

**Compliance with Environmental Policy:  
Small Private Landowners' Affirmative  
Motivations**

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There are islands in Ohio. A lot of people do not know that and probably even fewer know these islands are the only home to an endangered species – the Lake Erie water snake (LEWS). A snake is not the most charismatic of creatures. In Greek mythology, the snake represents a deadly

and dangerous antagonist; in the Chinese Zodiac, the snake is a symbol of fire and power, and in the Christian Bible, the snake symbolizes temptation and the consequent fall of man. Beyond myth, a snake itself is not much to look at – dark, slithery, darting, and mysterious. Fear is a reasonable response. However, on Middle Bass Island in Ohio, snakes are to be respected and protected, as per federal law. Similarly, landowners residing within the boundaries of the Conservation Management Area (CMA) for the Indiana Brown Bat in Hendricks County, Indiana are faced with the protection of bats, arguably an equally uncharismatic creature. The bat, often portrayed as a winged dragon in mythology, represents evil, Satan, and the power of darkness in Christianity. In addition, bats are often considered pests as well as dark and mysterious. In both cases, private landowners every day are confronted with snakes or bats on their own property, and the law dictates that regardless of ownership, habitat is not to be destroyed, nor is the creature itself to be harmed or harassed. Is the law asking too much? Why would private landowners be willing to comply with this law?

In the United States, over eighty percent of endangered species rely on private property for survival (Langpap & Wu 2003) and, unfortunately, it has been shown that endangered species do not fare as well on private lands as they do on public lands (Sheldon 1998). The Endangered Species Act (ESA) of 1973 was created out of the recognition that human beings are causing the extinction of other species at an unprecedented rate and that biodiversity is a social value, as those other species provide food, medicine, and additional human goods. However, since its creation, the ESA has provoked hostility among landowners because the law imposes such exacting limitations on the use of private land. Further, this law also comes with relatively high sanctions including fines and imprisonment. Thus, the law is sometimes called the “pit bull” of environmental law because it is so fierce (Farrier 1995) but, in practice, the law is struggling to achieve conservation and recovery of endangered species.

Surprisingly, within the policy world there has been very little research on why private landowners support or oppose the ESA. Specifically, there is little information concerning landowners’ ideas about fairness and legitimacy of the law or their ideas of private property and conservation. Essentially, right now it is not clear why a landowner would even choose to comply with the ESA beyond fear of punishment. This paper contributes to the field by discussing the results of in-depth interviews with two groups of individuals: private landowners who currently own property in designated snake habitat and private landowners within the CMA for the brown bat. The fifty three interviews with landowners provide a good source of data concerning the nuances of beliefs and attitudes that exist about endangered species conservation and private property. By probing landowners on questions of land management, conservation, private property, and trade-offs between land and conservation, the cases conclude that willingness to comply is partially a result of affirmative motivations based on a commitment to the ESA through morality.

## Literature Review

In his seminal work *Why People Obey the Law*, Tyler (1990) is quick to point out that “Americans are typically law abiding people.” However, he then goes on to admit that compliance is never complete and everyone breaks the law sometimes. Why individuals obey law and comply with public policy is not always straightforward. In fact, there are a myriad of possible motivations which can explain compliance and non-compliance. In this section, I will briefly explore five possible motivations: punishment, incentives, shame/embarrassment, commitment through morality, and commitment through legitimacy. Understanding the ways in which individuals think and make decisions about compliance is an important condition for designing effective policy and effective enforcement strategies (May and Winter 2001).

There are two main theoretical models used to explain compliance: the deterrence model and the accommodative model (Murphy 2005). The deterrence model, based on the idea of

punishment, is as old as government itself. In 1651, Thomas Hobbes argued a central government is necessary to overcome man's fear of death and ensure the safety of the people. According to Hobbes, all human motivation is based on two movements – appetite, or movement toward objects, and aversion, or movement away from objects. Essentially, what compels people to act is desire and fear and, therefore, a government must create laws, which can manipulate fear and desire for the greater good of society, particularly individual safety. In a similar vein of thought Friedrich Nietzsche argues in a *Genealogy of Morals* (1887) that human beings remember pain more so than pleasure – that aversion is a stronger movement than desire - and this fact is what underlies the modern conception of punishment as a deterrent against unwanted social behavior.

In the social sciences, the deterrence model is popular in the rational choice literature as it assumes that individuals are rational profit-seeking actors (motivated particularly by financial desire). Kagan and Scholoz (1980) refer to these actors as “amoral calculators” since they disobey law when the probability of being caught and the subsequent sanctions are small in relation to the potential profit gained via noncompliance. Basically, the model leads to the idea that actors will only comply with a law or policy when confronted with the reality of harsh sanctions and penalties (Murphy 2005). However, this theory of compliance was cast in doubt in the 1960s, especially among sociologists, when the relationship between crime and capital punishment seemed dubious (Friedman 1975; Grasmick and Bursik 1990).

Furthermore, research has shown that the use of threat and legal authority, particularly when perceived as illegitimate, can produce the opposite behavior from that sought (Murphy 2005). In practice, sanctions can undermine the sense of duty to comply (May 2005, 39) and rouse resentment in citizens making them less likely to comply, or at least more willing to try and get away with noncompliance (ie. cheat on taxes to get back at government for harsh parking tickets). In social psychology “labeling theory” suggests that the actions of lawmaking and law enforcement officials are a primary source of deviant behavior when the government disrespects citizens (Kagan and Scholz 1980). For example, if the government arbitrarily raises speeding tickets without public support in an attempt to encourage drivers to obey speed limits, citizens may resort to radar detectors and calling radio shows to report speed traps. Thus, the outcome is an increase in speeders on the road, which is the exact opposite outcome than that intended by regulation.

