# PR DA

## NC

### NC Shell

#### The Pittman-Robertson excise tax is successfully funding wildlife conservation now—handgun sales are critical to this funding

**Rawlinson 15**

Jeff Rawlinson (Nebraska Game and Parks Commission). “Pittman-Robertson a story of conservation success.” Journal Star. April 5th, 2015. http://journalstar.com/sports/local/outdoors/pittman-robertson-a-story-of-conservation-success/article\_78d6707a-edc2-530a-9743-f7e1a62f1ac1.html

How the funding for the greatest conservation model in the world came together to provide us the hunting, fishing and shooting sports opportunities we enjoy today was just plain brilliant. No other nation has such coordinated and easy access to hunting, fishing and shooting sports like we do in the United States. We went from the brink of ecological disaster in beginning the 20th century to wildlife abounding in every state. Critters that were uncommon 75 years ago are now common today. This remarkable story took people with vision and passion. And it took money. By the early 20th century, we had all but destroyed our wildlife and natural resources in America. We had begun to realize we needed trained game wardens and biologists if we were to save and restore the remaining wildlife. Thanks to President Theodore Roosevelt, conservation of wild things and wild places was at the political forefront, but the states needed money if anything was to be done. Compounding this need was that they would have to find this money during the Great Depression. Hunters, anglers, and rod and gun clubs across the country were demanding something be done. In 1937, the country was limping from the Depression and conservation needed funding badly. Hunters, anglers and shooting sports enthusiasts lobbied hard for Congress to take an existing 10 percent excise tax on firearms and ammunition and divert the funds to state fish and wildlife agencies. Congress wanted to simply repeal the tax. This concept was brought to light by Carl Shoemaker, a former director of the Oregon Fish and Game Commission. The idea of keeping a tax on the books during those times was not popular, but Shoemaker drafted the legislation. The idea was sound: Move the existing 10 percent tax on firearms and ammunition to the new bill and allow the state fish and wildlife agencies to use the funds for conservation. Shoemaker enlisted the help of Sen. Key Pittman of Nevada, who introduced the bill. To gain House support, Shoemaker met with Rep. A. Willis Robertson of Virginia. During their lunch in the Senate dining room, Robertson took a look at the draft and wrote down 29 words that were to be added. These words read, “and which shall include a prohibition against the diversion of license fees paid by hunters for any other purpose than the administration of said state fish and game department." These words have kept the funding for fish and wildlife management from being diverted from their intended purpose. The bill was placed in the House Agriculture Committee, where it was handed to Rep. Scott Lucas of Illinois. Shoemaker’s savvy helped Lucas make the Pittman-Robertson bill a major priority. President Franklin Roosevelt signed the Pittman-Robertson Wildlife Restoration Act on Sept. 2, 1937. In 1950, the Dingell-Johnson Act was passed to allow for taxes on fishing tackle. In the 1970s, the act was expanded to include handguns and archery equipment. Today, the combined acts have collected more than $12 billion for fish and wildlife conservation efforts. The concept is pretty simple. Every time you purchase a new rifle, handgun, shotgun, bow, arrows or ammunition, 10 percent of that sale goes to the U.S. Fish and Wildlife Service, where the funds are redistributed back to the state fish and wildlife agency for conservation efforts. Perhaps no other effort shows the profound effect of the Pittman-Robertson act in Nebraska than the reintroduction of wild turkey. Once extinct in Nebraska, the wild turkey is one of the most sought-after game species in the state. Today, the annual economic impact of hunting, fishing, wildlife viewing and state parks is $2.4 billion to the Nebraska economy. Add the $330 million impact from the shooting sports, and it is easy to see how critical this effort has been to the well-being of every citizen of the state. How different would the state of wildlife in Nebraska be if Shoemaker had chosen any other senator to have lunch with that day?

#### PR funding protects biodiversity—the programs it funds are successful

**Beaudry 15**

Frederic Beaudry (environmental issues expert). “What Is the Pittman-Robertson Act?” About.com. November 18th, 2015. http://environment.about.com/od/biodiversityconservation/fl/What-Is-the-Pittman-Robertson-Act.htm

The early part of the 20th century was a low point for many wildlife species in North America. Market hunting had decimated shorebird and duck populations. Bison were dangerously close to extinction. Even beavers, Canada geese, whitetail deer, and wild turkeys, all common nowadays, reached very low densities. That period became a pivotal moment in conservation history, as a few conservation pioneers turned concern into action. They are responsible for several key pieces of legislation which became the first North American wildlife protection laws, including the Lacey Act and the Migratory Bird Treaty Act. On the heels of that success, in 1937 a new law was enacted to fund wildlife conservation: the Federal Aid in Wildlife Restoration Act (nicknamed for its sponsors as the Pittman-Robertson Act, or PR Act). The funding mechanism is based on a tax: for every purchase of firearms and ammunition an excise tax of 11% (10% for handguns) is included in the sale price. The excise tax is also collected for the sale of bows, crossbows, and arrows. Who Gets PR Funds? Once collected by the federal government, a small portion of the funds go toward hunter education programs and target shooting range maintenance projects. The rest of the funds are available to individual states for wildlife restoration purposes. In order for a state to collect Pittman-Robertson funds, it must have an agency designated as responsible for wildlife management. Every state has one these days, but this caveat was originally a powerful incentive for states to get serious about taking steps toward wildlife conservation. The amount of funds a state is allocated any given year is based on a formula: half the allocation is in proportion to the state’s total area (therefore, Texas will get more money than Rhode Island), and the other half is based on the number of hunting licenses sold that year in that state. It is because of this fund allocation system that I often encourage non-hunters to purchase a hunting license. Not only do the proceeds of the license sale go to a state agency working hard to manage our natural resources, but your license will help funnel more money from the federal government into your own state and assist in protecting biodiversity. What Are PR Funds Used For? The PR Act allowed the distribution of $760.9 million for the purpose of wildlife restoration in 2014. Since its inception, the Act generated over $8 billion in revenue. In addition to building shooting ranges and providing hunter education, these monies have been used by state agencies to purchase millions of acres of wildlife habitat, conduct habitat restoration projects, and hire wildlife scientists. It is not just game species and hunters who benefit from PR funds, as projects are often focused on non-game species. Plus, most of the visitors of protected state lands come for non-hunting activities like hiking, canoeing, and birding. The program has been so successful that a very similar one was designed for recreational fisheries and enacted in 1950: the Federal Aid in Sport Fish Restoration Act, which is often referred to as the Dingell-Johnson Act. Through an excise tax on fishing equipment and motorboats, in 2014 the Dingell-Johnson Act led to the redistribution of $325 million in funding to restore fish habitat.

