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***534 "RAISINS ARE NOT OYSTERS": HORNE AND THE IMPROPER SYNTHESIS OF THE PUBLIC AND WILDLIFE TRUSTS**

ABSTRACT

Public trust and wildlife trust doctrines have historically been viewed as two separate property doctrines. The synthesis of the two would have serious repercussions for private property owners and endangered wildlife species. A misguided reading of the recent Horne decision from the United States Supreme Court threatens to do just that.

The public trust doctrine is recognized as protecting resources that belong to no individual; more specifically the public trust doctrine has historically been applied to navigable waters and submerged lands. The wildlife trust, while similar, has always been separate and is more narrowly used to convey that wildlife is held in trust by the sovereign state for the people. In the June 2015 Supreme Court case Horne v. Department of Agriculture, the majority was forced to reconcile their opinion with a 1929 Supreme Court case about government takings of oysters. Justice Roberts did so by stating "raisins are not oysters" which in the eyes of some renewed and expanded the public trust protection to wildlife.

This article examines the public trust and wildlife trust doctrines separately - their development, their histories, relevant caselaw, how they are codified in statutes and acts, and the legacy of the synthesis of the two trusts from Horne in relation to them. This is the first article to analyze how Horne affects the distinction between the wildlife trust from the public trust. Then the article analyzes the negative consequences of synthesizing the public and wildlife trusts, how the wildlife trust protection of species is in conflict with the property rights of land owners, and alternative methods that could be used to protect both property rights and threatened species.

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INTRODUCTION

"Raisins are not like oysters",² is a simple five-word phrase in the recent Supreme Court *Horne v. Department of Agriculture* opinion which has renewed a misguided idea that the public trust and wildlife trust are one in the same. This idea presents possible property-right deprivation for property owners and simultaneously endangers wildlife species. The public trust doctrine and wildlife trust doctrine have existed as separate protections of natural resources dating back to Roman times, but the term public trust is often incorrectly used to describe the two separate doctrines. The use of the term public trust and application of its principles to wildlife are both ***536** improper and extend protections that infringe on the property rights of individuals, in turn harming wildlife species.

Recently the Supreme Court bolstered individual private property rights when it found a Fifth Amendment government taking of raisins in *Horne v. Department of Agriculture*.³ In the majority opinion, however, Chief Justice Roberts distinguished raisins from the taking of oysters in *Leonard v. Earle*⁴ by stating that "[r]aisins are not like oysters; they are private property - the fruit of the growers' labor - not 'public things' subject to the absolute control of the state."⁵ This one small paragraph in an opinion that is overwhelmingly pro-property rights has subsequently renewed the misguided view of public trust protection of wildlife among environmentalists, law professors, and bloggers.⁶ Some have even gone so far as to say that "the *Horne* court meant what it expressly said about state sovereign ownership of wildlife, and that will be *Horne*'s chief legacy to takings law doctrine in the years ahead."⁷

The distinction made in *Horne* has led some to think the age-old legal doctrine of public trust has been renewed and expanded to include wildlife.⁸ While most courts have previously limited the use of public trust doctrine to cases concerning water rights and submerged land, a small minority of courts⁹ and now possibly the Supreme Court have opened the door for including the state protection of wildlife through the public trust doctrine.¹⁰ But this overly broad reading of *Horne* has been cautioned against.¹¹

This article argues that the distinction created in *Horne* should not be read to include wildlife in the public trust. The public trust doctrine has been incorrectly expanded to include wildlife and allowing this expansion could have serious repercussions.

In Part I, this article reviews the public trust doctrine, its history, and specifically how it pertains to navigable waters and submerged lands. Part II examines the origins of the wildlife trust doctrine, the Supreme Court's recognition of sovereign ownership of wildlife in *Geer v. Connecticut, Leonard v. Earle,* and *Hughes v. Oklahoma*, and the Endangered Species Act's interaction with the wildlife trust. Part III details *Horne v. Department of Agriculture,* the 2015 Supreme Court case that has renewed the discussion of public and wildlife trusts. Part IV analyzes why the expansion of the public trust doctrine to encompass the wildlife trust is both improper and deleterious ***537** for property owners because public policy considerations warn against synthesizing the two. Furthermore, the trusts are historically different, and the things they are supposed to protect are inherently different. Part V gives examples of how the conflicting interests of the wildlife trust and principles of private property ownership harm threatened and endangered species, and suggests a positive reinforcement system to encourage landowners to preserve natural habitat on their land. It also gives an example of a steward program that could be recreated to entrust private land owners to rehabilitate threatened and endangered populations.

I. THE PUBLIC TRUST

The public trust doctrine can first be seen in Roman times and the concept carried through to become recognized in colonial America. The public trust doctrine came into existence to clarify the governmental trust protection of elements like earth, water, and wind that could not be owned by individuals. The public trust doctrine continued to develop through the laws of medieval England. When the British colonized America the concept of public trust came with them and began showing up in the American judicial system in 1810. Since 1810 the public trust doctrine has been applied most commonly to navigable waters and submerged lands. The most notable case in which the public trust doctrine was established was *Illinois Central Railroad v. Illinois*, a case centered on whether the state could grant state owned submerged land to the Illinois Central Railroad. The tests that have developed through judicial decisions have never included wildlife, and even in today only involve submerged lands and navigability.

A. HISTORY

In Roman times, elements like air, water, and wildlife were viewed as things that could not be owned by individuals.¹² The

Romans thought these resources were held in trust by the government for the public to use, and this concept was eventually incorporated into the laws of Medieval England.¹³ The English common law defined the public trust doctrine to mean that the British Crown held title to the soil beneath tidal waters.¹⁴ It was thought that the Crown had ownership of the waters and streambeds to control commerce and navigation for the benefit of the people.¹⁵ The notion of sovereign ownership of waters and streambeds moved across the Atlantic Ocean with the first settlers under British rule, and remained after the colonies' independence from Britain.¹⁶

*538 The concept of public trust was first recognized in 1810 in *Carson v. Blazer*, and was subsequently upheld by *Arnold v. Mundy* and *Martin v*. Wadell's Lessee, and was then extended in 1892 by *Illinois Central Railroad v. Illinois*.¹⁷ The two prevailing branches of public trust recognized in the United States are navigable waters and submerged lands.

B. Navigable Waters

The determination of whether a body of water is navigable is touchstone to its sovereign protection. In 1871, the Supreme Court stated that the public trust doctrine is applicable to all navigable waters, tidal or fresh.¹⁸ Today, there are several tests used to determine whether a waterway is navigable and therefore owned by the state.

