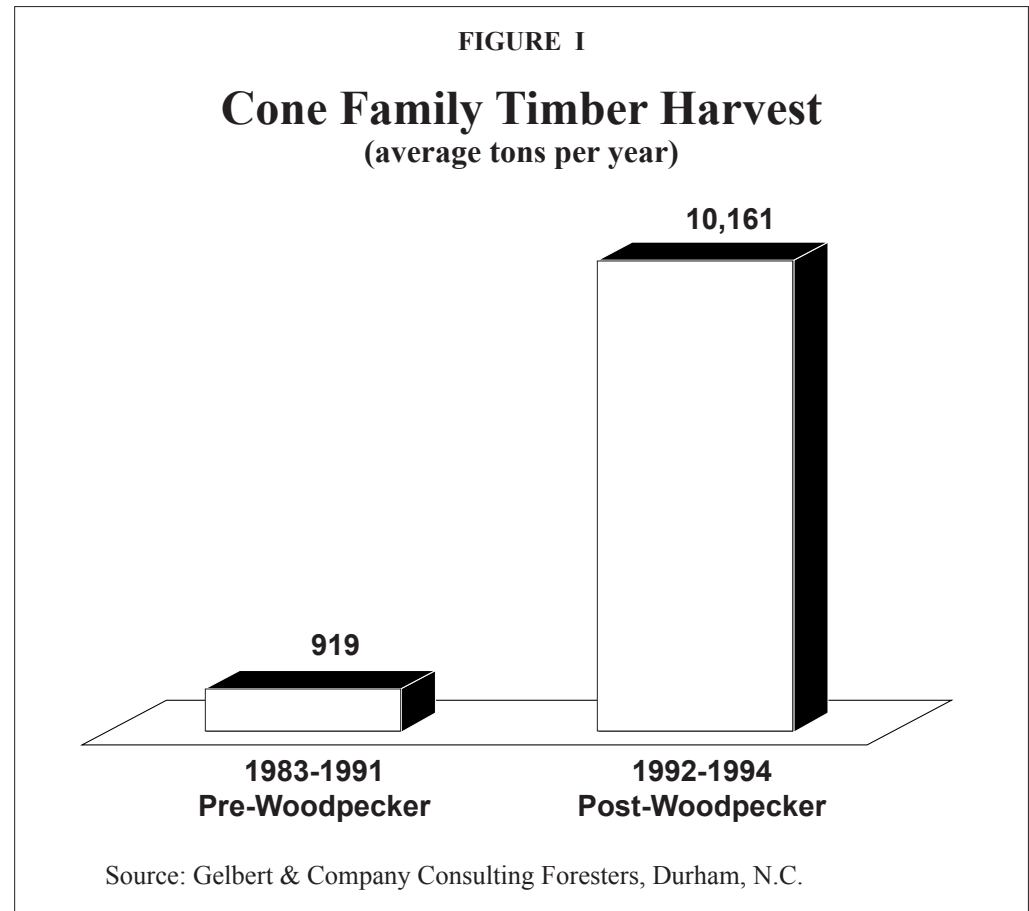
To witness the ESA’s bitter harvest, one need only visit endangered species “hot spots” such as central Texas, southern California and the state’s Central Valley, much of the Southeast, and the Pacific Northwest. Fields are not allowed to lie fallow, trees are cut on faster rotations, brush is cleared and a host of other actions are taken to deny habitat to endangered species. Not only does endangered wildlife lose, but so do many more common species that depend on these lands.

Even the ESA’s staunchest supporters acknowledge the Act is causing great harm. According to Environmental Defense’s Michael Bean, widely regarded as one of the foremost experts on the ESA, “[T]here is increasing evidence that at least some private landowners are actively managing their land so as to avoid potential endangered species problems.” His comments on the red-cockaded woodpecker are broadly applicable to most endangered species. “The problems they’re trying to avoid are the problems stemming from the Act’s prohibition against people taking endangered species by adverse modification of habitat. And they’re trying to avoid those problems by avoiding having endangered species on their property.” Bean then explained the motivations behind these actions. “Now it’s important to recognize that all of these actions that landowners are either taking or threatening to take are not the result of malice toward the red-cockaded woodpecker, not the result of malice toward the environment. Rather, they’re fairly rational decisions motivated by a desire to avoid potentially significant economic constraints.”⁵

Here are a few examples of how the ESA can turn friends of wildlife into enemies.

Case Study: Clear-Cutting in North Carolina. A well-known case of a landowner punished by the ESA involves Ben Cone of North Carolina. In the 1930s Cone’s father bought some 8,000 acres in southeastern North

“Landowners with red-cockaded woodpeckers cut more timber on their land to avoid property devaluation.”



Carolina for a private hunting and fishing preserve. The timber had previously been clear-cut and the land was in poor condition. But over the ensuing decades, Cone and his father rehabilitated the land, planting native pine trees, conducting prescribed burns to maintain forest health and planting food crops for various game species. The result was a wildlife paradise, a park-like forest of longleaf and loblolly pines favored by both game species and non-game species. Periodically, the Cones cut timber to maintain the tax advantages given to commercial forests. However, timber cutting was always done in ways compatible with wildlife management.

Everything changed in 1991 when Ben Cone discovered red-cockaded woodpeckers on his land. The Service informed him that 1,121 acres, worth \$1,425,000, were now off limits to most uses because they were inhabited by woodpeckers. Since Cone was not compensated for his losses, he substantially increased the amount of timber he cut on the rest of his acreage for two reasons; to prevent woodpeckers from occupying more land, and to generate cash to offset his losses.⁶ He increased the amount of timber cut from less than 1,000 tons to more than 10,000 tons per year. [See Figure I.]. Another factor that influenced Cone was the federal Death Tax. When Ben inherited the land from his father he had to cut large amounts of timber to pay the tax, and he did not want that to happen again when his children inherited the land from him. Yet the IRS refused to acknowledge the decreased value of the land due to woodpeckers, which cast a cloud of uncertainty over the value of the land. So

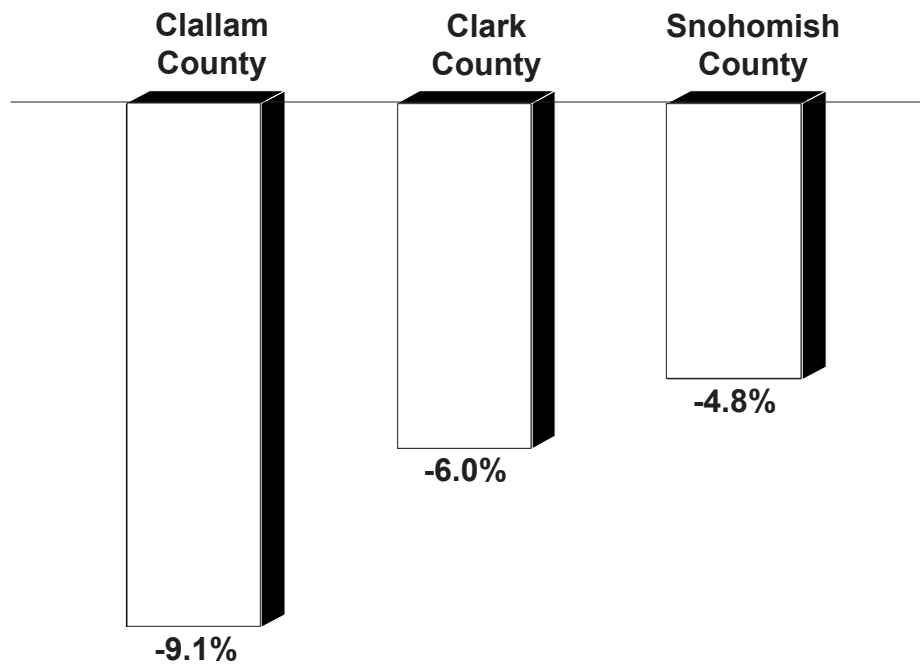
to prepare for the likelihood that the federal government would assess the land at its pre-woodpecker value, Cone cut timber in order to inoculate as much of his land against the woodpecker as possible and to stockpile money for his children to pay the Death Tax.

In addition, broader harm has been done to the woodpecker by its listing under the ESA. One of the Service’s recovery goals is to maintain breeding pairs in various parts of the woodpecker’s range, including 700 breeding pairs in the Sandhills of North Carolina. However, attaining that goal has been difficult because North Carolina landowners preemptively cut 15,144 acres of trees, of which 13,318 acres were in the state’s Sandhills region — the woodpecker “hotspot” in North Carolina — and could have supported 67 pairs.⁷

The Service’s 2003 revised recovery plan estimated the Sandhills contained 683 pairs of woodpeckers, which is just short of the plan’s goal.⁸ However, if landowners had not cleared forest habitat preemptively, the recovery goal could have been exceeded with a total of 750 pairs.

There is additional evidence of the ESA’s destructive impact on the red-cockaded woodpecker and pine forests in the southeastern United States:

FIGURE II
Change in Land Values in Three Washington State Counties Due to Endangered Species Protection



“Land use restrictions to protect spotted owls and other species reduced property values.”

Source: Glenn E. Crellin, “Assessment of Endangered Species Act Enforcement on Real Property Values: A Case Study of Three Washington Counties,” National Association of Realtors, 2002.

- A survey of private landowners in the Sandhills region of North and South Carolina found that owners of land near red-cockaded woodpeckers were 5 percent less likely to reforest the land once it was cut — resulting in significant habitat loss for an imperiled species like the woodpecker.⁹
- Owners of land within the woodpecker’s designated habitat and one mile or less from a colony were 25 percent more likely to harvest their timber than landowners farther away.¹⁰
- Landowners who harvested timber in the woodpecker’s range were 21 percent more likely to clearcut their acreage due to the proximity of woodpeckers.¹¹

Case Study: Spotted Owls. In the Pacific Northwest, the spotted owl was listed as an endangered species in 1990 due to habitat lost to logging. During and after the debate over its listing, however, logging on private lands increased markedly. According to the Service, small landowners resorted to “panic cutting” from fear of federal restrictions to protect the owls.¹² For instance, Vincent Shaudys, a retired university professor, clearcut 24 acres of hemlock and fir in Washington state because there were spotted owls on three sides of his property and he was concerned they would take up residence on his land.¹³

There is also evidence that the spotted owl has caused large scale diminution of property values. A survey in three Washington counties found that the restrictions designed to protect spotted owls and other species had reduced property values by about 5 percent to 9 percent, for a total loss in land value of almost \$700 million.¹⁴ [See Figure II.]

Case Study: Don’t Mess With Texas Songbirds. The Hill Country of central Texas is host to a variety of listed species, including two birds, the golden-cheeked warbler and black-capped vireo. The breeding habitat for these two bird species totals more than 55 million acres.¹⁵ Much of this land could be subject to the ESA’s land use controls. Among the landowners who have been affected by the warbler is Margaret Rector, who bought 15 acres on the edge of Austin, Texas, in 1973 as a retirement investment. In 1990, the golden-cheeked warbler was listed. By 1994, the property’s assessed value had dropped 97 percent, from \$991,862 to \$30,360. Theoretically, the land could be developed. However, a landowner must obtain clearance from the Service in order to develop land identified as endangered species’ habitat. In 1995, when a potential buyer for the property learned of the Service’s demands — pay a mitigation fee of \$34,000 and obtain a permit, which would entail spending at least tens of thousands of dollars more for lawyers, biologists and other consultants, none of which was guaranteed to free the property from the ESA’s grip — he canceled.¹⁶

“The value of a property designated as warbler habitat fell 97 percent.”

“The ESA lowered estimated land values in two Texas regions 30 percent to 40 percent.”

TABLE I

Effect of Endangered Species Protection on Property Values in Two Texas Regions

| <u>Region</u> | <u>Land Type</u> | <u>Decrease in Median Property Value</u> |
|---------------|---|--|
| Hill Country | Urban fringe | 40 percent |
| | Transitional (between fringe and rural) | 30 percent |
| Piney Woods | Urban fringe | 35 percent |

Source: Ted C. Jones, Brittany A. Burnam, Clinton H. Harrington and Roger J. Pelton, “Impact of Habitat Protection on Property Values,” *Tierra Grande*, Vol. 2, No. 3, October 1993, pages 942-950.