#### Biodiversity loss causes extinction—consensus of studies agrees

**Cardinale 13**

Bradley Cardinale (associate professor in the School of Natural Resources & Environment at the University of Michigan, where he is director of the school's Conservation Ecology Program and teaches courses in conservation, restoration ecology, and ecosystem services. He is also an elected member of the International Council for Science's research program DIVERSITAS). “Opinion: Biodiversity Impacts Humanity.” The Scientist. February 20th, 2013. http://www.the-scientist.com/?articles.view/articleNo/34448/title/Opinion--Biodiversity-Impacts-Humanity/

Whether one views Biosphere II as a monumental failure or magnificent learning experience, it was a sobering reminder that we still don’t have even a basic understanding of how to design a biological system that can sustain human life. Obviously, this means we’re not yet in a position to put a human colony on Mars. More importantly, it means we don’t yet understand how to live sustainably on our own planet. Earth, like Biosphere II, is a materially closed ecosystem. Nothing is lost, and nothing is gained. And nearly everything that is required to sustain human life is made available by other living organisms. Without photosynthetic bacteria and plants, there would be no breathable atmosphere. Without microbes, fungi, and animals, there would be no soil to grow crops, and nothing to pollinate those crops if they did exist. Without these essential players in our planet’s global ecosystem, the oceans would have no fish, and forests would have no wood. There would be no fossil fuel, no renewable biofuel, and even if we had fuel to burn, there would be nothing to clean the pollutants from combustion out of the water we drink or the air we breathe. Nature has provided the goods and services needed to sustain human life for so long that most people take them for granted. But growing evidence suggests that Earth’s natural capital, and the biological diversity that underpins these goods and services, are being eroded. Some even claim that Earth is in the midst of a 6th mass extinction. Though this claim is a bit misleading—over the past 400 years, we’ve lost 1-13 percent of known species, compared with 75 percent or more lost during the five prior mass extinctions—the concern is not about the total number of species that have already gone extinct. Rather, the concern is how quickly species are being lost—and we are losing species faster than ever. In the fossil record, we normally see one species per thousand go extinct every millennia. Rates of extinction in the past century have increased to 100 to 1,000 times faster than normal. Add to this the abnormally high number of threatened and endangered species, and projections suggest we could truly reach the point of a mass extinction in 240-540 years. So what? Beyond conserving species for the sake of biodiversity, does it matter if a large fraction of Earth’s life forms cease to exist in the next few centuries? Biologists have spent much of the past 20 years addressing this very question, and they have now run more than 500 experiments in which they have simulated the extinction of species in nearly every major biome on Earth. Results have been surprisingly consistent. Whenever ecosystems lose species, they generally become less efficient and less stable. Less diverse communities are not as good at capturing biologically essential resources like sunlight, water, and nutrients. In turn, the growth of plants slows, as does the animals that eat the plants. Less diverse systems are also less efficient at decomposing waste products and recycling essential nutrients; thus, they become more “leaky.” Less diverse ecosystems tend to be more variable through time, which causes them to exhibit greater fluctuations and higher levels of unpredictability. Collectively, these things cause ecosystems with fewer species to be less efficient and reliable at providing society with many fundamentally important goods and services, like the provision of crops and fisheries, control of many types of pest and disease, production of wood, and the ability to remove carbon from the atmosphere, to name a few. On the other hand, it’s important to acknowledge that biodiversity is not always “good” for society. Biodiversity is, after all, the very reason we have antibiotic resistance. There is also no evidence to suggest we must conserve all species to maintain ecosystem services. Species have come and gone throughout Earth’s history, and yet, higher life continues to exist. Furthermore, humans have shown a unique ability to develop low diversity systems through domestication and bioengineering that can provide select products and services quite well. Even so, it is naive and dangerous to ignore our fundamental dependence on other life forms. It is clear that the loss of certain key species can have strong impacts on biological processes, and while it is sometimes obvious which species play the biggest roles, other times we don’t realize their importance until they are gone. It is also naive and dangerous to think we can bioengineer a planet that will be able sustain the growing human population. If we were unable to build a life-support system that could support 8 people in Biosphere II, who believes we can engineer a planet able to support 9 billion? We are taking the very genes and species that have made Earth an inhabitable and biologically productive planet over the past 3.8 billion years, and we are lining them up on the edge of a cliff from which there is no return. If the ever growing human population is to continue to prosper, we must better appreciate how our own well-being is directly linked to the great variety of life that is the most striking feature of our planet.

### Enviro Turns Rights

**DA turns the case—respect for the environment is a pre-requisite to rights**

**Elliott 3**

Herschel Elliott (Penn State Professor of Agricultural and Biological Engineering Fate And Control Of Pollutants In Soils And Water), “Tributes to Garrett Hardin The Revolutionary Import of Garrett Hardin's Work.” The Garrett Hardin Society. July, 2003. http://www.garretthardinsociety.org/tributes/tr\_elliot\_2003jul.html

Indeed, conditions of impending and intractable scarcity change the types of behavior that are suited to the various environments in which they occur. They change the moral behavior that is possible. As always, the moral necessity stands to discriminate against those who break moral law. For example, Western ethics discriminates against thieves, murderers, and all who commit immoral acts. It does not give them equal rights, freedoms, and opportunities. Similarly, an ethics founded on the environmental principle discriminates against those who trash their environments and those who fail to control their reproductive behavior. It does not give them equal rights, freedoms, and opportunities. Hence human rights are not universal and the obligation to render philanthropic aid to all in need is not unconditional. People who either ignore or deny the environmental principle diminish their rights, freedoms, and opportunities. They may forfeit their right to philanthropic aid as well. Just as Western ethics does not subsidize or reward people for their sins, so an ethics founded on the environmental principle does not subsidize or reward people for their environmental sins.

