

**WILDLIFE CONSERVATION AND MANAGEMENT IN THE 21ST
CENTURY: UNDERSTANDING CHALLENGES FOR INSTITUTIONAL
TRANSFORMATION**

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WILDLIFE CONSERVATION AND MANAGEMENT IN THE 21ST CENTURY:
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The biological and social context for wildlife management in the United States is transforming as the human population expands into and consumes wildlife habitat, and citizens' interests and concerns about wildlife become increasingly diverse. Although the context has changed considerably since state-based wildlife management emerged, the founding principles remain largely intact as applied to wildlife management today. Those principles reflect dependencies, both historical and resource-based, between state wildlife agencies (SWAs) and hunters. I use institutional theory to describe the state-based public wildlife management system that exists in the United States as the state wildlife management institution: the people, processes and rules, as well as the norms, values and behaviors, associated with state wildlife management. Situating state-based public wildlife management in institutional theory provided a framework for my inquiry.

The primary focus of my research was to assess whether and how SWAs dependent on a single funding source (i.e., hunters) transform due to changes in their dominant funding paradigms. I first interviewed leaders from 24 SWAs (n = 24) to understand how their agencies had responded to pressure to secure nontraditional funding. Strategic behaviors of these SWAs ranged from resistance to active transformation. Informed by these interviews, I suggest a typology of organizational

response reflecting the context of state wildlife management. The typology is offered as a tool to help understand SWAs' ability to make strategic changes regarding funding.

Next, I used a multiple case-study approach to examine four SWAs to provide insight into whether and how funding influenced their ability to change. I found SWAs with secure, alternative funding demonstrated organizational transformation to address diverse stakeholder interests. States without secure, alternative funding had more difficulty addressing changing and increasing demands for services. These SWAs had been unable to garner the political capital necessary to secure funding.

Finally, I focus on one element of the Institution often criticized as an impediment to reform: governance structure. I examine how three types of democratic decision-making models, representative, direct and participatory, are used to affect wildlife policy. I describe a hybrid approach encompassing certain elements of both representative and participatory democracy that would ensure effectiveness of governance, improve representation, and increase inclusivity regarding issues with broad public interest.

This collection of papers provides insight into the ways some SWAs have transformed by broadening their goals, activities, and boundaries to meet diverse societal needs. Availability of alternative funding facilitated this reform, but organizational culture shifts were a necessary antecedent to achieving funding goals. Securing broad-based funding will likely drive reform of the institutions' governance structure. Improving representation and inclusivity of governance processes will be essential to ensuring accountability with those who fund wildlife conservation and management. Addressing a diversity of public interests and developing a strategy for change will improve the state wildlife management institution's chances of maintaining legitimacy with society.

BIOGRAPHICAL SKETCH

Cynthia Jacobson grew up in beautiful Colorado. She received a B.A. in Environmental Conservation from the University of Colorado, Boulder and an M.S. in Natural Resources Policy and Management from Cornell University. After receiving her M.S., she worked as a Research Associate for the Colorado Legislative Council for three years. She was recruited by the Alaska Department of Fish and Game to be a Wildlife Planner, and enjoyed that position for over nine years. In November, 2007, she was promoted to Assistant Director of the Division of Wildlife Conservation, Alaska Department of Fish and Game. She serves as an Associate Editor for the Journal of Wildlife Management and as an Editorial Panel member for The Wildlife Professional. Her professional interests include organizational behavior, governance of wildlife resources, and natural resources decision making processes.

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CHAPTER 1

INTRODUCTION

The biological and social context for wildlife management in the United States is transforming as the human population expands into and consumes wildlife habitat and as interests and concerns are changing. Although the context for wildlife management has transformed considerably since its founding principles were conceived (Manfredo et al. 2003, Patterson et al. 2003), those core principles remain largely intact as applied to wildlife management today (Geist et al. 2001). This presents a problem, as critics (Gill 2004, Nie 2004) of the current system of wildlife management point out. They are concerned that the model under which state wildlife management has operated is outdated and does not reflect the diversity of wildlife-related interests that exist in society. Contemporary changes include, impacts of urban sprawl and human population growth on wildlife; declining national interest in hunting and trapping (Duda et al. 1998); and an overall lack of connectedness to the natural environment (Patterson et al. 2003, Pergams and Zaradic 2008). Some researchers (Manfredo et al. 2003) suggest that societal values have shifted from predominantly utilitarian to a more protectionist orientation toward wildlife, and that this shift is associated with a broader societal move from materialist to post-materialist values. Regardless of the extent and orientation of attitude and value change regarding wildlife, increasing numbers of wildlife-related ballot initiatives and popular referenda, wildlife organizations with nonconsumptive orientations (e.g., environmental, humane), a national campaign to find alternative funding sources for wildlife management (i.e., funds not generated directly or indirectly by hunters or trappers) and efforts (e.g., legislation) to change the composition of wildlife boards and commissions are likely indicators of a shift in public perception regarding wildlife

management. These trends suggest the potential for tensions between society and the state wildlife management institution (Jacobson and Decker 2006).

Responsibility for wildlife management lies with state wildlife management agencies (SWAs), which emerged in the late 1800s to satisfy the needs and interests of rural agrarian communities and hunters and trappers, the primary groups concerned with wildlife management at the time (Patterson et al. 2003). The clear and enduring relationship between SWAs and hunters can be characterized as being highly path dependent (Putnam 1993, Greener 2002). Path dependency stresses the influences of historical circumstances on existing organizations and subsequent organizational behavior, including resistance to reform.

Further reinforcing the relationship between consumptive users (i.e., hunters and trappers), SWAs, and policy makers is an historical dependency of SWAs on these stakeholders to fund state wildlife management via revenue from hunting and trapping license sales and a federal excise tax on firearms, ammunition, and archery equipment (Trefethen 1961, Anderson and Loomis 2006). Because of their dependence on a “single source” for funding, SWAs are regarded as “captive organizations” (Anderson and Loomis 2006). The resource dependency perspective on wildlife management posits that managers ensure organizational survival by aligning their organization with other organizations that provide them with resources and support (Pfeffer and Salancik 1978, 2003). Captive organizations have fewer options to exert control of their own destinies and are more constrained in their attempts to modify dependent relationships. As the number of hunters and trappers decline (Duda et al. 1998), SWAs are seeking funds from new sources. Securing nontraditional funding sources present challenges to traditional state wildlife management. In addition to the creation or expansion of programs, agencies with new funding sources need to be accountable to a larger and

more diverse constituency that will be contributing financially to wildlife management.

