

“PAY-TO- PAVE:” GOPHER TORTOISE MANAGEMENT, ENDANGERED
SPECIES PROTECTION, AND INCIDENTAL TAKE PERMITS IN FLORIDA
BEFORE AND AFTER 2007

by

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This thesis was prepared under the direction of the candidate’s thesis advisor, Dr. William O’Brien, and has been approved by the members of her supervisory committee. It was submitted to the faculty of The Honors College and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Arts in Liberal Arts and Sciences.

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ABSTRACT

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This study assesses the philosophical underpinnings of endangered species protections focused on gopher tortoises in Florida. From 1993-2007, gopher tortoises (*Gopherus polyphemus*) were listed in Florida as a species of special concern. Land developers wanting to build on their habitats could apply for an incidental take permit, paying a fee that allowed tortoises to be 'entombed' in their burrows to die a slow death. In 2007, when gopher tortoise status was up-listed to 'threatened,' a new policy ended the incidental take permit program. This study compares policy guidelines of the 1991 and 2007 gopher tortoise management plans and explores cases that deal with incidental take controversies. I will apply perspectives from environmental philosophy to my analysis to understand how policies attempt to balance economic goals with a mandate to protect species in peril.

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Introduction

“Gopher tortoises are being entombed in burrows that are the center of an entire mini-ecosystem. Most suffocate or are crushed beneath the heavy machinery. Those that survive and are able to dig their way out emerge to find a vastly altered landscape. There is no food: The low-growing plants the tortoises feed on have been cleared for pools, driveways and parking lots. There are new enemies: Displaced foxes and raccoons also have lost their normal food sources and the homeless, bewildered tortoises are easy prey. And there are roads filled with cars and trucks to finish off the survivors who seek a place where pines and scrub and dry, sandy soil hold the promise of a new beginning.” (Hollingsworth 2000, 1)

In the inevitable conflict between development and the preservation of the environment, animals are often collateral damage, as seen in the case of the gopher tortoise (*Gopherus polyphemus*). This species has been caught in the middle of development projects in Florida, and to date over 94,000 tortoises have lost their lives for the economic “progress” of the state (Pittman 2011). The gopher tortoise is protected by the Florida Fish and Wildlife Conservation Commission (FFWCC); however, development in Florida has often appeared to be more important than the lives of these creatures. We have laws to protect species from the consequences of development, but conflict between agents with divergent interests (i.e., developers versus environmentalists) and conflicts between the federal and state treatment of protected species make enforcement difficult.

The Endangered Species Act (ESA) and related state laws protect species that are declining and tries to prevent their extinction. Species are classified according to their degree of population decline. The federal and state agencies overseeing protection may have similar or different classifications for specific species, as in the case of the gopher

tortoise. Under the ESA, gopher tortoises are federally listed in specific states, but not in Florida. The gopher tortoise under state statute was listed as a species of special concern in Florida in 1979, meaning that the population was low enough to require protection, but not severe enough to be classified as threatened or endangered.¹

Although it is illegal to “take, harm, harass or kill,” (Endangered 2011) any federally listed species; there is a provision that allows for incidental “take” permits in extreme or unavoidable situations. Since the gopher tortoise was not federally listed in Florida, it meant that the FFWCC had freer rein in determining how to combat the decline of gopher tortoises. Construction companies, builders and mining areas all prefer dry uplands for their development activities, but gopher tortoises also prefer such lands as their habitat. To appease those seeking to develop these habitats, gopher tortoises under state protection were often either translocated, relocated, or companies paid into a mitigation bank. Translocation is the deliberate movement of wild tortoises to new territory to fulfill a conservation need or to remove individuals from areas with disease and unsuitable habitats. Mitigation offset the impact of development by setting up a conservation fund for purchasing land for future tortoises. Another mitigation option is to relocate tortoises to areas with an established tortoise habitat, or purchase public land for gopher tortoises. The existing tortoises in the area of the desired land would be destroyed through ‘incidental take’ along with all of the commensal species in the burrows (Berish 2001).

¹ “Species of special concern” is the designation given when a population reduction of at least 20% has been projected for a species within ten years or three generations.

Under FFWCC guidelines, “companies could purchase a permit, then they could assess the value of the gopher tortoise, and basically pay whatever the assessed value of the tortoises was and not be required to move them off the property before they started construction” (Rich 2011, 1). Developers could then bulldoze and build over the tortoise burrows, resulting in “entombment,” which would lead to asphyxiation and death. Rich is describing the “pay-to-pave” system (Appel 2007), or the incidental take, through which 94,000 or more gopher tortoises died between 1991 and 2007 (Pittman 2011). By 2007, Florida’s gopher tortoise population had decreased significantly enough to be considered threatened (FFWCC 1999-2007).

Why would the pay-to-pave plan be implemented when it goes against animal protection and allows development to take precedence over the welfare of species needing protection? If the ESA mission is to protect animals that are listed as threatened, then should the same constraints be pressed upon FFWCC to create preventive measures that would increase and not decrease population size? Karen Warren’s essay, “The Power and the Promise of Ecological Feminism,” outlines significant factors that lead to an oppressive conceptual framework that allows for non-human species to be subordinated to anthropocentric demands. From this perspective, oppressive discourse allows for the implementation of incidental take permits.

These concepts stem from “basic belief values, attitudes and assumptions that shape and reflect how one views oneself and one’s world” (Warren 1990, 159). This framework suggests that hierarchies are created when we assign value to projects; dualities are fabricated when people socially construct values as defining characteristics

of “others,” and the logic of domination takes all of the hierarchies and dualities and creates a structure of subordination. Warren states that the logic of domination is the “structure of argumentation which leads to a justification of subordination” (Warren 1990, 159). In relation to the gopher tortoise case, there is a hierarchy where development projects were of higher priority than the livelihoods of the gopher tortoises present in the area.