## 2NR

### Overview

#### Banning handguns ends legal handgun sales—those indirectly fund wildlife conservation because of the Pittman-Robertson Act’s 10% excise tax on handgun purchases—that’s Rawlinson

#### PR funding supports habitat restoration and scientific research which is key to protecting biodiversity—that’s Beaudry

#### Biodiversity loss causes extinction—BioD underpins the ecosystem services we need to live—numerous studies confirm—that’s Cardinale

#### Disad turns the case because…

### Outweighs Nuke War—Reversibility

#### Biodiversity loss is worse than nuclear war—outweighs on reversibility

Chen 2k

Jim, Professor of Law at University of Minnesota and Dean of Law School at Louisville, Globalization and Its Losers:, 9 Minn. J. Global Trade 157’ LexisNexis Legal

Conscious decisions to allow the extinction of a species or the destruction of an entire ecosystem epitomize the "irreversible and irretrievable commitments of resources" that NEPA is designed to retard.312 The original Endangered Species Act gave such decisions no quarter whatsoever;313 since 1979, such decisions have rested in the hands of a solemnly convened "God Squad."314 In its permanence and gravity, natural extinction provides the baseline by which all other types of extinction should be judged. The Endangered Species Act explicitly acknowledges the "esthetic, ecological, educational, historical, recreational, and scientific value" of endangered species and the biodiversity they represent.315 Allied bodies of international law confirm this view:316 global biological diversity is part of the commonly owned heritage of all humanity and deserves full legal protec- tion.317 Rather remarkably, these broad assertions understate the value of biodiversity and the urgency of its protection. A Sand County Almanac, the eloquent bible of the modern environmental movement, contains only two demonstrable bio- logical errors. It opens with one and closes with another. We can forgive Aldo Leopold's decision to close with that elegant but erroneous epigram, "ontogeny repeats phylogeny."318 What concerns erns us is his opening gambit: "There are some who can live without wild things, and some who cannot."319 Not quite. None of us can live without wild things. Insects are so essential to life as we know it that if they "and other land-dwelling anthropods ... were to disappear, humanity probably could not last more than a few months."320 "Most of the amphibians, reptiles, birds, and mammals," along with "the bulk of the flowering plants and ... the physical structure of most forests and other terrestrial habitats" would disappear in turn.321 "The land would return to" something resembling its Cambrian condition, "covered by mats of recumbent wind-pollinated vegetation, sprinkled with clumps of small trees and bushes here and there, largely devoid of animal life."322 From this perspective, the mere thought of valuing biodiver- sity is absurd, much as any attempt to quantify all of earth's planetary amenities as some trillions of dollars per year is ab- surd. But the frustration inherent in enforcing the Convention on International Trade in Endangered Species (CITES) has shown that conservation cannot work without appeasing Homo economicus, the profit-seeking ape. Efforts to ban the interna- tional ivory trade through CITES have failed to stem the slaugh- ter of African elephants.323 The preservation of biodiversity must therefore begin with a cold, calculating inventory of its benefits. Fortunately, defending biodiversity preservation in human- ity's self-interest is an easy task. As yet unexploited species might give a hungry world a larger larder than the storehouse of twenty plant species that provide nine-tenths of humanity's cur- rent food supply.324 "Waiting in the wings are tens of thousands of unused plant species, many demonstrably superior to those in favor."325 As genetic warehouses, many plants enhance the pro- ductivity of crops already in use. In the United States alone, the lates phylogeny" means that the life history of any individual organism replays the entire evolutionary history of that organism's species. genes of wild plants have accounted for much of "the explosive growth in farm production since the 1930s."326 The contribution is worth $1 billion each year.327 Nature's pharmacy demonstrates even more dramatic gains than nature's farm.328 Aspirin and penicillin, our star analgesic and antibiotic, had humble origins in the meadowsweet plant and in cheese mold.329 Leeches, vampire bats, and pit vipers all contribute anticoagulant drugs that reduce blood pressure, pre- vent heart attacks, and facilitate skin transplants.330 Merck & Co., the multinational pharmaceutical company, is helping Costa Rica assay its rich biota.33' A single commercially viable product derived "from, say, any one species among... 12,000 plants and 300,000 insects ... could handsomely repay Merck's entire investment" of $1 million in 1991 dollars.332 Wild animals, plants, and microorganisms also provide eco- logical services.333 The Supreme Court has lauded the pes- ticidal talents of migratory birds.334 Numerous organisms process the air we breathe, the water we drink, the ground we stroll.335 Other species serve as sentries. Just as canaries warned coal miners of lethal gases, the decline or disappearance of indicator species provides advance warning against deeper environmental threats.336 Species conservation yields the great- est environmental amenity of all: ecosystem protection. Saving discrete species indirectly protects the ecosystems in which they live.337 Some larger animals may not carry great utilitarian value in themselves, but the human urge to protect these charis- matic "flagship species" helps protect their ecosystems.338 In- deed, to save any species, we must protect their ecosystems.339 Defenders of biodiversity can measure the "tangible eco- nomic value" of the pleasure derived from "visiting, photograph- ing, painting, and just looking at wildlife."340 In the United States alone, wildlife observation and feeding in 1991 generated $18.1 billion in consumer spending, $3 billion in tax revenues, and 766,000 jobs.341 Ecotourism gives tropical countries, home to most of the world's species, a valuable alternative to subsis- tence agriculture. Costa Rican rainforests preserved for ecotour- ism "have become many times more profitable per hectare than land cleared for pastures and fields," while the endangered go- rilla has turned ecotourism into "the third most important source of income in Rwanda."342 In a globalized economy where commodities can be cultivated almost anywhere, environmen- tally sensitive locales can maximize their wealth by exploiting the "boutique" uses of their natural bounty. The value of endangered species and the biodiversity they embody is "literally . . . incalculable."343 What, if anything, should the law do to preserve it? There are those that invoke the story of Noah's Ark as a moral basis for biodiversity preser- vation.344 Others regard the entire Judeo-Christian tradition, especially the biblical stories of Creation and the Flood, as the root of the West's deplorable environmental record.345 To avoid getting bogged down in an environmental exegesis of Judeo- Christian "myth and legend," we should let Charles Darwin and evolutionary biology determine the imperatives of our moment in natural "history."346 The loss of biological diversity is quite arguably the gravest problem facing humanity. If we cast the question as the contemporary phenomenon that "our descend- ants [will] most regret," the "loss of genetic and species diversity by the destruction of natural habitats" is worse than even "energy depletion, economic collapse, limited nuclear war, or con- quest by a totalitarian government."347 Natural evolution may in due course renew the earth with a diversity of species approximating that of a world unspoiled by Homo sapiens - in ten mil- lion years, perhaps a hundred million.348