Margaret Rector’s case is not an isolated one. The plight of landowners due to the warbler and vireo has been observed by federal and state wildlife officials.¹⁷ In addition, the Real Estate Center at Texas A&M University conducted two studies of the ESA’s effects on land values. A 1994 study by the Real Estate Center found that in Travis County — on the eastern edge of the Hill Country and encompassing the City of Austin — the ESA devalued 897 separate properties by 43 percent, or \$74 million.¹⁸

The Real Estate Center also surveyed 6,000 Texas real estate brokers in 1995, asking them to estimate the effects of the ESA on a number of factors including real estate values. One of the most noteworthy results was the estimated diminution in median property values for the Hill Country and the Piney Woods region of Northeast Texas, home of the red-cockaded woodpecker. [See Table I.]

For the entire state of Texas, the survey found that the ESA reduced the value of farmland and rangeland by 10 percent to 20 percent below what it otherwise would have been. The real estate brokers also predicted the average decline in land values over the next five years due to the Act would range from 10.3 percent for urban land to 27 percent for rural land on the transitional edge of urban land.¹⁹

Case Study: The Mouse that Roared. Another example of an ESA listing causing harm to both species and landowners is Preble’s meadow jumping mouse. The tiny rodent is found in the Rocky Mountain Front Range in Colorado and Wyoming, adjacent to the eastern foothills of the Rockies. The Service listed the mouse in 1998 because it was allegedly threatened by rapid development. The listing was controversial for a number of reasons, one of which was that private landowners were forced to sacrifice land for the mouse. For example, around 150 acres belonging to a Colorado Springs developer, Classic Homes, worth at least \$18 million, was declared off limits

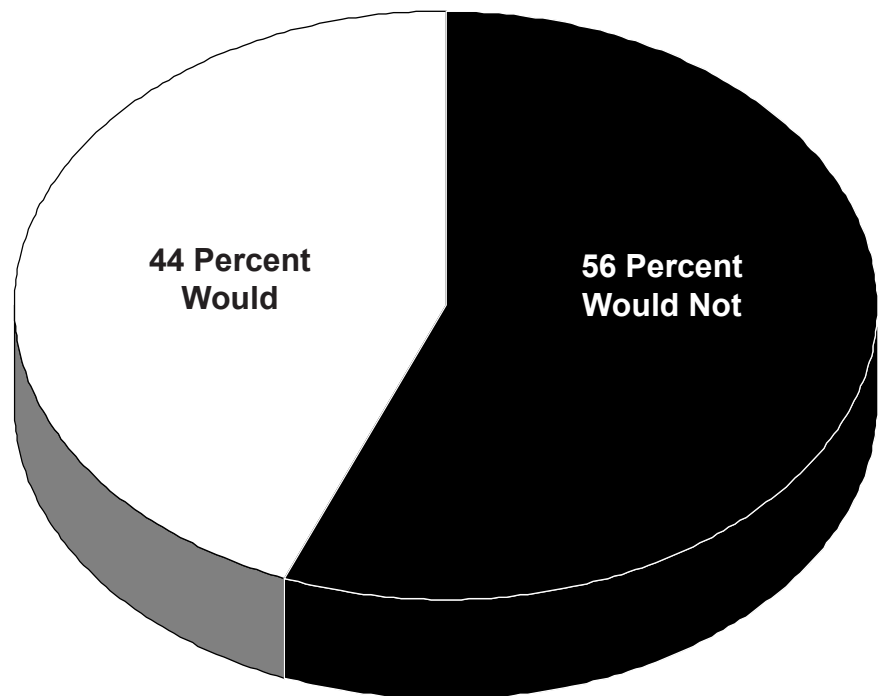
due to the mouse. Classic Homes also had to spend \$2 million to construct a mouse “bridge” above a drainage zone, \$1.3 million more than the typical box culvert would have cost. Furthermore, Classic Homes shells out \$200,000 annually for biologists, lawyers and other mouse experts to certify which land can be used or not.²⁰

However, the total costs for the mouse are much higher. In 2003, the Service designated 31,222 acres of the mouse’s habitat as “critical,” a more restrictive classification. The Service estimated that the designation would cost landowners and the agency as much as \$181 million over the first 10 years.²¹ This, however, almost certainly underestimates the total cost of listing the mouse, since much of its habitat was not designated as critical but is still subject to costly restrictions.

The mouse itself has also been harmed by its ESA listing. Researchers at the University of Michigan surveyed about 25 percent of the mouse’s

FIGURE III

Landowners Who Would Allow Federal Officials to Survey Their Land for Preble’s Jumping Mouse



“Most property owners in Preble’s mouse habitat won’t let federal officials look for endangered species on their land.”

Source: Amara Brook, Michaela Zint and Raymond De Young, “Landowners’ Responses to and Endangered Species Act Listing and Implications for Encouraging Conservation,” *Conservation Biology*, Vol. 17, No. 6, December 2003, pages 1,638-1,649.

habitat. They found that 26 percent of the area surveyed was being managed so as to make it inhospitable to the mouse. A majority of landowners would not allow officials to survey their land for the mouse.²² [See Figure III.]

Furthermore, a number of survey respondents appeared not to know their land was mouse habitat. “As more landowners become aware that their land contains Preble’s habitat, it is likely that the impact on the species may be negative,” the authors conclude, because, as the survey results show, landowners are more likely to make the land inhospitable to the mouse.²³

How the ESA Harms Unlisted Species. The ESA has even dissuaded landowners from reintroducing rare species that are not yet listed under the Act. For example, David Cameron’s family owns a cattle and sheep ranch in Montana. Following the family’s long tradition of wildlife conservation — his father reintroduced pronghorn antelope — David was eager to reintroduce grayling, a rare species of trout. The ranch had suitable stream habitat, but when Cameron learned the Service was considering listing the grayling, he abandoned the project due to fear over potential ESA imposed restrictions.²⁴

Does the Endangered Species Act Save Species?

When confronted with the embarrassing reality that the ESA is harmful to species, the Act’s proponents fall back on two arguments they claim prove otherwise.

First, they contend that although some species that were listed are now extinct, far more would have perished without the ESA. One study claimed that but for the Act, 192 listed species now would be extinct, rather than the seven that had been delisted due to extinction at the time of the study’s publication.²⁵ However, this assertion is fundamentally flawed. It applies a very rough (and likely inappropriate) estimate of extinction rates for all species to those listed under the ESA. Despite this, ESA advocates have cited the study as evidence the Act works.²⁶

The more widespread variant of the extinction prevention argument is that almost all species listed under the ESA are not extinct. “[T]he law is a profound success,” claims the National Audubon Society. “According to the U.S. Fish and Wildlife Service, the ESA has prevented extinction for 99 percent of the species that are listed as endangered or threatened.”²⁷ This claim is unsupportable. Due to the fact that imperiled species are by definition the most susceptible to extinction, statistically, some would have perished with or without the ESA’s intervention. There is no valid data to support the claim that the ESA has stemmed the tide of extinction for listed species, much less that the Act is responsible for the continued existence of 99 percent of the listed species.²⁸

“Flawed data are used to determine the status of species.”

Flawed Data on Species' Status

Every two years, the U.S. Fish and Wildlife Service the Service reports to Congress on the status of species listed under the Endangered Species Act. The reports are based on questionnaires sent to field biologists responsible for studying particular species. However, these categories yield data that are essentially meaningless for six principal reasons.

First, there is the issue of snapshots vs. trend data. Does a given field biologist interpret the status of a particular species at the time the questionnaire is completed (a snapshot) or, perhaps, the species' population trend over time? Clearly, a trend over time yields a superior result, but the questionnaire does not require this method.

Second, there is no standard for determining at what level of health a species is categorized as stable. The species could be stable though hovering perilously close to extinction, relatively healthy with a large and robust population, or somewhere in between.

Third, there is no standard for assessing the rate at which species' population levels are improving or declining. For the data to be accurate, it needs to be quantifiable, but it is not. The data gathered by the questionnaire is qualitative.

Fourth, if the population of a species increased markedly, but then declined slightly just prior to the completion of the questionnaire, it is not clear whether the field biologist recorded the species as increasing or decreasing. The converse also applies. Since the Service has not kept annual data on the status of all species, its data cannot be used to assess the status of all species.

Fifth, the postings of Service field biologists change frequently, so the person filling out the questionnaire for a given species may be different for each survey. Different biologists may interpret the questionnaire differently, and one biologist's knowledge of a given species might be far better or worse than a predecessor's. The answers reflect one person's evaluation of a species at one point in time, and therefore the status of a species may change between surveys simply because different people complete them.

Sixth, the Service skews the data by mistakenly assuming every species is declining at the time it is listed, and when some species are later categorized as stable or improving, it automatically credits the change to the ESA, overstating its effectiveness. For example, in 1978 the Service listed the Rydberg milk-vetch, a plant found in Utah, and assumed that it was declining.¹ But, according to the U.S. Forest Service, the agency on whose land most of the milk-vetch's population grows, "prior to 1978 ... the Forest Service had not completed inventory work or gathered any baseline data on the species."² Without baseline data, the service could not be certain that the milk-vetch's population was growing, shrinking or imperiled. The Forest Service later found the plant was plentiful, with more than 300,000 plants in 13 currently known populations. The Service delisted the plant in 1989 due to "recovery," meaning the Act got the credit. Only in 2005 did the Service correct this "mistake" and recategorize the milk-vetch as "data error," meaning the plant should not have been listed in the first place.³

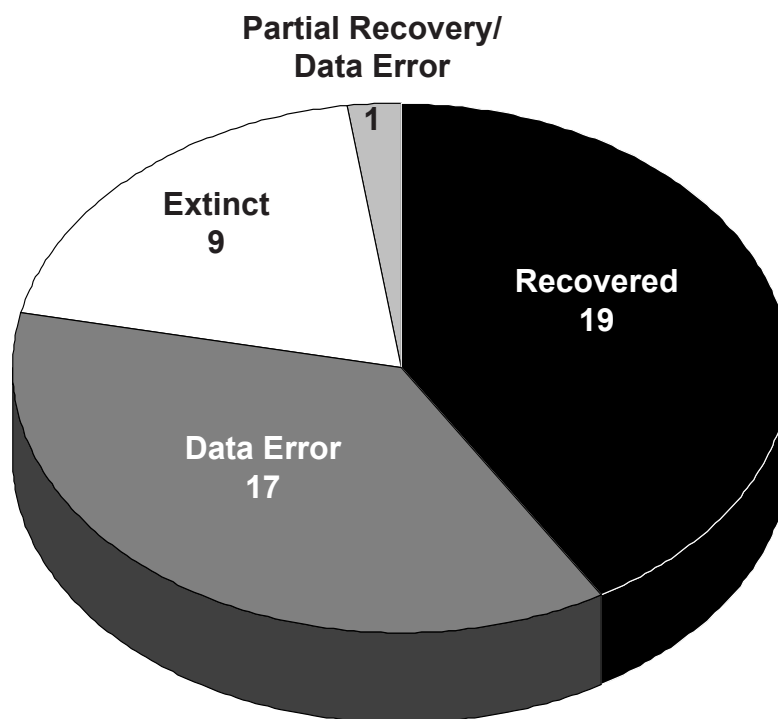
¹ *Federal Register*, Vol. 43, April 26, 1978, pages 17,910-16.

² Draft memorandum from J.S. Tixier, Regional Forester, U.S. Forest Service, Intermountain Region, Ogden, Utah, to forest supervisors of the Dixie and Fishlake National Forests.

³ *Federal Register*, Vol. 54, September 14, 1989, page 37,941.

FIGURE IV

Official Reasons for Delisting 46 Species



Source: U.S. Fish and Wildlife Service.

“Official reasons for delisting are inaccurate.”

Second, ESA proponents claim that the Act is responsible for the Service’s characterization of the majority of listed species as “stable” or “improving.” The National Wildlife Federation claims that of the listed species whose status is known, 68 percent are stable or improving. The Federation also says, “The longer a species enjoys the Endangered Species Act’s protections, the more likely it is that its condition will stabilize or improve.”²⁹

However, these claims cannot be substantiated because they are based on invalid data. Every two years the Service sends out a questionnaire to the field biologists responsible for various species, asking them to categorize their species as improving, declining, stable or unknown.³⁰ But the results are flawed in two basic ways. First, the data are not collected using any sort of standardized methodology that is replicable or that yields meaningful results. Second, data are not collected every year for all species. Others have also noticed that these data are not valid, such as: David Wilcove, formerly with Environmental Defense and currently a professor at Princeton University; the National Research Council’s report on the ESA; and Charles Mann and Mark Plummer, authors of a book and several articles on the Act.³¹ [See the sidebar on flawed data.]