Warren’s approach would call into question this action and would likely suggest that this way of thinking creates biased laws. Since the FFWCC is the state agency charged with protecting the gopher tortoises, I argue that they should extend what Warren calls a “loving eye” and create a protective relationship with the gopher tortoises. Paul Taylor’s essay “The Ethics of Respect for Nature” and Gary Varner’s essay “*Biocentric Individualism*” tries to consolidate how we value non-human species with respect to human desires. Peter Singer’s essay, “All Animals Are Equal” explains why animals should be extended legal rights. Taylor, Varner, and Singer provide further explanation of Warren’s logic of domination. FFWCC had argued that sacrificing some gopher tortoises for the greater good of the species was the most practical means to compromise between development and gopher tortoise protection. The incidental take permit follows a logic of domination, where developers desires came before the needs of the gopher tortoise.

If the gopher tortoise decline was due to lack of protection because of their classification, then the reclassification as threatened under the 2007 management plan

should show considerable positive changes in tortoise population² (definitions 1). On the other hand, if there are no significant changes in population, then, as viewed through Warren's framework, the FFWCC may be viewed as operating under an oppressive conceptual frame, incidental take creates a hierarchy that favors developers and not the tortoises located on development sites.

In order to begin a discussion of how the state protects (or fails to protect) gopher tortoises, I first provide a brief overview of the gopher tortoise and its biological and ecological interactions. I then outline the history of federal and state agencies' roles regarding species protection, including the creation of the Endangered Species Act. I then compare federal and Florida's regulations, especially the "Management Considerations for the Gopher Tortoise," by Joan Berish (2001), and the "Gopher Tortoise Management Plan," by the FFWCC (2007) as they relate to protecting species. I then discuss specific case studies that illustrate the devastating effects of the "pay-to-pave" policy. Lastly, I discuss Karen Warren's logic of domination and other environmental philosophical perspectives that are essential to understanding the ethical framework that surrounds the FFWCC and "pay-to-pave."

Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*) belongs to the land tortoise group, which has survived for nearly 60 million years in North America. Gopher tortoises are found throughout the southeastern coastal plains from southern South Carolina to

² Where a population reduction of at least 50% has been projected or suggested to be met within the next ten years or three generations whichever is longer. Florida statute prohibits the intentional killing or wounding of any animal, or eggs or nest of any animals

extreme southeastern Louisiana (Auffenberg and Franz 1982). Gopher tortoises live in extensive subterranean burrows and occupy sand hill, scrub, coastal strand, xeric hammock, pine in dry flat woods dry prairies, and coastal dunes. They prefer habitats with well-drained sandy soils for digging. Their diet consists of broadleaf grasses, legumes, wire grass, grass-like asters, and various fruits and berries. They also like to bask in the sun of open canopies, and they use these open areas for nesting (Puckett and Franz 2001).

A gopher tortoise's life revolves around the burrow it excavates with its shovel-like front limbs. Each burrow has a single opening that is up to the width of the tortoise that creates it. The burrows are great indicators of the size and age of the tortoise that excavated it. They excavate up to 12 meters in length and the minimum is 3 meters in depth. The burrows remain at a fairly constant temperature and humidity level year round, which provides shelter for the tortoise during periods of extreme temperatures, drought, and fire. "Gophers" can even subsist in human-made environments, such as pastures, old fields, and grassy roadsides (Berish 2001).

According to Joan Berish (2001), gopher tortoises are reptiles that have an unhinged shell, elephantine hand limbs and feet, and shovel-like front limbs. Their color is tan, brown or grey and when they are juveniles, they are yellow or orange with brown coloring. Gopher tortoises are thought to live between 40 and 60 years and have relatively slow growth rates that vary by geographic region. In northern Florida, for example, female tortoises reach adulthood at 10-15 years when their shell length is about nine inches long (Franz and Puckett 2001). At maturity, adult female gopher tortoises are

slightly larger than males. Gopher tortoises usually breed from April to June, and between May and June, female tortoises lay 3-15 eggs either in the sand mound in front of the burrow or in another nearby sunny place. The incubation period of eggs is around 80-90 days. Females generally produce eggs annually. Hatchling gopher tortoises may use an adult burrow or dig a small burrow of their own. Young gophers are vulnerable to predators until they are about 6 to 7 years of age when their shells harden. Animals that eat gopher's eggs include raccoons, indigo snakes, and black bears.

Adult gopher tortoises rarely have any predators. The main adversaries of the gopher tortoises are humans, and especially their activities that obliterate gophers' habitats. A sad reality is that tortoises' habitats are often ideal sites, "gold mines," for development projects. Berish (2001, 3) points out that tortoises' preferred habitats are "also in demand for housing, orange groves, landfills, sand mines, and other human needs."

The loss of the burrows is significant, not only for the tortoises, but also because gopher tortoises are considered a "keystone" species. When developers destroy gopher burrows, they also destroy an entire ecosystem. Wildlife ecologist Rebecca Bolt (1997) notes that this tortoise has been called a "wildlife landlord," due to its relationship with the many species that also use their burrows. There have been over 302 species of invertebrates and up to 60 species of vertebrates, including the indigo snake, gopher frog, and the cotton mouse, inhabiting tortoise burrows (Berish 2001). And, "like the tortoise, many of these species are included on state agency lists of rare and threatened species"

(Burke 1989 86). Despite the dwindling tortoise population and their importance to the ecological stasis of other species, they currently are not federally protected.

History of Animal Protection in the U.S.

Looking back at America's history, protecting animals in the environment was hardly considered. Early European settlers came to North America with preconceived notions of how animals should be treated. According to the Environmental Ethics anthology *What Really Matters What Really Works* (2012), in settlers view, God created humans not to watch over and be a steward to nature, but to have dominion (White 1967). This anthropocentric mentality considers animals as existing merely to benefit humans. For centuries, people overused and depleted the natural resources in the environment, causing many species to become extinct, such as the Dodo Bird, Steller's Sea Cow, and the Passenger Pigeon, and brought many others to the brink of extinction (Easley et.al 2001). It was not until the Lacey Act of 1900 that the first effort to protect animals occurred in the U.S. and eventually led to the Endangered Species Act (ESA) and the formation of state protective agencies.