### AT Handguns Not Key

#### Handguns are 31% of PR funding—cutting a program’s budget by that much is pretty risky

**Smith and Molde 14**

Mark Smith (has 35 years of experience in environmental and resource management and has published extensively on these topics. He has a master's degree in engineering from the University of Nevada, Reno. Mr. Smith is the managing director of the Mark E. Smith Foundation and co-founder of Nevadans for Responsible Wildlife Management) and Donald Molde (retired physician, former board member of Defenders of Wildlife, and a wildlife advocate with 40 years experience. He is a co-founder of Nevadans for Responsible Wildlife Management). “Wildlife Conservation and Management Funding in the U.S.” Mountain Lion Foundation. 2014. http://www.mountainlion.org/featurearticleguestwhopaysforwildlife.asp

Pittman-Robertson & Dingell-Johnson Acts The process of determining the portion of the Pittman-Robertson Act (PRA) & Dingell-Johnson Act (DJA) excise taxes generated by hunting-related activities is both complex and imprecise. In the end, any such analysis can only be an estimate, since the revenue is not tracked in sufficient detail to allow a precise allocation. Our approach was to both recognize and minimize the biases created by our assumptions in these analyses. The approach taken in this study is briefly summarized here. Beginning in 1919, there has been an excise tax on firearms and ammunition (10 to 11% of the wholesale price). This tax was originally administered under the US Treasury, and the income went into the general fund. In 1937, the Pittman-Robertson Act transferred this tax to administration by the FWS for the exclusive purposes of wildlife management, hunting management, and hunter education. The Dingell-Johnston Act (1950), as amended by the Wallop and Breaux Act (1984), extended the excise tax to archery equipment, fishing supplies, recreational boat import duties, and marine fuel sales. PRA and DJA funding totaled $522 million and $360 million, respectively, for the 2013 fiscal year. Our analyses consider funding allocations in two portions: the first based on activity (hunting related versus non-hunting related), and the second on general population (hunters versus the non-hunting public). This section discusses the former; the latter uses the same allocation as for the other categories. We used this split approach for the PRA and DJA funds because firearms, ammunition, and archery equipment are purchased by both hunters and non-hunters and these are used for both hunting and non-hunting purposes. Therefore, putting the total revenue into either the "hunter" or "non-hunting public" categories would have created a strong bias. The next step was to consider the nature of the purchases that generate the excise taxes collected. According to the ATF (Hogue, 2013), the PRA revenue is generated in the following proportions: 31% from handgun (pistols and revolvers) production 37% from long guns (rifles and shotguns) production 31% from ammunition production 1% from archery equipment production

### AT US Not k2 Global BioD

#### California state parks are a biodiversity hotspot

**Hart and Vanfleet-Brown 13**

Caryl Hart, Ph.D., and Jackson Vanfleet-Brown. “Biological Diversity.” California Department of Parks and Recreation. 2013. <http://www.parks.ca.gov/?page_id=26111>

A single California valley might contain several microclimates. In the fog belt it might be drizzly and misty all day long, even while a mile or two away the sun is shining in the banana belt. When comparing networks of valleys, California sees just as much diversity. Redwood groves meet grassland meadows, snowy mountains fall to desert floors, and temperate belts facilitate year-round agriculture. This is one of the reasons California is teeming with tall trees and diverse and plentiful ocean life. It’s a state full of biodiversity hotspots—areas where microclimates and evolution have fostered pockets of rare plants and animals. Yet microclimates are sensitive to changes in temperature and precipitation. Small climate changes have a big impact. This is one of the reasons hotspots will suffer as climate change continues. There is growing conviction among conservation biologists that greater biodiversity also confers greater resilience within ecosystems. Resilience refers to the ability of an ecosystem to maintain its functions in the face of disturbance. A climate resilient ecosystem would retain its functions and ecosystem services in the face of climate change. In fact, state parks in California represent the “hottest of hotspots” by protecting ever more endangered plant and animal species. By preserving these ecosystems, we help address climate change. In addition, parks create buffers around hotspots. By providing open space zones around critical habitats, resiliency is increased. These buffers assist ecosystems in their struggle to maintain balance. Preservation not only makes biodiversity hotspots more resilient to change, but buffers provide plants and animals with space to expand and shift. California State Parks also connect habitats, providing opportunities for displaced species to relocate. In light of climate change, many species are beginning to seek higher elevation habitats where precipitation and temperature now mimic the climate in lower region. As species move, they will need protected corridors to migrate. Climate change poses a particular threat to existing wildlife corridors. Businesses and homes may have to move, posing new development threats to open spaces. By connecting high elevation hills to the beach, and linking valleys together, parks preserve corridors from development.

#### Hotspots are key to global biodiversity

**Roach 5**

John Roach (staff writer). “Conservationists Name Nine New "Biodiversity Hotspots".” National Geographic News. February 2nd, 2005. http://news.nationalgeographic.com/news/2005/02/0202\_050202\_hotspots.html