The "navigable for use" test started as the *Daniel Ball* test, in which navigability is defined by whether waters are "navigable in fact."¹⁹ This was necessary departure from British law because the waterways of the United States are more tidal than those of Britain.²⁰ "Navigable in fact" was defined as "when [waters] are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water."²¹ This version of navigability was originally governed by the Commerce Clause of the Constitution, and the government's interest in preserving commerce.²² Today the test has been expanded to protect waters that are navigable for recreational use by the public as well as for commerce.²³

While the various tests have different applications, they are all significant in determining the waterways controlled by the government in trust for the people.

C. Submerged Lands

Submerged lands have long been fought over by states and individuals, dating back to the oyster wars of the early 1800s.²⁴ Submerged lands are defined as "soils that are covered by the tides or by what are known as "navigable waters"D'.²⁵ From the earliest recorded cases like *Arnold v. Mundy*, and *Martin v. Wadell's Lessee*, state courts and the Supreme Court have held that the state holds title to submerged lands of navigable waters for common uses like fishing and commerce.²⁶ However, title only applies to ***539** the land up to the ordinary high water mark.²⁷ The Supreme Court has also acknowledged that a state could assign rights to submerged land owned by the state in *Illinois Central Railroad v. Illinois*.

Illinois Central Railroad v. Illinois is an 1892 case in which the Supreme Court was asked whether the state could (1) grant land owned in trust for the people of Illinois, and (2) revoke a grant of land and submerged land made by the legislature to the Illinois Central Railroad. In 1869 the Illinois Legislature granted a parcel of land by and within the harbor of Chicago to the Railroad.²⁸ The land was valuable, and because the legislature did not give the Railroad exclusive control over the land it accepted a sum far below its true value.²⁹ Then in 1873 the legislature attempted to revoke the earlier grant.³⁰

The Supreme Court first found that the state owned the submerged land, and stated "[t]he state holds the title to the lands under the navigable waters of Lake Michigan, within its limits, in the same manner that the state holds title to soils under tide water, by the common law ...; and that title necessarily carries with it control over the waters above them, whenever the lands are subjected to use."³¹ The court then held that the Illinois legislature had the right to revoke the land grant because submerged lands are held in trust by the state.³² Additionally, the Supreme Court held that the state could not permanently sell the lands they hold in trust but that the state can temporarily lease land if it is to be used "for the public good."³³

II. THE WILDLIFE TRUST DOCTRINE

The wildlife trust doctrine, also known as the sovereign ownership of wildlife, can first be seen in Roman civil law.³⁴ Roman

civil law described wildlife as being owned by no one, and, as a result, were considered to belong to all citizens of the State.³⁵ The wildlife trust doctrine from very early on was tethered to capture law. These capture laws eventually made their way to English common law, and to the laws of Colonial America.

The wildlife trust doctrine appeared in the American judicial system in *Geer v. Connecticut*.³⁶ In 1896 the Supreme Court in *Geer* affirmed the concept of a wildlife trust, ***540** but since then the Court has seemingly overturned its affirmation of the wildlife trust doctrine.³⁷

When Congress passed the Endangered Species Preservation Act in 1966, the wildlife trust doctrine was distinguished from the public trust doctrine.³⁸ Wildlife then came under the protection of one of the most powerful and well known environmental laws in the United States.³⁹ The protection of species from extinction by human action has long been the purpose behind the wildlife trust, and is still that way today.

A. History

Under Roman law, wildlife was considered *res nullis* - or things owned by no one - and in having no owner they "were considered as belonging in common to all citizens of the State."⁴⁰ Wild animals became individual property only when they were captured.⁴¹

English common law initially adopted unlimited capture rules, but over time added more restrictions in the interest of the Crown.⁴² The King had power to designate "royal forests" that allowed the King to protect the land, and any game for himself and his favored subjects.⁴³ Eventually English courts held that the King's ownership interest in the wildlife was sovereign rather than proprietary, meaning he was obligated to manage the wildlife for the benefit of all the people rather than for just his individual benefit.⁴⁴

The Roman and English laws eventually made their way to Colonial America, initially favoring the Roman method.⁴⁵ This initial use of Roman unrestricted capture was preferable as hunting was a main source of food for colonists.⁴⁶ Unlimited capture laws led to the overexploitation of many wildlife species, which prompted states to pass legislation regulating the harvest of wildlife.⁴⁷ Some states even claimed ownership of wildlife in statutes and constitutions.⁴⁸

Soon thereafter states became involved in litigation surrounding their sovereign ownership of wildlife.

B. Geer v. Connecticut

***541** One traditional application of the state sovereign ownership of wildlife is hunting and fishing regulations on private property.⁴⁹ The federal courts have consistently rejected property right challenges to regulations on hunting and fishing and have even gone so far as to say "[n]o citizen has a right to hunt wild game except as permitted by the State."⁵⁰ In *Geer*, the defendant was charged with unlawfully possessing and intending to transport across state lines game birds that were killed legally during open season.⁵¹

Upon review by the Supreme Court, the court upheld the rulings of the state courts, deciding that there were "numerous" examples of judicial recognition of the states' right to regulate wildlife.⁵² The court acknowledged that the state represents the public, and that the people "in their united sovereignty" own the wildlife, identifying the state as having a duty to protect the public interest.⁵³

Based on the affirmation of the state courts, many view Geer to be in support the concept of a wildlife trust.

C. Leonard v. Earle

In *Leonard v. Earle*, the Supreme Court upheld a Maryland requirement that oyster packers return ten percent of empty oyster shells they harvested, or the monetary equivalent, back to the State.⁵⁴

The State claimed that the return of the empty shells was a requirement in exchange for the privilege of being permitted to

harvest the oysters from State-owned waters.⁵⁵ The shells were then returned to the oyster producing beds to furnish the support and lime essential to produce oysters.⁵⁶

The Court found no reason to doubt the power of the State to mandate the oyster packers return a percentage of empty shells, because it is an entirely reasonable contribution to conservation.⁵⁷ At the time *Leonard* was decided, the Supreme Court made no indication that they viewed the oysters as having extended state protection because of the public trust, instead it was framed as the wildlife trust.