Named for its author, Congressman John Fletcher Lacey, this act prohibited interstate commerce of animals killed in violation of state law. Lacey was a lifelong nature lover. When he was in Washington, D.C., one of his favorite activities was to take his family to the zoo or parks for a picnic on Sunday afternoons. He had such a great love for the outdoors that it pained him to see the increasing destruction of forests and wildlife in the in the late 1800's (Beisker and Olson 2012). His bill marked the beginning of federal involvement in species protection and changed people's views of animals from

being simply economic commodities to something that should be cherished and protected. This act was a first step by the federal government, which sparked interest in species protection. In 1903, President Theodore Roosevelt established the first National Wildlife Refuge at Pelican Island in Florida to protect wood storks, brown pelicans, and other water birds with dwindling populations. In 1934, Congress passed the Fish and Wildlife Coordination Act, which directed the Secretary of the Interior to investigate the effects of domestic sewage, trade wastes, and other polluting substances on wild life...” (Easley et.al 2001, 17). It called for federal and state cooperation to conserve and rehabilitate wildlife and proposed lands to be set aside to protect wildlife habitat.

Interest in protecting animals and their habitats was further sparked in 1962 by Rachel Carson’s eye-opening book, *Silent Spring*, which talked about the effects of pesticides, especially DDT, on the wildlife and the environment. Carson’s book was a catalyst to the second wave of the environmental movement which grew strength in the 1960s and after.

In 1964, Congress passed the Wilderness Act, creating the National Wilderness Preservation System, which provided crucial habitats for wildlife. The Department of Interior’s Bureau of Sport Fisheries and Wildlife, commonly known as the U.S. Fish and Wildlife Service and also formed in 1964, created a Committee on Rare and Endangered Species the same year. This committee published a “red book” listing 63 plants and animals that were endangered and needed federal protection (Easley et.al 2001, 18). In 1966, the Endangered Species Preservation Act was passed, allowing the listing of native U.S. animal species as endangered. Another important aspect of this law was the creation

of the National Wildlife Refuge System, which prohibited the “taking” of species within the refuges without a permit (Easley et.al 2001, 18). However, there were some problems with this act. First, the Act called for only voluntary compliance; and second, it protected only domestic, vertebrate species of fish and wildlife. Also, it only protected species in the wildlife refuges and not other places. This was the framework of the laws preceding the ESA.

In 1969, Congress recognized that endangered species’ scope should extend worldwide, so they expanded the “Red Book” to address species globally. The Endangered Species Conservation Act of 1969 therefore banned the importation of any listed species and any products that were made from these organisms. This law had the effect of curtailing the fur trade. According to the *Stanford Environmental Law and Society Handbook* (Easley et al. 2001, 19), “From 1968-1970 18, 456 leopard skins, 31,105 jaguar skins, 249,680 ocelot skins were confiscated.” Also at this time, the definition of “fish and wildlife” was extended to include amphibians, reptiles, and invertebrate species. An international convention was convened to protect endangered species from extinction. Although these were important steps to protect species, the language of the law allowed for non-compliance and non-enforcement (Easley et al. 2001, 19). Stronger protection for species that were federally listed was not possible until the Endangered Species Act (ESA) of 1973 was passed.

Federal Endangered Species Act

On December 29, 1973, President Richard Nixon signed the ESA into law. He stated during the ceremony, “This legislation provides the Federal Government with the needed authority to protect an irreplaceable part of our national heritage--threatened wildlife...Nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed” (Easley et.al 2001, 21). What made the ESA different from all the other preceding environmental laws was its coherence and completeness. Even today, it is considered by many to be the most significant environmental law ever passed. For instance, Interior Secretary Bruce Babbitt called it “undeniably the most innovative, wide-reaching, and successful environment law;” and Senator Bob Graham (1994) called this law the “crown jewel,” and “the pit bull” of environment laws (in Peterson 2002, ix).

With this law, Congress acknowledged that many wildlife species had become, or were in the process of becoming, extinct due to uncontrolled development and lack of conservation. Congress recognized that these species were an important part of our U.S. history, that they have intrinsic value, and that they needed to be saved. All animals cannot live in human made environments such as zoos, so the species’ habitats must also be saved. The argument was that if society was negatively affecting the species, then society has a duty to fix the situation. The law provided programs for conservation of threatened and endangered species and ecosystems.

The ESA made the federal government the overseer of state and local protection agencies, which were now supposed to cooperate with federal agencies. The Secretary of

the Interior was given power to approve and fund state conservation projects and to determine which species would be protected. Only species that were threatened or endangered according to the federal definitions were considered. According to the U.S. Fish and Wildlife Service, the ESA defined an “endangered species” as “any species in danger of extinction throughout all or a significant portion of its range;” and a “threatened species” as “one likely to become endangered within the foreseeable future throughout all or a significant portion of its range” (FWS 2011, 1). It became illegal to “take” any federally listed species. The term “take” includes harming, hunting, wounding, capturing, trapping, shooting, or even collecting and removing a species (ESA 1973).

One goal of the ESA is to increase the population of species listed as endangered or threatened, so that they can be taken off the list completely. Unfortunately, this circumstance can set up a vicious cycle, as a species is protected while on the list, but no longer protected once it is removed, potentially leading to renewed population decline.

Florida’s Endangered Species Act

Susan George and William Snape, authors of the essay “State Endangered Species Acts” (2010), would argue that state species protection programs are more important than federal programs. State programs “traditionally have been the chief stewards of wildlife within their borders and therefore serve a vital role in protecting and conserving their own plants, animals and habitat” (George and Snape 2010, 345). Originally the state wildlife programs had to be approved by the federal government in order to get funding. In the federal ESA there is a section on cooperation agreements between states and the

federal government, where state agencies could receive money that would fund their wildlife protection programs.

In order to be approved by the Secretary of the Interior, the state had to create a wildlife agency to implement the program, establish and determine the status of listed species, create conservation programs that help with recovery, and allow for public involvement (ESA 1973). Despite their importance George and Snape argue that state ESAs are superficial since they only provide a method for listing and prohibit “taking” of listed species. (George and Snape 2010).