Today conservationists named nine new "biodiversity hotspots"—areas of mind-boggling species richness that are under constant assault from human activity. The label highlights the regions as priorities for the world's conservation efforts. One hotspot is a crucial stopover for migrating monarch butterflies. Another has the highest tree richness of any temperate region on the planet. And yet another is a mountain refuge for vultures, tigers, and wild water buffalo. All the newly named hotspots have lost at least 70 percent of their original natural habitat. The announcement was made by the Washington, D.C.-based Conservation International. The nonprofit also launched Hotspots Revisited, a book detailing a four-year analysis of its global hotspot strategy for biodiversity conservation. "The hotspots strategy really intends to pick out regions across the globe where we need to go first to be effective in saving species," said Michael Hoffmann, a biodiversity analyst with Conservation International and contributing author to Hotspots Revisited. The organization now recognizes a total of 34 biodiversity hotspots. About half of all plant and animal species on Earth are found in the hotspots, which originally covered 15.7 percent of Earth's surface area. Only about a tenth of that original habitat remains. The hotspots range from the African island nation of Madagascar to the Indian Ocean islands, which are home to 24 families of plants and animals found nowhere else in the world. The Madrean pine-oak woodlands, a rugged mountainous area stretching from Mexico to the southwestern United States, was also highlighted. By focusing attention on these regions, conservationists hope to maximize their efforts at saving as many species as possible from extinction. Stuart Pimm—a conservation biologist at Duke University in Durham, North Carolina, and a member of the National Geographic Society's Committee for Research and Exploration—said the hotspot strategy is effective at channeling conservation efforts. "We need to have a guideline of where to go, and it does help us focus our attention on areas that are important and disappearing quickly," he said. Biodiversity Hotspots The concept of biodiversity hotspots was penned by British ecologist Norman Myers in 1988 as a means to address the dilemma of identifying the areas most important for preserving species. Myers recognized that—despite their relatively small sizes—certain ecosystems account for a high percentage of global biodiversity. Many of these same areas face tremendous pressure from logging, agriculture, hunting, and climate change, scientists say. Myers reasoned that a prudent conservation strategy would be to target dollars and research at those regions where these threats are greatest to the greatest number of species. In the mid-1990s, together with partners at Conservation International, Myers ironed out a formula for hotspot designation: The region must support at least 1,500 plant species found nowhere else in the world, and it must have lost at least 70 percent of its original habitat. "Quite frankly, all biodiversity is important, that's the bottom line … but we have limited resources and limited time, so we have to become strategic in how we go about things," Hoffmann said. According to Duke University's Pimm, the areas Conservation International has identified as biodiversity hotspots come as little surprise to conservation biologists. They've been working in them for years. "In these places the vast majority of species that are teetering on the brink of extinction are found," he said. "If you care about species not going extinct, that almost immediately means you are working in hotspots."

### AT Biodiversity D—General

#### Biodiversity loss causes extinction

**Diner 94**

Major David N., Prof. Enviro. Law, Admin. And Civil Law Dept. @ Judge Advocate General’s School of US Army, former member of Judge Advocate General’s Corps, US Army, “The Army and the Endangered Species Act: Who’s Endangering Whom?” Military Law Review 143 (Winter 1994): 172-173

4. Biological Diversity. -- The main premise of species preservation is that diversity is better than simplicity. n77 As the current mass extinction has progressed, the world's biological diversity generally has decreased. This trend occurs within ecosystems by reducing the number of species, and within species by reducing the number of individuals. Both trends carry serious future implications. Biologically diverse ecosystems are characterized by a large number of specialist species, filling narrow ecological niches. These ecosystems inherently are more stable than less diverse systems. "The more complex the ecosystem, the more successfully it can resist a stress. . . . [l]ike a net, in which each knot is connected to others by several strands, such a fabric can resist collapse better than a simple, unbranched circle of threads -- which if cut anywhere breaks down as a whole." n79 By causing widespread extinctions, humans have artificially simplified many ecosystems. As biologic simplicity increases, so does the risk of ecosystem failure. The spreading Sahara Desert in Africa, and the dustbowl conditions of the 1930s in the United States are relatively mild examples of what might be expected if this trend continues. Theoretically, each new animal or plant extinction, with all its dimly perceived and intertwined affects, could cause total ecosystem collapse and human extinction. Each new extinction increases the risk of disaster. Like a mechanic removing, one by one, the rivets from an aircraft's wings, [hu]mankind may be edging closer to the abyss.

#### **Their defense underestimates the importance of biodiversity for functioning ecosystems—it also ignores a large consensus of studies**

**Nair 12**

Sruthi Nair (University of California, Santa Barbara). “Decline in Biodiversity May Lead to Mass Extinction.” Daily Nexus, UC Santa Barbara newspaper. May 22nd, 2012. http://dailynexus.com/2012-05-22/decline-biodiversity-lead-mass-extinction/

An international research team working at UCSB’s National Center for Ecological Analysis and Synthesis recently published a study detailing the impact of biodiversity loss as a result of climate change and pollution in the weekly science journal Nature. Researchers integrated data from over 200 published studies to trace the effects that different rates of species loss have on various ecosystems. The team of scientists from the United States, Canada and Sweden, headed by Western Washington University biology professor David Hooper, concluded that decreased levels of biodiversity are far more detrimental to ecological progress than previously believed. According to NCEAS Postdoctoral Fellow Jarrett Byrnes, research shows that with the current level of biodiversity loss, Earth faces a potential mass extinction in about 240 years. Byrnes said part of the problem stems from constant environmental alteration as a result of pollution and habitat destruction. “Modern rates of diversity loss [are] a symptom of a number of different human-driven environmental changes,” Byrnes said. “Habitat destruction, over-harvesting, pollution, climate change and more all contribute to the loss of the diversity of life on Earth. If we want to slow the rate of human-caused diversity loss, we need to tackle these problems head-on.” NCEAS Director Frank Davis said the team studied environmental stressors’ effects on plant growth and decomposition and determined that higher rates of plant species loss are directly linked to more negative impacts on plant growth. Davis said although biodiversity loss is often overlooked as a major threat to the environment, the study shows that its impact is actually on par with that of pollution and global warming. “The loss of biodiversity affects the way ecosystems function in terms of human cycling and productivity,” Davis said. “It may affect their ability to recover from extreme drought and it could affect the intangible benefits that people derive from ecosystems, such as an appreciation for diverse wild species.” Third-year environmental studies major Alyssa Hall said because of the interconnected and complex nature of many ecosystems, the loss of a species can take a severe toll on the rest of the environment. “Ecosystems are vital for natural resources and for use of plants and animals, so we should not be messing with them,” Hall said. “We don’t know exactly how nature works. The more we take out different species the more changes we’ll see in ecosystems. Think of an ecosystem like an engine. If you’re a mechanic, you need to know about the engine to play with it. If you don’t [know this], you shouldn’t be playing with it or you’ll cause more damage. If we keep making more changes to ecosystems we could be causing more damage.” Byrnes said biodiversity loss has a tendency to compound itself, often leaving the full extent of its impact greatly underestimated. “Diversity loss — particularly of plants — can affect a number of other ecosystem functions that are valuable to the maintenance of human life here on Earth,” Byrnes said. “What’s more, this isn’t something that one may notice right off the bat. The loss of a few species may not have a huge impact, but as more and more species are lost, the impacts grow progressively stronger. Species diversity is like the rivets on the wing of an airplane — lose a few and the airplane will still fly, but as more rivets are lost, the chance of the wing falling off increases dramatically.” Byrnes said the research team plans to continue studying the various, far-reaching effects of species loss on relationships within different ecosystems. “I think we are just starting to build a picture of how pervasive the effect of species diversity is for human wellbeing,” Byrnes said. “We’ve started to tackle some of the important science behind how diversity may affect the functioning of ecosystems. There is still a lot to learn and a number of different areas to explore. I’m pretty excited to see what we will find as we discover how the beautiful complexity of nature shapes the world around us.”