D. Hughes v. Oklahoma

In *Hughes v. Oklahoma* the Supreme Court examined whether an Oklahoma statute violated the Commerce Clause. The statute stated that "[no] person may ***542** transport or ship minnows for sale outside the state which were seined or procured within the waters of this state"⁵⁸ William Hughes was arrested for violating the statute by transporting a load of natural minnows, purchased from a minnow dealer licensed to do business in Oklahoma, across state lines.⁵⁹ The Oklahoma Court of Criminal Appeals affirmed his conviction, stating

The United States Supreme Court has held on numerous occasions that the wild animals and fish within a state's border are, so far as capable of ownership, owned by the state in its sovereign capacity for the common benefit of all its people. Because of such ownership, and in the exercise of its police power, the state may regulate and control the taking, subsequent use, and property rights that may be acquired therein.⁶⁰

The Supreme Court changed its stance by stating "*Geer v. Connecticut* was decided relatively early in th[e] evolutionary process [of federal and state interests]. We hold that time has revealed the error of the early resolution reached in that case, and accordingly *Geer* is today overruled."⁶¹ The Court also stated "the *Geer* analysis has been eroded to the point of virtual extinction in cases involving regulation of wild animals,"⁶² and that "the 'ownership' language of cases such as those cited must be understood as no more than a 19th-century legal fiction expressing 'the importance to its people that a State have power to preserve and regulate the exploitation of an important resource."⁶³

Despite seemingly eradicating the inclusion of wildlife in the public trust by overruling *Geer*, the Court states "the general rule we adopt in this case makes ample allowance for preserving ... the legitimate state concerns for conservation and protection of wild animals underlying the 19th-century legal fiction of state ownership."⁶⁴ This distinction seems to support the argument that the public and wildlife trusts are separate.

E. Interaction with the Endangered Species Act and U.S. Fish and Wildlife Service Actions

The Endangered Species Preservation Act was passed by Congress in 1966.⁶⁵ It was the first attempt of the United States government to provide a means for protecting native animal species.⁶⁶ The Act authorized the U.S. Fish and Wildlife ***543** Service (FWS) to acquire land to protect the habitat of listed endangered species.⁶⁷ In 1973 Congress passed the Endangered Species Act of 1973 (ESA), which is well known for being one of the most powerful and expansive environmental laws in the United States..⁶⁸ The ESA allowed the Secretary to determine whether to list a species as threatened or endangered.⁶⁹ "Endangered" is defined as "in danger of extinction throughout all or a significant portion of its range.⁷⁷⁰ "Threatened" is defined as "likely to become an endangered species within the foreseeable future.⁷⁷¹ When a species is listed as threatened or endangered, the Secretary is supposed to designate its critical habitat, or any geographical area that is "essential to the conservation of the species" whether or not the species is actually present at the time.⁷²

Section Five of the act is written to detail a land acquisition plan.⁷³ At the time of publication, no information is available regarding whether this section has ever been applied in a real world taking of property to further conservation efforts. The section specifically states that "[the Secretary of the Interior] is authorized to acquire by purchase, donation, or otherwise, lands, waters, or interests therein."⁷⁴

The relationship between the wildlife trust and the ESA can best be described by a Venn diagram. The wildlife trust is the larger more encompassing concept that the ESA fits within. The wildlife trust protects species that are not threatened or endangered by the definitions set forth in the Endangered Species Act.⁷⁵

Another way the government takes land or restricts its use to protect species is through the U.S. Fish and Wildlife Service (FWS) condemnation process. The FWS has a service manual that "describes the structure and functions of the Service[...] prescribes the policies and procedures for administrative activities and program operations, and steps down [their] compliance with other requirements, such as statutes, Executive Orders, Departmental directives and regulations of other agencies."⁷⁶ Specifically, the Service Manual addresses the acquisition of land to protect species. Section 342 FW 6 of the FWS Service Manual focuses on Condemnation.⁷⁷ The Condemnation policy found in the Service Manual generally states that it is the policy of FWS to acquire area in relation to the Migratory Bird Conservation Act, the ***544** ESA, and other species protection acts on a "willing seller basis."⁷⁸ The Service Manual later states that the FWS "may acquire land through condemnation" in order to meet certain objectives laid out in the section.⁷⁹ The FWS protection of species through land purchase and condemnation is another piece in the species protection puzzle that adds to the complexity of the protection of wildlife.

III. Horne v. Department of Agriculture

Horne v. Department of Agriculture is a 2015 Supreme Court case in which raisin growers Marvin and Laura Horne challenged a great depression era marketing order. The marketing order for raisins requires growers in certain years to give a percentage of their crop to the Government, free of charge.⁸⁰ The required percentage is determined by the Raisin Administrative Committee, and is determined in an effort to help "maintain stable markets for particular agricultural products."⁸¹ After collecting the set percentage of each grower's raisins, the committee decides how to dispose of them in its discretion only returning net proceeds to growers if the committee sells the raisins.⁸²

In 2002, the Hornes refused to set aside any raisins for the Government and, as a result, the Government assessed a fine equal to the market value of the raisins - \$480,000 - as well as an additional civil penalty of just over \$200,000 for disobeying the order to turn over the raisins.⁸³

The Ninth Circuit Court of Appeals rejected the Hornes argument that the reserve requirement was a *per se* taking, and reasoned that "the Takings Clause affords less protection to personal than to real property," and that because the growers retain an interest in the profit from any sale that they "are not completely divested of their property rights."⁸⁴ The Ninth Circuit even said that just as a landowner is free to avoid government conditions by forgoing a desired permit, so too the Hornes could avoid the reserve requirement by "planting different crops."⁸⁵

The Supreme Court, in an opinion firmly in favor of private property rights, ruled on three issues.⁸⁶ First, the Court ruled that the government's "categorical duty' under the Fifth Amendment to pay just compensation when it physically takes property applies to both real property and to personal property.⁸⁷

*545 Second, the Court ruled that the Government may not avoid the categorical duty to pay just compensation for a physical taking of property by reserving for the property owner a contingent interest in a small part of the value.⁸⁸

Finally, the Court ruled that in this particular case the governmental mandate to relinquish specific, identifiable property as a 'condition' on permission to engage in commerce effects a per se taking.⁸⁹ On this final issue the Government contended that the reserve requirement was not a taking because raisin growers voluntarily chose to participate in the raisin market, but the Court held that the Committee erred as a matter of law, citing the Court's reasoning in its previously decided case *Loretto v*. *Manhattan CATV*.⁹⁰

In distinguishing the Hornes' case from *Leonard* Chief Justice Roberts wrote that "oysters, unlike raisins, [are] 'ferae naturae' that belong[] to the State under state law, and '[n]o individual has any property rights in them other than such as the state may permit him to acquire."⁹¹ Chief Justice Roberts continued to explain "[r]aisins are not like oysters: they are private property - the fruit of the growers' labor - not 'public things subject to the absolute control of the state,' [a]ny physical taking of them for public use must be accompanied by just compensation."⁹²

Many environmental law scholars, and those in favor of government protection of wildlife saw these statements as an indication that the public trust includes the protection of wildlife. While the Court never specifically addresses the public trust in *Horne*, the language used by Justice Roberts in the opinion does seem reminiscent of language used in *Geer* and

Hughes, among other cases that explicitly dealt with the public trust. The fact that Justice Roberts did not explicitly use the words public trust should quash the idea that the Court was lumping together the public trust and wildlife trust.