Florida’s protection began in 1977. During that year, officials in the state of Florida recognized they had a rich abundance of wildlife and ironically the most listed species from the ESA. In order to combat this problem, they decided to create a species protection program. In 1977, Florida created their version of the ESA, known as The Florida Endangered and Threatened Species Act of 1977, which declared it unlawful for a person to intentionally kill or wound any fish or wildlife state designated endangered, threatened, or species of special concern. The act provided mechanisms for research and management that would conserve and protect threatened and endangered species as a natural resource. Also in the law was a provision about animal cruelty, which states that it is illegal to kill animals in a cruel or inhumane way that would cause unjustifiable pain or suffering (Schaefer, Tucker and McGuire 2008). This act was originally overseen by the Florida Game and Fresh Water Fish Commission (FGFWFC), which in 1999 would become known as the FFWCC. The gopher tortoise had been under the protection of the FGFWFC’s protection since the 1970’s.

Gopher Tortoise Protection

Gopher tortoises had not always been under the protection of the FGFWFC. During the 1930's gopher tortoises were harvested for their meat, and during the Great Depression they were referred to as "Hoover Chickens" (Franz and Puckett 1980). In 1972 there was a ban on the sale and export of gopher tortoises. In 1975 the gopher tortoise was listed as threatened in the state, which protected it under the Florida Endangered Species Act. Four years later, however, it was listed as a species of special concern (Berish 1993). In 1988 the gopher tortoise was fully protected statewide from harvest. In 1991 FGFWFC also supported conservation goals and thus created the "incidental take" permit program.

Gopher tortoises were listed as a species of special concern from 1979 to 2007, and during the first two decades there was not a comprehensive plan for their recovery. According to Joan Berish, a wildlife biologist for the FGFWFC, efforts to conserve gopher tortoises in Florida lacked clear direction (Berish, 1993, 1). This lack of direction could be clearly seen in a case in Citrus Springs, Florida. In May 1993, the *St. Petersburg Times* reported a case of conflict between gopher tortoise conservation and a town that sought to build a middle school.

The FGFWFC gave the school permission to relocate several dozen tortoises. Relocation is expensive, however, and so to save money, school officials decided instead to get an incidental take permit. They paid \$35,000 to the mitigation bank fund as compensation for "taking" the gopher tortoises. While it may be possible for tortoises to leave their burrows voluntarily when construction begins, thereby relocating themselves,

that outcome is very unlikely. In this case, federal soil scientist Paul Pilny “bristled at the notion that the tortoises will react to the construction noise and saunter to safe haven. [He stated,] What’s more likely to happen is the tortoises will hunker in their underground shelters, where they’ll be entombed by the construction and die” (Behrendt 1993 1).

School officials defended the decision for several reasons: "We need a middle school pretty bad and that was the best site of all of them," said Board Chairman David Watson, "It seems to me that just about any site we're going to pick now is going to have a gopher tortoise problem because they're everywhere" (Behrendt 1993, 1). Watson said he voted to pay the money because “this option was presented by people who are supposed to know how best to preserve the species.” According to a public information officer for the state, “If we can take money we can collect from developments like this and set aside large properties, we can preserve them forever” (Behrendt 1993, 1). The idea is that it is more efficient and effective to collect money from pay-to-pave permits that destroy smaller numbers of tortoises in order to get money to buy land on which larger populations can live safely. Micah Poteet, wildlife biologist for the agency, agreed: "This is the best route in the long term for the survival of the species" (Behrendt 1993, 1). The “incidental take” permit was thus set up as a key feature of this conservation approach, which was originally intended to balance large scale development and conservation of gopher tortoises (McCann 2012). Richard McCann, biologist for the FFWCC described the conservation purpose of the permits: “In 1991, the incidental-take permit was set-up to be used in concurrence with relocation, and conservation of gopher tortoises. The money collected from incidental take was originally used in mitigation

parks, where established gopher tortoise habitats were in place. However, due to the scare of the gopher tortoise upper respiratory tract disease and lack of research, relocation was halted and incidental take was the less expensive option for developers” (McCann 2012). Despite its species conservation goal, the incidental take permit option would generate considerable public concern and controversy.

Management Consideration for the Gopher Tortoise

In 2001 Berish drafted a report titled *Management Considerations for the Gopher Tortoise*; “which was meant to be a precursor to a gopher tortoise management plan, but she stated it should not be viewed as FFWC policy” (Berish 2001, 2). The problem is that it became the plan developers and others used to address the gopher tortoise conservation issue. The pay-to-pave, or incidental take policy was explained in this report. “Between 1991 and 2007, when it ended the ‘pay-to-pave’ program Florida Fish and Wildlife Conservation Commission issued 2,900 permits allowing 94,000 gopher tortoises to be entombed” (Appel 2007, A11) .

When the management consideration report was first drafted, FGFWFC was the overseer of gopher tortoise protection, and in 1999 the FFWCC took over. That year there was an implementation of an amendment to the Florida endangered species act, combined all of the staff and members of the former Marine Fisheries Commission, Divisions of Marine Resources, and Law Enforcement of the Florida Department of Environmental Protection, and all of the employees and members of the former Game and Fresh Water Fish Commission to create one unified agency for species protection: the FFWCC. The report by Berish included management considerations and outlined

goals that were supposed to help combat the declining species. The management initiative was tailored specifically for the gopher tortoises, which at the time were considered to be a species of special concern. Management considerations aimed to achieve eight goals:

Maximize conservation of xeric uplands, (2) Promote habitat management practices beneficial to gopher tortoises, (3) Restore depleted or extirpated populations through translocation, (4) Mitigate adverse impacts of habitat alteration, (5) Reduce potential for transmission of infectious disease, (6) Monitor the status of gopher tortoises on protected lands, (7) Educate the public about gopher tortoise conservation, and (8) Promote research to address gaps in current knowledge. (Berish 1994, 4)

Each of the management considerations was important to reverse the decline of gopher tortoise populations. During this time the gopher tortoise was widely distributed in Florida; however, the species' population was declining due to rampant urbanization, intensive agriculture, and invading exotic plants. The conservation goal for the gopher tortoise was to maintain a specific minimum number of secure, managed, viable populations of gopher tortoises throughout Florida (Berish 1993, 4). The report considerations seem to have failed in these goals because the gopher tortoise populations declined. By 2007, this decline led to species reclassification as state designated threatened. In that year, Brett Paben, the senior staff attorney from Wildlaw, said in an e-mail to the *St. Petersburg Times*, "We are disappointed that the service apparently doesn't believe the gopher tortoise warrants higher priority treatment" (Pittman 2007, 1). Paben's claim can be backed up by the impact of two of the conservation mitigation options: relocation and incidental take.