### AT Sagoff 97—BioD Irrelevant

#### Sagoff’s arg that most species are redundant misses the point—don’t roll the dice with biodiversity—there’s serious potential for extinction

**Diner 94**

Major David N., Prof. Enviro. Law, Admin. And Civil Law Dept. @ Judge Advocate General’s School of US Army, former member of Judge Advocate General’s Corps, US Army, “The Army and the Endangered Species Act: Who’s Endangering Whom?” Military Law Review 143 (Winter 1994): 172-173

No species has ever dominated its fellow species as man has. In most cases, people have assumed the God-like power of life and death -- extinction or survival -- over the plants and animals of the world. For most of history, mankind pursued this domination with a single-minded determination to master the world, tame the wilderness, and exploit nature for the maximum benefit of the human race. n67 In past mass extinction episodes, as many as ninety percent of the existing species perished, and yet the world moved forward, and new species replaced the old. So why should the world be concerned now? The prime reason is the world's survival. Like all animal life, humans live off of other species. At some point, the number of species could decline to the point at which the ecosystem fails, and then humans also would become extinct. No one knows how many [\*171] species the world needs to support human life, and to find out -- by allowing certain species to become extinct -- would not be sound policy. In addition to food, species offer many direct and indirect benefits to mankind. n68 2. Ecological Value. -- Ecological value is the value that species have in maintaining the environment. Pest, n69 erosion, and flood control are prime benefits certain species provide to man. Plants and animals also provide additional ecological services -- pollution control, n70 oxygen production, sewage treatment, and biodegradation. n71 3. Scientific and Utilitarian Value. -- Scientific value is the use of species for research into the physical processes of the world. n72 Without plants and animals, a large portion of basic scientific research would be impossible. Utilitarian value is the direct utility humans draw from plants and animals. n73 Only a fraction of the [\*172] earth's species have been examined, and mankind may someday desperately need the species that it is exterminating today. To accept that the snail darter, harelip sucker, or Dismal Swamp southeastern shrew n74 could save mankind may be difficult for some. Many, if not most, species are useless to man in a direct utilitarian sense. Nonetheless, they may be critical in an indirect role, because their extirpations could affect a directly useful species negatively. In a closely interconnected ecosystem, the loss of a species affects other species dependent on it. n75 Moreover, as the number of species decline, the effect of each new extinction on the remaining species increases dramatically. n76

### AT Boulter—BioD Loss Good

#### This isn’t a real impact turn—“biodiversity loss is good because it leads to more biodiversity” is self-contradictory—at best, Boulter is just defense that proves ecosystems are resilient

#### Boulter’s wrong—diverse ecosystems are more resilient—simplifying ecosystems risks human extinction

**Diner 94**

Major David N., Prof. Enviro. Law, Admin. And Civil Law Dept. @ Judge Advocate General’s School of US Army, former member of Judge Advocate General’s Corps, US Army, “The Army and the Endangered Species Act: Who’s Endangering Whom?” Military Law Review 143 (Winter 1994): 172-173

4. Biological Diversity. -- The main premise of species preservation is that diversity is better than simplicity. n77 As the current mass extinction has progressed, the world's biological diversity generally has decreased. This trend occurs within ecosystems by reducing the number of species, and within species by reducing the number of individuals. Both trends carry serious future implications. Biologically diverse ecosystems are characterized by a large number of specialist species, filling narrow ecological niches. These ecosystems inherently are more stable than less diverse systems. "The more complex the ecosystem, the more successfully it can resist a stress. . . . [l]ike a net, in which each knot is connected to others by several strands, such a fabric can resist collapse better than a simple, unbranched circle of threads -- which if cut anywhere breaks down as a whole." n79 By causing widespread extinctions, humans have artificially simplified many ecosystems. As biologic simplicity increases, so does the risk of ecosystem failure. The spreading Sahara Desert in Africa, and the dustbowl conditions of the 1930s in the United States are relatively mild examples of what might be expected if this trend continues. Theoretically, each new animal or plant extinction, with all its dimly perceived and intertwined affects, could cause total ecosystem collapse and human extinction. Each new extinction increases the risk of disaster. Like a mechanic removing, one by one, the rivets from an aircraft's wings, [hu]mankind may be edging closer to the abyss.

### AT PR Limited to Game Species

#### It’s not

**Schlegel 12**

Mike Schlegel (Pope & Young Club Conservation Chairman). “The Greatest Conservation Story Never Told.” Pope & Young Ethic, Spring 2012. http://www.azgfd.gov/pdfs/hahwg/TWS-articles/99-PY\_Ethic\_PR\_75.pdf

Currently the P-R Act authorizes an 11 percent federal excise tax on sporting arms, ammunition and archery equipment, and a 10 percent tax on handguns. Each time a hunter purchases one of these items, the retail price includes the federal excise tax. This tax, supported and paid by the manufacturers, is available to state fish and wildlife agencies through grants-in-aid administered by the U.S. Fish and Wildlife Service. The grant money is dispersed to the states based on a formula. Basically the dispersal of funds shall be adjusted equitably so that no state shall receive less than one-half of 1 per centum nor more than 5 per centum of the total amount apportioned. Additionally no money collected under the P-R Act may be dispersed to any state until the state has passed laws for the conservation of wildlife, which includes a prohibition against the diversion of license fees paid by hunters for any other purpose than the administration of said state’s fish and game department. The Act also provides for grants for hunter education programs and a mechanism for a multi-state conservation grant program. Numerous non-game species enjoy benefits of the Pittman-Robertson Act as it does not restrict use of funds to game species, but instead allows their use for any species of wild bird or mammal. States are also required to provide at least a 25 percent share of the project cost from non-federal funds. The money collected under the P-R Act cannot, however, be used for enforcement programs. As a result, hunters and shooting sports enthusiasts directly fund wildlife management and restoration - making this one of the first and most successful “user-pay / user-benefit” programs. Although Pittman-Robertson is financed wholly by firearms users and archery enthusiasts, its benefits cover a much larger number of people who never hunt but do enjoy such wildlife pastimes as bird watching, nature photography, painting and sketching, and a wide variety of other outdoor pursuits. Almost all the lands purchased with P-R money are managed both for wildlife production and for other public uses.