IV. ANALYZING WHY THE PUBLIC AND WILDLIFE TRUST SHOULD NOT BE SYNTHESIZED

Through convenience, simplicity, and seeming similarities, the public and wildlife trusts have been lumped together and generally referred to as the public trust. This marriage of the two concepts has led to improper expansion of the wildlife trust based on the reaches of the public trust. The two doctrines have historically been viewed as two separate doctrines with their own development through the judicial system for multiple reasons. The two doctrines should continue to be recognized as separate and different. There are public policy reasons against combining the two. Combining the two gives the government greater reach than traditionally allowed by the wildlife trust. Finally, the resources that each trust protects are inherently ***546** different and require unique protections that should not be generalized between the two trusts.

A. Public Policy Considerations Warn Against the Expansion of the Public Trust to Include Wildlife

In Fifth Amendment takings cases, *Lucas* continues to reign as the regulatory taking standard, but *Lucas* has an unfavorable loophole.⁹³ The loophole in *Lucas*, often referred to as "background principles of property", allows the government to take land without compensation if it has an interest in the property based on this background principles concept.⁹⁴ Public trust is recognized as a background principle of property, because it is anchored in ownership of real property or submerged land. In contrast, wildlife trust has no true ties to ownership of real property.

This contrast seems to imply that protection of wildlife could not be seen as a background principle exception for compensation in a takings case. If public trust and wildlife trust were synthesized into one large trust protecting all natural resources, then the presence of wildlife would fulfill this background principle exception in a takings claim. This expansion of government reach by combining the two trusts is inadvisable in the interest of protecting the property rights, and individual liberties set up by the Constitution of the United States.

The "bundle of sticks" view of property rights is a well-known and accepted concept in the realm of property law, one of those sticks in the bundle is the right to exclude.⁹⁵ This is another area where the public trust and wildlife trust differ, as the public trust allows for the use of navigable streams. In some states this "use" goes so far as to allow fishermen to walk through private property to fish regardless of streambed ownership.⁹⁶ No western state has given a public access right across private land based solely on the presence of sovereign owned wildlife, but if the two trusts are combined this could be the next infringement on private property rights.⁹⁷

While no state has denied a landowner the right to exclude people based on the presence of wildlife, the courts are split regarding whether owners may build structures to exclude the wildlife species themselves from their property.⁹⁸

***547** The *Sour Mountain Realty* case is just one of many examples where a land owner wanted to build a fence to keep unwanted people and species out of their property.⁹⁹ The court ultimately ruled in favor of the government and stopped the construction of the fence. In *United States ex rel. Bergen v. Lawrence*, the Court of Appeals for the Tenth Circuit upheld an order for a landowner to remove a fence which prevented wild elk from gaining access.¹⁰⁰ In addition to fences, courts have also required to land owners to remove dams and add fishways at dams.

In *Barrett v. State* and *Mountain States Legal Foundation v. Hodel* the court found in favor of the government for no liability for damage caused by protected wildlife, but stated in dictum that an owner is authorized to "drive [the species] away" and that neither federal nor state law barred owners from "fencing out wild horses and burros."¹⁰¹

Some see the distinction in these four cases as whether the fence harms the population it intends to keep out. Is this consistent with the bundle of sticks approach to property for the government to remove the right to exclude? This is not consistent; and combining the public trust with wildlife trust would expand the government's ability to take away a private property owner's right to exclude.

B. The Public Trust and Wildlife Trust are Historically Separate

Historically, public trust has exclusively been applied to waters and submerged land,¹⁰² while wildlife trust governed sovereign ownership of wildlife.¹⁰³ To say that the two separate doctrines have merged over time would be inaccurate. Caspersen in her article states "[w]hile it generally is accepted that the public trust doctrine has 'evolved into an amphibian, moving easily from the waters onto shoreland,' many people have doubts about whether the doctrine can 'shed the fins, the scales and the webbed feet to climb upland into the forests and mountains."¹⁰⁴ This quote is intended to show that traditional notions of public trust are rooted in waters, specifically navigable waters and submerged lands, and that to expand public trust to include wildlife would require a complete reframing of public trust, including the established tests. This expansion would be just another example of the boundlessness and malleability of the public trust that make it a catch all for the government to expand their power.

The Supreme Court has distinguished the public trust from the wildlife trust by overturning a 1896 case, and most recently in *Horne v. Department of Agriculture*. In the 1896 Supreme Court case *Geer v. Connecticut*, the Court recognized the public trust of wildlife.¹⁰⁵ But over the more than 100 years since *Geer* was decided the public trust ***548** doctrine has been eroded by several other Supreme Court decisions, but the court has continued to uphold the concept of a wildlife trust.

The erosion of *Geer* began with *Missouri v. Holland* when the Court upheld the constitutionality of the Migratory Bird Treaty Act and rejected the claim that the Act invaded the states' exclusive authority to manage wildlife under the state ownership doctrine.¹⁰⁶

The erosion continued with *Toomer v. Witsell*, a case in which the Court struck down a South Carolina statute imposing exorbitant fees on nonresident commercial shrimp harvesters.¹⁰⁷ Then in 1979 *Hughes v. Oklahoma* challenged a statute essentially identical to the one in *Geer* regarding possession of gamebirds, and the Supreme Court expressly overruled *Geer*.¹⁰⁸ The Supreme Court recognized "the legitimate state concerns for conservation and protection of wild animals," but then dismissed the public trust doctrine as a "19th century legal fiction."¹⁰⁹

Environmentalists seem to think that *Horne v. Department of Agriculture* reignites the public trust doctrine, but nothing the court says in the majority opinion suggests that Justice Roberts is doing anything but distinguishing a case regarding wildlife trust from 1929 that has been in the depths of the ocean for almost 100 years. Additionally, the United States Government did not think that the doctrine was a significant enough legal concept to use it as a foundation in *Horne*. The Department of Agriculture cited the case only one time in the merits brief it submitted,¹¹⁰ and the terms "trust", and "public trust" are not used at all.¹¹¹ Additionally, even though the Department of Agriculture cited *Leonard* in their brief, they did not discuss the decision or its significance to the *Horne* case. It came as a surprise to both sides during oral arguments when multiple justices asked questions about the *Leonard* case.¹¹² This failure to discuss public trust, and its inapplicability to this case seems to point to the fact that even the government (also the sovereign owner in trust) seems to agree that public trust of wildlife is not a relevant legal theory and that by extension the public trust has not been expanded to include the protection of wildlife.