Mitigation on development sites seems to be the more problematic of these measures. The Berish report (2001, 13) states, “conservation of gopher tortoises in urbanizing areas requires difficult choices,” and advises that there are five mitigation options available where relocation is also addressed: avoid developing in areas with tortoises; avoid individual tortoise burrows (by ca. 50 feet); obtain incidental take permit and protect a percentage of habitat on or off site; relocate tortoises to suitable habitat; If ≤ 5 tortoises, capture and release back on site. The first option is clearly the best for the welfare of the gopher tortoises and the commensal species in their burrows. The incidental take permit program established money to create seven mitigation parks distributed around the state where 360-2000 acres of gopher tortoise habitat was purchased by the state to allow for restoration and conservation enhancement (McCann 2012).

According to the FFWCC, mitigation banking and the incidental take permits rank high in practicality but low in the humane and public sentiment areas (Berish 2001, 17). Much of the public has expressed a belief that the incidental take feature of mitigation is inhumane. However the agency “claims the issuance of permits for incidental take where animals are allowed to be killed, is necessary for the species to survive. But other wildlife biologists claim that onsite preservation is the way to handle the gopher tortoise problem” (Heiman 1996, 4B).

The other option, relocation, is problematic since it can only save the tortoises but not the commensal species that have taken refuge in the burrows. Relocation also results in an ever decreasing habitat base and an ever-increasing number of refugee tortoises. It

is also controversial, labor intensive, and time consuming. There are biological concerns such as disrupting the gene pool, introducing disease, and population distribution (Franz and Puckett 2001). Relocation is very expensive because in order to relocate the tortoises the area has to be surveyed, and tortoises require special efforts. From 1978 to 1993, 7,200 tortoises had been relocated in Florida; 1,260 relocation permits were issued, and conservationists relocated 25,000 gopher tortoises, although some of the permits were overestimated (Berish 2001, 16).

In summary, the management report listed gopher tortoises as a species of special concern because their populations were declining but still had a widespread distribution throughout Florida. Berish notes, although the gopher tortoise “is declining in numbers, it remains widely distributed in the state and so, is considered less in need of state or federal conservation efforts than many rare or endemic species” (Berish 2001, 33). The management consideration for gopher tortoise report suggests that the tortoises do not really need much help, but the protection policies only appeared to facilitate the slow decline of the tortoises for the first 16 years of its protection. Conservation and management of gopher tortoises involves manipulation of the complex interaction among habitats, tortoises, and humans. The key elements are land preservation, habitat management, and coordination within and among agencies and organizations. The significant decline in species alone indicates that there needed to be a better management plan. The report by Berish addressed that FFWCC needed to synthesize a comprehensive management plan that addressed the conflict between development and gopher tortoise protection.

Public sentiment

During the 16 years of incidental take there was much public outcry about inhumane treatment of gopher tortoises; however, when the law was first implemented, people did not seem widely aware of the conflicts gopher tortoises had to face. Richard Verrier of the *St. Petersburg Times* stated; “If you’re like most people, you don’t really give much thought to the gopher tortoise. But mostly gophers are not exactly top-of-the-news- item” (Verrier 1995, 1A). In 1996, the *Daytona Beach News Journal* described a failed gopher tortoise relocation attempt. Steve Tonjes, a senior environmental scientist with the Florida Department of Transportation, tried to relocate gopher tortoises away from the development of the Saxon Boulevard interchange along Interstate 4. Tonjes surveyed the area and found 19 burrows within 7.6 acres of the land, and of the 19 burrows, only 16 were active; however, due to relocation methods only 6 survived (Murray 1996, 01F). Tonjes moved the tortoises to their relocation site and created burrows for them, but when he returned three weeks later only two burrows were still active. This case shows how relocation of 16 tortoises only successfully relocated two, which furthermore shows that relocation can be a less favorable option sometimes.

After the creation of the FFWCC, the *Vero Beach Press Journal* published an article, “Gopher Tortoise Losing Race Against Speed of Florida,” by Rebecca Wakefield, on August 11, 1999. One of the people she interviewed was Gary Julian, who was petitioning Florida to change the “incidental take” permit plan. He believed that focus should be placed on changing the rules rather than blaming developers who use the

permits. Julian contends, “people will do what the law allows, just change what’s wrong with the law. It’s not incidental take, its blatant animal eradication” (Wakefield 1999, A11). In his view development is going to happen and since the law allows them to pay-to-pave, development companies or people who can “take” tortoises legally are going to do it. It took almost six years for the incidental take permit to be reviewed and a new management plan to be set in place. The FFWCC was grappling with a solution, admitting that the current strategy was a “less-than-perfect solution to protecting gopher tortoises” (Wakefield 1991, A11).

In 2005, one case in particular changed the way people viewed the pay-to-pave plan in Florida. That year in northern Palm Beach County, the Wal-Mart Corporation decided to build a new store on a site in Lake Park where 5-7 gopher tortoises lived (Flesher 2005, 1). Wal-Mart applied for and was granted an incidental take permit. It paid \$11,409 to buy and protect 1.49 acres of habitat somewhere else, instead of paying to relocate the tortoises to a safe environment. The Wal-Mart incident opened the eyes of the public and there was an outcry; dozens of people called or wrote to the commission to protest (Flesher 2005, 1). Efrain Marti, a West Palm Beach middle school student, sent a petition with 709 signatures. Tiffany Devine of a community called The Acreage called the Humane Society of the United States, which sent an e-mail alert urging members to protest to Wal-Mart and the FFWCC (Fleshler 2005, 1). This case opened the eyes of the public because individual residents and animal rights groups alike made the public aware of the entombments of the gopher tortoises. All of the negative sentiment about the pay-to-pave program came to a head when the FFWCC was sued in 2006 by Angels in

Distress, Inc, a non-profit organization dedicated to the preservation and protection of wildlife.³ Angels in Distress filed a complaint on the basis cruelty to the gopher tortoises due to issuing incidental take permits. They claimed the FFWCC was in direct violation of the Florida Endangered Species Act under the cruelty statute.