### AT PR Only Benefits Hunters

#### PR benefits hunters and habitats

**Anderson 14**

Terry Anderson (senior fellow at the Property and Environment Research Center in Bozeman, Mont., and a senior fellow at Stanford University's Hoover Institution). “Why Ducks Quack for Obama.” Wall Street Journal. August 28th, 2014. <http://www.wsj.com/articles/why-ducks-quack-for-obama-1409275094>

The people who buy guns, archery equipment and fishing rods support these "pay to play" taxes because they get direct benefits. Pittman-Robertson funds have brought white-tailed deer, wild turkeys and wood ducks back from the brink of extinction. They've also paid for habitat restoration in South Dakota, Nevada and Oregon to keep the sage grouse from being listed under the Endangered Species Act. The Oregon Department of Fish and Wildlife lists mule deer, blacktail deer, Rocky Mountain elk, cougars, bears, mountain quail and waterfowl as species that benefit from Pittman-Robertson. Non-hunting environmentalists also have reason to celebrate what some gun buyers call the "Obama bump" in funding for wildlife restoration. Pittman-Robertson provides habitat for non-game species such as song birds, raptors and small mammals. The 82 Pittman-Robertson projects listed by South Dakota Fish and Wildlife include turtles, bats, raptors, woodpeckers and native grasses. States use about 60% of Pittman-Robertson funds to operate Wildlife Management Areas. Many of these lands are owned privately but managed by the states for hunting, fishing, hiking and camping. The U.S. Fish and Wildlife Service, which allocates Pittman-Robertson funds, recently estimated that 70% to 95% of the people using these areas are not hunting. Evidence of the support for the fish and wildlife restoration tax is illustrated by the political ratings for John Dingell (D., Mich.), the longest serving member of Congress and co-sponsor of the sport fishing tax. In 2013 he got an A+ grade from the National Rifle Association and a 93% rating from the League of Conservation Voters, the powerful environmental lobby. Environmentalists and recreationists who benefit from "pay to play" taxes, however, are getting a free lunch. Some outdoor equipment and clothing companies—such as Patagonia with its "1% for the Planet" program—give a share of their profits to environmental causes. Hiking, biking and fishing clubs also help to build trails, clean up streams and improve habitat. But the day-to-day cost of natural resource and recreation management is paid by license fees, excise taxes and other state funds. The user-pay principle should apply to others who use public lands. For example, the number of mountain bikers has grown from a handful to more than 7.1 million over the past 30 years, according to the Outdoor Foundation. Mountain bike riding may be free, but it is not without cost. Fancy mountain bike trails can cost as much as $30,000 per mile, roughly three times the cost of traditional hiking trails. One study showed the average household income of a mountain biker is $80,000 to $100,000, so bikers would appear to be able to pay their own way. Suppose excise taxes were applied to other outdoor recreational equipment such as backpacks, kayaks and mountain bikes. The Outdoor Industry Association estimated that recreation product sales totaled $120 billion in 2012. Even a 1% tax on these sales would generate real money. If hunters, fishers and boaters pay, why shouldn't other recreationists also pay for trail maintenance, search and rescue and wildlife restoration? Expanding the "pay to play" model is a way to connect users and suppliers, in much the same way markets do. Just as hunters get more game to shoot, recreationists and environmentalists could get more of the amenities they want. NRA and environmentalists, unite!

### AT PR Failing

#### PR funding has saved multiple species from extinction—that’s because of gun sales

**Anderson 14**

Terry Anderson (senior fellow at the Property and Environment Research Center in Bozeman, Mont., and a senior fellow at Stanford University's Hoover Institution). “Why Ducks Quack for Obama.” Wall Street Journal. August 28th, 2014. <http://www.wsj.com/articles/why-ducks-quack-for-obama-1409275094>

You might think gun buyers would oppose such taxes, but they supported the legislation that created the tax. The Pittman-Robertson Act, passed in 1937, created the Federal Aid in Wildlife Restoration Program. It taxes the sale of guns, ammunition, shooting gear and archery equipment at rates from 1% to 11%. Between 1937 and 2012, the tax generated over $12 billion. The surge in gun and ammunition sales since President Obama was elected has increased Pittman-Robertson funds to more than $760 million in 2014 from $310 million in 2008. A similar tax on fishing and boating equipment, from the 1950 Dingell-Johnson Sport Fish Restoration Act, generated another $325 million for fish restoration in 2014. You might say Mr. Obama is the best thing to happen to fish and wildlife since Teddy Roosevelt. After Minnesota received $23 million from Pittman-Robertson this year, Ed Boggess of the Minnesota Department of Natural Resources told the Minneapolis Star Tribune it is "a huge boon to wildlife programs." Conservation groups are also happy. On the law's 75th anniversary in 2012, the National Wildlife Federation said wetland acquisition and restoration was "vital to ducks, geese, and other waterfowl." The Michigan Department of Natural Resources recognized Ducks Unlimited for helping match Pittman-Robertson funds to purchase the majority of its "Managed Waterfowl Hunt Areas." The people who buy guns, archery equipment and fishing rods support these "pay to play" taxes because they get direct benefits. Pittman-Robertson funds have brought white-tailed deer, wild turkeys and wood ducks back from the brink of extinction. They've also paid for habitat restoration in South Dakota, Nevada and Oregon to keep the sage grouse from being listed under the Endangered Species Act. The Oregon Department of Fish and Wildlife lists mule deer, blacktail deer, Rocky Mountain elk, cougars, bears, mountain quail and waterfowl as species that benefit from Pittman-Robertson. Non-hunting environmentalists also have reason to celebrate what some gun buyers call the "Obama bump" in funding for wildlife restoration. Pittman-Robertson provides habitat for non-game species such as song birds, raptors and small mammals. The 82 Pittman-Robertson projects listed by South Dakota Fish and Wildlife include turtles, bats, raptors, woodpeckers and native grasses. States use about 60% of Pittman-Robertson funds to operate Wildlife Management Areas. Many of these lands are owned privately but managed by the states for hunting, fishing, hiking and camping. The U.S. Fish and Wildlife Service, which allocates Pittman-Robertson funds, recently estimated that 70% to 95% of the people using these areas are not hunting. Evidence of the support for the fish and wildlife restoration tax is illustrated by the political ratings for John Dingell (D., Mich.), the longest serving member of Congress and co-sponsor of the sport fishing tax. In 2013 he got an A+ grade from the National Rifle Association and a 93% rating from the League of Conservation Voters, the powerful environmental lobby. Environmentalists and recreationists who benefit from "pay to play" taxes, however, are getting a free lunch. Some outdoor equipment and clothing companies—such as Patagonia with its "1% for the Planet" program—give a share of their profits to environmental causes. Hiking, biking and fishing clubs also help to build trails, clean up streams and improve habitat. But the day-to-day cost of natural resource and recreation management is paid by license fees, excise taxes and other state funds. The user-pay principle should apply to others who use public lands. For example, the number of mountain bikers has grown from a handful to more than 7.1 million over the past 30 years, according to the Outdoor Foundation. Mountain bike riding may be free, but it is not without cost. Fancy mountain bike trails can cost as much as $30,000 per mile, roughly three times the cost of traditional hiking trails. One study showed the average household income of a mountain biker is $80,000 to $100,000, so bikers would appear to be able to pay their own way. Suppose excise taxes were applied to other outdoor recreational equipment such as backpacks, kayaks and mountain bikes. The Outdoor Industry Association estimated that recreation product sales totaled $120 billion in 2012. Even a 1% tax on these sales would generate real money. If hunters, fishers and boaters pay, why shouldn't other recreationists also pay for trail maintenance, search and rescue and wildlife restoration? Expanding the "pay to play" model is a way to connect users and suppliers, in much the same way markets do. Just as hunters get more game to shoot, recreationists and environmentalists could get more of the amenities they want. NRA and environmentalists, unite!