The Endangered Species Act Has a Poor Record of Recovering Species

The ESA's land-use controls help explain the small number of recovered species. Landowners who provide habitat for endangered species are punished for doing so. Thus, as detailed above, when landowners make their property inhospitable to species or refuse to allow government biologists to survey their land for species, the result is a poor conservation record.

The goal of the ESA is to recover species, or bring them to the point that they no longer require the Act's protection. A species can be delisted, or removed from the Act's protection, for one of three reasons: recovery, extinction or data error. Recovery means that the actions taken successfully conserved the species. Extinction is self explanatory. Data error means the species was mistakenly listed, because later data proved the species to be either too numerous to merit protection (such as the Rydberg milk-vetch) or not taxonomically unique. [See the sidebar on on flawed data.]

According to the Service, 46 species have been delisted. [See Figure IV.] The reasons are:

- Nineteen species were removed because they had recovered.
- Seventeen species were later found to have been listed incorrectly due to data error — that is, they were not endangered at the time of their listing or are not taxonomically unique.
- Nine species were determined to be extinct.
- One species was removed because it had partially recovered and partially because the data was in error.³²

However, even the most cursory examination of claims of recovered species reveals that much, if not all, of the credit for these species' improved prospects does not belong to the ESA.

The Case of DDT and Birds. It is widely acknowledged that the ban on the pesticide DDT in 1972, not the passage of the ESA in 1973, is the paramount reason for the resurgence of the bald eagle, American and Arctic subspecies of the peregrine falcon, and the eastern brown pelican. The relationship between DDT and the reproductive health of these birds, including their decline and subsequent rebound, has been established by a large and authoritative body of peer-reviewed literature.³³

The Case of the American Alligator. The Service and others claim the American alligator recovered from near extinction due to the protection of the ESA. Upon the Act's passage in 1973, the alligator was listed due to the fear that over-hunting for its valuable skin was driving it toward extinction. But in 1973, the alligator was in fine shape. For instance, a 1973 survey

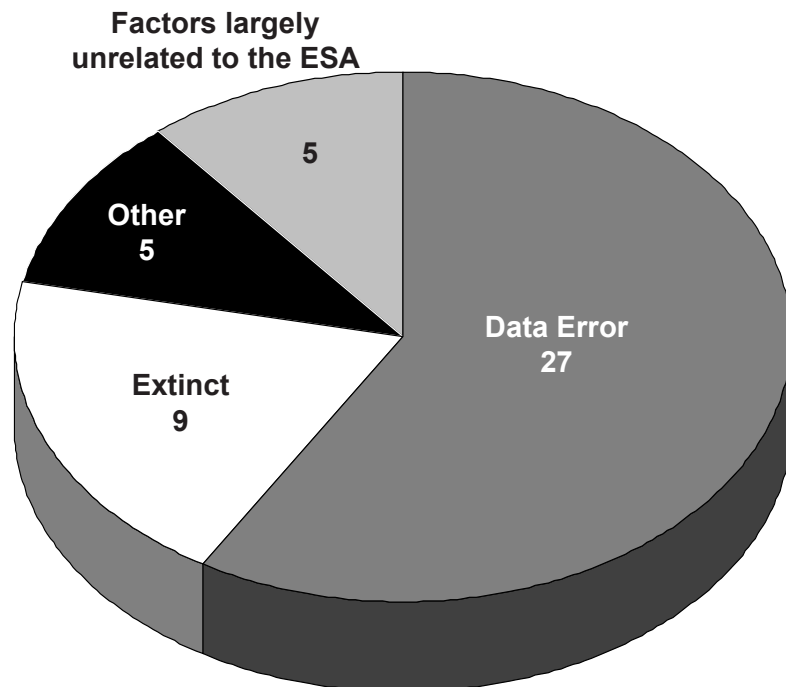
“The ban on the pesticide DDT, not the ESA, is the paramount reason for the recovery of endangered eagles, falcons and pelicans.”

by the Louisiana Wildlife and Fisheries Commission found an estimated total population of 734,348 in the states within the alligator’s range. In 168 counties, the survey found the alligator’s population was *increasing*, in 152 counties the population was stable, and in 25 the population was decreasing.³⁴ However, the survey did not include Florida, which along with Louisiana contains most of the species. The foremost experts on Florida alligators, in the Florida Game and Freshwater Fish Commission, thought the state’s population was increasing.³⁵ The Service confirmed the validity of the data by citing in 1976 the overall estimate of nearly three-quarters of a million alligators.³⁶

More evidence that the alligator listing was a case of data error is that the species takes 10 years to reach sexual maturity; if the species were truly endangered in 1973, it would have taken at least 10 years for increased numbers of hatchlings to reach maturity. Thus, if alligators were endangered and their numbers increased due to the protection of the Act, the earliest it could have been delisted due to a population rebound was 1983. However, the Service allowed delisting to begin eight years earlier. The alligator was delisted over various portions of its range from 1975 to 1987.³⁷ This is a clear indication that the agency knew the alligator was not endangered.³⁸ In addition, illegal hunting, the purported reason for the alligator’s listing, was effectively ended by a 1969 amendment to the federal Lacey Act, which prohibits interstate transportation of wildlife taken in violation of a state’s law.³⁹

FIGURE V

Actual Reasons for Delisting 46 Species



Source: Author’s calculations.

“No species has recovered solely because of the ESA.”

“Species that are plentiful, but were listed incorrectly, include alligators, tropical birds and kangaroos.”

The Case of Tropical Birds. Four species of birds native to former U.S. Pacific trust territories were listed under the ESA because portions of their habitats were devastated by heavy fighting during the Second World War: the Palau owl, Palau fantail, Palau ground dove and Tinian monarch. Unsurprisingly, surveys just after the war found few of these birds. As the islands revegetated in the ensuing decades, the birds rebounded. But shortly after the ESA’s passage in 1973, the Service listed these four large and healthy species, based on surveys carried out almost 30 years before.⁴⁰

The Case of Three Abundant Kangaroos. The red, eastern gray and western gray kangaroos from Australia are the “the most abundant large mammal[s] in the whole world,” according to Michael Archer, director of the Australian National Museum and professor of biology at the University of New South Wales.⁴¹ The combined population of these three species when they were delisted in 1995 was around 23 million.⁴²

When the Service finally delisted the kangaroos it admitted: “The white-tailed deer may be about as numerous in the United States as are the three kangaroos in Australia.”⁴³ The agency had to have known this for the kangaroos’ 21-year tenure on the list. Despite the fact that listing these kangaroos was clearly data error, the Service classifies them as recovered.

The kangaroos were listed in 1974 due in part to pressure from the animal rights lobby opposed to Australia’s culling of 1 million to 3 million ’roos per year for their hides and meat — a number that these species can easily absorb given their massive population and high fecundity in years of plentiful grazing.⁴⁴

The other reason the kangaroos were listed was political. Most members of Congress had no inkling of the ESA’s power to control land use when they passed the Act in December 1973. The Service, fully aware of the Act’s massive power, was reluctant to list any domestic species for fear of earning the ire of Congress over a land or water use control issue. So the Service listed no species until 1974, when it decided that listing three foreign species, the three kangaroos, would avoid any potential domestic political entanglements.⁴⁵

An Accurate Accounting of Delisted Species. As shown in Figure V, an accurate categorization of the delisted species is:

- Twenty-seven species have been removed due to data error — including the American alligator, which was delisted soon after it was listed because it was found to be abundant, clearly indicating it was never endangered and was improperly surveyed.
- Nine species were determined to be extinct.
- Five species were delisted due primarily to factors unrelated to the ESA including the ban on the pesticide DDT.

- Five species were delisted for a variety of other reasons including: private conservation; state, not federal, conservation efforts; and recovery in spite of harm done by the ESA.

There are two important factors to keep in mind when considering these categories. First, there is significant overlap among a number of species (except, of course, the extinct species). For instance, although the American alligator and three kangaroo species are cases of data error, the ESA also harmed their conservation by stymieing trade in their hides, a key incentive for landowners to harbor these species. Another example of overlapping categories is the American, or *anatum*, subspecies of peregrine falcon. While the single most important cause of its recovery was the 1972 banning of the pesticide DDT, not the passage of the ESA in 1973, experts say the ESA hindered the falcon's conservation.⁴⁶

Second, the ESA did contribute toward the recovery of some species. The Act helped conserve the bald eagle by providing funding for various conservation efforts and through controlling land-use on federal property. However, when compared with the likely harm done to the eagle by the ESA's perverse incentives, the Act probably did more harm than good to the national bird.⁴⁷

Cosmetic Reform of the Endangered Species Act

In response to the ESA's poor record recovering species and to harm caused by the law's penalties, the Fish & Wildlife Service, Congress and others have offered cosmetic reforms to improve the Act's effectiveness. Yet these reforms are tacit admissions that the Act's punitive approach has failed and that new approaches are needed. Unfortunately, these new approaches are largely superficial. They do not remove the ESA's perverse incentives (penalties) that fundamentally undermine the Act. These initiatives include Safe Harbors, Habitat Conservation Plans, Candidate Conservation Agreements, No Surprises, financial incentives, and requirements to use sound science.

Safe Harbors. To address the perverse incentives of the ESA, Michael Bean of Environmental Defense (formerly the Environmental Defense Fund) developed the idea of Safe Harbors in the mid-1990s. Under a "Safe Harbor" agreement, the government agrees to help a landowner develop a habitat conservation plan to improve the prospects for endangered species already on his land or in order to attract species. Safe Harbors exempts landowners from the ESA's regulations for any additional endangered species they attract to their property as long as species numbers stay above the "baseline," which is the population of species covered by the Safe Harbor at the time the agreement is signed.

"Cosmetic reforms will not fix the ESA."

Teddy Bear Conservation

The prototype Candidate Conservation Agreement stems from work done by the Black Bear Conservation Committee (BBCC). In June 1990, the Service proposed to list the Louisiana Black Bear — a cub of which was spared by President Theodore Roosevelt on a hunting trip and which was the namesake for the now ubiquitous “teddy bear” beloved by many children. The bear seemed to be declining due to habitat destruction.¹ In an effort to stave off listing, the BBCC was formed in 1990 by environmental pressure groups, timber industry representatives, academics and private timber owners.² The effort was unsuccessful, and the bear was listed in 1992. The BBCC, however, has endured.³

The BBCC promotes itself as an effort to preempt ESA regulation by formulating a proactive habitat management plan among all the “stakeholders,” especially timber owners in the bear’s habitat. It combines elements of an informal HCP and a Candidate Conservation Agreement. Its main accomplishments to date have been to write a management plan for the bear that was adopted by the Service as the official recovery plan, educate the public, and push federal and state agencies to conserve the bear. The BBCC’s proactive image has been hailed by the Sand County Foundation, the Mississippi Fish and Wildlife Foundation and others as an innovative, win-win solution preferable to the usual command-and-control property restrictions imposed.

But beneath this feel-good surface of cooperation, the reality is that the BBCC has relied on the threat of ESA land use controls to force the private landowners who provide most of the bear’s habitat to negotiate. Murray Lloyd, cofounder and former president of the BBCC, said the agreement reached by stakeholders, which was basically a region-wide HCP, only came about because of the threat of punitive sanctions contained in the ESA which “served effectively as a cocked two-by-four to keep everyone at the table.”⁴ Although the agreement was achieved with the threat of being whacked by the ESA, Lloyd calls the BBCC “a model for natural resource conflict resolution.”⁵ Others have swallowed this tale hook, line and sinker. Lloyd’s two-by-four analogy is apt because it neatly encapsulates how the ESA often works — people are threatened and intimidated with getting clobbered by law in order to gain their “voluntary” compliance. The ESA is Teddy Roosevelt-style conservation; the federal government speaks softly and carries a big stick.

¹ *Federal Register*, Vol. 55, June 21, 1990, pages 25,341-45.