The argument was that the FFWCC was refusing the tortoises' food and shelter because they were buried, which defined the action as cruel. Angels in Distress Inc. also charged that according to Florida's ESA, it is unlawful for a person to "intentionally wound any fish or wildlife species designated by the Florida Fish and Wildlife Conservation Commission, as endangered or threatened or of special concern...except as provided for in the rules of the FFWCC" (McGuire et al. 2008, 4). Since the gopher tortoises were a species of special concern at the time, they claimed the FFWCC was in direct violation of this statute. Angels in Distress, Inc. wanted to suspend the permits in place and prohibit any future ones.

FFWCC's mission is to manage fish and wildlife resources for their long term well being and also the benefit of people (FFWCC 1999). According to Angels in Distress Inc., FFWCC had authorized the direct killing of an estimated 94,000 gopher tortoises, which were among the creatures the FFWCC is entrusted to protect. They further argued that the incidental take was not only cruel, but it had led to the decline of the species. According to historian W.E.H. Lecky, there are two kinds of cruelty: (1) the cruelty which comes from carelessness or indifference or, (2) the cruelty which comes

³ *Angles in Distress Inc. v. Florida Fish and Wildlife Conservation Commission*, No. 06.CA-605, slip op. at 1-10 (2d Cir. April 11, 2006)

from vindictiveness (Thomas 1984, 139). From this view, Angels in Distress believed that FFWCC suggested the first type. They never sought to kill the gopher tortoises, but their permit program allowed for cruelty to be initiated.

In the end, however, the case was dismissed and FFWCC was found not to be in violation of the animal cruelty statute established by the Florida Endangered and Threatened Species Act of 1977. The court stated that there are no state statutes that pertain to or regulate gopher tortoises. Therefore, FFWCC's rules and policies with respect to gopher tortoises were not in conflict with any state statute. Even though Angels in Distress lost the case, one year later the gopher tortoise was reclassified and the FFWCC developed a new management plan. This outcome was due in part to public pressure along with the advice of wildlife experts.

Gopher Tortoise Management Plan 2007

Due to the deaths of the 94,000 tortoises from 1991-2007 and the decline of habitat, there was such a big outcry that a petition for gopher tortoise reclassification was written and organized by Bradley Gruver, a member of the FFWCC. The petition, which sought to redesign the species as threatened, was produced in May 2002, but it took five more years for the reclassification to take effect and the management plan to be approved. “The Gopher Tortoise Management Plan” (Gopher 2007) was produced after reclassification and after new research emerged regarding disease transfer among gopher tortoises. The main conservation goal is to “restore and maintain secure viable populations of gopher tortoises throughout the species’ current range in Florida” (FFWCC 2007, 9) Importantly, the new plan ended future the incidental take permit

option; however, because incidental take permits have no termination dates, some were issued prior to the classification change are still in effect (McCann 2012). In addition to that rule change, the new management plan included specific recovery goals:

(1) Improve tortoise carrying capacity of all protected, potential habitat on both public and private lands supporting gopher tortoises by the year 2022. (2) Increase protected, potential gopher tortoise habitat to 1,955,000 acres by the year 2022. This will require protection of an additional 615,000 acres of habitat. (3) Restock 60,000 gopher tortoises by 2022 (an average of 4,000 per year) to protected, managed, suitable habitats where they no longer occur or where densities are low. (4) Decrease gopher tortoise mortality on lands proposed for development through a redesigned FWC gopher tortoise permitting system; responsible and humane relocation of 180,000 tortoises by 2022. (FFWCC 2007, 17)

The fourth management consideration is the biggest change from the previous policy. This is where the permitting system was reevaluated and incidental take was removed for the future. The FFWCC proposed a new permitting system in which one simple permit is used for development that impacts small populations of gopher tortoises. The plan replaced the relocation and incidental take permits with conservation permits. The new permits focus on relocating tortoises on or off the site of development and include paying a mitigation fee of \$200 to \$500. This new permit seeks to balance the demand for development with concrete ways to conserve the gopher tortoise populations. The new management plan also established permit-based incentives. The incentives include waiving fees on projects specifically tailored to the protection of gopher tortoises. Mitigation fees, for instance, would be lower if those receiving permits relocate gopher tortoises responsibly (FFWCC 2007).

Even though the 2007 management plan changed the permit system from incidental take to conservation permits, danger to gopher tortoises still existed given the grandfathering provision. The continued controversy created by that provision was evident in protests over the development of Scripps Florida in Palm Beach County. In 2004, “The Palm Beach County Commission agreed to buy 1,919 acres of land there for \$60 million for the construction of the Scripps Research and Development Biotech facility. The commission then spent \$40 million to plan, pull permits and begin construction, while spending an additional \$51 million on a water pipeline to service Mecca Farms” (FAU 2011, 1). Due to pressure from citizens and environmental groups such as Everglades Earth First, the facility was not built in Mecca Farms, which environmentalists considered as too close to sensitive lands for large-scale development. Scripps chose instead to build at Florida Atlantic University’s McArthur Campus in Jupiter, and would later expand to a second phase in a nearby parcel called the Briger Forest, in Palm Beach Gardens. This site, which has yet to see construction, is home to several protected species including gopher tortoises. While Scripps decision regarding gopher tortoises is unclear at this point, it is evident that the management plan still allows for development and, until the gopher tortoises are classified as federally listed, there will still be conflicts. Even with the new management plan there still seems to be controversy.