#### PR funding is a gift that keeps on giving—no other funding source for conservation is this reliable

**Stewart 12**

Doug Stewart (lives in coastal Massachusetts surrounded by wild turkeys and white-tailed deer, two species that have been restored to the region with help from Pittman-Robertson funding). National Wildlife Federation. January 12th, 2012. https://www.nwf.org/News-and-Magazines/National-Wildlife/Animals/Archives/2012/Pittman-Robertson-Act.aspx

IN THE DEPTHS OF THE GREAT DEPRESSION, Americans were no more likely to welcome a new tax than they are today. But an ingenious piece of tax legislation sailed through Congress in 1937 with bipartisan support and was quickly signed into law by President Franklin D. Roosevelt. To those who know about the law (and most of the public does not), it’s called the Federal Aid in Wildlife Restoration Act. For 75 years now, in good times and bad, through surpluses and deficits, the measure has quietly channeled a steady flow of money—more than $12 billion so far—to pay for wildlife management in all 50 states. “No other funding source for conservation is this steady and reliable,” says Naomi Edelson, NWF’s director of state and federal wildlife partnerships. “It’s free from the shenanigans on Capitol Hill. That’s the beauty of it.” Commonly called the Pittman-Robertson Act, the law has helped restore populations of bighorn sheep in the southern Rocky Mountains, bobwhite quail in Virginia, ruffed grouse in Pennsylvania and wild turkeys in several regions. It has supported outdoor education for Alabama schoolchildren and a variety of outdoor recreation programs in other states. And across the country, it has assisted states in acquiring wetlands vital to ducks, geese and other waterfowl. The money comes from an 11 percent federal tax on firearms, ammunition and bows and arrows. The U.S. Fish and Wildlife Service hands the money over to state wildlife departments, which decide how to spend it. The people paying the tax—primarily hunters—are those who benefit most directly. But the law helps society as a whole, too. It is flexible enough to pay for research on bobcats and mountain lions, while helping biologists study the complexities of how humans and wildlife can comfortably coexist. Through the 19th century, many people in this country saw game as an inexhaustible resource. They shot, trapped or netted wildlife for food or feathers, often with abandon. As a result, by the early 1900s, game counts had plummeted. Conservationists warned that once-ubiquitous animals such as white-tailed deer, wild turkeys, beavers and black bears were doomed to extinction. The problem wasn’t just abuse. It also was lack of understanding about the principles of wildlife management. At the time, even experts thought the best way to protect wild animals was to confine them to refuges, often tiny ones. As for wolves and other predators, the overriding policy was that the best one was a dead one. By the 1930s, some authorities realized that more scientific means of protecting wildlife were needed, along with enough money to make sure that those means worked. In 1934, Jay N. “Ding” Darling, a Pulitzer Prize-winning political cartoonist who served as President Roosevelt’s wildlife guru (and who founded the National Wildlife Federation in 1936), designed the first federal Duck Stamp, still an important source from sportsmen of wildlife conservation funding. Three years later, Nevada Senator Key Pittman and Virginia Congressman Willis Robertson devised the bill that carries their name. The law’s backers, which included Darling and the fledgling NWF, made clear that the states were to focus on setting aside habitat while pursuing wildlife research. The unbroken stream of funding since then is a key reason that game is flourishing in much of the United States, sometimes in places where, in the past, it had disappeared for many years. The idea of visiting Kentucky to see elk, for example, might seem like looking for moose in Manhattan, but huge herds of elk once roamed hilly eastern Kentucky and other parts of Appalachia. Starting in 1997, roughly $2 million in Pittman-Robertson funds helped bring 1,500 transplanted Rocky Mountain elk to the state. Now more than 10,000 of the animals graze a swath of rural eastern Kentucky the size of Yellowstone National Park. It’s actually better elk habitat than where the animals came from, observes Tina Brunjes, deer and elk program coordinator for the state’s fish and wildlife department. With a longer plant-growing season and milder winters, Kentucky elk are developing faster and bigger than their western counterparts. “Of course, our elk are missing their top predator, which is wolves,” Brunjes adds, “so humans are kind of filling that niche and keeping the herds in check.” The program has attracted not just sportsmen but also ecotourists—all of which helps the local economy. Hunting has lost popularity in many areas of the United States since 1937, a trend that Pittman and Robertson probably didn’t foresee. This could have been a serious blow to wildlife funding throughout the country, but in 1970 Congress amended the law, adding tax revenues from nonsport firearms. One way or another, Pittman-Robertson keeps delivering.