Most SWAs identify the need for reform to break from historical path and resource dependencies and to expand programs and services to meet the diverse needs of society (Jacobson et al. 2007), and many have made considerable progress towards achieving this goal. Change is slow, however, and often met with resistance, both from SWAs and other organizations with which they interact (e.g., policy makers, NGOs). Putnam (1993: 179) notes that tensions emerge as institutions “bearing the imprint of the past” try to address current and future problems. Continued resistance to reform may result in SWAs losing legitimacy with society. Legitimacy refers to the extent to which institutions are connected to a broad normative and cultural framework.

Research focus, purpose, goal and assumptions

Because of their central role in management, the unit of analysis for this study was SWAs. Specifically, I focused on the terrestrial versus aquatic (i.e., fisheries) component of SWAs. Although wildlife and fisheries management are comparable and parallel to a certain degree, they are culturally and organizationally distinct within most management agencies. Both are grounded in a user-pay funding system, but fisheries issues are different and societal interest in fish and associated recreational activities have not likely changed significantly over time. Because of these differences, I believed that focusing on wildlife management would yield a clearer understanding of the factors that influence or impede transformation.

The purpose of my research was to understand the major challenges facing SWAs as they strive to maintain legitimacy in the face of a rapidly changing social context. My overarching goal was to provide insight and suggestions for how SWAs can manage change in a way that benefits the public and helps to conserve wildlife for

future generations. The primary assumptions underlying my research can be characterized as follows: (1) SWAs are anchored to the past because of historical and resource dependencies; (2) because of these historical relationships, reform is slow and met with resistance; (3) to maintain legitimacy with a changing society, SWAs need to expand the domain of interests served by their programs and services. These assumptions are put in a theoretical context in the following chapters and revisited in detail in Chapter 6.

My research applies a theoretical perspective to the dynamics of state wildlife management. I integrate concepts from institutional and organizational theory, focusing specifically on organizational responses to environmental and institutional pressures for change. Although the term institution is used inconsistently in the economics, sociology, and political science literatures, some key elements of this concept resonate throughout the three disciplines. Institutions shape human action, imposing constraints while also providing opportunities (Scott 2001). Institutions have formal aspects (e.g., rules and laws) and informal aspects (e.g., norms and customs). Institutions have legitimacy and show stability over time. Institutions are valued in themselves and not simply for their immediate purposes and outputs (DiMaggio and Powell 1991, Lowndes 1996, Scott 2001). Three primary elements can serve as the building blocks of institutions—regulative, normative, and cultural-cognitive elements (Scott 2001). The regulative element involves the rules—formal laws and policies—that shape institutions (e.g., hunting and trapping seasons, bag limits). The normative element includes both values and norms (e.g., the ethics that are the foundation of wildlife conservation, the belief that hunting and trapping are important wildlife management tools). The cultural-cognitive element refers to what people know, or their social construction of reality, which is shaped in large part by their cultures (e.g., the traditional knowledge among hunters and trappers that is

passed on as oral history). Thus, an institution is the enduring formal and informal rules, values, norms, cultural beliefs and related behavioral patterns that sustain and constrain human activities.

Because organizational “death” (Hall and Tolbert 2005) is an unlikely outcome for bureaucratic agencies (Wilson 2000), particularly those within an institutional context (Scott 2001), I focus my inquiry on SWA transformation, particularly the deinstitutionalization (Oliver 1992) of particular institutional components (e.g., institutional logics, funding mechanism) and the institutionalization of others in their place.

Chapter overview

Analysis of the literature indicates that state wildlife management and all of its elements meet the criteria to be considered an institution (Scott 2001). In Chapter 2, I set the stage for the succeeding articles by introducing institutional theory and defining the state wildlife management institution (Institution) as the people, processes, and rules as well as the norms, values, and behaviors associated with state wildlife management. I identify the societal and institutional trends driving change in the Institution and factors such as path and resource dependencies that are impediments to reform. I argue that considerable reform is needed for the Institution to maintain legitimacy with a changing society and note that organizational reform occurs along three possible dimensions: boundaries, goals, and activities. I conclude by stressing that SWAs play a crucial role in initiating and guiding constructive reform, and that SWAs can become more effective and valued by society if they are seen as agents of change. SWAs, particularly the professionals staffing such agencies, have the opportunity to manage and lead change in a way that benefits the agencies, the public, and wildlife. I identify opportunities for wildlife professionals to become change agents.

In Phase I of my research, I interviewed 24 state agency administrators with the purpose of understanding whether and how their agencies had responded to pressures for reform. The primary challenge identified by administrators was the need to move from dependency on a single-source to finding and securing alternative funding (Jacobson et al. 2007). In Chapter 3, I present findings regarding leaders' perspectives on how their agencies have responded to pressure to develop alternative funding mechanisms. I explore whether agency behavior is generally consistent with Oliver's typology (1991) of strategic organizational response, ranging from passive conformity to active resistance. I present evidence that SWAs exhibit strategic behavior consistent with this typology, and, in some cases, are innovative in their efforts to secure alternative funding. In other cases, agency behavior is limited by real or perceived external constraints. I provide a modified typology that offers a more nuanced approach to organizational response in the context of state wildlife management. The typology includes the addition of "no change" due to real or perceived constraints and "innovation adoption." I conclude that resistance to the use of alternative funding options is not a viable long-term behavior. If change is met with resistance, state agencies should work to increase understanding—both internally and externally—regarding the need for alternative funding and at the same time assuage concerns about the implications of using such funding.

In Chapter 4, the role of funding is explored in greater depth. Grounded in the knowledge gained through Phase I, my Phase II research examines whether and how highly resource-dependent organizations may be influenced by changes in their dominant funding paradigms. Specifically, are SWAs that have established nontraditional funding sources more likely to demonstrate responsiveness—and therefore improve their ability to maintain legitimacy—to a diverse constituency than SWAs that rely on more traditional funding mechanisms? I use a multiple case-study

approach to examine four state wildlife management agencies, two with secure, alternative state funding and two without significant alternative funding, to provide insight regarding whether and how funding influences SWAs' ability to maintain legitimacy with a changing society. I explain that states that had obtained secure, alternative funding demonstrated responsiveness to diverse stakeholder interests prior to gaining broader funding. States without secure, alternative funding had difficulty addressing changing and increasing demands for programs and services and were unable to garner the political capital necessary for successful funding campaigns. Results suggest that, in the long term, it would benefit SWAs to first promote internally, and then with interest groups and policy makers, an understanding and acceptance of the need to diversify programs and services to meet broad societal needs, regardless of the dominant funding source. By embracing a broader diversity of public interests and developing a strategy for change, SWAs are more likely to increase their chances of achieving funding goals and, perhaps more importantly, maintaining legitimacy with society.