Even though existing incidental take permits may be grandfathered in, does not mean every developer wants to use them. In 2011 The South Shore News and Tribune

wrote a story “Developer’s Help Transplant Tortoises,” by Paul Catala, who reported on the company Minto Communities and their refusal to use their incidental take permits:

Teaming with the Humane Society and the Florida Fish and Wildlife Conservation Commission, Minto trapped and transported 10 tortoises - including juveniles - and relocated them. They were put in cages and moved by truck to the 212-acre Carter Branch Tract Relocation Site and Nokuse Plantation in Walton County, where they've now burrowed . As a real estate developer, being a good steward to the environment means more than just building sustainable housing, it means safeguarding all of the natural resources within our control, said Michael Belmont, president of Minto Communities. In Sun City Center, we wanted to do the right thing by saving the tortoises and relocating them to a preserve where they can live the rest of their lives safely.(Catala 2011,1)

The decision of Minto Communities is demonstrating that the new management plan is a step in the right direction, while public awareness adds to its effectiveness. When developers, FFWCC, and environmental groups all work in tandem the gopher tortoises can be saved.

Incidental Take: Logic of Domination

The incidental take, or pay-to-pave program, has been construed as horrendous, morally unethical, and just downright a mistake. The sentiment is cemented by the following quotes. State wildlife Commission chairman Rodney Barreto states regarding the changes made: "This is long overdue." What we've done here is wrong, and it's time we made it right" (Pittman 2007, 1). Robin Borland, a commissioner of FFWCC who does not agree with the pay-to-pave plan stated, “There is a definite flaw in the process where this endangered species, you’re not supposed to touch, but you can write a check and kill them....There is definitely something wrong” (Tucker 2002, 5). Barbara Eagan from the Orlando Sun Sentinel affirms, “It is about time the horrific practice is exposed for what it is....I think the FFWCC has been blinded by the dollars it has been gleaned

from the uncontrolled slaughter of our threatened tortoises” (Eagan 2005, G2).

Given its strong concessions to development and seeming disregard for animal welfare, incidental take can be viewed as an anthropocentric plan. When we look at animals with an anthropocentric mentality, we only see how animals fit into our sphere and how they can benefit humans. Many Christian teachings advocate human dominion over nature, which provides a cultural basis for this anthropocentric view. However, in the late 17th century, some minority Christian doctrines preached that animals needed to be respected, and that no cruel acts should be bestowed on non-human species, a view that has expanded in popularity over time (Thomas 1984). According to early philosophers such as Jean Jacques Rousseau, neither animal nor humans should be unnecessarily ill-treated (Rousseau 1762). During the past few centuries, an emphasis on sensation and feeling among animals emerged as the true basis for a claim to moral consideration and meant that people should think about the feelings of all living creatures (Thomas 1984). According to philosopher Jeremy Bentham, animals and humans were connected and deserved equal respect or equal consideration due to the belief that both humans and animals can suffer (Thomas 1984). If an animal can suffer, then it is part of our moral duty to prevent and end their suffering.

This suffering is evident in the process of tortoise entombment associated with incidental take, and as a result, the gopher tortoise has been a victim of the conflict between development and preservation of their habitats. Wolch states, “In mainstream theory, urbanization transforms “empty” land through a process called “development” to produce “improved land”, whose developers are exhorted (at least in neoclassical theory)

to dedicate it to the highest and best use” (Wolch 1998, 119). Accepting the idea that humans can improve “empty” land, which is not really empty as it is populated by various species, would promote an oppressive conceptual frame that subordinates the rest of nature to human needs. This oppression leads to the decline of the species and the suffering of individual animals.

Oppressive conceptual frameworks stem from the belief that the world was created for use of humans because humanity is created in God’s image. These frameworks take the form of socially-constructed dualities leading to what Warren (1990) calls the logic of domination. Warren’s description of value-hierarchical thinking asserts that humans place higher value on what is “up” instead of what is “down” on their scale of being. In the gopher tortoise case, “up” in the hierarchy refers to the development projects that bring revenue to Florida, while those “down” in the hierarchy include gopher tortoises and other species whose lives are dominated and extinguished by these human designs. Many people today view incidental take as an oppressive program that disregards the gopher tortoises’ right to live.

While Warren questions the hierarchy that leads to domination, not all would side with the tortoises. Gary Varner, for instance, illustrates acceptance of the dichotomy that Warren critiques. Given the views expressed in the essay “*Biocentric Individualism*” (2002), philosopher Gary Varner would probably view incidental take as a reasonable policy. Varner believes that species with interests and projects designed to help give meaning and enhance the species’ existence have higher intrinsic value than basic biological interactions and interests. The emphasis on development in Florida, often at

the expense of animal welfare, fits well with this view and impacts governmental decisions regarding species. Officials at the FFWCC may have preferred more restricted development to protect the species, but they had to recognize the economic pressures to allow such transformation. They viewed incidental take and mitigation as a solution to an unfortunate dilemma, allowing the sacrifice of some individuals for the sake of species conservation as a whole. According to Warren, Varner's thought process, which would lend support to the FFWCC approach, could lead to an oppressive conceptual framework where laws can be made to reflect the desires of more powerful economic interests.

Another point brought up by Warren is the duality of claims. When we socially construct dualities, we are creating dichotomies that make it impossible for competing interests to coexist. In the gopher tortoise case, we create the dichotomy of economic progress versus the preservation of species. Warren would argue that society needs to change its views from oppressive to understanding or rethinking the situation in relation to development and conservation. Warren would agree with philosophers Peter Singer and Paul Taylor in their claims that incidental take should not have been included in the mitigation plan set up in 1991. Singer would argue for equal consideration of species, and Taylor would argue the logic of human superiority is flawed.

According to Paul Taylor's essay, "The Ethics of Respect for Nature" (Taylor 1981), there should be no hierarchy between development and gopher tortoise due to both being teleological centers of life which the incidental take does not take into account. Taylor argues that both humans and non-human animals have an inherent worth of equal rank since they are part of the Earth's wild communities of life. Taylor believes,

We are morally bound to protect or promote their good for their sake. Our duties respect the integrity of natural ecosystems to preserve endangered species and to avoid environmental pollution stem from the fact that these are ways in which we can help make it possible for wild species populations to achieve and maintain a healthy existence in a natural state. (Taylor 1981, 102)

Taylor would be considered a biocentric individualist, because he believes that biological factors create the connection between species. Taylor outlines his schema for biocentric individualism's structure;