Nevertheless, fear of punishment (fines or incarceration) remains an accepted and widely used deterrent against noncompliance with social regulation. Beyond fear of punishment there are other deterrents or “negative motivations” (Tyler 1990) for complying with a law or policy. These include guilt and shame (Blake and Davis 1964, Briar and Piliavin 1965, Reckless 1967; Grasmick and Bursik 1990; Grasmick et al 1991) because when actors violate norms, especially those endorsed by people they respect or value, they run the risk of being embarrassed or suffering a loss of respect. The difference between shame and embarrassment is straightforward: shame is a self-imposed punishment whereas embarrassment is a socially imposed punishment (Grasmick and Bursik 1990). The most immediate adverse consequence of shame is probably physiological discomfort, but more long term effects might include depression, anxiety, or damaged self-concept, which could impede normal function in one's social environment. The consequences of embarrassment might include a loss of valued relationships and perhaps a restriction in opportunities to achieve other valued goals over which significant others have some control (Grasmick et al 1991; Grasmick and Bursik 1990). In short, these motivations have real consequences that weigh into an individual's decision to comply. Interestingly, government or authority has virtually nothing to do with these negative motivations for compliance since an individual can feel ashamed or be embarrassed even if the state does not detect the non-compliance (Grasmick and Bursik 1990).

Lastly, the deterrent model also includes the brighter side of punishment: incentives and rewards. There is a plethora of ways the government can entice compliance through incentives. For

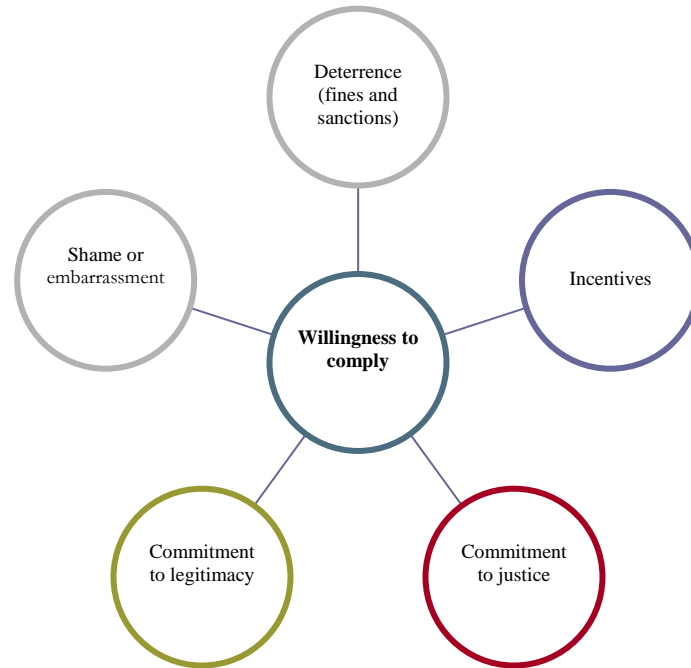
example, the gold star energy rating system, a largely symbolic incentive, has been successful at enticing corporations to maintain efficiency standards by simply rewarding them with public recognition. Programs in which drivers with a clean driving record (no accidents or traffic violations) are rewarded directly by payment or by decreased insurance rates have been popular as a strategy for promoting safe driving. Grabosky (1995) explores the use of rewards and incentives as instruments of regulation, including grants and subsidies, bounties, commissions, tax credits, loan guarantees, prizes, patronage, and praise. He acknowledges that one major advantage of incentives is that “the promise of reward is more freedom-enhancing, and thus more just, than is the threat of punishment.” This is because an individual can refuse the offer of reward and forgo the activity entirely, but one cannot refuse punishment. Grabosky says “positive incentives allow freedom of choice; penalties do not” (262).

The obvious drawback to incentives, however, is financial cost, and this must be weighed against the possible effectiveness of incentives as a policy tool. There is also the problem of paying and rewarding citizens to obey laws since this could potentially set a dangerous precedent. Most importantly, it could also call into question the legitimacy of the democratic process where laws decided on by the majority must be enforced by incentives as opposed to the general will. Furthermore, there is also the argument that positive reinforcement for the purpose of inducing behavior which would be unlikely to occur naturally is manipulative and more devious than the straightforward prohibition of undesirable conduct (Church & Heumann 1989; 642). Thus, incentives seem better suited to playing a small role, albeit sometimes an important role, in the overall compliance strategy.

The deterrent model is only one half of the compliance story as Tyler points out, “If rewards and punishments alone produced sufficient compliance for society to function effectively, the authorities would find their task simple and straightforward” (1990, 21). He goes on to claim that in democratic societies, the legal system cannot function if it can only influence via manipulating rewards and costs because the system would consume large amounts of resources, and such societies would be in constant peril of instability (1990, 22). Government and citizens need other reasons for compliance and these are known as “affirmative motivations,” which fit into what Murphy referred to as the “accommodative model” of compliance.

Affirmative motivations emanate from good intentions and a sense of obligation to comply (May 2004). Tyler (1990) breaks affirmative motivation into two types: normative commitment through legitimacy and normative commitment through morality. Commitment through legitimacy means obeying a policy or law because one feels that the authority enforcing the law has the right to dictate behavior whereas commitment through morality means obeying a law because one feels the law is just. In the latter case, there is no feeling of obligation to an external political authority, but a desire to follow one’s personal sense of what is morally right (Tyler 1990, 25; Monroe 1996). For example, obeying the legal rule against intentional murder goes without saying for most people because of their own sense of morality. Internal values are a sense of what is and what is not legitimate and what is or is not worth obeying, according to God’s will, good ethics, or religious doctrine as opposed to personal interest or the interest of others (Friedman 1975). On the other hand, commitment through legitimacy is intimately bound up in external conditions, namely procedural justice, as discussed below.