² Black Bear Conservation Committee, “About the BBCC: History.” Available at http://www.bbcc.org/web/index.php?option=com_content&task=view&id=20&Itemid=21.

³ *Federal Register*, Vol. 57, January 7, 1992, pages 588-595.

⁴ Murray Lloyd, testimony before the Subcommittee on Drinking Water, Fisheries and Wildlife of the Committee on Environment and Public Works, United States Senate, 104th Congress, First Session, August 3, 1995, page 874.

⁵ *Ibid.*

Landowners who sign a Safe Harbors agreement, however, are not off the regulatory hook for the species already on their land (their baseline). Furthermore, owners of adjacent or nearby property are subject to the full force of ESA regulations. By attracting endangered species to their land, landowners who sign Safe Harbor agreements could encourage species to spread to neighboring properties. This “spillover” effect has the potential to create significant problems for adjacent and nearby landowners.

Habitat Conservation Plans. A 1982 amendment to the ESA allows the Service to grant “incidental take permits” to private landowners. These are exceptions to what had been an absolute prohibition on “taking” listed species.⁴⁸ Incidental take permits are issued when a landowner submits a Habitat Conservation Plan (HCP).

HCPs require landowners to set aside some of their land for habitat for the endangered species or purchase “mitigation” land elsewhere. In exchange, the Service allows them to use the rest of their land for such activities as timber cutting and house construction. Yet HCPs advance the spread of federal zoning of private land, a function traditionally left to municipalities. HCPs also function like a protection racket, in which the federal government extracts expensive concessions from landowners by threatening them with ESA penalties unless they submit a Plan.

Ben Cone signed an HCP and a Safe Harbor agreement of the type that the environmental lobby and the Service tout as evidence the ESA is flexible and landowner friendly. Yet Cone, like Toby Murray (see below in “no surprises”), is still angry that he had to spend a great deal of time and over \$100,000 in order to recover the right to use his own land.

Candidate Conservation Agreements. In the 1990s the Service initiated an effort to assure landowners that if they signed agreements to protect species that are officially candidates to be listed, the landowners might be able to stave off Service action, thereby avoiding the ESA’s regulations. [See the side bar, “Teddy Bear Conservation.”]

“No Surprises” Agreements. Another ESA “innovation” is the “no surprises” policy promulgated by the Service and the National Oceanic and Atmospheric Administration, the branch of the Commerce Department that the ESA assigned jurisdiction over marine animals. The no surprises policy is based on the idea that the federal government will not demand additional concessions from landowners who have signed HCPs. “A deal is a deal,” said Bruce Babbitt, then Interior Secretary. “We won’t come back ten years from now and say you have to pay more or give more [land].”⁴⁹ The government codified the no surprises policy in the Code of Federal Regulations in 1998.⁵⁰

On its face, no surprises seems like a good idea because it appears to provide landowners with regulatory certainty. Yet there are two fundamental

“The Service may allow landowners to use some of their land, if they set aside other land for habitat.”

problems with the policy. First, no surprises does not provide the ironclad regulatory certainty its proponents claim. If there is an “unforeseen circumstance” the federal government can invalidate an HCP and demand more land and/or money from the permittee. The circumstances can be varied, such as: If a species covered by the HCP experiences a population decline; if a species not covered by the HCP, but which exists on the land covered by the Plan, subsequently becomes a candidate for listing, or is, in fact, listed under the ESA; or if research conducted subsequent to the signing of the HCP shows that the Plan may be inadequate to accomplish its stated species conservation goals.

The second problem with the no-surprises policy is that, like all HCPs, it is predicated on the fear of the ESA’s ability to hinder land-use to gain the “voluntary” cooperation of landowners. The HCP signed by the Murray Pacific Corporation is a good example. It was the first HCP to include a “no surprises” provision. Due to the ESA’s protection of the spotted owl and other species, more than 40 percent of the merchantable timber on Murray Pacific’s 55,000 acres was off limits. Faced with the virtual shut down of his family’s company, Toby Murray was forced to negotiate with the Service. He agreed to place 5,500 acres off limits to logging in exchange for the right to use the remainder of his land. The HCP also covered hundreds of species that could potentially be listed at some point in the future.⁵¹ Murray Pacific’s HCP was hailed by the Clinton Administration as a great success, but Toby Murray did not see it that way.⁵² “Even though they call these habitat conservation plans voluntary, I didn’t feel it was that voluntary,” he stated.⁵³ He felt this because he was essentially forced to sign the HCP to prevent the shut-down of his family’s company. Furthermore, Murray and his family had to sacrifice their land and spend more than \$1 million to hire biologists and lawyers to write and implement the plan.⁵⁴

Financial Incentives. Starting in the mid-1990s, ESA supporters, Congress and the Service have proffered various financial incentives in attempts to blunt the impacts of the Act’s penalties. One such effort started in 2002 when the Service initiated the Private Stewardship Grant Program (PSGP), which provides up to 90 percent of the funds for projects by private landowners to conserve endangered species. Under the program, private landowners submit proposals for conservation efforts to protect endangered, threatened or candidate species. The government chooses to fund these proposals on a competitive basis. In 2006, the Service awarded more than \$6.9 million in grants under the program. The PSGP provides “incentives... and flexibility” for landowners to engage in endangered species conservation, according to then-Interior Secretary Gail Norton.⁵⁵

Congress has also jumped on the financial incentives bandwagon. Most recently, both houses of Congress have introduced companion bills (S.

“The new initiatives depend on the threat of ESA regulations to gain the cooperation of landowners.”

700 in the Senate and H.R. 1422 in the House), both of which have broad bipartisan support, to provide tax credits for landowners who conserve endangered species. However, these bills and the Private Stewardship Grant Program do nothing to remove the perverse incentives caused by the ESA's penalties. Merely sprinkling a few incentives around cannot mask the enormous harm done by the Act's punitive structure.

Use of "Sound Science." Another type of proposed "reform" is to require the Service to use "sound science" to implement the ESA. Critics correctly point out that the federal government often uses flimsy evidence to justify listing species, as in the case of the Rydberg milk-vetch mentioned previously. To remedy problems like this, some have proposed amending the Act by requiring the government to utilize specific scientific criteria in listing and protecting species. The latest such effort is a bill in the Senate, S. 658. But this bill and all other sound science initiatives treat the symptom — the use of shoddy data — not the root cause, which is the law's power over private property. As long as the federal government is able to control the use of land and water without having to pay private landowners to do so, it will have few incentives to use valid data.

All of these so-called reforms were initiated largely during the Clinton Administration and expanded during the Bush Administration — an indication that failure to fix the ESA is a bipartisan effort.

Incentives without Disincentives. Adding incentives to the ESA without removing the disincentives will likely be of limited effectiveness for five reasons.

First, it does nothing to remove the perverse incentives that undermine the purpose of the Act.

Second, the regulatory uncertainty surrounding the implementation of the ESA makes it difficult for landowners, especially those who make a living from their property, to measure the value of a given incentive against the prospect of being walloped by the law's punitive provisions. Sources of uncertainty include the capriciousness with which the Service enforces the law, and the frequent lawsuits by environmental groups seeking to force the Service to implement more onerous measures.

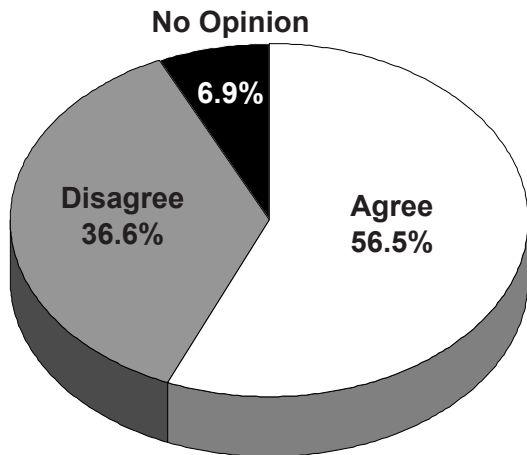
Third, many landowners, especially those in ESA hotspots, are well aware of the Act's power and so are reluctant to interact with government. They are wary of federal "carrots" because there are always strings attached. Landowners also hesitate to allow government biologists on their land because they may find other endangered species.

Fourth, except for Habitat Conservation Plans, these measures have been implemented administratively, not codified into the ESA by Congress, and therefore can be withdrawn at the whim of the Service.

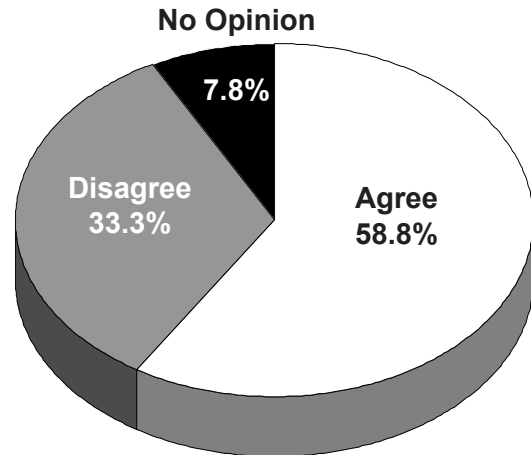
"Incentives for landowners to cooperate won't work so long as severe penalties exist."

FIGURE VI

Public Opinion on Landowners' Rights



“Landowners should be compensated when the Endangered Species Act prevents them from using their property.”

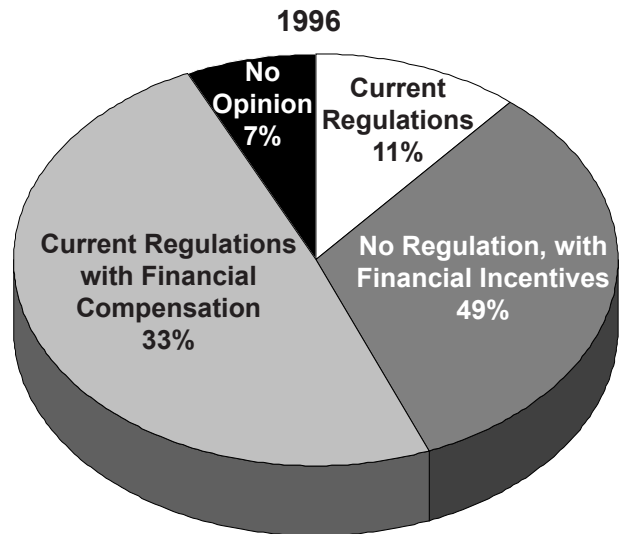
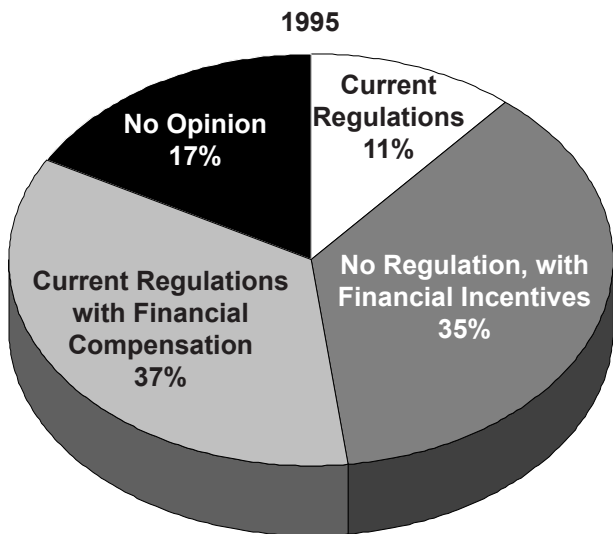


“Endangered species protection should not interfere with a landowner’s right to develop property.”

Source: Brian Czech and Paul L. Krausman, “Public Opinion and Endangered Species Conservation and Policy,” *Society and Natural Resources*, Vol. 12, No. 5, 1999, pages 469-479.

FIGURE VII

Public Support for Endangered Species Act Reform



Source: Competitive Enterprise Institute.

Fifth, adding incentives is fiscally inefficient. A far more financially sound approach, and therefore one likely to garner more support from fiscal conservatives, would be to add incentives only after the disincentives have been removed.

Real Reform of the Endangered Species Act

The only substantive way to reform the ESA is to remove the Act's punishing provisions. Common sense and economics indicate that if you want more of something you reward it. At the very least, you don't punish people for providing it. There are several very good reasons to believe that a non-punitive, nonregulatory approach to endangered species conservation will work.