Chapter 5 focuses on another element of the Institution, the governance structure, which has perhaps received the most vocal criticism. Critics (Gill 2004, Nie 2004) contend that boards/commissions need evaluation and reform to ensure that they reflect fully the values, norms, and cultural beliefs of contemporary society. Because of these vocal criticisms, I explored concerns and ideas for reform of the governance structure of the state wildlife management institution. I discuss the three types of democratic procedures: representative, direct, and participatory as the conceptual framework to understand the existing governance structure. Each of these procedures has been used in formulation of wildlife policy. Typically wildlife laws and regulations made at the state level are the products of representative democracy via appointed boards and commissions, although direct and participatory are being

employed more frequently. The chapter reviews the board/commission system, outlines concerns about this model in light of a changing social context, discusses alternative approaches, and offers considerations for how governance could be reformed to meet societal needs. I conclude that direct democracy is not the ideal method for making wildlife conservation and management decisions. A better approach may be a hybrid model, incorporating the best elements of representative and participatory democracy.

In Chapter 6, I offer overarching conclusions based on results and observations from the body of work presented in this dissertation and how this work contributes to theory development and wildlife policy and practice. I suggest ideas for future research. I believe my research and analyses are helpful by explicating a theoretical framework for understanding the dynamics of state wildlife management and offering practical insight to assist SWAs in development of reform strategies.

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CHAPTER 2¹

ENSURING THE FUTURE OF STATE WILDLIFE MANAGEMENT: UNDERSTANDING CHALLENGES FOR INSTITUTIONAL CHANGE

Abstract

The social and political dynamics of wildlife management have changed markedly since the emergence of the profession. Today much of the legal responsibility to manage wildlife rests with state agencies. These agencies essentially have institutionalized the discipline, providing the regulatory, normative, and cultural foundation for wildlife management within each state. Pressure for reform of the state wildlife management institution is increasing. These pressures include the need for consistent sources of funding for wildlife management to offset the revenue decline from historically reliable license sales as numbers of hunters and trappers decline; increased interest from nontraditional stakeholders for better access to and involvement in the decision-making process; and demands from society for expansion of services provided (e.g., wildlife damage mitigation, disease control). I believe that state wildlife agencies can play a crucial role in initiating and guiding constructive reforms. I argue that state wildlife agencies can become more effective and valued by society if they are seen as agents of change. State wildlife management agencies, particularly the professionals staffing such agencies, have the opportunity to manage and lead change in a way that benefits the agencies, the public, and wildlife. I identify what I believe are some opportunities for wildlife professionals to become change agents.

¹ This chapter is a modified version of the following published article: Jacobson, C.J. and D.J. Decker 2006. Ensuring the future of state wildlife management: Understanding challenges for institutional change. *Wildlife Society Bulletin* 32 (2): 531-536.

Introduction

Procedural and administrative reforms of state wildlife management have been identified and are being discussed in the literature of public administration (e.g., Nie 2004), yet, considering the momentous consequences of the situation, little dialogue motivating a widespread, proactive effort to manage change has emerged from within our profession. In my opinion, the wildlife profession should seek new opportunities to lead deliberations about the future of state wildlife management. I believe an analysis of factors commonly identified as reasons for the wildlife management profession to change can help guide reform activity.

Background

State wildlife management agencies emerged in the mid-to-late 1800s to address concerns regarding depleted game populations (Trefethen 1961) and to satisfy the needs and interests of rural agrarian communities, hunters, and trappers, the primary groups concerned with wildlife management at the time (Patterson et al. 2003). Because of concerns that commercialization of wildlife (e.g., market hunting) was having negative impacts on many wildlife species, early conservationists lobbied to make wildlife a common good. A primary purpose of the state agency was to manage wildlife for the benefit of all people (i.e., the public trust doctrine). Geist et al. (2001) argued that this trust doctrine was one of the key premises on which the North American Model of Wildlife Conservation was built.

Declining numbers of traditional stakeholders, coupled with an increasingly diverse, interconnected, and suburbanized society has created a need to better understand how state wildlife management agencies, policy-making bodies, and allied organizations are adapting to a changing social context (Peyton 2000). The impacts of some societal changes on the biological components of wildlife management are

readily apparent. For example, urban sprawl and human population growth have clear and measurable consequences for wildlife (e.g., reduces or modifies habitat). The impacts of human cognitive (e.g., beliefs, attitudes, and values) changes on wildlife management are more difficult to discern. Although research suggests a shift in values in American society from a materialist (i.e., focused on basic needs, including food, shelter, security) to a postmaterialist (i.e., focused on quality of life, environmental protection, self-expression) orientation (Inglehart 1997), I contend that longitudinal data about American values regarding wildlife are lacking. Manfredo et al. (2003) suggest it is likely that societal values have shifted from predominantly utilitarian to a more protectionist orientation toward wildlife.

Regardless of the status of empirical evidence, numerous indications of a shift in public perception regarding wildlife management are evident: increasing numbers of wildlife-related ballot initiatives and popular referenda (Williamson 1998); growth of wildlife organizations with nonconsumptive orientations (e.g., environmental, humane; Manfredo et al. 2003); and efforts to change the composition of wildlife boards and commissions (e.g., via legislation; Nie 2004). These trends suggest the potential for tensions to exacerbate between society and the traditional state wildlife management system.

Further, as numbers of hunters and trappers, the principal source of support for state wildlife agencies (i.e., via hunting license sales and an excise tax on sporting equipment), continue to decline (Duda et al. 1998), the issue of funding state wildlife management is a growing concern. National campaigns to secure funding for wildlife management from alternative sources (i.e., funds not generated directly or indirectly by hunters or trappers) have been underway for over 25 years (Franklin and Reis 1996). The Teaming with Wildlife (TWW) campaign is an example of a proactive effort to expand conservation and management funding to include nongame wildlife

and nontraditional programs (e.g., watchable wildlife). In addition, states have experimented with a variety of revenue-generating methods (e.g., tax checkoffs, license plates, proportions of sales tax) for wildlife conservation and management.