Thus far we have explored the basic reasons why individuals might comply with a policy as depicted in model 1 below:



**Model 1: Motivations for compliance**

But why might an individual not comply with a law or policy? Coombs (1980) poses five basic explanations for noncompliance (as depicted in model two below). First, there might be a break down in communication between the policymakers or regulators and citizens. Simply put, citizens cannot obey a law they do not know about or cannot understand. Non-residents obeying parking laws near Wrigley Field in Chicago is problematic because signs are confusing, poorly worded and occasionally even contradictory. It is not that they are trying to illegally park, but that they honestly cannot understand where to park at what times and on what days of the week with or without a street parking sticker. The law is just not made clear to citizens. The problem is not deterrence nor affirmative motivation, but communication.

Second, individuals may not comply with law because they lack the resources for compliance. As Coombs says, “There are times when target individuals understand perfectly well what a policy demands of them but simply do not have the wherewithal to comply. If carrying out a policy demands unavailable funds, talent, time or energy, the probability of compliance will be low.” This form of non-compliance was primarily a problem of resources. The problem here, however, can be distinguishing between a real lack of resources and self-proclaimed lack of resources. Often times individuals, and especially firms or organizations, will claim they lack the wherewithal to comply with law. Safety and occupational health regulations are a good example since such a policy has high expectations for firms to monitor safety conditions and provide proper equipment for employees, but lots of companies will claim that they cannot afford to provide the necessary equipment to meet safety standards. There is a fine line here between legitimate rational for non-compliance, and a break down in deterrence and/or affirmative motivation. Companies may risk punishment because the cost of compliance is high compared to the chance of non-compliance being detected.

A third reason for non-compliance is a belief that the policy will fail or that the end goals are not desirable. Coombs uses the example of a parent refusing to let his or her child board a bus to a

recently desegregated school because the parent does not value the goal of desegregated schools. Similarly, a parent may not let his or her child board the bus because the parent does not believe that bussing children will achieve desegregation. In both cases, it is a problem with the merits of the policy that leads to non-compliance. A more modern example might be an individual using his or her cell phone while driving in Newfoundland or Rhode Island (where this act is illegal) because that individual does not believe that cell phone use contributes to unsafe driving. This is the opposite of the commitment to legitimacy because, in this case, citizens are calling into question the legitimacy of the policy goals and/or the policy's likelihood of achieving its goals.

Fourth, individuals may completely reject the policy demands and refuse to incur the costs of compliance even though they may agree with the policy in principle. Coombs provides a good example whereby a large chemical firm agrees that pollution is terrible and supports environmental policies, but nevertheless refuses to incur the costs of proper waste removal. The problem is not a lack of resources, but an unwillingness to spend the resources. Also, this type of non-compliance is probably most likely when the fear of punishment is low (perhaps because of the chosen enforcement strategy or the cost of enforcement) because individuals or companies feel the cost of punishment is lower than the cost of compliance.

Lastly, non-compliance can be explained as a result of a challenge to authority. Specifically, this occurs when an individual or firm does not object to the policy itself or the costs of the policy, but instead rejects the legislative procedure behind the policy, the body enforcing the policy, or the government more generally. People may cheat on their taxes because they are angry at the government or, more specifically and not uncommon, they may dislike the Internal Revenue Service. Individuals and firms may be hesitant to obey executive orders because the public had no input and the policy was not created by elected officials. Non-compliance in this case is an act of protest or a type of feedback where the public is signaling disapproval of law or government by withholding compliance of an otherwise reasonable policy.



**Model 2: Reasons for Non-compliance**

Coombs' fifth reason for non-compliance leads to the relationship between citizens and the bureaucracy where the fundamental concern is the effect the relationship has on an individual's commitment to law through legitimacy. The intent behind social regulation in a just and democratic society is that individuals will voluntarily comply with law for the reasons explored in model 1. Voluntary compliance occurs when desired actions are encouraged through education, technical assistance, and other inducements associated with democratic processes, such as feedback mechanisms and voting opportunities. Voluntary compliance is desirable because punishment is resource burdensome, requiring enforcement officers and a large judicial system, and only effective to a point of diminishing returns. However, this is not to say that punishment is unnecessary. Kagan and Scholz (1980) argue it is necessary to underscore the importance of the threat of legal sanctions in the background of voluntary compliance since compliance will not ever be entirely voluntary. Furthermore, punishment of unjustifiable violations are essential even under a cooperative enforcement strategy (1980, 76). Essentially, punishment is more like a necessary condition than a sufficient condition. Returning to the notion that human beings are motivated by fear and desire, the threat of fear – although not necessarily punishment itself – is necessary to compel individuals to comply with social regulations that may be in everyone's collective interest, although not everyone's individual interest. However, as illustrated above, the threat of fear is not always sufficient for compliance, nor is it a sufficient foundation for democracy and legitimate government rule.

Kagan and Scholz (1980) argue that unreasonable behavior by regulators generates resistance to compliance where “unreasonableness” may involve disrespect for citizens or arbitrary refusal to take their concerns into account in the enforcement process (see also Murphy 2005). That is to say, citizens need to see the enforcement process as legitimate. Levi (1997) argues that “Citizens are willing to go along with a policy they do not prefer as long as it is made according to a process they deem legitimate”(23). What matters for citizens is not so much the law itself, as the process of lawmaking and the behavior of government actors during the process. This is why Levi (1997) believes that moral compulsion, which she refers to as “ideological compliance,” emanates from regulated entities' combined sense of moral duty and agreement with the importance of a given regulation. Furthermore, moral duty is enhanced when citizens perceive the importance and legitimacy of laws thought to be important by society.

All of this hangs on what Tyler (1990) refers to as procedural justice, which is the perceived fairness of the procedures involved in decision making and the perceived treatment one receives from a decision maker. The commitment to law through legitimacy as an affirmative motivation for voluntary compliance only works when there is procedural justice. Citizens will comply with laws not in their own self-interest if they support and believe in the system that made the policy. Murphy (2005) tests Tyler's theory in the area of taxation compliance and finds some support for an emphasis on procedural justice. She found that people who believed they were unfairly treated by the system were more likely to cheat on their taxes. This suggests that if the government can create laws in a transparent and fair process, citizens will comply out of civic duty and respect. Simply put, they will comply because of a commitment to law through legitimacy.