First, a nonregulatory ESA would eliminate the perverse incentives for landowners to destroy habitat or avoid reintroducing species they fear might be listed under the Act. The cases of Ben Cone and David Cameron vividly illustrate these circumstances.

Second, a nonregulatory ESA could look much like the U.S. Department of Agriculture's Conservation Reserve Program or Wetlands Reserve Program, under which the federal government pays farmers not to cultivate environmentally sensitive land. "I think this [the Conservation Reserve Program] really, really opened people's eyes to what could be achieved in a basically non-regulatory, voluntary program," stated Mollie Beattie, then FWS director. "If there were an incentive to make the best habitat [for endangered and threatened species], we'd be miles ahead."⁵⁶

Third, public opinion polls indicate Americans support a non-regulatory, incentive-based ESA. A poll conducted by the Service in 1999 indicates that the public believes in strong protection of landowners' rights.⁵⁷ [See Figure VI.]

- A majority (56.5 percent) agreed that landowners should be financially compensated when the Endangered Species Act prevents them from using their property.
- A larger majority (58.8 percent) agreed that endangered species protection should not interfere with a landowner's right to develop his property.

The Service's poll also gave respondents four choices as to what should be done to the ESA: Five percent of respondents said "revoked," 11 percent "weakened," 35 percent "unchanged" and 49 percent "strengthened."

Polls conducted by the Competitive Enterprise Institute in 1995 and 1996 asked respondents whether they favored the current ESA, the current regulatory ESA but with compensation for property devalued by species, or a non-regulatory ESA. As shown in Figure VII:

"Most Americans think owners should be compensated for ESA-caused property value diminution."

- Only 11 percent of the people surveyed supported the current Endangered Species Act.
- Some 33 percent to 37 percent supported current ESA regulations — if landowners received financial compensation.
- And 35 percent to 49 percent supported a nonregulatory approach to endangered species protection using financial incentives.

All three polls demonstrate that a majority of the public believes landowners should be prevented from harming species but that they should be compensated financially for doing so. The response to the Service’s question about what should be done to the ESA also indicates that the public is unaware that the ESA’s penalties harm species and landowners. Were the public polled on this issue, it is likely that support for the law would drop considerably.

In addition to the Conservation Reserve Program, two approaches can help chart the course to a new ESA that is good for people and good for species.

Private Wildlife Conservation in America. In many respects private wildlife conservation has done a better job than the punitive approach. For example, in the late 1800s, six ranchers saved the plains bison from likely extinction by rounding up small groups of the remaining bison. This is the herd from which virtually all today’s bison are descended. A few bison remained in Yellowstone National Park, but these were augmented by private stock. By 1905, there were only 969 bison left, and 95 percent of these were in private hands.⁵⁸ Today, of the approximately 250,000 bison in the United States, 93 percent are privately owned.⁵⁹

Private initiatives have also helped two other species that were declining: the eastern bluebird and the wood duck. Landowners have been happy to erect and place nesting boxes to substitute for the loss of natural tree cavities, because this activity does not bring with it the threat of regulation.⁶⁰ In 1978, bluebird advocates even founded a private organization, the North American Bluebird Society (NABS) to distribute information about putting up nesting boxes. The NABS’s efforts have been spectacularly successful; hundreds of thousands of nesting boxes have provided a significant boost to the bluebird, and there are now affiliated organizations in 29 states and four Canadian provinces.⁶¹

By contrast, landowners are not likely to put up nesting boxes to attract the spotted owl because ESA regulations would come with them. Three months after the owl was listed in 1990, Tom Cade — one of the world’s foremost raptor experts and founder of the Peregrine Fund, the organization responsible for restoring the peregrine falcon to large parts of the lower 48 states through captive breeding and release of young birds — proposed captive breeding and release of the owls into nesting boxes because owls are relatively

“Private conservation efforts saved the plains bison and helped bluebird and wood duck.”

easy to breed and they readily accept boxes.⁶² Jack Ward Thomas, the U.S. Forest Service biologist in charge of the spotted owl who went on to become Chief of the Forest Service, quickly declined the offer.⁶³ Even though captive breeding and nesting boxes held enormous promise, Thomas and the U.S. government were less interested in increasing the spotted owl population through innovative solutions than they were interested in using the owl as a tool to stymie timber harvesting.

Johnston's frankenia, a south Texas plant species, provides an instructive case study of how the ESA thwarts private conservation and how a non-regulatory ESA could work. Although the Fish and Wildlife Service had conducted only the most rudimentary surveys to determine the plant's overall population and trend, in 1984 it listed the frankenia as endangered due to its perceived small population (five sites totaling around 700 plants) and the belief that cattle grazing posed a threat.⁶⁴ Then, in 1993, Gena Janssen, an energetic botanist with the Texas Parks and Wildlife Department, decided to take a closer look because the plant was rumored to be "everywhere."⁶⁵ Initially, "[t]he landowners were scared to say the least," she said. "They were fearful of the 'government' finding out they had endangered species on their property."⁶⁶

Janssen was eventually able to gain landowners' trust in large part because plants receive a much lower level of protection than animals. Unless an ESA-listed plant is protected by state law or the land is subject to a federal nexus, such as through a permit, the ESA's prohibitions on taking and harming species do not apply on private property. Hence, land-use control provisions do not apply. As a consequence, the Service is generally not able to use plants to threaten landowners with the ESA. Also, due to the Service's use of ESA penalties for animals, landowners in the frankenia's habitat were more comfortable dealing with a state employee.

Through her hard work, Janssen discovered 53 populations totaling more than nine million plants and determined that cattle grazing was not a threat.⁶⁷ In addition, she was able to persuade the 10 landowners who owned the 19 largest populations to sign voluntary conservation agreements with the Texas Parks and Wildlife Department. As a result, in 2003 the Service proposed delisting the frankenia.⁶⁸

The success conserving Johnston's frankenia in a region of the country known to be hostile to the ESA is testament to the Service's inability to use the plant as a means to control land-use. Had the frankenia been afforded the same protections as animals, it is very likely landowners would have quietly initiated a scorched earth campaign to rid their property of the plant. Fortunately, the Johnston's frankenia was saved *from* the ESA, not *by* it.

If animals were granted the same regulatory status as plants, the success story of the frankenia could be repeated many times over.

"Texas officials successfully conserved Johnston's frankenia without the threat of ESA land use controls."

The goodwill of America's landowners toward wildlife is very evident in the cases of the frankenia, bison, wood duck and bluebird, and these success stories could be replicated all over the country. The overwhelming impediment is the ESA's penalties for animals.

Innovative Conservation Efforts Outside the United States.

Another alternative to the ESA can be found beyond America's borders. During the mid-to-late 1960s and early 1970s, the United States was heading down the path toward increasingly coercive approaches to wildlife conservation, culminating in the ESA's passage in 1973. But much of the rest of the world was going in the opposite direction. Most notably, a number of countries in southern Africa, led by Namibia and Zimbabwe, realized that the command-and-control model based on centralized state ownership of wildlife was failing, especially since most wildlife existed outside parks and protected areas.

Countries in southern Africa and much of the third world had followed the western legal tradition imported with colonial regimes. States assumed ownership of wildlife and created punitive laws and regulations that disenfranchised rural people and undermined the economic value of wildlife.⁶⁹ The effects of these laws have been devastating for wildlife, especially because these regions — Asia, Latin America and Africa — contain most of the world's species, otherwise known as biodiversity, and, predictably, this created conflict between governments and residents of rural areas.⁷⁰

People in rural areas bear the direct costs of living with wildlife species that may threaten their lives and livelihoods.⁷¹ Even if lions, elephants or buffaloes don't attack people, they kill livestock and eat crops. And herbivores, such as antelope, compete with livestock for food. Laws and government policies that prevented people from owning, controlling or hunting these animals exacerbated this burden. Unable to benefit economically from wildlife, people did what was rational; they got rid of it. They shot, poisoned, trapped and snared wildlife. Indirectly, and more detrimentally, they displaced wildlife with livestock and agriculture, the "cattle and crops" solution. The result was declining wildlife populations despite official protection.⁷²

In response, in the late 1960 and early 1970s several countries in southern Africa devolved authority over wildlife away from the central government to more localized forms of government, and in some cases even gave rural residents property rights to wildlife.⁷³ This approach acknowledges that wildlife must pay its way if it is to survive in much of Africa and the developing world.⁷⁴ When people benefit economically from wildlife there is a greater chance they will see that it is in their interest to conserve it.

The move away from "old style" conservation also has been driven by the desire of countries to shed their colonial pasts. The punitive approach to wildlife conservation is one of the most durable and regressive vestiges of colonialism in the developing world. Many countries reached the conclusion

"Several African countries encourage conservation by allowing profitable uses of wildlife."

that not only is the ESA-style punitive approach ineffective but it is morally indefensible. It is more than a little ironic that many ESA proponents think of themselves as progressive advocates of the downtrodden and disempowered of the third world, the very people who have been harmed most by the type of command-and-control conservation exemplified by the ESA.

The new approaches to conservation have many names, such as conservation through commerce, community-based conservation, community-based natural resource management, community wildlife management, and integrated conservation and development. Yet they all share the common feature of devolving property rights to wildlife and other natural resources to the people or communities that bear the costs of harboring species.

An example of the new-style conservation is Zimbabwe's CAMPFIRE program (Communal Areas Management Program for Indigenous Resources), which allows residents of Communal Lands (that is, poor rural blacks) to earn money from wildlife. The Districts — the lowest level of officially recognized government — are roughly equivalent to counties in the United States. Districts set hunting quotas for various species in consultation with the Parks Department, the equivalent of the U.S. and Wildlife Service. Safari hunting is the most important component of CAMPFIRE because it generates most of the revenue. Districts also are heavily involved in negotiating the sale of hunting concessions and quotas to safari operators, most of whose clients are Americans and Europeans. Proceeds from sport hunting species such as elephants have been channeled to the villagers who bear the costs of living in close proximity to wildlife that can threaten their cattle, crops and lives. Because wildlife is seen as an asset, Communal Land residents do more than tolerate species, in some cases they manage wildlife. As a result, between 1990 and 2003, elephant populations in Communal Lands doubled and populations of other game species increased by 50 percent.⁷⁵

Similar efforts have also been initiated in Zambia, Botswana, Tanzania, Mozambique and Namibia. Even Kenya, which banned hunting in 1977, may allow hunting again. With 65 percent of the country's wildlife outside of state protected areas, it is imperative that owners of non-state lands benefit from wildlife lest they convert land to livestock pasture or row crops.⁷⁶

A more localized example of innovative conservation occurs in the village of Ostional along the Pacific coast of Costa Rica, one of the most significant nesting sites for the olive ridley sea turtle. Villagers had long collected turtle eggs for sale as a food source. Government authorities realized the eggs could be sustainably harvested because after the initial eggs are laid in the beach sand, successive "waves" of turtles inadvertently destroy eggs when they dig their nests. Consequently, villagers are permitted to collect eggs from the initial nests. The eggs are a significant source of income, and as a result villagers vigilantly protect the nests and newly born turtles from predators.⁷⁷ "My ultimate goal for a conservation program would

"Allowing villagers to harvest and sell olive ridley sea turtle eggs helps conserve the species."

be to ensure long-term survival of the species, with benefits derived at the local level for local communities,” states Lisa Campbell, a professor of marine policy at Duke University who has conducted research at Ostional. “The poorest of the poor should not bear the cost of international feelings about charismatic species.”⁷⁸

These and a myriad of other innovative efforts have shown what can be accomplished through private initiative, devolution of property rights to local governments, and the absence of command-and-control conservation. Unfortunately, the ESA is harming wildlife in other countries as well. Foreign species can be put on the U.S. list, which restricts the value-added trade that is a key component of the new-style conservation taking hold in the third world. The United States is the largest market for sport hunted trophies and a major market for wildlife products. If landowners and communities in foreign countries cannot export trophies from safari hunts and other wildlife products, then wildlife loses value and, ultimately, habitat.