*549 C. The Resources the Trusts Protect are Inherently Different

The purpose of the public trust has been viewed to entrust the government with the ability to maintain waterways and submerged lands in a way that allows for commerce and recreation in the interest of the public.¹¹³ This purpose is inherently different from the purpose of the wildlife trust. The wildlife trust has been viewed to entrust the protection and conservation of wildlife to the government, recognizing that the conservation and protection benefits the public.¹¹⁴ The intent of the public trust is to maintain the resources for use. The wildlife trust intends to preserve the resources (wildlife) for coming generations. Nothing in the public trust doctrine is aimed at conservation, instead its aim is use for public benefit and arguably at the expense of conservation of ecosystems. Because of these fundamental differences, it logically follows that the framework necessary to protect the distinct resources would also need to be different.

Additionally, because the statutory protections for the protection and limitations on water and wildlife are different it logically follows that the trust doctrines that govern the protection would also be separate. Protection of wildlife is governed by the Endangered Species Act, while "protection" of water is governed by the Clean Water Act. It flows naturally that if the statutory protections make more sense being separate that the same is true for the trusts that protect them. These differences in purpose and codification can be viewed as one reason that the two trusts should not be viewed as one.

Finally, Illinois Central Railroad v. Illinois set the standard that the public trust doctrine allows the sovereign "to lease in

furtherance of the trust" and transfer control of submerged lands that are supposedly being held in trust for the people. If the trusts are combined this standard could set up a dangerous situation for protected wildlife. This standard would allow the government to lease or transfer control of populations to private individuals and corporations.

This has already occurred in Ranching for Wildlife. Ranching for Wildlife is a state managed program that encourages cooperative agreements between landowners and wildlife agencies to improve the quality of free-roaming wildlife populations, and in return the landowners enjoy modified hunting regulations that allow for greater flexibility to manage and profit from the public's wildlife.¹¹⁵ Colorado specifically has seen an increase in amount of land available for public use, more active wildlife habitat improvements, and improved livestock grazing systems¹¹⁶ - but at what cost to the species? It could be argued that this initiative is more in line with opening up ***550** land for public access and use (the purpose of public trust), at the expense of conserving wildlife for the public (the purpose of the wildlife trust).

These inherent differences in the purpose, statutory protections, and the existing caselaw support the argument that the public trust is separate from the wildlife trust, and should remain so.

V. NEGATIVE IMPLICATIONS ON PROPERTY RIGHTS AND ENDANGERED SPECIES PROTECTION AND HOW TO RECONCILE THE CONFLICTING INTERESTS

The Endangered Species Act ["the Act"] was enacted forty-two years ago and is often thought of as codifying the wildlife trust. But the Act has struggled to satisfy its purpose of "provid[ing] for the conservation of endangered and threatened species of fish, wildlife, and plants ..."¹¹⁷ As of 2003 fewer than thirty species have been removed from the list and more than half of those who have been removed were removed because they are now extinct.¹¹⁸

The statistics are disheartening, but can be partially attributed to the conflict between wildlife trusts assigning ownership of wildlife to the public, and the principles of private property ownership.¹¹⁹ One example of this conflict between wildlife trust and private land ownership is the Preble's Jumping Mouse. After it was listed as endangered, a study found that private citizens were just as likely to degrade the mouse's habitat as improve it.¹²⁰ Another example is the endangered Red-Cockaded Woodpecker. A study found a reduction in woodpecker habitat area on private land after it was listed under the Endangered Species Act.¹²¹ In both examples, it is thought that the failure to maintain habitat can be attributed to a lack of incentives for doing so. Landowners know that upon finding the presence of the population the government will restrict any habitat modifications - leaving the land owner in limbo.

One large problem preventing the government from compensating land owners for restricting use of private property in the interest of threatened and endangered species is the sheer amount of money it would cost.¹²² If the government had to purchase land every time an endangered population relocated, the government would end up owning nearly all the land in the United States. This is just not reasonable to expect, but in the interest of protecting species something must be done. Above ***551** specific examples were given where landowners destroyed habitats for endangered species before the government discovered they existed to avoid the perceived punishment of restriction of use. To combat this negative side effect of the current conflict between wildlife preservation and private property rights, this article proposes a solution more in line with theories from behavioral psychology.

In the field of psychology, behavior can be reinforced or punished, and is done so positively or negatively.¹²³ The government's current system of taking away land, or restricting use in an effort to avoid habitat/species destruction, would be considered a negative punishment - or in an effort to stop a behavior (destroying a habitat or species) a desirable stimulus (property) is taken away. This paper is proposing that a positive reinforcement would be more likely to convince property owners to maintain a desired habitat or species. If the government provided positive reinforcement, it should be something like providing tax credits for each year the government restricts the use of property for the protection of species - or providing a positive or motivating stimulus (a tax credit/break) after displaying a positive behavior (maintaining an endangered habitat/species).¹²⁴

This tax break system is similar to the current concept of conservation easements, but differs in its permanence. Conservation easements "allow landowners to hold on to and use their property but permanently remove development rights in exchange for tax benefits."¹²⁵ To be eligible for the tax benefits, "landowners must agree to allow the land to be used for one of the following: outdoor recreation for the general public; protection of animals, plants or ecosystems; preservation of open spaces

... or the preservation of historic land or structures."¹²⁶ The requirement that the easement be created and held in perpetuity, meaning all future landowners of the easement are bound by the terms of the deed, is the downfall to the current framework of conservation easements. The permanence of the easement paired with the mobility of the protected resource creates a conflict that seemingly looks like an underpaid taking. With some adjustments, mainly setting a term for the easement with a "renewal with justification" provision, the easement system would be more property owner friendly, while also meeting the goals of species conservation.

This tax break system seeks to address the compensation as well as the often temporary situation regarding mobile animals.

The government also protects species through the Land and Water Conservation Fund. The Land and Water Conservation fund was created by Congress in 1965 and "was a simple idea: use revenues from the depletion of one natural ***552** resource - offshore oil and gas - to support the conservation of another precious resource."¹²⁷ Yet nearly every year Congress diverts the funding to uses other than conserving our nation's lands and waters. As a result, there is a backlog of more than \$30 billion in federal land acquisition needs.¹²⁸ If Congress funded the Land and Water Conservation Fund with the money it is supposed to receive there would be more opportunities for species conservation.