I believe that new funding sources are not a panacea, but rather they may present new challenges to traditional wildlife management. In addition to the creation or expansion of programs and subsequent hiring of staff with expertise in these new program areas, agencies relying on new funding sources need to be more accountable to a larger and more diverse constituency that contributes financially to wildlife management (Franklin and Reis 1996). An obvious challenge is overcoming a historical dependency on funds derived from hunting and trapping without alienating these traditional stakeholders. Less obvious, but possibly more difficult, is broadening the culture of the wildlife profession to embrace a more diverse array of stakeholders. It is likely that a transformation among agency staff is already occurring. In a survey of Wildlife Society members, researchers found that members who had been in the wildlife profession less than 5 years were less likely than those who had been in the profession more than 20 years to support consumptive use of wildlife (Organ and Fritzell 2000).

Changing public attitudes and interests have an impact on university curricula in wildlife programs and subsequently on future agency employees. Organ and Fritzell (2000) found that university curricula and courses have changed to adapt to a new social context over the past 2 decades. For example, courses are now more likely to incorporate conservation biology principles and human dimensions. New wildlife professionals emerging from these universities will be filling the vacancies left by a significant number of retiring senior biologists and managers. In light of these changes, I am interested in the following question: How are state wildlife management agencies and policy makers adapting to this contextual shift—is the pressure for

change being embraced as an opportunity to sustain relevance for society, or is change perceived as a threat to be resisted? Evidence indicates existence of both perspectives among state wildlife agencies and policy makers (Nie 2004). I believe whichever viewpoint prevails will determine the strategy pursued by state agencies, which, in turn, has profound implications for the future of state wildlife management.

In my opinion, the wildlife profession needs to embrace the opportunities presented by the pivotal period of change we are experiencing in state wildlife management. Depending on how they approach the situation, wildlife professionals can be impediments to change or key agents of change, directing the future of state wildlife management. Some will flounder. Some will flourish. Resistance to change is understandable and common among staff in established organizations. But resisting societal pressure for change is futile in the long term and not a strategy for yielding a desirable outcome. I believe that organizational evolution is a natural process that can have beneficial outcomes if managed strategically. Thus, change can be an exciting opportunity for organizational revitalization as well as key to ensuring the future of state wildlife management.

I suggest that institutional theory provides a useful framework for understanding the relationship among society and the individuals and processes that comprise what I label the state wildlife management institution.

State wildlife management—an institutional perspective

Although the term institution is used inconsistently in the economics, sociology, and political science literatures, some key elements of this concept resonate throughout the 3 disciplines. Institutions shape human action, imposing constraints while also providing opportunities (Scott 2001). Institutions have formal (e.g., rules and laws) and informal (e.g., norms and customs) aspects. Institutions have legitimacy

and show stability over time. Institutions are valued in themselves and not simply for their immediate purposes and outputs (DiMaggio and Powell 1991, Lowndes 1996, Scott 2001).

Three primary elements serve as the building blocks of institutions—regulative, normative, and cultural–cognitive elements (Scott 2001). The regulative component involves the rules—formal laws and policies—that shape institutions (e.g., hunting and trapping seasons, bag limits). The normative component includes both values and norms (e.g., the ethics that are the foundation of wildlife conservation, the belief that hunting and trapping are important wildlife management tools). The cultural–cognitive component refers to what people know or their social construction of reality, which is shaped, in large part, by their cultures (e.g., the traditional knowledge among hunters and trappers that is passed on as oral history). Thus, an institution is the enduring formal and informal rules, values, norms, cultural beliefs, and related behavioral patterns that sustain and constrain human activities. Based on this understanding of institutions, the *state wildlife management institution* can be thought of broadly as the people, processes, and rules as well as the norms, values, and behaviors associated with state wildlife management. The degree to which an institution is considered legitimate to society depends on its consonance with societal laws, norms, and cultures (Scott 2001). Legitimacy refers to the extent to which institutions are connected to a broad normative and cultural framework, and it is necessary for institutions to survive in the long term.

Organizations

Many scholars distinguish institutions from organizations but recognize the relationship between the two (Scott 2001). In most cases organizations emerge from and operate within institutional environments. Organizations breathe life into

regulative, normative, and cultural–cognitive elements of institutions. North (1993) suggests that “if institutions are the rules of the game, organizations are the players.”

Organizations are “goal-directed, boundary-maintaining, and socially constructed systems of human activity” (Aldrich 1999). Examples of organizations are individual firms, interest groups, government agencies, and policy-making bodies. An *organizational field* is the collectivity of organizations that share a common understanding of meaning and whose actors interact frequently. Although organizational fields vary somewhat by state, isomorphism at the organization and field levels is common within institutions (Milstein et al. 2002). In general, the organizational field for each state is comprised of some of the following: state wildlife agencies, hunting, trapping, and other interest groups, and policy makers. For the purposes of this paper, I refer generally to the organizational field as the collectivity of all state wildlife management organizational fields. Organizations not typically part of the organizational field are those that do not share cultural–cognitive or normative beliefs with organizations in the field.

Institutional logics are the system of beliefs and processes that define an organizational field (Scott 2001). Institutional logics also are referred to as dominant paradigms (Brown and Harris 2000). The institutional logics embedded in state wildlife management organizational fields largely reflect those of the early conservationists. For example, a belief in hunting as a management tool is an example of an institutional logic that is understood and interpreted consistently, has penetrated deeply into the organizational culture, and is consistent—or is not antithetical—to the beliefs of society (e.g., in general, society does not oppose hunting). The consumptive viewpoint has been one of the dominant institutional logics of the wildlife management institution, and the terms management and hunting (or trapping) are often used interchangeably. Reiger (1975, p. 111) illustrates the prevalence of the

consumptive logic within the wildlife management organizational field when he describes a perceived threat from those who have animal protection values:

On the one side is a large group of self-styled ‘animal lovers’ who claim that the killing of wildlife is wrong and must be stopped. Against them is pitted the so-called ‘sportsman’ (and ‘sportswoman’), whose ranks include many of the 21 million hunters and their allies: biologists, wildlife-management experts, and conservation-department personnel at both state and federal levels.

Antihunting viewpoints in this example conflict with the dominant institutional logics, so they are likely excluded from consideration by the organizational field (Gill 2004). According to institutional theorists, organizations are more receptive and responsive to those who are aligned with dominant institutional logics. For instance, most consumptive-use groups, state agencies, and policy makers have common institutional logics, so consumptive- oriented groups are likely to receive greater consideration regarding wildlife policy decisions. Individuals and groups who do not share these logics are purported to have less influence in wildlife decision making (Nie 2004).