Therefore, willingness to comply with the law as well as an unwillingness to comply can be explained through a variety of motivations. Willingness can stem from negative and affirmative motivations including punishment, incentive, shame/embarrassment, legitimacy and morality. Whereas unwillingness can stem lack of communication or resources, rejection of policy goals, refusal to incur costs or skepticism about procedural justice. Understanding which of these factors motivate citizens, particularly landowners, to comply with the ESA is important for developing effective policy. Furthermore, including landowners in the discourse of conservation enriches the democratic process. As Peterson and Horton (1995) make clear, “private landowners voices

sometimes clash with those from conservation agencies and environmental groups, but without them the discourse of environmental policy lacks vigor and depth.”

### **Landowner Motivations & the ESA**

Very few studies have addressed the motivational attitudes of small landowners regarding the ESA. Numerous studies reflecting the views of farmers/ranchers abound (Vogel 1996, Brook et al 2003, Jackson-Smith et al 2005, Stern 2006), and they have made a large contribution to our understanding of the relationship between these landowners and conservation. However, the hands of ownership are shifting as family farms dwindle and urbanization increases, both causing a movement toward individual home owners on acreages and summer homes on the outskirts of cities. The ramification of this is that endangered species no longer live on farms and ranches, but now reside across a variety of land parcels, including small single family parcels. Therefore, engaging only ranchers/farmers is now insufficient for endangered species conservation. This is especially so because there is good reason to believe that the values of people living in subdivisions will be very different than people making a living off the land (Jackson-Smith et al 2004). Policy makers must interact with all types of landowners to understand motivations for compliance.

Of particular interest to motivations for compliance would be landowners' attitudes toward property and conservation. With few exceptions, the literature does not normally get at property norms despite the fact it has been well-documented that “American society is grounded in a private property ideology that espouses the notion that private landowners may use land as they see fit” (Farrier 1995). There are many theoretical arguments in this vein about the connection between democracy and private property (dating back to John Locke and Jeremy Bentham), but few researchers have talked to landowners about their perceptions of private property in an empirical manner. As a result, debates over land use and regulation are often characterized by assumptions about the property rights orientations of landowners, namely that they all will be opposed to restrictions on private land use (Jackson-Smith et al 2005). However, the Raymond and Olive (forthcoming) Indiana case study, discussed below, illustrates that landowners have multifaceted perceptions of property. Moreover, a recent study by Jackson-Smith et al (2005) also documents the complex and varying perceptions of private property by landowners. They found that increasingly restrictive land use rules are viewed by rural ranchers and farmers as an attack on the rights of landowners and in their survey of property rights orientations, just over half of the landowners (ranchers in Western states) strongly felt their rights to property are “absolute” and should not be constrained by society or government. If landowners do, in fact, hold an “absolute” notion of property, their likelihood of compliance would be diminished as there would be no affirmative motivation or obligation to follow an illegitimate/unjust law. However, Jackson-Smith et al. also found that landowners feel a stewardship obligation based on a desire to care for the land and leave it in better shape than when they acquired it (596). This type of norm might foster affirmative motivation for compliance whereby landowners comply out of moral obligation and a genuine sense that the law is legitimate. The apparent prevalence of both norms among rural landowners suggests that attitudes toward private property as well as attitudes toward conservation help us understand a landowners' willingness to comply with the ESA.

### **Theoretical Expectations**

Given what we know about compliance, why would a landowner be willing to comply with the Endangered Species Act? I pose three main theoretical expectations. However, threat of punishment is not included, but I do not mean to entirely dismiss the importance of deterrence. At some level, all citizens know that laws have sanctions, and while they may not know the exact details, they expect that breaking a law has consequences. In the case of ESA compliance, the



deterrence model is not theoretically meaningful, at least no more so than the role of deterrence in most compliance models. This is to say, I do not think fear of punishment, the possibility of reward, or shame and embarrassment are the central motivating factors behind landowner compliance. Instead, I want to suggest that landowners are willing to comply with the ESA to the degree they feel the law is moral and legitimate.

Specifically, my theoretical expectations are as follows:

*Landowners will be more willing to comply with the ESA to the extent they are aware of the policy and understand the policy requirements and goals.*

*Landowners will be more willing to comply with the ESA to the extent they interpret the policy as legitimate and fair (commitment through morality), which will be expressed in terms of their views on two specific norms:*

- a. Conservation of other species is morally appropriate*
- b. Regulation of private property is morally appropriate*

*Landowners will be more willing to comply with the ESA to the extent their interactions with the USFWS have been viewed as positive and beneficial (commitment through legitimacy).*

### **Indiana Bat – A Case Study**

In the fall of 2005, I co-conducted a study involving landowners in a conservation area for the Indiana Bat (Raymond and Olive, forthcoming). The conservation area, created in 1991, is an on-going effort by the Indianapolis Airport Authority and the USFWS to introduce the bat to a new habitat away from the airport. The main approach has been acquisition of private land in the conservation area. However, just over forty landowners remain in the area and conservation seems increasingly dependent upon the willingness of these remaining landowners to comply with the ESA. We probed landowners<sup>1</sup> on issues of land use, attitudes toward conservation and private property as well as the tradeoffs involved between conservation and property.

Our findings suggest that attitudes about property and endangered species are related to the perceived legitimacy of the ESA and to the willingness to conserve endangered species. Almost all of the respondents claimed that it was important for human beings to protect other species, with many supporting the idea that human-caused extinction is always wrong. One landowner we interviewed reacted to the suggestion that sometimes it might be okay for human beings to cause the extinction of a species this way: “No, not ever. Not if you know you are doing it. If you know, then it is wrong. It’s one of those basic right and wrongs” (Raymond & Olive). This finding, one example among many, indicates the potential for an affirmative motivation for compliance with the ESA derived from a feeling that protecting species is morally appropriate.