The ivory ban is probably the most prominent example of eco-colonialism or eco-imperialism that ESA-style conservation has imposed on the third world.⁷⁹ In 1989, trade in ivory was banned by CITES, the Convention on International Trade in Endangered Species, and implemented in the United States through the ESA. Pushing the ban were the United States and European governments, western environmental pressure groups, and a number of African countries, most notably Kenya, which had outlawed hunting and commercialization of ivory and as a result was faced with declining elephant populations. Opposing the ban were the southern African countries that had purposely made hunting and commerce legal (resulting in large and increasing elephant populations), along with a small handful of conservationists in the U.S. and Europe who favored using markets and property rights as a means to protect the elephant. The sound and carefully reasoned arguments of the southern African nations and their supporters about the need to attach commercial value to the elephant to ensure its survival were drowned out by the tidal wave of protectionist rhetoric from western nations and environmental pressure groups. While westerners see elephants as majestic, the poor rural Africans who have to live with them, and often suffer loss of crops and even life, tend to view elephants as dangerous threats. Due to the policy of attaching commercial value and property rights to elephants, southern Africa’s elephant population is growing at 3.88 percent annually, according to the latest estimate by the IUCN. By contrast, in east Africa, where hunting has been largely banned and the central government maintains tight control over wildlife ownership, elephant populations are not increasing.⁸⁰

Fortunately, there are some who realize that the regressive approach to wildlife conservation, such as the ivory ban and the ESA, is doomed to failure. “[S]uccessful conservation depends on the commitment of the people living with the wild species — not us...[n]ot laws. Not government policies. And not our wishful thinking,” according to Steven Edwards, of the IUCN (the World

“The international ban on the ivory trade is impeding elephant conservation in Africa.”

Conservation Union), and one of the world's foremost experts on wildlife conservation.⁸¹

Conclusion

If one deliberately set out to create a law that would do enormous damage to wildlife, it would be hard to top the ESA. The time has come for all those serious about the conservation of imperiled species to tap the enormous good will, energy and talent of America's private landowners by charting a new course of endangered species protection based on the recognition that effective conservation starts with a legal framework that is not harmful, to the people who harbor species.

Much of the rest of the world is turning away from ESA-style conservation, but supporters of the Act continue to tout it as a beacon of hope.⁸² Calling the ESA a model for the world would be laughable if the law were not so detrimental to conservation in the United States and other countries. Truly innovative approaches to wildlife conservation are taking place in the developing world, and to a more limited degree on private lands in the United States. A new, progressive approach to wildlife conservation would at the very least not punish landowners for harboring wildlife. Ideally, it would devolve ownership of wildlife to landowners and local governments, and allow commercial exploitation.

Once unshackled from the ESA, the dormant good will and creativity of America's landowners will blossom. As evidence, one need only to look at the examples of Ben Cone, David Cameron, the Johnston's frankenia, the Conservation Reserve Program, the contrast between efforts to conserve the wood duck and blue bird with the spotted owl, the plains bison, polling data on the ESA, and successful conservation efforts outside the United States. There are myriad more such examples, but their success remains largely unknown and their potential for paving the way toward a more successful ESA remains largely untapped.

A non-regulatory ESA would force the Service to negotiate in good faith and seek creative solutions instead of relying on the stick of regulations. Some landowners might be happy simply with an honorary award from the Secretary of Interior while others would need financial compensation. America's private landowners are ready, willing and able to conserve endangered species so long as they are not punished for doing so. Until then, they will be the reserve army of the unutilized and unappreciated, and America's imperiled wildlife and landowners will continue to suffer needlessly.

"A new approach to conservation would devolve ownership of wildlife to landowners and local governments."

NOTE: Nothing written here should be construed as necessarily reflecting the views of the National Center for Policy Analysis or as an attempt to aid or hinder the passage of any bill before Congress.

Notes

- ¹ Until a recent Supreme Court decision, the ESA also required all federal agencies, and recipients of federal funds or permits, to ensure that their actions did not harm threatened or endangered species, even if, in order to prevent harm to a species, they were unable to carry out their primary responsibilities under other laws. See *National Association of Home Builders v. Defenders of Wildlife* (2007) 551 U.S. 340; *Environmental Protection Agency v. Defenders of Wildlife* (2007) 551 U.S. 549.
- ² Members of Congress “professed not to understand at the time of passage that this law might raise questions about irrigation projects, timber harvests, the dredging of ports, or the generation of electricity.” See Lynn A. Greenwalt, “Reflections on the Power and Potential of the Endangered Species Act,” *Endangered Species Update*, Vol. 5, No. 10, August 1988, page 7.
- ³ *TVA v. Hill* (1978) 437 U.S. 153.
- ⁴ “Endangered Species Act: Information on Species Protection on Nonfederal Lands,” United States General Accounting Office, GAO/RCED-95-16, 1994.
- ⁵ Michael Bean, “Ecosystem Approaches to Fish and Wildlife Conservation: ‘Rediscovering the Land Ethic,’” U.S. Fish and Wildlife Service’s Office of Training and Education Seminar Series, Arlington, Va., November 3, 1994.
- ⁶ Benjamin Cone, Jr., Prepared Statement, Hearing before the Committee on Resources, U.S. House of Representatives, Task Force on Private Property Rights, June 13, 1995, Washington, D.C.
- ⁷ Dean Leuck and Jeffrey A. Michael, “Preemptive Habitat Destruction Under the Endangered Species Act,” *Journal of Law and Economics*, Vol. 46, No. 1, December 2003.
- ⁸ “Recovery Plan for the Red-cockaded Woodpecker (*Picoides borealis*),” U.S. Fish and Wildlife Service, Second Revision, January 2003. Available at http://ecos.fws.gov/docs/recovery_plans/2003/030320.pdf.
- ⁹ Daowei Zhang and Warren A. Flick, “Sticks, Carrots, and Reforestation Investment,” *Land Economics*, Vol. 77, No. 3, August 2001, pages 443-456.
- ¹⁰ Daowei Zhang, “Endangered Species and Timber Harvesting: the Case of Red-Cockaded Woodpeckers,” *Economic Inquiry*, Vol. 42, No. 1, January 2004, pages 150-165.
- ¹¹ *Ibid.*
- ¹² *Federal Register*, Vol. 60, February 17, 1995, pages 9,483-9,527.
- ¹³ Eric Pryne, “A Tale of Two Tree Farmers,” *Seattle Times*, June 19, 1995, page 1.
- ¹⁴ Glenn E. Crellin, “Assessment of Endangered Species Act Enforcement on Real Property Values: A Case Study of Three Washington Counties,” National Association of Realtors, 2002.
- ¹⁵ The habitat for the vireo is 33,685,760 acres and for the warbler is 22,020,480 acres. “Black-capped Vireo Recovery Plan,” U.S. Fish and Wildlife Service, 1991; “Golden-cheeked Warbler Recovery Plan,” U.S. Fish and Wildlife Service, 1992.
- ¹⁶ Margaret Rector, testimony before the Committee on Resources, U.S. House of Representatives, Oversight Hearing on the Implementation of the Endangered Species Act, March 20, 1995.
- ¹⁷ The negative impacts of the ESA in the Hill Country have been observed by federal and state experts. For example, Sam Hamilton, then FWS administrator for Texas, said, “The incentives are wrong here. If I have a rare metal on my property, its value goes up. But if a rare bird occupies the land, its value disappears.” See Betsy Carpenter, “The Best Laid Plans,” *U.S. News and World Report*, Vol. 115, No. 13, October 1993, page 89. Hamilton’s 1993 observation was ironic, given that his aggressive implementation of the ESA helped create the very conditions he decried. The effects of Hamilton’s approach were apparent not only in decreased land values but also habitat destruction. One of the foremost authorities on the ESA in Texas, Larry McKinney, Director of Resource Protection for the Texas Parks and Wildlife Department, said, “I am convinced that more habitat for the black-capped vireo, and especially the golden-cheeked warbler, has been lost in those areas of Texas since the listing of these birds than would have been lost without the ESA at all.” See Larry McKinney, “Reauthorizing the Endangered Species Act: Incentives for Rural Landowners,” in Wendy Hudson, ed., *Building Economic Incentives Into the Endangered Species Act* (Washington, D.C.: Defenders of Wildlife, May 1994), page 74.
- ¹⁸ Charles E. Gilliland, “An Analysis of the Impact of the Endangered Species Act on Texas Rural Land Values,” Technical Report 1091, Real Estate Center (Texas A&M University), 1995.
- ¹⁹ Ted C. Jones, Brittany A. Burnam, Clinton H. Harrington and Roger J. Pelton, “Impact of Habitat Protection on Property

Values,” *Tierra Grande* (Journal of the Real Estate Center at Texas A&M University), Vol. 2, No. 3, October 1993, pages 942-947.

²⁰ David Tschetter, “The Abuses of the Endangered Species Act: The So-Called Preble’s Meadow Jumping Mouse,” testimony before the Committee on Resources, U.S. House of Representatives, September 18, 2006.

²¹ “Final Environmental Assessment: Designation of Critical Habitat for Preble’s Meadow Jumping Mouse (*Zapus hudsonius preblei*),” U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service Ecological Services Field Office, Cheyenne, Wyoming, 2003.

²² Amara Brook, Michaela Zint and Raymond De Young, “Landowners’ Responses to and Endangered Species Act Listing and Implications for Encouraging Conservation,” *Conservation Biology*, Vol. 17, No. 6, December 2003, pages 1,638-649.

²³ *Ibid*, page 1,644.

²⁴ David G. Cameron, “Endangered Species Act of the Committee on Resources,” hearing before the Task Force on the House of Representatives, May 25, 1995: “My recollections of the horror stories abundant in stockmen’s journals about the hazards of hosting an endangered species didn’t help, and I sadly bowed out,” Cameron stated. “It seemed a good deed would probably be punished.” Cameron’s reactions are widely shared in rural areas, where word of mouth and publications such as agricultural periodicals are important means by which people obtain news. “How many times has my story been repeated?” Cameron asked while testifying before Congress. “How often has the ESA impeded biological restoration?...Reasonable property owners are frightened and angry at you, the government, for managing with brick bats.”

²⁵ Mark W. Schwartz, “Choosing the appropriate scale of reserves for conservation,” *Annual Review of Ecology and Systematics*, Vol. 30, 1999, pages 83-108.

²⁶ National Wildlife Federation “Endangered Species Act: Myths and Facts,” 2006. Available at <http://www.nwf.org/wildlife/pdfs/esamythsfacts.pdf>. Accessed April 17, 2007.

²⁷ National Audubon Society, “Endangered Species Act: 10 Myths & Facts,” undated. Available at http://www.audubon.org/news/top10/esa_myths.pdf.

²⁸ Although the rate of species extinction worldwide has greatly accelerated, the rate of increase has been much greater in the tropics, where most species exist, than in temperate regions such as the United States. (Russell A. Mittermeier et al., *Hotspots Revisited: Earth’s Biologically Richest and Most Endangered Terrestrial Ecoregions* (Chicago: University of Chicago Press, 2005)).

²⁹ National Wildlife Federation, “Endangered Species Act: Myths and Facts,” 2006. Available at <http://www.nwf.org/wildlife/pdfs/esamythsfacts.pdf>.

³⁰ The 1988 ESA amendments require the FWS to report to Congress biennially on the status of species listed under the Act. The FWS’s survey consists of four questions: a) What is the species’ population trend (increasing, decreasing, stable, unknown)? b) Is the species being propagated in captivity? c) Has the species’ recovery priority status changed? and d) What percentage of recovery goals have been achieved?

³¹ David S. Wilcove, *The Condor’s Shadow: The Loss and Recovery of Wildlife in America* (New York: W.H. Freeman and Company, 1999), page 232; National Research Council, *Science and the Endangered Species Act* (Washington, D.C.: National Academy Press, 1995), page 158; Charles C. Mann and Mark L. Plummer, *Noah’s Choice: The Future of Endangered Species* (New York: Alfred A. Knopf, 1995), pages 243-245.

³² Technically, only 18 species have been claimed as recovered. The FWS lists 46 species as delisted because they count the grey wolf in the Upper Midwest twice, once in Minnesota and once for what the agency refers to as the “Western Great Lakes DPS (Distinct Population Segment).” This was done for regulatory purposes, not because two separate species, or populations, were delisted. So the two should be combined, thus bringing the total to 45 species.