The *governance structures* of organizational fields are arrangements by which power and authority are exercised. Such structures involve formal and informal components of decision-making processes (Scott et al. 2000). These processes perpetuate the dominant institutional logics and highlight differences between those who share these logics and those who do not. For state wildlife management organizational fields, the governance structure might include all components of decision making, including the legislative and wildlife commission or board processes, the statutory requirements for the makeup of regulative bodies (e.g., some states require that a specific number of commission members represent specific interests, are from a certain district, or are from a specified state agency), and informal networking.

Changes in the social context within which wildlife is managed or governed has and will continue to drive reform of the state wildlife management institution. In the next section, I draw from organizational theory to understand how change might occur in the context of the state wildlife management institution. The TWW effort is used as an example of how a diverse coalition of enterprising organizations has begun to transform the state wildlife management institution (Bies 2005).

Dynamics of organizational transformation

Small-scale change occurs frequently within organizations, but organizational reform or transformation is less common. Aldrich (1999) defines organizational transformation as a major change that occurs along 3 possible dimensions: goals, boundaries, and activities. According to Aldrich (1999), organizational research has identified 2 primary elements of goal transformations: 1) changes in the breadth of organizational goals, particularly evolution from specialism to generalism and 2) changes in the domain served by an organization. These elements often are correlated.

Organizational transformation can involve the expansion or contraction of boundaries as well. Organizational boundaries are delineated by membership, both of individuals and organizations (Aldrich 1999). Corporate examples of expansion and contraction are mergers and downsizing, respectively.

The third dimension of transformation includes changes in activities that have a significant effect on organizational knowledge (Aldrich 1999). Transformation in activity systems might involve innovations due to the introduction of new technologies or management systems, as well as changes in the availability of resources.

Organizational transformation: TWW example

The TWW effort, initiated by a coalition that today comprises over 3,000 groups, began in 1996 to augment and extend to all wildlife the funding previously

allocated to game species conservation and management (Franklin and Reis 1996). The original intent was to broaden the excise tax imposed by the 1937 Pittman-Robertson Wildlife Restoration Act and the 1950 Dingell-Johnson Sport Fish Restoration Act to include additional outdoor recreational products, such as binoculars and camping gear. Although this specific outcome was not achieved, the TWW coalition was successful at gaining \$50 million in funding for conservation via State Wildlife Grants (SWG) in the 2001 Interior Appropriations Act (Franklin et al. 2003). In 2002, 2003, and 2004, SWG appropriations were \$85, \$65, and \$70 million, respectively. These grants are allocated to states and territories using a formula based on the state's size and population. Tribes are also eligible for a portion of SWG money. The federal government cost-shares these grants with the states and requires a 25% match for planning and a 50% match for implementation projects.

The TWW effort is a prime example of how entrepreneurs within the state wildlife management organizational field recognized the need to ensure adequate funding for a diversity of wildlife species and built a coalition to transform the institution by expanding 1) the breadth of its goals and domain to include all species of wildlife, particularly nongame and threatened species that were not specifically covered by the Pittman-Robertson or Dingell-Johnson acts; 2) the boundaries of its membership by including a wider diversity of stakeholders; and 3) the activities undertaken by state wildlife management agencies. By including partners with consumptive and nonconsumptive interests in the effort to find an alternative funding source for wildlife management, TWW represents an expansion of the organizational field to accomplish a goal valued by diverse stakeholders interested in wildlife conservation.

The changes occurring in state wildlife management due to the availability of nontraditional funding sources such as SWG have and likely will continue to result in

changes in state agency staffs and programs (Organ and Fritzell 2000). For example, a requirement of receiving SWG money is that each state must produce a Comprehensive Wildlife Conservation Strategy (CWCS), including an extensive public involvement component. The purpose of the CWCS is to develop a plan to conserve all wildlife within a state, with a particular focus on “species in greatest need of conservation” (Burke et al. 2004). Comprehensive Wildlife Conservation Strategies will set new directions in many state wildlife agencies that likely include program and staff changes. Further, Burke et al. (2004, p. 576) note that the CWCS offers,

a significant opportunity for the state wildlife agencies to provide effective and visionary leadership in conservation. Engaging a diverse array of stakeholders to identify actions that will address wildlife needs and threats across the landscape, and developing plans to monitor and adapt the actions to ensure results, take us toward a holistic, nationwide approach to all species conservation.

It is too soon to know the long-term effects of the SWG program on the state wildlife management institution, but it is certain that the TWW effort was instrumental in initiating a transformation that will help shape the future of state wildlife management.

Future transformation

The availability of alternative funding sources with new expectations for their use will drive transformation in goals, boundaries, and activities of the organizations involved in state wildlife management and the state wildlife management institution itself. What this change means for the existing institutional logics and governance structures should be of interest to our profession. Will the dominant logics of the state wildlife management institution facilitate or impede transformation? Do our governance structures need to be evaluated to ensure that they are appropriate to

address the complexities of wildlife policy in contemporary society? An increasing number of challenges to wildlife policy suggest that the governance structures and institutional logics of the state wildlife management institution are topics in need of discussion and debate with respect to whether changes might benefit the institution.

Some observers (e.g., Loker et al. 1994, Beck 1998, Nie 2004) have noted that wildlife management, specifically the board or commission system, appears to be “captured” by consumptive interest groups. The relationship between bureaucrats, policy makers, and interest groups has been referred to as an iron triangle (Kingdon 1984, Clark 1996) because it is thought to be an enduring network of like-minded interests impenetrable by outsiders. Gill (2004) notes that the iron triangle relationship between resource management agencies, traditional commodity users, and policy makers “limits access to resource management decision processes to those outside the triangles and creates still more social tension and conflict.” Although the iron triangle concept may be an overly simplistic analogy to describe the complexities of contemporary state wildlife management, wildlife board and commission processes used in many states have been identified in the literature as a governance structure in need of reform (Beck 1998, Gill 2004). Similarly, institutional culture or logics of the organizational field are considered exclusionary by some individuals and groups (Beck 1998, Pacelle 1998, Butler et al. 2003, Nie 2004). Stakeholders who feel disenfranchised will continue to seek a stronger voice in wildlife decision making. If transformation of the state wildlife management institution is needed, what might that transformation look like? Management and conservation goals and objectives of the state agency might be modified to better reflect the interests of contemporary society. In addition, the organizational field may expand its boundaries, more actively including or recruiting nontraditional stakeholders. To address concerns about exclusivity in decision-making bodies, the organizational field might support, for

example, greater diversity of interest on boards and commissions. Waage (2003) notes that structural obstacles such as board or commission processes can be barriers to change in the distribution of resources.