A different method to reconcile the differing interests would be to allow the government to entrust species to property owners in a steward's role. An example of this method is Ted Turner's Green Ranch in Montana. When a disease threatened populations of bison and cattle in Yellowstone, the government sought a refuge for uninfected bison.¹²⁹ The herd was moved to the Green Ranch, with the expectation that Turner would bear the cost of relocating, feeding, caring for, and otherwise maintaining the herd of bison until the end of the government's research period.¹³⁰ This is an excellent example of how the government could entrust a species to private landowners and provide oversight of their care and rehabilitation without compromising the conservation efforts by allowing for increased hunting. This type of program could be recreated to attempt to rehabilitate other threatened and endangered populations.

CONCLUSION

While some may think that the language in the recently released June 2015 decision in *Horne v. Department of Agriculture* reinvigorated public trust protection of wildlife, and more specifically the synthesis of the two trust doctrines, this viewpoint is misguided. The public trust and wildlife trust have historically been, and should continue to be, viewed and treated as two separate trust doctrines. Combining the two trusts would be an injustice to natural resources because public policy considerations warn against expanding the wildlife trust doctrine to mirror the public trust doctrine which would increase the government's reach in controlling who or what a property owner could exclude from their property. Additionally, it is advisable not to combine ***553** the two trusts because they have been recognized as separate trusts, and the resources they protect are inherently different.

Interpreting the public trust and wildlife trust to be one in the same is dangerous not only for property owners, but also for species needing the conservation efforts and protections. As a result, this article suggests a monetary based program to encourage land owners to preserve habitat on their property, as well as a program that would aim to rehabilitate a threatened or endangered species on privately owned land.

Footnotes

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² Horne v. Dep't of Agric., 135 U.S. 2419, 2431 (2015).

³ *Id.* at 2424.

- ⁴ Leonard v. Earle, 279 U.S. 392 (1929) (holding that requiring oyster packers to give a percentage of empty oyster shells to the state was not a Fifth Amendment taking)
- ⁵ Horne, 135 U.S. at 2431.
- ⁶ John D. Echeverria & Michael C. Blumm, *Horne v. Department of Agriculture: Expanding Per Se Takings While Endorsing State Sovereign Ownership of Wildlife*, 75 MD. L. REV. (forthcoming 2016).
- 7 See John D. Echeverria & Michael C. Blumm, Horne v. Department of Agriculture: Expanding Per Se Takings While Endorsing State Sovereign Ownership of Wildlife, 75 MD. L. REV. (forthcoming 2016); Jeremy P. Jacobs, Supreme Court: Raisin Ruling Endangered Species, E&E PUBLISHING LLC Seen as Lifeline for (Aug. 19. 2015). http://www.eenews.net/greenwire/stories/1060023651/search?keyword=raisin+jacobs.
- ⁸ Horne, 135 S. Ct. 2419 (2015).
- ⁹ Anna R. C. Caspersen, Comment, *The Public Trust Doctrine and the Impossibility of "Takings" by Wildlife*, 23 B.C. ENVTL. AFF. L. REV. 357, http://lawdigitalcommons.bc.edu/ealr/vol23/iss2/5.
- ¹⁰ Horne, 135 U.S. at 2419.
- ¹¹ JACOBS, *supra* note 7.
- ¹² CASPERSEN, *supra* note 9, at 360 (citing Joseph L. Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 U.C. DAVIS L. REV. 185, 186 (1980)).
- ¹³ *Id.*
- ¹⁴ Melissa K. Scanlan, The Evolution of the Public Trust Doctrine and the Degradation of Trust Resources: Courts, Trustees and Political Power in Wisconsin, 27 ECOLOGY L. Q. 135, 140 (2004).
- ¹⁵ *Id.*
- ¹⁶ *Id.* (citing The Daniel Ball, 77 U.S. 557, 564 (1871)).
- ¹⁷ Michael C. Blumm & Aurora Paulsen, *The Public Trust in Wildlife*, 2013 UTAH L. REV. 1437, 1441 (2013).
- ¹⁸ *Scanlan, supra* note 14.
- ¹⁹ *Id.* (citing The Daniel Ball, 77 U.S. 557, 563 (1871)).
- ²⁰ CHRISTINE A. KLEIN ET AL., NATURAL RESOURCES LAW A PLACE-BASED BOOK OF PROBLEMS AND CASES 644 (Aspen Pub. 3rd ed. 2013).

- ²¹ Scanlan, supra note 14 (citing The Daniel Ball, 77 U.S. 557, 563 (1871)).
- ²² KLEIN ET. AL., *supra*, note 20 at 644.
- ²³ *Id.* at 671.
- ²⁴ *Id.* at 628-31.
- ²⁵ *Id.* at 628.
- ²⁶ *Id.* at 633 (citing Martin v. Waddell's Lessee, 41 U.S. 367 (1842)).
- ²⁷ Scanlan, supra note 14.
- ²⁸ Illinois Cent. R.R. v. Illinois, 146 U.S. 387 (1892).
- ²⁹ Id.
- ³⁰ *Id*.
- ³¹ The Court also that the states actually can expand the public trust because the bar set in *Illinois Central* is a low. Illinois Cent. R.R. v. Illinois, 146 U.S. 387 (1892).
- ³² *Id.*
- ³³ *Id*.
- ³⁴ Anna R. C. Caspersen, Comment, The Public Trust Doctrine and the Impossibility of "Takings" by Wildlife, 23 B.C. ENVTL. AFF. L. REV. 357, 362 <u>http://lawdigitalcommons.bc.edu/ealr/vol23/iss2/5;</u> see also John D. Echeverria & Julie Lurman, "Perfectly Astounding" Public Rights: Wildlife Protection and the Takings Clause, 16 TUL. ENVTL. L.J. 331, 339 (2003).
- ³⁵ Illinois Cent. R.R. v. Illinois, 146 U.S. 387 (1892).
- ³⁶ Geer v. Connecticut, 161 U.S. 519 (1896).
- ³⁷ John D. Echeverria & Julie Lurman, "*Perfectly Astounding*" *Public Rights: Wildlife Protection and the Takings Clause*, 16 TUL. ENVTL. L.J. 331, 340 (2003).
- ³⁸ A History of the Endangered Species Act of 1973, U.S. FISH & WILDLIFE SERV., (2011), http://www.fws.gov/endangered/esa-library/pdf/history_ESA.pdf.
- ³⁹ See Id.
- ⁴⁰ Illinois Cent. R.R., 146 U.S. 387.