³³ L. J. Blus et al., “Eggshell thinning in the brown pelican: implications of DDE,” *Bioscience*, Vol. 21, 1971, pages 1,213-15; L. J. Blus et al., “Logarithmic relationship of DDE residues to eggshell thinning,” *Nature*, Vol. 235, 1972, pages 376-77; L. J. Blus et al., “Further analysis of the logarithmic relationship of DDE residues to eggshell thinning,” *Nature*, Vol. 240, 1972, pages 164-66; J. W. Grier, “Reproduction, organochlorines, and mercury in northwestern Ontario bald eagles,” *Canadian Field Naturalist*, Vol. 88, 1974, pages 469-475; J. L. Lincer, “DDE-induced eggshell thinning in the American Kestrel: a comparison of the field situation and laboratory results,” *Journal of Applied Ecology*, Vol. 12, 1975, pages 781-793; A. S. Cooke, “Changes in eggshell characteristics of the Sparrowhawk (*Accipiter nisus*) and Peregrine (*Falco peregrinus*) associated with exposure to environmental pollutants during recent decades,” *Journal of Zoology*, Vol. 187, 1979, pages 245-263; David B. Peakall and Lloyd F. Kiff, “Eggshell thinning and DDE residue levels among peregrine falcons *Falco peregrinus*: A global perspective,” *Ibis*, Vol. 121, No. 2, 1979, pages 200-204; L. J. Blus, “Further interpretation of the relation of organochlorine

residues in Brown Pelican eggs to reproductive success,” *Environmental Pollution (Series A)*, Vol. 28, 1982, pages 15-23; J.W. Grier, “Ban of DDT and subsequent recovery of reproduction in bald eagles,” *Science*, Vol. 218, 1982, pages 1,232-1,235; R.W. Risebrough, “Pesticides and bird populations,” *Current Ornithology*, Vol. 3, 1986, pages 397-427; Ian C.T. Nisbet, “Organochlorines, reproductive impairment, and declines in Bald Eagles *Haliaeetus leucocephalus* populations: mechanisms and dose relationships,” in B.U. Meyburg and R.D. Chancellor, eds., *Raptors in the modern world* (Berlin, Germany: World Working Group for Birds of Prey, 1989), pages 483-489; S.N. Wiemeyer, C.M. Bunck and C.J. Stafford, “Environmental contaminants in bald eagle eggs — 1980-84 — and further interpretations of relationships to productivity and shell thickness,” *Archives of Environmental Contamination and Toxicology*, Vol. 24, pages 213-227.

³⁴ Ted Joanen, “Population Status and Distribution of Alligators in the Southeastern United States,” Southeastern Endangered Species Workshop, Tallahassee, Fla., September, 1974.

³⁵ Thomas A. Lewis, “Searching for Truth in Alligator Country,” *National Wildlife*, Vol. 25. No. 5, 1987, page 14; Tommy C. Hines, “The Past and Present Status of the Alligator in Florida,” *Proceedings of the Annual Conference of the Southeastern Association of Fish and Wildlife Agencies*, Vol. 33, 1979, pages 224-232.

³⁶ *Federal Register*, Vol. 41, April 8, 1976, pages 14,886-14,888.

³⁷ Delisted (40 Federal Register 44412-44429, 9/26/75) but as a technicality retained as Threatened by Similarity of Appearance, in Cameron, Vermillion and Calcasieu Parishes in LA due to sufficient population sizes; Downlisted (42 Federal Register 2071-2076, 1/10/77) in FL and certain coastal areas of GA, LA, SC, TX, from endangered to the less imperiled status of threatened; Delisted (44 Federal Register 37170-037172, 6/25/79) but as a technicality retained as Threatened by Similarity of Appearance, in 9 Louisiana Parishes; Iberia, St. Mary, Terrebonne, Lafourche, St. Charles, Jefferson, Plaquemines, St. Bernard and St. Tammany; Delisted (46 Federal Register 40664-40669, 8/10/81), but as a technicality retained as Threatened by Similarity of Appearance, in the rest of Louisiana, 52 Parishes, where the alligator was still classified as Endangered or Threatened; Delisted (48 Federal Register 46332-46336, 10/12/83, but as a technicality retained as Threatened due to Similarity of Appearance, in Texas; Delisted (50 FR 25672-25678, 6/20/85), but as a technicality retained as Threatened due to Similarity of Appearance, in Florida. Delisted (52 FR 21059-21064m 6/4/87) but as a technicality retained as Threatened due to Similarity of Appearance throughout the remainder of its range—AL, AR, GA, MS, NC, SC, OK.

³⁸ The claim “is quite phenomenal when one considers the age of sexual maturity is 10 years,” according to Ted Joanen and Larry McNease, then biologists with the Louisiana Department of Wildlife and Fisheries, and two of the foremost experts on the biology and conservation of the alligator. “The original estimate used to justify the alligator being on the endangered species list must have been grossly underestimated” (Ted Joanen and Larry McNease, “American Alligator Management in Louisiana and Federal Regulations,” Third Annual SSAR Regional Herpetological Societies Conference, Knoxville, Tenn., August 12, 1979).

³⁹ According to Tommy C. Hines, “The Lacy Act was amended in 1969 and in force by January 1970. This amendment provided conservation agencies with a law to control interstate movement of alligator hides for the first time. During 1970 movement of alligator hides out of Florida was reduced and by 1971 virtually stopped.” See Tommy C. Hines, “The Past and Present Status of the Alligator in Florida,” *Proceedings of the Annual Conference of the Southeastern Association of Fish and Wildlife Agencies*, Vol. 33, pages 224-232. As Ted Joanen and Larry McNease of the Louisiana Department of Wildlife and Fisheries stated about the Lacy Act amendment: “This is probably the most important piece of wildlife legislation implemented in modern times. It opened up new areas of law enforcement and in general, bridged the gap between state and federal alligator protection efforts. The State of Louisiana supported, and was the catalyst for amending the Lacy Act to cover alligators as a means of providing protection for these reptiles.” See Ted Joanen and Larry McNease, “American Alligator Management in Louisiana and Federal Regulations,” paper presented at the Third Annual SSAR Regional Herpetological Societies Conference, Knoxville, Tenn., August 12, 1979, page 4.

⁴⁰ H. Douglas Pratt, Phillip L. Bruner and Delwyn G. Berrett, “America’s unknown avifauna: the birds of the Mariana islands,” *American Birds*, Vol. 33, No. 3, page 231; H. Douglas Pratt, John Engbring, Phillip L. Bruner and Delwyn C. Berrett, “Notes on the Taxonomy, Natural History, and Status of the Resident Birds of Palau,” *The Condor*, Vol. 82, No. 2, page 126; John Engbring and H. Douglas Pratt, “Endangered Birds in Micronesia: Their History, Status, and Future Prospects,” in Stanley A. Temple, ed., *Bird Conservation 2* (Madison: University of Wisconsin Press, 1985); J.Engbring, F. Ramsey and V. Wildman, “Micronesian forest bird survey, 1982: Saipan, Tinian, Agiguan, and Rota,” U.S. Fish and Wildlife Service, report, page 143.

⁴¹ Kerry O’Brien, *ABC News Australia*, September 16, 2003; available at <http://www.abc.net.au/7.30/s641771.htm>; *Federal Register*, Vol. 60, March 9, 1995, page 12,891.

⁴² Tony Pople and Gordon Grigg, *Commercial Harvesting of Kangaroos in Australia* (Environment Australia: Canberra, 1999), Figure 15b. Available at <http://www.environment.gov.au/biodiversity/trade-use/wild-harvest/kangaroo/harvesting/robg-fl5.html>.

⁴³ *Federal Register*, Vol. 60, March 9, 1995, page 12,891.

⁴⁴ Tim Thwaites, David Mussred, Steven Dickman and Rex Graham, “Everything You Always Wanted to Know about Kangaroos,” *International Wildlife*, Vol. 27, No. 5, 1997, page 39. “The international response to this [large-scale commercial] killing [of 1-3 million kangaroos per year] — campaigns in North America and Europe to place kangaroos on various list of endangered species — never ceases to puzzle Australians,” notes the National Wildlife Federation. “They know that a combination of the provision of well water for livestock in Australia’s arid outback and the removal of dingos [wild dogs] has increased kangaroo numbers. Although ‘roo numbers vary greatly depending on rainfall, the long-term average population of reds and greys is about 20 million. And most marsupial biologists agree that figure is as high as it has ever been.”

⁴⁵ Charles C. Mann and Mark L. Plummer, *Noah’s Choice: The Future of Endangered Species* (New York: Alfred A. Knopf, 1995), pages 162-163.

⁴⁶ According to Cade and Burnham, founder and former president, respectively, of the Peregrine Fund, and two of the foremost experts on the falcon’s conservation, “[P]rotection by the ESA for the Peregrine provided no measurable benefit to recovery of the species and [the Act] was a regular, if not constant, obstacle because of its emphasis on law enforcement and permitting,” William Burnham and Tom Cade, *Return of the Peregrine* (Boise, Idaho: The Peregrine Fund), October 2003, page 277.

⁴⁷ Brian Seasholes, “The Bald Eagle, DDT, and the Endangered Species Act: Examining the Bald Eagle’s Recovery in the Contiguous 48 States,” Reason Foundation, Policy Brief No. 63, June 2007. Available at <http://www.reason.org/pb63.pdf>.

⁴⁸ *Code of Federal Regulations*, Title 50, Chapter 17, Part 3, 1988. The ESA defines “to take” as meaning “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

⁴⁹ News Release, “Administration’s New Assurance Policy Tells Landowners: ‘No Surprises’ in Endangered Species Planning,” U.S. Department of the Interior, August 11, 1994.

⁵⁰ *Federal Register*, Vol. 63, February 23, 1998, pages 8,859-8,873.

⁵¹ Eric Pryne, “Timberland-Use Pact a Landmark — Murray Pacific Agreement Helps Nature, Economy,” *Seattle Times*, June 27, 1995 page B1.

⁵² Ibid. Katy McGinty, chair of the President’s Council on Environmental Quality during the Clinton Administration, hailed the HCP as, “a new way of doing business . . . saying yes to partnerships and to progress.”

⁵³ Leslie Brown, “Cutting a Clear New Path: Timber Companies Developing Habitat Conservation Plans Earn Government Approval to Harvest More Timber, but Critics Claim it’s a Danger to the Endangered Species Act,” *News Tribune* (Tacoma, Washington), November 2, 1997, page G2.

⁵⁴ Ibid.

⁵⁵ “Fish and Wildlife Service Announces Private Stewardship Grants to Landowners for Endangered Species Conservation,” U.S. Fish and Wildlife Service, News Release, August 11, 2005.

⁵⁶ Mollie Beattie, “Interview with Patricia Peak Klintberg,” *Beef Today*, April 1995, page 15.

⁵⁷ Brian Czech and Paul L. Krausman, “Public Opinion and Endangered Species Conservation and Policy,” *Society and Natural Resources*, Vol. 12, No. 5, 1999, pages 469-479.

⁵⁸ Ike Sugg, “Where the Buffalo Roam, and Why,” *Exotic Wildlife* (the magazine of the Exotic Wildlife Association), January/February 1999.

⁵⁹ The National Bison Association, “Industry Data & Statistics,” undated. Available at <http://www.bisoncentral.com/index.php?s=&c=14&d=105&a=1064&w=2&r=Y>.

⁶⁰ Brian Seasholes, “The Wood Duck,” Center for Private Conservation, 1997.

⁶¹ The North American Bluebird Society. Available at <http://www.nabluebirdsociety.org/>.

⁶² Tom J. Cade and William Burnham. “Letter to Jack Ward Thomas,” September 28, 1990.

⁶³ Jack Ward Thomas, “Letter to William Burnham,” October 4, 1990.

⁶⁴ *Federal Register*, Vol. 49, August 7, 1984, pages 31,418-31,421.

⁶⁵ Gena K. Janssen and Paula S. Williamson, “Encouraging Conservation of Endangered Plants on Private Lands: A Case Study of Johnston’s Frankenia (*Frankenia johnstonii*), an Endangered South Texas Subshrub,” Southwestern Rare and Endangered Plants, Proceedings of the Second Conference, Flagstaff, Arizona, September 11-14 1995, “General Technical Report RM-GTR-283,” Rocky Mountain Forest and Range Experiment Station (Fort Collins, Colo.), U.S. Forest Service, page 1.