Transformation of the governance structures of the state wildlife management institution should not diminish the importance of traditional stakeholders and their essential role in wildlife management. In fact, the future of state wildlife management depends in large part on a continued involvement of hunters and trappers. However, I believe that the boundaries delineated by the existing organizational fields can be expanded to include nontraditional stakeholders more effectively. Although such an expansion might at first increase the potential for conflict as a diversity of values and beliefs are brought into the policy debate, it may also increase the opportunity for constructive dialogue, leading to understanding of a variety of perspectives and the potential for win–win outcomes. This is not the case when decision-making occurs via ballot initiatives and lawsuits, for which the only outcomes are win–lose.

Concluding remarks

Patterson et al. (2003) contend that the wildlife management institution emerged in a social context that has changed over time. The institution, agencies and policies, they argue, must evolve as well. According to institutional theory, if institutions are not able to connect to broad societal norms and values, it is likely that their legitimacy will be questioned by society, and their long-term viability will be uncertain. This is particularly true for institutions and organizations whose focus is management of public resources (Scott 2001). Organizations face strong internal and external pressures to resist change because organizational transformation “involves the breakdown of traditional structures and beliefs that have become institutionalized over decades and the unlearning of what has been ingrained over the organization’s

history” (Hoffman 2001). Subsequently, resistance is a common organizational response to institutional pressures for change. The degree of resistance to change within the state wildlife management institution has not been measured, but evidence suggests its existence.

Fifteen years ago, Heberlein (1991) described a changing social environment (e.g., lack of public support for recreational hunting, animal rights, and welfare philosophies becoming mainstream) that had significant implications for the future of hunting and traditional wildlife management. Building on Heberlein’s contention, Peyton (2000) asked, “How will the historic partnership between hunting (and trapping) and wildlife management fare in the face of irrefutable social change?” These observers and others (Beck 1998, Patterson et al. 2003, Gill 2004), both within and outside the traditional wildlife management organizational field, have called for reform of the wildlife management institution to better reflect the values, norms, and cultural beliefs of contemporary society. Traditional stakeholders need to understand the reasons for and benefits of change so that transformation will be met by them with acceptance and not resistance. Although this may be a daunting task, the TWW effort is an example of traditional and nontraditional interests working together to help ensure the future of state wildlife management.

Policy makers are powerful influences on agencies, but they are ephemeral. State agency staff, on the other hand, are career professionals who are in a position to pursue a strategy of resistance or strategic change for their agency’s future. If state wildlife organizations are to be proactive at addressing and benefiting from institutional transformation, the wildlife professionals who populate those organizations will need to supply the necessary leadership toward that end. Styhre (2002) contends that “organization change is possible to plan, control and manage like any other organizational process.” Although enlightened change may not occur at the

level of political interests with a stake in maintaining the status quo, I believe that reform has and will continue to emerge from the ranks of the professional staff of wildlife management agencies. These are the individuals who will be most affected by and aware of the growing gap between the state wildlife management institution and the norms, values, and cultural beliefs of society, whose wildlife resource they manage in trust.

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CHAPTER 3

SECURING ALTERNATIVE FUNDING FOR WILDLIFE MANAGEMENT: INSIGHTS FROM AGENCY LEADERS²

Abstract

State wildlife management is in a period of change unlike any other in its history. The growing human population in most states is having unprecedented impacts on the natural environment. At the same time, society's interests and expectations regarding wildlife and wildlife management, respectively, are changing. Increasing demands on state wildlife management agencies and subsequent costs, as well as the declining relative numbers of hunters, the traditional funding source for state wildlife management, have caused the state wildlife management institution to acknowledge and address the need to find and secure nontraditional funding sources. I interviewed administrators from 24 state wildlife agencies to understand these leaders' perspectives on how their agencies have responded to pressure to develop alternative funding mechanisms. Specifically, I wanted to know if agency behavior was generally consistent with a typology of strategic organizational response, ranging from passive conformity to active resistance. I found evidence that state wildlife agencies exhibited strategic behavior consistent with this typology and, in some cases, were innovative in their efforts to secure alternative funding. In other cases, agency behavior was limited by real or perceived external constraints, particularly political factors. I provide a modified typology of organizational response reflecting the context of state wildlife management. Not all responses are appropriate or feasible for all agencies, so agencies must evaluate their environments to determine which strategies offer the

² This chapter is a modified version of the following published article: Jacobson, C.A., Decker, D.J., and L. Carpenter. 2007. Securing alternative funding for wildlife management: insights from agency leaders. *The Journal of Wildlife Management* 71(6): 2106-2113.

greatest potential benefits and least potential costs. Agencies unable to behave strategically due to political or other constraints would benefit from establishing broad-based partnerships, including traditional and nontraditional stakeholders, with the purpose of building support for alternative funding of state wildlife management.

Background

State wildlife management is in a period of reform unlike any other in its history (Jacobson and Decker 2006). The social and political dynamics of wildlife management are changing markedly due to considerable societal transformations. Population growth, changes in societal demographics, suburban sprawl, development and resource extraction, and patterns of participation in outdoor recreation are having profound impacts on our natural environment (Cordell et al. 2004). Concomitantly, these changes and others influence society's interests, concerns, and experiences regarding wildlife and subsequently the expectations placed on governmental agencies charged with wildlife conservation and management.

Growing expectations and resulting additional duties for state wildlife agencies (SWAs), the increasing costs of resources necessary to perform these duties, and a general decline in hunting license sales, have left many states with substantial budget shortfalls. Hamilton (1992) asserts that SWA's dependency on consumptive users (e.g., hunters and trappers via license sales and Pittman-Robertson funds) and subsequently their lack of diversification in terms of funding mechanisms have left agencies in vulnerable positions.

As traditional funding for state wildlife management becomes inadequate, most states have sought alternative funding (e.g., state general funds, tax check-offs, foundations; (Hamilton 1992). These new funding sources present challenges to SWAs. In addition to the creation or expansion of programs, agencies using new and general funding will likely need to be more accountable to a larger and more diverse

constituency. A challenge for the state wildlife management institution will be to overcome an historical dependency on funds derived from hunting and trapping without alienating traditional constituencies.