Further, we discovered that most landowners held an “absolute” notion of property based an absolute and intrinsic right to the property, including some landowners who connected ownership to democracy and the American way of life. Most landowners were very upset by the recent eminent domain ruling passed by the Supreme Court and worry that property rights in the US are no longer strong enough. However, we also discovered that some landowners felt that property is a social right granted by the government that comes with responsibilities, including stewardship. In fact, a significant group stated that the most important responsibility they have as a landowner is to the land itself. Besides the basic claim that “I think we have a responsibility not to ruin it,” one

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<sup>1</sup> For methodology employed in this case please see Raymond and Olive, forthcoming.

landowner said, “I feel that I shouldn’t poison the environment and that I should think about the kinds of things that I do and what impact it might have in the long run” (Raymond and Olive, forthcoming). Therefore, more generally, our study suggests that internalized norms landowners hold of justice and legitimacy regarding property and conservation is important for explaining willingness to comply with the ESA.

### **LEWS Background**

The Lake Erie water snake, *Nerodia sipedon insularum*, was listed as a threatened species on August 30, 1999. This listing placed the snake and its habitat, rocky shoreline of four Lake Erie islands, under full protection of the ESA. The snake itself is a uniform gray color ranging in size from 1 and half to 3 and half feet, is non-poisonous, and eats mostly fish and amphibians. Population data shows a decline over time which the USFWS attributes to loss of habitat and human persecution. Over the past few decades the islands of Lake Erie have boomed in terms of commercial development moving the islands from secluded and isolated cabin resorts to major tourist destinations. This has had an unquestionable impact on the eco-system of these islands. However, as of this writing, recovery of the snake is occurring rapidly. According to a lead LEWS USFWS biologist, populations are on track for all islands and as of 2006, all LEWS populations have met goals for three consecutive years. There is only a small section of habitat needed to meet recovery goals, and in 2008, USFWS will conduct a public opinion survey to assess the threat of human persecution. This means that USFWS could begin the delisting process for the snake in fall of 2009 (LEWS NEWS XVI). If this occurs, the LEWS recovery will be a success story and during the ESA history, success stories are about as rare as endangered species themselves.

In the mean time, however, the snake remains a threatened species on the federal ESA list. Under section 9 of the ESA, the snake’s habitat is also protected. Therefore, the daily lives of individual landowners are potentially impacted by the necessity of co-existing with a water snake on an island. For the most part, the snake remains in the rocky shoreline, but it has been known to come ashore to sun during the day and even move into cabins and boats during the winter and spring mating season. Luckily, the residents of these islands are no strangers to endangered species as the Indiana Brown Bat and Bald Eagle (recently de-listed) also claim these islands as habitat.

There are four U.S. islands in Lake Erie where the water snake is listed as threatened. I chose to sample landowners from the small, non-transient, less commercially developed Middle Bass Island. At the County Auditor’s office in Port Clinton, OH I retrieved the parcel numbers for the 304 privately owned shoreline land parcels on Middle Bass. From these I randomly selected 50 parcels and obtained the names and home addresses of the landowners. I contacted the 50 parcels first by letter and then by telephone to set up an interview. I conducted an in-person interview with at least one adult in 30 of the 50 possible parcels – a 60% response rate. However, I spoke to 40 landowners in total as some interviews were conducted with a married couple. The semi-structured interview lasted between 20 and 45 minutes and was digitally recorded and later transcribed. I also conducted one phone interview with a landowner. All participants, 40 in total, were asked to complete a brief survey pertaining to demographic questions as well as political and religious affiliations. Therefore, I have data for 40 landowners on Middle Bass Island representing 30 parcels.

Once the interviews were transcribed, I coded the landowner’s responses mostly as yes/no/don’t know or on a five point scale ranging from strongly disagrees to strongly agree, as I did with the Indiana case. Some quantitative results of the coding can be found in Tables 1, 2 and 3 below. The transcripts were also carefully scrutinized qualitatively for a more nuanced understanding of landowners, beliefs and values, as reflected in quotations and claims throughout the paper.

### **Tortoise Background**

## Results and Implications

This section will focus on my findings as they relate to my second theoretical expectation. Namely, I find that landowners are willing to comply with the law inasmuch as they understand it because they value other species and conservation. And despite rather strong feelings about private property, landowners are willing to accept regulation of private property for the conservation of endangered species. This is a very promising result for proponents of the ESA and for policymakers with tight budget constraints, not to mention a reassuring finding for the democratic process itself.

Landowners in both states are largely unfamiliar with the ESA. While most landowners had heard of the law, only 11% in Indiana and 25% in Ohio could say something meaningful about the law and how it works. This is somewhat surprising since these landowners own property in a critical habitat area for an endangered species. Brooke et al. (2003) made a similar finding with the field mouse and concluded that simply listing a species on the ESA list is not enough for policy results. The reality is that even landowners cohabitating with endangered species have very little knowledge or understanding of the ESA. However, despite information gaps and misperceptions, almost all landowners knew the law existed and that it is illegal to kill a snake or bat.