⁶⁶ Janssen and Williamson, 1995.

⁶⁷ *Federal Register*, Vol. 68, May 22, 2003, pages 27,961-27,969.

⁶⁸ *Ibid.*

⁶⁹ David Anderson and Richard Grove, eds., *Conservation in Africa: People, Policies and Practice* (Cambridge: Cambridge University Press, 1987); Graham Child, "Managing Wildlife Successfully in Zimbabwe," *Oryx*, Vol. 29, No. 3, 1995, pages 171-177; Raymond F. Dasmann, "Game Ranching in African Land-Use Planning," *Bulletin of the Epizootic Diseases of Africa*, Vol. 10, 1962, pages 13-17; John M. Mackenzie, *The Empire of Nature: Hunting, Conservation and British Imperialism* (Manchester: Manchester University Press, 1988); Stuart A. Marks, *The Imperial Lion: Human Dimensions of Wildlife Management in Central Africa* (Boulder, Westview Press, 1984); R. Mutwira, "Southern Rhodesia Wildlife Policy: A Question of Condoning Game Slaughter?" *Journal of Southern African Studies*, Vol. 15, No. 2, 1989, pages 250-262; Thane Riney, "The International Importance of African Wildlife," *Unasylva*, Vol. 15, No. 2, 1961, pages 75-80.

⁷⁰ Raymond F. Dasmann, *African Game Ranching*, (Oxford: Pergamon Press, 1964); Ramachandra Guha, "The Authoritarian Biologist and the Arrogance of Anti-Humanism: Wildlife Conservation in the Third World," *The Ecologist*, Vol. 27, No. 1, 1997, pages 14-20; Dale Lewis, Gilson B. Kaweche and Ackim Mwenya, "Wildlife Conservation Outside Protected Areas — Lessons from and Experiment in Zambia," *Conservation Biology*, Vol. 4, No. 2, 1990, pages 171-180; Dale Lewis and Nick Carter, eds., *Voices from Africa: Local Perspectives on Conservation* (Washington, D.C.: World Wildlife Fund, 1993); Roderick P. Neumann, *Imposing Wilderness: Struggles over Livelihood and Preservation in Africa* (Berkeley: University of California Press, 1998); Nancy L. Peluso, "Coercing Conservation: The Politics of State Resource Control," *Global Environmental Change*, Vol. 3, No 2, 1993, pages 199-217.

⁷¹ Graham Child, *Wildlife and People: the Zimbabwean Success* (Harare: Wisdom Foundation, 1995); Clark C. Gibson, *Politicians and Poachers: The Political Economy of Wildlife Policy in Africa* (New York: Cambridge University Press, 1999); Marks, *The Imperial Lion*, 1984; David Western and R. Michael Wright, "The Background to Community-based Conservation," in D. Western, R. M. Wright and S. C. Strum, eds., *Natural Connections: Perspectives in Community-based Conservation* (Washington, D.C.: Island Press, 1994), pages 1-12.

⁷² Jonathan S. Adams and Thomas O. McShane, *The Myth of Wild Africa: Conservation Without Illusion* (Berkeley: University of California Press, 1996); David H.M. Cumming, "Wildlife Products and the Marketplace: A View from Southern Africa," WWF Multispecies Animal Production Systems Project (Harare, Zimbabwe), Project Paper No. 12, 1990; David H.M. Cumming, "Developments in Game Ranching and Wildlife Utilization in East and Southern Africa," WWF Multispecies Animal Production Systems Project (Harare, Zimbabwe), Project Paper No. 13, 1990; Graham Child, "The Role of Community-Based Wild Resource Management in Zimbabwe," *Biodiversity and Conservation*, Vol. 5, 1996, pages 355-367.

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⁷⁵ Brian Child, "Building the CAMPFIRE Paradigm," *PERC Reports*, Vol. 22, No. 2, 2004, pages 3-6.

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- ⁷⁷ L.M. Campbell, "Use Them or Lose Them: Conservation and the Consumptive Use of Marine Turtle Eggs at Ostional, Costa Rica," *Environmental Conservation*, Vol. 25, No. 4, 1998, pages 305-19.
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- ⁸⁰ J.J. Blanc et al., "African Elephant Status Report: An Update from the African Elephant Database," IUCN Species Survival Commission, No. 33, 2007.
- ⁸¹ Stephen R. Edwards, "Sustainable Conservation By and For the People," in Richard Littell, ed., *Endangered and Other Protected Species: Federal Law and Regulation* (Washington, D.C.: BNA Books, 1992), pages vii-viii.
- ⁸² The ESA is "widely regarded as a model to which the world aspires," claims Michael Bean of Environmental Defense; see Anon., "Endangered Species Act Faces Tough Test in Reauthorization, EDF Official Says," *BNA Environmental Law Update*, March 5, 1992. Bean has repeatedly made this claim: "The Endangered Species Act is a very significant piece of legislation, a model for the rest of the world;" see Hugh Dellios, "Environmental act endangered as private landowners cry foul," *Chicago Tribune*, May 29, 1995. "The Act's effectiveness is admired by conservation officials in countries around the world;" see Michael J. Bean "Endangered Species Act Reform Rhetoric and Reality," *EDF Letter*, Vol. 25, No. 1, 1994, page 4. "In enacting ESA, the United States sent a strong message to the world by putting our nation on the forefront of protecting wildlife," claimed U.S. Rep. John Dingell, who voted for the ESA in 1973; see John Dingell, "GOP Moves Imperil Dynamic, Flexible, Common-Sense law," *Rocky Mountain News*, December 27, 2003.

About the Author

Brian Seasholes is an expert on a wide variety of issues related to wildlife, land use and property rights, including efforts to create property rights to wildlife in Southern Africa, community-based conservation, co-management of wildlife between private and public entities, markets and wildlife, privatization of wildlife, private approaches to conservation in the United States and around the world, and the U.S. Endangered Species Act.

Mr. Seasholes's writings have appeared in the *Christian Science Monitor*, *Houston Chronicle*, *Orange County Register*, *Chattanooga Free Press*, *Washington Times*, and the *Endangered Species Update*.

Mr. Seasholes received his bachelor's degree, with honors, from Wesleyan University and his master's degree in geography from the University of Wisconsin-Madison. He previously worked for the Competitive Enterprise Institute in Washington, D.C., and then, after receiving his Master's degree, took a few years off to care for his two young sons.

About the NCPA

The NCPA is a nonprofit, nonpartisan organization established in 1983. Its aim is to examine public policies in areas that have a significant impact on the lives of all Americans — retirement, health care, education, taxes, the economy, the environment — and to propose innovative, market-driven solutions. The NCPA seeks to unleash the power of ideas for positive change by identifying, encouraging and aggressively marketing the best scholarly research.

Health Care Policy. The NCPA is probably best known for developing the concept of Health Savings Accounts (HSAs), previously known as Medical Savings Accounts (MSAs). NCPA President John C. Goodman is widely acknowledged (*Wall Street Journal*, *WebMD* and the *National Journal*) as the “Father of HSAs.” NCPA research, public education and briefings for members of Congress and the White House staff helped lead Congress to approve a pilot MSA program for small businesses and the self-employed in 1996 and to vote in 1997 to allow Medicare beneficiaries to have MSAs. In 2003, as part of Medicare reform, Congress and the president made HSAs available to all nonseniors, potentially revolutionizing the entire health care industry. Health Savings Accounts now are potentially available to 250 million nonelderly Americans.

The NCPA outlined the concept of using federal tax credits to encourage private health insurance and helped formulate bipartisan proposals in both the Senate and the House. The NCPA and Blue-Cross Blue-Shield of Texas developed a plan to use money federal, state and local governments now spend on indigent health care to help the poor purchase health insurance. The SPN Medicaid Exchange, an initiative of the NCPA for the State Policy Network, is identifying and sharing the best ideas for health care reform with researchers and policymakers in every state.

Taxes & Economic Growth. The NCPA helped shape the progrowth approach to tax policy during the 1990s. A package of tax cuts designed by the NCPA and the U.S. Chamber of Commerce in 1991 became the core of the Contract with America in 1994. Three of the five proposals (capital gains tax cut, Roth IRA and eliminating the Social Security earnings penalty) became law. A fourth proposal — rolling back the tax on Social Security benefits — passed the House of Representatives in summer 2002. The NCPA’s proposal for an across-the-board tax cut became the centerpiece of President Bush’s tax cut proposals.

NCPA research demonstrates the benefits of shifting the tax burden on work and productive investment to consumption. An NCPA study by Boston University economist Laurence Kotlikoff analyzed three versions of a consumption tax: a flat tax, a value-added tax and a national sales tax. Based on this work, Dr. Goodman wrote a full-page editorial for *Forbes* (“A Kinder, Gentler Flat Tax”) advocating a version of the flat tax that is both progressive and fair.

A major NCPA study, *Wealth, Inheritance and the Estate Tax*, completely undermines the claim by proponents of the estate tax that it prevents the concentration of wealth in the hands of financial dynasties. Actually, the contribution of inheritances to the distribution of wealth in the United States is surprisingly small. Senate Majority Leader Bill Frist (R-TN) and Senator Jon Kyl (R-AZ) distributed a letter to their colleagues about the study. In his letter, Sen. Frist said, “I hope this report will offer you a fresh perspective on the merits of this issue. Now is the time for us to do something about the death tax.”

Retirement Reform. With a grant from the NCPA, economists at Texas A&M University developed a model to evaluate the future of Social Security and Medicare, working under the direction of Thomas R. Saving, who for years was one of two private-sector trustees of Social Security and Medicare.

The NCPA study *Ten Steps to Baby Boomer Retirement* shows that as 77 million baby boomers begin to retire, the nation’s institutions are totally unprepared. Promises made under Social Security, Medicare and Medicaid are completely unfunded. Private sector institutions are not doing better — millions of workers are discovering

that their defined benefit pensions are unfunded and that employers are retrenching on post-retirement health care promises.

Pension reforms signed into law include ideas to improve 401(k)s developed and proposed by the NCPA and the Brookings Institution. Among the NCPA/Brookings 401(k) reforms are automatic enrollment of employees into the companies' 401(k) plans, automatic contribution rate increases so that as workers' wages grow so do their contributions, and stronger default investment options for workers who do not make an investment choice.

The NCPA's online Social Security calculator allows visitors to discover their expected taxes and benefits and how much they would have accumulated had their taxes been invested privately.

Environment & Energy. The NCPA's E-Team is one of the largest collections of energy and environmental policy experts and scientists who believe that sound science, economic prosperity and protecting the environment are compatible. The team seeks to correct misinformation and promote sensible solutions to energy and environment problems. A pathbreaking 2001 NCPA study showed that the costs of the Kyoto agreement to reduce carbon emissions in developed countries would far exceed any benefits.

Educating the next generation. The NCPA's Debate Central is the most comprehensive online site for free information for 400,000 U.S. high school debaters. In 2006, the site drew more than one million hits per month. Debate Central received the prestigious Templeton Freedom Prize for Student Outreach.

Promoting Ideas. NCPA studies, ideas and experts are quoted frequently in news stories nationwide. Columns written by NCPA scholars appear regularly in national publications such as the *Wall Street Journal*, the *Washington Times*, *USA Today* and many other major-market daily newspapers, as well as on radio talk shows, on television public affairs programs, and in public policy newsletters. According to media figures from Burrelle's, more than 900,000 people daily read or hear about NCPA ideas and activities somewhere in the United States.

What Others Say About the NCPA

"Ofentimes, during policy debates on my staff, a smart young staffer will step up and say, 'I got this piece of evidence from the NCPA.' It helps a lot to have intellectual thought to help shape public policy in the State of Texas. I want to thank you all for what you do."
—George W. Bush (as governor of Texas)

"We know what works. It's what the NCPA talks about: limited government, economic freedom; things like health savings accounts. These things work, allowing people choices. We've seen how this created America." —John Stossel, co-anchor ABC-TV's 20/20

"I don't know of any organization in America that produces better ideas with less money than the NCPA." —Phil Gramm, former U.S. Senator

"Thank you . . . for advocating such radical causes as balanced budgets, limited government and tax reform, and to be able to try and bring power back to the people." —Tommy Thompson, former Secretary of Health and Human Services

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