The transformation of the dominant funding paradigm from a primarily single-source to a more diverse funding structure is just one of the changes facing SWAs, however, it is a change that affects all aspects of what Jacobson and Decker (2006) term the state wildlife management institution. The state wildlife management institution is “the people, processes, and rules as well as the norms, values, and behaviors associated with state wildlife management” (Jacobson and Decker 2006: 210). Jacobson and Decker (2006) contend that, in light of increasing pressure for change in the institution, an opportunity exists to impact the future of state wildlife management. State wildlife agencies are key organizational actors within the institution. Other organizational actors include policy-making bodies and nongovernmental groups that interact with and influence SWAs. The organizations that play a predominant role within an institution are considered the organizational field (Scott 2001), the collectivity of organizations that share a common understanding of meaning and interact frequently.

In this paper, I provide a framework to understand SWA response to pressures to secure alternative funding mechanisms, share perspectives of SWA leaders regarding how their agencies have responded to these pressures, use this insight to improve our understanding of SWAs’ ability to make strategic choices regarding funding, and suggest implications of the different responses for SWAs. My assumption is that the changing funding paradigm for state wildlife management has resulted in pressure on individual SWAs to secure alternative funding. Efforts such as Teaming with Wildlife, a national campaign to find alternative funding sources for

wildlife management (i.e., funds not generated directly or indirectly by hunters or trappers) (Franklin and Reis 1996), reflects the extent of this pressure.

Organizational response to pressures for change

Organizations influence and are influenced by their environments.

Traditionally, institutional theory has focused on the enduring and taken-for-granted qualities of organizations, so change is considered an outcome determined largely by environmental versus endogenous factors (Aldrich 1999). Environmental determinism refers to the extent that outside influences control an organization's abilities to make choices about their futures (Astley and Van de Ven 1983). In general, the deterministic perspective holds that organizations are highly influenced by or dependent on those organizations or individuals that control the resources necessary for survival (Pfeffer and Salancik 2003).

The deterministic viewpoint is criticized by some scholars who adhere to a more voluntaristic perspective. The voluntaristic perspective posits that organizations are autonomous, proactive, and self-directing and thus are able to make strategic choices about their futures (Astley and Van de Ven 1983). In an effort to reconcile both viewpoints, Oliver (1991) contends that although exogenous factors influence organizational behavior, organizational self-interest is a powerful force driving organizational change. Further, organizations have the ability to respond to pressures for change in a strategic manner.

The combination of perspectives is reflected in Oliver's (1991) typology of organizational strategic responses to pressures for change (e.g., from the public, from other agencies or associations). According to her typology, organizational responses range from passive acceptance to active resistance. She offers the following five broad response categories: acquiescence, compromise, avoidance, defiance, and manipulation (Table 3.1).

Table 3.1. Strategic responses to pressures for reform, including specific tactics and examples. Adapted from Oliver (1991)

Strategies	Tactics	Examples
Acquiesce	Habit	Blind adherence to pressure
	Imitate	Mimic other organizations
	Comply	Conscious obedience
Compromise	Balance	Accommodate multiple demands
	Pacify	Conform to minimum standards
	Bargain	Negotiate to ensure its interests are met
Avoid	Conceal	Disguise nonconformity
	Buffer	Loosen institutional attachments
	Escape	Change goals, activities, or domains
Defy	Dismiss	Ignore emerging norms and values
	Challenge	Contest the need to change
	Attack	Assault the source of institutional pressure
Manipulate and deflect	Co-opt	Build coalitions
	Influence	Shape values and criteria
	Control	Dominate constituents and processes

Strategic response typology

Acquiescence refers to acceptance of and compliance with pressures to change. Oliver (1991) contends that this behavior can be considered minimally strategic in that organizations can make conscious decisions to conform versus resist. Organizations' decisions to conform may be influenced by their perceptions that conformity will help increase their legitimacy, fear of negative consequences of nonconformity, or the need to secure additional resources (Scott 2001). Imitation of successful organizations is a common form of acquiescence (Hoffman 2001).

Compromise is considered more strategic than acquiescence because it involves tactical action to promote organizational interests (Oliver 1991). Recognizing the need to change, organizations may attempt to negotiate this change to promote their own interests or interests of those within the organizational field.

Avoidance is an attempt by organizations to minimize the need for immediate change. Organizations can avoid change by waylaying decisions or actions until external circumstances (e.g., economic or political) change or by disguising nonconformity (Oliver 1991). Organizations with a strong culture or sense of mission will be more reticent to transform in response to a changing environment (Wilson 2000).

Defiance is a more overt and active response than avoidance. Scott (2001) suggests that defiance is more likely to occur if the nature of change (or those who propose it) diverges from the normative and cultural core of focal organizations.

Finally, manipulation is the most active response in Oliver's (1991) typology, and it connotes a clearly strategic effort to manage the external environment in a way that insures organizational interests. Attempts at co-optation of stakeholders, influencing their values or beliefs, or controlling the environment are tactics that can be taken by organizations to shape or neutralize pressures for change.

I was interested in understanding how SWAs have responded to pressures to find and develop alternative funding mechanisms. Were their responses consistent with Oliver's typology of strategic choice, or was their ability to make strategic choices constrained by exogenous factors (e.g., policy makers, growth constraints)? To begin to address this question, I conducted interviews with SWA leaders. Daft (1982) notes that governmental organizations tend to reform from the top down, adapting to changing laws and regulations or responding to declining financial resources. Agency leaders are considered change agents within organizations, so they are key to understanding the dynamics of change (Wilson 2000).

Methods

I conducted semi-structured telephone interviews (Patton 1990) with leaders of 24 state wildlife agencies at the level of director, chief or section leader of the wildlife division within their agencies. Although they represent the leadership perspective only, I selected directors because I expected they were likely to be longer tenured and better able to articulate agency responses regarding decisions about funding for wildlife. Perhaps the most problematic limitation of this approach is that leaders may be more likely to express a positive image of the agency that they oversee. To minimize this bias, questions were open-ended to encourage depth of expression and allowed me to probe for greater specificity of response (Patton 1990). All of the leaders contacted agreed to participate, and the interviews were confidential (i.e., I did not associate interviewee names with their responses nor did I identify sample states). The interview guide consisted of 20 questions (Appendix I). I selected my sample and structured the interview questions to capture the richness and detail of a range of perspectives and not to represent the viewpoints of all SWA leaders. Data presented in this paper are primarily qualitative, and verbal quantifiers such as "many" and

“some” are used to demonstrate, in a relative sense, the degree to which a general opinion was held among interviewees but not to try to characterize the study population.