In both states, landowners overwhelmingly felt that it is important for human beings to protect other species, with only 9% in Indiana and 3% in Ohio claiming that it is not important. Taking an even stronger stance, 47% of landowners in Indiana and 85% in Ohio felt that other species have a right to exist. Related, only 41% in Indiana and 34% in Ohio feel that it is ever okay for human activity to lead to an extinction of another species. This illustrates great concern for other species among landowners. Looking over the transcripts, the discrepancy between Indiana and Ohio seems to fall on the definition of “right” as most landowners in Indiana felt a right is something only human beings can possess. Although, some landowners did feel that evolution and Darwinism rule in the animal kingdom, a finding that was much less common in Ohio. Another possible explanation could be education levels, since 34% of Middle Bass landowners had a graduate or professional degree and 43% had a college education. Since there is no demographic information for Indiana, a comparison is difficult, but as a proxy 2000 Census data for Hendricks County indicates, 44% have a college education, but only 10% have a graduate degree.. There is some evidence to suggest a positive correlation between education level and environmental concern. Regardless, in both cases the attitudes toward other species expressed by landowners suggest that landowners feel conservation is morally appropriate, which sets the foundation for a moral commitment to comply with the law.

### Conservation Attitudes: Indiana and Ohio

	Indiana	Ohio
Are you familiar with ESA as a federal law?	89% No N=19	75% No N=36
How important is it for human beings to protect other species?	9% Not important 45% important 45% very important N=22	3% Not 44% important 47% very important N=32
Do you agree that other species have a right to exist?	47% Disagree 47% Agree 6% Don't Know N=21	12% Disagree 85% Agree 3% Don't Know N=33

Is it ever okay for human activity to lead to extinction of another species?	50% Disagree 41% Agree 9% Don't know N=22	60% Disagree 34% Agree 6% Don't know N=35
Do landowners have an obligation not to harm an endangered species on their own property?	19% Disagree 76% Agree 5% Don't Know N=21	No: 23% Yes: 73% DK: 4%

Note that the N is different for the two cases and from question to question. I interviewed 22 landowners in Indiana and 40 in Ohio. And within each case, not every landowner answered every question.

All landowners were asked how they feel about a notion of property where ownership rights are government created and ever changing as society develops and progresses (instrumental view of property). Most landowners in Ohio agreed that, in reality, ownership works this way, and many seemed willing to accept this as necessary. Landowners were also asked how they feel about a notion of property where ownership is absolute and respected by government over time. Most Ohio landowners responded by normatively grabbing onto this idea as their dream for American property rights. This reflected a similar finding in Indiana where landowners agreed with both notions of property, but in the first instance agreed because it was a reflection of reality and agreed in the second instance because it is the way they think property rights *should* be, if it were up to them. One Ohio landowner said about the absolute notion of property “I would very much like to support that view of property and if I had a chance to in terms of voting for it, I would. I don’t think...I think it is the way things ought to be.”

Landowners were also asked to place themselves on a continuum ranging from an instrumental view of property to an absolute view of property. A majority of Ohio landowners, 56%, placed themselves closer to the absolute notion of property and 25% placed themselves in the middle with the remaining 19% placing themselves closer to the government regulated view of property. For some, the absolute was unquestionable as one landowner said, “I truly believe that in all circumstances, the bond between man and land is supreme. The quickest way to put a dispute between two civil people is to put up a fence and have a boundary dispute. It brings out ugliness in people because man’s land is supreme.” The results were very similar in Indiana where 57% placed themselves closer to the absolute notion, 21% were in the middle, and the remaining 19% felt closer to the instrumental view of property. Thus, most landowners do feel that private property is an absolute right, but a lot of landowners, even some with extreme absolute views, still recognized a wide range of responsibilities that follow from owning land. It was not uncommon to hear a landowner say, “Well, I think you have a responsibility to take care of land.” Specifically, responsibilities in both cases seemed to center around three main concepts: maintaining the land (keep it neat), not abusing the land (environmental damage) and keeping it safe. This commitment to the land implies a stewardship ethic similar to that found by Jackson-Smith et al (2005) among landowners in the American West.

The attitudes expressed by landowners in regard to private property suggest a fungible notion of property and a general willingness to accept, sometimes begrudgingly, government regulation of property for overall social/environmental well-being. Landowners in the Midwest do not possess the hard stance on private property as often depicted in the media or public discourse. Instead, I find, similar to Jackson-Smith et al (2005) that landowners possess a multi-dimensional notion of property and are sometimes quite open to government involvement for the purposes of stewardship and the social good. Only a small majority in both cases placed themselves on the absolute property view side of the continuum, and even most of those landowners were still sympathetic to the instrumental view. This conception of private property sets the foundation for a

commitment to compliance with the ESA through morality as landowners accept regulation for conservation as morally appropriate.

**Attitudes Toward Property: Indiana and Ohio**

	Indiana	Ohio
Do you agree that private property is a right created by government that changes over time as the needs and values of society change?	27% Disagree 73% Agree N=22	44% Disagree 47% Agree 6% Don't Know N=34
Do you agree that property is an absolute and intrinsic right that individuals have which government must respect?	32% Disagree 64% Agree 4% Don't Know N=22	25% Disagree 69% Agree 9% Don't Know N=36
If those two extreme views were on a continuum where would your personal beliefs lie?	19% Changing right 21% Middle 57% Natural Right N=21	19% Changing 25% Middle 56% Natural Right N=36
What is the status of private property rights in the country today?	48% About right 48% Not strong enough 4% Doesn't Know N=21	40% About right 40% Not strong enough 3% Too strong 9% Don't Know N=35

Now that it has been established that landowners do possess affirmative motivation for compliance, the question becomes: Do landowners who reveal moral affinity toward other species and who accept the regulation of private property as appropriate for conservation exhibit a willingness to comply with the ESA? Is their willingness more apparent than those landowners who lack motivation through morality?

Landowners were probed on their willingness to comply in a number of ways. First they were asked about their willingness to carry out a series of actions. In the Indiana case this included reducing herbicide and pesticide use on their property, planting more trees and building a bathhouse at their own expense on their own property. In Ohio these actions included giving the USFWS access to their property to monitor the snake, putting up an official USFWS LEWS sign, and refraining from disturbing the shoreline during mating season. In both cases, these hypothetical actions were fairly well received with the exception of lowering pesticide and herbicide use in Indiana. These actions would be carried out by the landowner with no incentive or reward.