- ⁴¹ *Id.*
- ⁴² *Id.* at 1453.
- ⁴³ *Id.*
- ⁴⁴ *Id.*
- ⁴⁵ *Id.* at 1455.
- ⁴⁶ *Id.*
- ⁴⁷ *Id.* at 1457.
- ⁴⁸ *Id*.
- ⁴⁹ John D. Echeverria & Julie Lurman, "Perfectly Astounding" Public Rights: Wildlife Protection and the Takings Clause, 16 TUL. ENVTL. L.J. 331, 341 (2003).
- ⁵⁰ Id. at 342 (citing Bishop v. United States, 126 F. Supp 449, 451 (Ct. Cl. 1954)); see also Aleut Cmty. of St. Paul Island v. United States, 117 F. Supp. 427, 431 (Cl. Ct. 1954) (rejecting a takings claim based on limitations on hunting and stating that public authority to regulate taking of game without compensation "has never been questioned").
- ⁵¹ Geer v. Connecticut, 161 U.S. 519, 521 (1896).
- ⁵² *Id.* at 522.
- ⁵³ *Id.* at 529.
- ⁵⁴ Leonard v. Earle, 270 U.S. 392 (1929).
- ⁵⁵ *Id.*
- ⁵⁶ *Id.* at 394.
- ⁵⁷ *Id.* at 396.
- ⁵⁸ Hughes v. Oklahoma, 441 U.S. 322, 323 (1979).
- ⁵⁹ *Id.* at 324.
- ⁶⁰ *Id.*, 441 U.S. at 324-25.

- ⁶¹ *Id.* at 326, 329-330 (acknowledging the erosion of *Geer* began only 15 years after it was decided, and continued for nearly 80 years before being overruled by *Hughes*).
- ⁶² *Id.* at 331.
- ⁶³ *Id.* at 335 (citing Toomer v. Witsell, 334 U.S. 385 (1948)).
- ⁶⁴ *Id.* at 335-36.
- ⁶⁵ A History of the Endangered Species Act of 1973, U.S. FISH & WILDLIFE SERV., (2011), http://www.fws.gov/endangered/esa-library/pdf/history_ESA.pdf.
- ⁶⁶ *Id.*
- ⁶⁷ Id.
- ⁶⁸ Kevin W. Moore, Seized By Nature: Suggestions on How to Better Protect Animals and Property Rights Under the Endangered Species Act, 12 GREAT PLAINS NAT. RESOURCES J. 149, 150-151 (2008).
- ⁶⁹ *Id.* at 151 (citing 16 U.S.C. § 1532(a)(1) (2003)).
- ⁷⁰ 16 U.S.C. §1352(6). In determining whether to list a certain species as threatened or endangered, the secretary looks at five factors. The five factors include: 1) the present or threatened destruction, modification or curtailment of its habitat or range; 2) overutilization for commercial, recreational, scientific, or educational purposes; 3) disease or predation; 4) the inadequacy of existing regulatory mechanisms; or 5) other natural or manmade factors affecting its continued existence. 16 U.S.C. §1533(a)(1)(A)-(E).
- ⁷¹ 16 U.S.C. §1352(20).
- ⁷² 16 U.S.C. §1532(5)(A)(i)-(ii).
- ⁷³ Endangered Species Act of 1973, Pub. L. 93-205 1973, 87 Stat. 884.
- ⁷⁴ Id.
- ⁷⁵ A distinction between the wildlife trust and the Endangered Species Act is that the wildlife trust is a state governed doctrine, while the Endangered Species Act is a federal statute. This clash of governing bodies also creates conflict in the protection of wildlife.
- ⁷⁶ Service Manual, U.S. FISH AND WILDLIFE SERVICE, http://www.fws.gov/policy/manuals/ (last visited Feb. 8, 2016).
- ⁷⁷ Id.
- ⁷⁸ Id.

- ⁷⁹ Id.
- ⁸⁰ Horne, 135 U.S. at 2424.
- ⁸¹ Id.
- ⁸² Id.
- ⁸³ *Id.* at 2424-25.
- Id. at 2425 (citing Horne v. U.S. Dep't of Agric., 750 F.3d 1128 (9th Cir. 2014) cert. granted sub nom. Horne v. Dep't of Agric., 135 S. Ct. 1039 (2015) and rev'd sub nom. Horne v. Dep't of Agric., 135 S. Ct. 2419 (2015).
- ⁸⁵ Id. (citing Horne v. U.S. Dep't of Agric., 750 F.3d 1128 (9th Cir. 2014) cert. granted sub nom. Horne v. Dep't of Agric., 135 S. Ct. 1039 (2015) and rev'd sub nom. Horne v. Dep't of Agric., 135 S. Ct. 2419 (2015).
- ⁸⁶ Horne, 135 U.S. at 2425.
- ⁸⁷ *Id.* (stating "[n]othing in the text or history of the Takings Clause, or our precedents, suggests that the rule is any different when it comes to appropriation of personal property.")
- ⁸⁸ *Id.* at 2428.
- ⁸⁹ *Id.* at 2430.
- ⁹⁰ *Id.* (In *Loretto* the Court held that "a landlord's ability to rent his property may not be conditioned on his forfeiting the right to compensation for a physical occupation."(quoting Loretto v. Manhattan CATV, 458 U.S. 419, 439 (1982))
- ⁹¹ *Horne*, 135 S.Ct. 2419, 2431 (2015) (citing Leonard v. Earle, 155 Md. 252, 258 (1928)).
- ⁹² *Id.*
- ⁹³ See Stephen P. Foley, Does Preventing "Take" Constitute an Unconstitutional "Taking"?: An Analysis of Possible Defenses to Fifth Amendment Taking Claims Based on the Endangered Species Act, 14 UCLA J. ENVTL. L. & POL'Y 327, 338 (1995/1996); Hope M. Babcock, Should Lucas v. South Carolina Coastal Council Protect Where the Wild Things Are? Of Beavers, Bob-O-Links, and Other Things That Go Bump In The Night, 85 IOWA L. REV. 849 (2000).
- ⁹⁴ Blake Hudson, *The Public and Wildlife Trust Doctrines and the Untold Story of the Lucas Remand*, COLUM. J. OF ENVTL. L. 99, 135 (2009). *See also* Echeverria & Lurman *supra* note 44, at 352 (stating that takings claims were denied on the ground that the restrictions paralleled background principles of "property law" in a Hawaiian case concerning development on a beach that the court found would interfere with native Hawaiian gather rights (Pub. Access Shoreline Haw. V. Haw. County Planning Comm'n, 903 P. 2d 1246, 1273 (Haw. 1995).
- ⁹⁵ Jane B. Baron, *Rescuing the Bundle-of-Rights Metaphor in Property Law*, 82 U. CIN. L. REV. 57 (2014).