(1) Humans are thought of as members of the Earth's community of life, holding that membership on the same terms apply to all non-human members. (2) The Earth's natural ecosystem as a totality is seen as a complex web of interconnected elements, with the sound of biological functioning of each being, dependent on the sound biological functioning of the others. (3) Each individual organism is conceived of as a teleological center of life, pursuing its own good in its own way. (4) Whether we are concerned with standards of merit or with the concept of inherent worth, the claim that humans by their very nature are superior to other species is a groundless claim and in the light of elements 1, 2 and 3, must be rejected as nothing more than an irrational bias in our own favor." (Taylor 1981, 105)

Taylor's theory supports the idea gopher tortoises and humans are equal members of the community, so ideally both would be able to use the land while not interfering with each other. The FFWCC recognizes the fact that gopher tortoises can only live in dry upland habitats while also acknowledging the pressure for development in such areas. Taylor's third claim asserts that each species is a teleological center of life, striving to preserve itself and to realize its own good in its own unique way. Gopher tortoises need food, shelter, and protection; however, destruction of their habitats denies them their right to survive. Attempting to resolve this dilemma, the ending of incidental take and the implementation of conservation permits shows that FFWCC is acknowledging gopher

tortoises' right to survive. FFWCC has acknowledged development pressures will continue and they are trying to find the best solution to the problem.

In addition to the support provided by Warren and Taylor, philosopher Peter Singer would say we have a moral duty to protect non-human species and that they should be given equal consideration. The incidental take according to Singer's philosophy, developers did not extend equal consideration to gopher tortoises. Singer would suggest an equality of consideration does not mean that we have to give non-human species the right to vote, bear arms or to have freedom of speech, but allow them not to be murdered for human entertainment or need. As Singer states, "My aim is to advocate that we make this mental switch in respect of our attitudes and practices toward a very large group of beings; members of species other than our own or, as we popularly though misleading call them, animals. I am urging that we extend to other species the basic principle of equality that most of us recognize should be extended to all member of our own species" (Singer 1984 147).

To think of animals as an equal, we have to find things that would connect us. Singer's most important point in his theories on animals is "[n]ot can they reason, but they can suffer" (Singer 1984 147). One thing that connects animals to humans is that both can suffer, and if an organism can suffer, then it deserves equal consideration of equal interests. In his view the capacity for suffering and enjoying things is a pre-requisite for having interests at all, a condition that must be satisfied before we can speak of interests in any meaningful way. If a being suffers, there can be no moral justification for refusing to take that suffering into consideration. No matter what the nature of the

being, the principle of equality requires that its suffering be counted equally with similar suffering. If we were to follow the perspective of Singer, then it would be FFWCC's duty to protect any animal that is in the midst of suffering or is going to suffer due to human interference. The incidental take permit resulted in "entombment," which allowed gopher tortoises to suffer by dying of asphyxiation. Singer would thus reject the pay-to-pave plan. He would perhaps approve the new management plan; except for the grandfathered incidental take permits.

The FFWCC designed the incidental take permits to be used with conservation and relocation efforts; however, when relocation was halted due to the diseases gopher tortoises could spread to one another, incidental take became the norm. Since developers used incidental take as their mitigation solution, they established the means for an oppressive framework because they believed their anthropocentric desires were more important than saving a dozen tortoises. Because incidental take became widely used, the FFWCC became vilified. While the agency is often blamed, the real villain is unchecked economic development and human encroachment. Our constant need for stores, houses and anthropocentric desires forces state agencies, such as the FFWCC, to face difficult policy choices. If society could find a way to integrate species protection within development plans, then maybe people's constant need to develop would not be as harmful.

Andrew Light's essay, "Ecological Restoration and Culture of Nature"(2000). supports Warren's concept of the "loving eye," "which is an attempt to understand what it means for humans to care about the non-human world, a world acknowledged as being

independent, different, perhaps even indifferent to humans” (Warren 1990, 164). If the FFWCC could strengthen their relationship with the species under their care; that is, if they could develop Warren’s “loving eye” towards such species, then there could be more effective protection. Light addresses the idea of “benevolent restoration,” which is defined as the “restoration to rectify a harm,” and if we follow this ideal, then benevolent development would be development that could prevent harm. Development needs to be approached from the idea of establishing a loving relationship with nature, by recognizing the roles of non-human species as autonomous subjects. In the past, developers normally focused on profit and not conservation, which led to the death of thousands of gopher tortoises. The FFWCC is blamed for not protecting the gopher tortoises and not designing a better program instead of the incidental take. FFWCC is Florida’s only constitutional state agency responsible for all species’ protection; therefore this puts a tremendous amount of pressure on FFWCC.

Conclusion

This thesis analyzed the plight of gopher tortoises, evaluated the role of state and federal governments within the scope of protecting gopher tortoises, evaluated FFWCC’s role in implementing the incidental take, and examined the incidental take program or the pay-to-pave program. The FFWCC is blamed for the ethical problems raised by its incidental take permit, or pay-to-pave program; however, this state agency occupies a difficult position at the center of competing interests.

FFWCC must follow the federal and Florida’s ESAs; however, the federal ESA does not protect species that are state listed as species of special concern. The state status

for the gopher tortoise allowed for the incidental take to be within jurisdiction of the FFWCC. Secondly, the incidental take policy was initiated as a conservation program designed to balance the needs of gopher tortoises and the goals of developers; however, due to lack of research, funding, and failure of relocation plans, the incidental take became the cheaper mitigation option that was used by developers.

I suggest that FFWCC does not work under a “logic of domination,” but instead would place that on developers that demand compromise from FFWCC in the name of economic progress. Even though it may seem that the killing of gopher tortoises could be construed as inevitable, there still lays hope. Brightness can be seen through the management plan set up in 2007 for the gopher tortoises in which FFWCC is trying to rethink their efforts to help the species.

To help the agency in this process, I suggest an approach from Warren (1990) and Light (2000) that I believe provides the best alternative. If developers could extend respect for the gopher tortoises on development sites, they could then also try to plan with the tortoises in mind. Once companies decide to include possible burrows in their plans, then there is a possibility of ensuring that development and conservation of tortoises works in tandem. I am optimistic that one day gopher tortoise populations will be rebound and that gopher tortoises will have viable populations throughout Florida again. Incidental take will be just another bump in the road for the resilient reptile.

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