Second, willingness to comply was also explored through a series of questions about willingness to accept costs and burdens for conservation. Not surprisingly, in both cases a majority of landowners felt it would be unfair to expect a private landowner to bear a financial cost above what is already paid in taxes. However, 56% of Indiana landowners and 75% of Ohio landowners felt that some sort of limit on land-use would be appropriate for conservation. For most people, this equated to restrictions against trapping endangered species, cutting down specific nesting/mating trees, avoiding certain chemicals, and perhaps avoiding certain actions during different seasons. Specifically, 76% in Indiana and 75% in Ohio agreed that landowners have an obligation to not harm an endangered species found on their own property. This all suggests that landowners express a genuine willingness to comply with ESA and, sometimes, even over-comply through actions not dictated by law.

**Willingness to Comply**

	Indiana	Ohio
Would you give USFWS access to your property?	Not asked	No: 16% Yes: 84%
Would you consider lowering your pesticide use for the bat?	No: 58% Yes: 27% DK: 15%	Not asked
Would you consider planting more trees for the bat?	No: 28% Yes: 67% DK: 5%	Not asked
Would you consider putting up a LEWS sign from the USFWS?	Not asked	No: 25% Yes: 55% DK: 20%
Is it unfair to expect landowners to bear the cost of conservation?	Unfair: 59% Fair: 33% DK: 5%	Unfair: 69% Fair: 28% DK: 3%
Do landowners have an obligation not to harm endangered species on their own property?	No: 19% Yes: 76% DK: 5%	No: 23% Yes: 73% DK: 4%
Is it appropriate for the government to limit property rights for conservation?	None: 38% Some: 56% DK: 6%	None: 25% Some: 75% DK
Should the government be involved with conservation?	Not asked	No: 21% Yes: 79% DK:

One way to more directly test the relationship between moral motivations and willingness to comply would be through correlations to see whether views about other species are correlated with a willingness to take action for the endangered species (such as building a bat house or allowing USFWS access to property) as well as a willingness to accept burdens, laws, obligations and government involvement. Running such a test yields very mixed results. For example, a landowner's belief that other species have a right to exist is positively and significantly (at  $p > .10$ ) correlated to a landowner building a bat house on his/her property, a landowner planting more trees, and a landowner's attitude regarding the fairness of bearing burdens for conservation. This suggests that an increase in moral affinity for other species leads to an increase in willingness to conserve another species. However, this belief in rights of other species is not significantly correlated to a landowner's willingness to reduce pesticide use or accept limitations on private property for conservation. This mixed finding illustrates that a landowner's willingness to comply can be dependent upon his or her perception of the species' importance.

There are a myriad of explanations for the confusing results. Essentially, there are a number of limitations and complexities within my data that prevent correlations from being an effective way of measuring the relationship between moral commitment and willingness to comply. First, since the data are qualitative interviews, there are issues with coding, such as creating meaningful categories for fuzzy/ambiguous answers. A lot of information can be lost through coding, and this could in part explain some inconsistencies with correlations.

Second, there is little variation in some key variables, especially in Ohio. Almost all landowners in both cases felt that other species are important, and almost all landowners agreed with an instrumental notion of property as well as an instrumental notion of property. Furthermore, almost all landowners were willing to give USFWS access to their property, plant more trees and refrain from projects along the shore of their property during snake mating season. This makes

correlation difficult. The variables with more variation, such as beliefs regarding other's species rights and possible extinction did yield more results, but they were mixed and unclear.<sup>2</sup>

Third, and most importantly, the relationship between commitment to the law through morality and willingness to comply is not a one-to-one relationship. Compliance literature suggests that individuals comply with policy for a myriad of reasons, one of which is morally related. So the degree to which landowners are complying because of a commitment through legitimacy, a lack of knowledge, or deterrent related motivations is not clear. It is likely a combination of these motivations that creates compliance among landowners in the Midwest. For purposes of this paper I wanted to illustrate that a commitment to the law through morality could exist given that landowners do believe extinction of other species is morally wrong and that government regulation is morally appropriate for conservation. The implication is that since landowners possess the moral foundation for a willingness to comply, policymakers should build on it. Compliance through morality is a motivation the government should encourage and is a promising method of endangered species conservation, since the ESA seems very expensive to enforce given the number of endangered species and the amount of private land that would have to be monitored for deterrent strategies to be effective.

## Conclusion

Lake Erie water snakes and Indiana bats have the law on their side in the Midwest. And this law is a formidable opponent of private property. The ESA can dictate land-use to the very people who own the land, but in the Midwest property owners are willing to comply, at least partly, because of moral motivations. Most landowners in the CMA and on Middle Bass island feel that other species are important, and extinction is wrong; thus, conservation is morally appropriate. Furthermore, most of these landowners are willing to accept burdens and regulations on the use of private property for the sake of conservation. Essentially, they feel regulation is morally appropriate for conservation. This is a promising finding for both scholars looking to understand citizens' willingness to comply with policy as well as for policymakers looking to increase compliance with the ESA.

Willingness to comply with law and policy is influenced by a variety of factors, including both negative and affirmative motivations. Punishment and incentives may be effective for compliance, but affirmative motivations, which can be fostered by policymakers, require fewer resources and can enhance, as opposed to threaten, stability in a democratic society. Moreover, understanding intrinsic moral motivations for possible compliance allows more creativity, and hopefully, effectiveness with incentive systems. There is no sense in enticing landowners with rewards and financial gain for behavior they are willing to perform without incentive.