⁹⁶ Reed Watson, *Public Wildlife on Private Land: Unifying the Split Estate to Enhance Trust Resources*, 23 DUKE ENVTL. L. & POL'Y F. 291, 297 (2013).

⁹⁷ Id.

- ⁹⁸ Echeverria & Lurman *supra* note 44, at 352.
- ⁹⁹ Id. at 357 (citing State v. Sour Mountain Realty, 714 N.Y.S.2d 78 (N.Y. App. Div. 2000
- ¹⁰⁰ *Id.* (citing United States ex rel. Bergen v. Lawrence, 848 F. 2d 1502, 1505 (10th Cir. 1988)).
- ¹⁰¹ Id. at 349 (citing Barrett v. State, 116 N.E. 99, 101 (N.Y. 1917); Mountain States Legal Foundation v. Hodel, 799 F.2d 1428 n.8 (10th Cir. 1986)).

¹⁰² Scanlan, *supra*, note 14.

- ¹⁰³ See, Hughes, 441 U.S. 322 at 324-25; see also, Geer, 161 U.S. 519 at 529.
- ¹⁰⁴ Caspersen, *supra* note 9, at 377.
- ¹⁰⁵ *Id.* at 357.
- ¹⁰⁶ Echeverria & Lurman, *supra* note 44, at 365.
- ¹⁰⁷ Id. (stating that "[t]he whole ownership theory ... is now generally regarded as but a fiction expressive in legal shorthand of the importance to its people that a State have power to preserve and regulate the exploitation of an important resource." (quoting Toomer v. Witsell, 334 U.S. 385, 402 (1948))).
- ¹⁰⁸ *Id.* at 355.
- ¹⁰⁹ *Id.* at 365 (citing Hughes v. Oklahoma, 441 U.S. 322, 336 (1979)).
- ¹¹⁰ John D. Echeverria & Michael C. Blumm, Horne v. Department of Agriculture: Expanding Per Se Takings While Endorsing State Sovereign Ownership of Wildlife, MD. L. REV. (forthcoming) (citing Brief for Respondent at 26, Horne v. USDA, 133 S.Ct 2053 (2015) (No. 14-275), 2015 WL 1478016 at *26).
- ¹¹¹ Brief for Respondent at 26, *Horne v. USDA*, 133 S.Ct 2053 (2015) (No. 14-275), 2015 WL 1478016.
- Echeverria, John D. & Blumm, Michael C., Horne v. Department of Agriculture: Expanding Per Se Takings While Endorsing State Sovereign Ownership of Wildlife (October 14, 2015). MARYLAND LAW REVIEW, Forthcoming. SSRN: <u>http://ssrn.com/abstract=2674456</u>; stating Justice Alito was specifically noted as saying "I take it that you don't think that the Leonard case has a very important bearing on this case because you cite it one time in your brief, it's a passing reference ..." Horne, Oral Arg. Tr, at 46.

- ¹¹³ Nat'l Audobon Soc'y v. Super. Ct., 658 P. 2d 709, 712 (Cal. 1983).
- ¹¹⁴ Reed Watson, *Public Wildlife on Private Land: Unifying the Split Estate to Enhance Trust Resources*, 23 DUKE ENVTL. L. & POL'Y F. 291, 300 (2013).
- ¹¹⁵ Reed Watson, *Public Wildlife on Private Land: Unifying the Split Estate to Enhance Trust Resources*, 23 DUKE ENVTL. L. & POL'Y F. 291, 312 (2013).
- ¹¹⁶ Reed Watson, *Public Wildlife on Private Land: Unifying the Split Estate to Enhance Trust Resources*, 23 DUKE ENVTL. L. & POL'Y F. 291, 314 (2013).
- ¹¹⁷ Endangered Species Act of 1973, Pub. L. 93-205, 87 Stat 884.
- ¹¹⁸ Kevin W. Moore, Seized By Nature: Suggestions on How to Better Protect Animals and Property Rights Under the Endangered Species Act, 12 GREAT PLAINS NAT. RESOURCES J. 149, 163-164 (2008).
- ¹¹⁹ *Id.* at 164.
- ¹²⁰ *Id.* at 164-65.
- 121 Id. at 165 (Describing how private property owners purposely cleared trees on their land before they reached sufficient maturity to support the birds because this insured that the birds could not move onto their land, and additionally that the landowners would not be prevented from modifying their land/the birds' habitat).
- ¹²² Stephen P. Foley, *Does Preventing "Take" Constitute an Unconstitutional "Taking"?: An Analysis of Possible Defenses to Fifth Amendment Taking Claims Based on the Endangered Species Act*, 14 UCLA J. ENVTL. L. & POL'Y 327, 334 (1995/1996).
- ¹²³ Mark E. Bouton, *Learning and Behavior: A Contemporary* Synthesis 342 (Sinauer Associates, 1st ed. 2006).
- ¹²⁴ See Reed Watson, Public Wildlife on Private Land: Unifying the Split Estate to Enhance Trust Resources, 23 DUKE ENVTL. L. & POL'Y F. 291, 299 (2013); Patrick F. Nonan & Michael D. Zagata, Wildlife in the Market Place: Using the Profit Motive to Maintain Wildlife Habitat, 10 WILDLIFE SOC'Y BULL. 46 (1982); DONALD R. LEAL & J. BISHOP GREWELL, HUNTING FOR HABITAT: A PRACTICAL GUIDE TO STATE-LANDOWNER PARTNERSHIPS 3 (1999).
- ¹²⁵ Dana Joel Gattuso, *Conservation Easements: The Good, the Bad, and the Ugly*, THE NATIONAL CENTER FOR PUBLIC POLICY RESEARCH (Feb. 8, 2016), http://www.nationalcenter.org/NPA569.html.
- ¹²⁶ *Id.*
- About LWCF, LAND AND WATER CONSERVATION FUND, http://www.lwcfcoalition.org/about-lwcf.html (last visited Feb. 8, 2016).
- ¹²⁸ Id; see also U.S. FISH AND WILDLIFE SERVICE, FY 2015 BUDGET JUSTIFICATION LAND ACQUISITION, http://www.fws.gov/refuges/realty/pdf/FY_2015LandAcquisition.pdf (last visited Feb. 8, 2016); Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service, LAND AND WATER CONSERVATION FUND, http://www.fws.gov/laws/lawsdigest/lwcons.html (last visited Feb. 8, 2016).

¹²⁹ Reed Watson, *Public Wildlife on Private Land: Unifying the Split Estate to Enhance Trust Resources*, 23 DUKE ENVTL. L. & POL'Y F. 291, 318 (2013).

¹³⁰ *Id.*