Unfortunately, I cannot generalize my findings to all small landowners in the US. There is still much work to be done in this field. Landowners in other parts of the country as well as landowners dealing with less and more charismatic wildlife species, as well as plants, need to be researched. However, as the Ohio case supported the findings of the Indiana case, it is my suspicion

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<sup>2</sup> A third case study, conducted in Southern Utah during the fall of 2007 with landowners regarding the desert tortoise, will increase variation among a number of these variables and perhaps provide better results. It appears that Indiana and Utah provide the best cases for exploring a commitment through morality whereas Ohio is better suited to exploring a commitment through legitimacy, which is my third theoretical expectation. This is because in Ohio, landowners, who all value other species and express great moral affinity for them, doubt whether the water snake is even a legitimate endangered species anymore. Whereas in Utah and Indiana, where landowners accept the bat and tortoise as endangered, express varying amounts of moral affinity toward other species

that researchers will find landowners to be more reasonable and diverse in their views about conservation and private property than presently expected.

### Works Cited

- Blake J. and K. Davis. 1964. Norms, values and sanctions. In R. Faris (Ed.) *Handbook of Modern Sociology* Chicago: Rand McNally.
- Briar S. and I. Piliavin. 1965. "Delinquency, Situational Inducements and Commitment to Conformity." *Social Problems* 13:1, 35-45.
- Brook, Amara, Michaela Zint and Raymond De Young. 2003. "Landowners' Responses to an Endangered Species Act Listing and Implications for Encouraging Conservation." *Conservation Biology* 17,6 (December): 1638-1649.
- Church, Thomas and Milton Heumann. 1989. "The Underexamined Assumptions of the Invisible Hand: Monetary Incentives as Policy Instruments," *Journal of Policy Analysis and Management* 8, 641-57.
- Coombs, Fred. S. 1980. The Bases of Noncompliance with a Policy. *Policy Studies Journal* 8:6, 885-900.
- Farrier, David. 1995. "Conserving Biodiversity on Private Land: Incentives for Management or Compensation for Lost Expectations?" *Harvard Environmental Law Review* 19: 303.
- Friedman, Lawrence M. *The Legal System*. Russell Sage Foundation: New York. 1975.
- Grabosky, P.N. 1995. "Regulation by Reward: On the Use of Incentives as Regulatory Instruments." *Law & Policy* 17:2, 257-82.
- Grasmick, Harold G. and R.J. Bursik. 1990. "Conscience, Significant Others, and Rational Choice: Extending the Deterrence Model." *Law and Society Review* 24:4, 837-61.
- Grasmick, Harold G., R.J. Bursik and K.A. Kinsey. 1991. "Shame and Embarrassment as Deterrents to Noncompliance with the Law: The Case of Antilittering Campaign." *Environment and Behavior* 23:2, 233-51.
- Jackson-Smith, Douglas, Urs Kreuter and Richard S. Krannich. 2005. "Understanding the Multidimensionality of Property Rights Orientations: Evidence from Utah and Texas Ranchers." *Society and Natural Resources* 18: 587-610.
- Kagan, Robert A. and John Scholz. 1980. "The Criminology of the Corporation and Regulatory Enforcement Strategies." In Keith Hawkins and John Thomas (Ed.) *Enforcing Regulation*. Hingham, Mass: Kluwer-Nijhoff, pp 67-96, 1984.



- Kuperan, K. and Jon G. Sutinen. 1998. "Blue Water Crime: Deterrence, Legitimacy and Compliance in Fisheries." *Law and Society Review* 32:2, 309-38.
- Langpap, Christine and J. Wu. 2003. "Voluntary conservation of endangered species: when does no regulatory assurance mean no conservation?" *Journal of Environmental Economics and Management* 47(3): 435-457
- Levi, Margaret. 1997. *Consent, Dissent and Patriotism*. New York: Cambridge University Press.
- May, Peter J. 2004. "Compliance Motivations: Affirmative and Negative Bases." *Law & Society Review* 38:1.
- May, Peter J. 2005. "Regulation and Compliance Motivations: Examining Different Approaches." *Public Administration Review* 65:1.
- May, Peter J. and Winter, Soren C. 2001. "Motivation for Compliance with Environmental Regulations." *Journal of Policy Analysis and Management* 20:4, 675-698.
- Murphy, Kristina. 2005. "Procedural Justice and Tax Compliance." *Australian Journal of Social Issues* 38.
- Parker, Christine. 2006. "The 'Compliance' Trap: The Moral Message in Responsive Regulatory Enforcement." *Law and Society Review* 40:3, 591-622.
- Peterson, Tarla Rai and Cristi Choat Horton. 1995. "Rooted in the Soil: How Understanding the Perspectives of Landowners can Enhance the Management of Environmental Disputes" *The Quarterly Journal of Speech*, 81:2, 139-66.
- Raymond, Leigh and Andrea Olive. forthcoming. Protecting Biodiversity on Private Property: The Role of Landowner Norms and Beliefs. *Society & Natural Resources*.
- Reckless, W.C. and S. Dinitz. 1967. "Pioneering with Self-Concept as a Vulnerability Factor in Delinquency." *Journal of Criminal Law Criminology and Police Studies* 58:4, 515-23.
- Scholz, John T. and Neil Pinney. 1995. "Duty, Fear, and Tax Compliance: The Heuristic Basis of Citizenship Behavior." *American Journal of Political Science* 39:2, 490-512.
- Sheldon, K.P. 1998. "Habitat Conservation Planning: Addressing the Achilles Heel of the Endangered Species Act." *NYU Environmental Law Journal* 6: 279-340.
- Stern, Stephanie. 2006. "Encouraging Conservation on Private Lands: A Behavioral Analysis of Financial Incentives" *Arizona Law Review* 48:541.
- Tyler, Tom. 1990. *Why People Obey the Law*. New Haven: Yale University Press.
- Tyler, Tom and Y.J. Huo. 2002 *Trust in the Law: Encouraging Public Cooperation with the Police and Courts*. New York: Russell Sage Foundation.

Vogel, David. 1996. "Farmers' Environmental Attitudes and Behavior." *Environment and Behavior* 28:5, 591-693.