To determine the face validity (Lacity and Jansen 1994) of my interview guide, I pretested it with a sample (n = 10) of wildlife professionals, and I made modifications to the guide based on their input. Interview durations ranged from 50 – 90 minutes. I digitally recorded and transcribed interviews, resulting in >500 pages of transcriptions. The research was approved by Cornell University Committee on Human Subjects (Protocol no. 04-06-008).

Sampling strategy

I used the maximum variation sampling method (Patton 1990) to select a sampling frame. Maximum variation sampling is a purposeful sampling strategy used to capture patterns of similarities and differences across a variety of cases meeting a set of criteria. To help ensure maximum variation, I divided the United States into four geographic regions corresponding generally to the Association of Fish and Wildlife Agencies’ regional associations. To select six states from each of the four regions, I used three criteria: 1) physical landscape (i.e., the most and the least metropolitan state in each region); 2) organizational structure (i.e., ≥ 1 agency that was a cabinet-level agency and ≥ 1 where the agency was part of a larger organization); and 3) governance (i.e., ≥ 1 state in which the wildlife board, commission, or commissioner had broad statutory or constitutional authority and ≥ 1 state in which the board or commission had limited power).

Although I did not specifically design my sampling criteria to capture diversity in funding mechanisms for state wildlife management, I believe that the breadth of funding model diversity, ranging from homogeneous (i.e., funded almost entirely by traditional sources) to heterogeneous (i.e., funding derived from sources such as sales

tax revenue or general funds as well as traditional sources), is represented among the 24 states.

Analysis

I analyzed data using Atlas.ti 5.0. I read each transcript and labeled data (i.e., quotes) with prespecified codes that corresponded to the modified organizational typology of strategic response: acquiescence, compromise, avoidance, defiance, manipulation. Miles and Huberman (1994) note that beginning with a “starter list” of codes facilitates the match of observations with theoretical constructs. Using the grounded theory approach (Eisenhardt 2002) that emphasizes the emergence of theoretical categories from empirical evidence, I created additional codes when I considered responses distinct from one of the categories in Oliver’s (1991) typology. From the data, two additional codes emerged: “inability to respond” and “innovation adoption.” A code-recode process (Miles and Huberman 1994) was conducted by the primary researcher to determine coder consistency (Emmerson 2001). Codes are labels “for assigning units of meaning to the descriptive or inferential information compiled during a study” (Miles and Huberman 1994: 56). Codes serve as the primary unit of analysis. I recognized that SWAs may exhibit different behaviors at different points in time, so this research represents a cross-sectional perspective.

Results

Profiles

Interviewees had worked for their respective agencies for an average of 23 years and had served in their current leadership positions for an average of six years. All interviewees had college degrees. The majority had Master’s degrees (n = 13), and three had Doctoral degrees. Most of these degrees were in wildlife management, biology, or ecology. All of the interviewees were male.

Change

I asked leaders about changes that had occurred in their agencies over the last 10 years. Each of the SWA leaders believed that significant organizational change had occurred within their agencies. Lack of adequate and consistent funding was considered by many leaders to be the predominant factor impacting their agencies. One leader described his frustrations with the changing funding situation: “[As] the number of licensed anglers and hunters goes down, monies get tighter, and so we’ve been forced to do more with less—same as everyone else.”

Although a variety of other factors were identified (e.g., political, staff shortages, societal, ecological), many of these related directly (e.g., not enough money to meet the increasing demands) or indirectly (e.g., staff shortages or program cuts due to lack of funds) to funding. For example, one leader said:

I think the biggest issue is trying to maintain the wildlife resources, both game and non-game, in the face of tremendous growth and tremendous energy development. I think that’s, bar none, the biggest challenge facing our agency, and trying to do that takes money.

Leaders expressed frustration because they were asked to do “more with less.” Some interviewees were concerned that their agencies were ill-prepared to address the “increasing and changing needs of society,” and that funding reductions made them unable to make program and staffing modifications to meet those needs. Other leaders noted that they had to “shrink away” from projects and opportunities because of inadequate funding.

Not surprisingly, securing funding for state wildlife management was identified often as the greatest challenge for the future. Although finding alternative funding was considered a necessity, it was also often associated with concerns and

frustrations regarding implications for the future of the institution. For example, one leader noted:

. . . you've got these additional funding mechanisms, particularly state wildlife grants that may allow us to spend more of our effort on particular species that we haven't spent a lot of time on in the past. And we have a balancing act to be true to ourselves professionally but also true to the increased and changing interest of the public. . . How do we design programs that pass the straight face test, that we're not ignoring the traditional game species, that we are incorporating these traditional interests that are out there. . . How do we do that without alienating some of our traditional consumptive users and marry the two sets of interests without alienating one or the other?

Some leaders said that specific nontraditional stakeholders (e.g., wildlife viewers) or the general public should help fund wildlife management and expressed frustration about the inequities of the traditional funding mechanism for a public trust resource. One interviewee described his perspective as follows:

[We need] to find a sustainable, reliable source of funding for the agency in addition to hunting and fishing license dollars. Non-consumptive users are going to have to step up to the plate and fund what they've been enjoying at the expense of hunters since the thirties.

Strategic response to pressure to secure alternative funding

State wildlife agency leaders provided examples of behaviors exhibited by their agencies in response to pressure to secure alternative funding from within the state wildlife management institution. These examples reflected the behavioral characteristics demonstrated in Oliver's (1991) strategic response typology, but my data indicate that the typology should be considered a behavioral continuum versus discrete behavioral categories.

Acquiescence

All leaders identified the need for additional funding, and many described ways in which their agencies addressed the need to compensate for declining revenue from traditional sources. Generally, campaigns to secure funding from nontraditional sources were described as “difficult” for a variety of reasons, including lack of support from policy makers and the public. One leader described a challenge to his agency’s efforts to expand the organizational field, and subsequently the funding responsibilities, beyond traditional constituents:

Some hunters and fishermen would like to be the main source of funding because then they have the largest say in decisions, but there are other people that see the importance of wildlife broader than that. We’re trying real hard as an agency to demonstrate the value of wildlife to all of the people of [our state]. We know it’s a quality of life issue in this state and that people move to [this state] for its scenery, for its outdoor recreation, for wildlife. And so we believe that the larger public should play a bigger role in funding our agency.

Consistent with Oliver’s (1991) imitate tactic (see Table 3-1), many of the alternative funding mechanisms (e.g., tax check offs, license plates, and foundations) have diffused throughout the institution, with varying degrees of success in terms of funds generated. For example, in some states, conservation license plates generated significant revenue whereas in other states, the revenue from license plates was relatively small. One leader observed that, similar to the private sector, options for the public to provide funding for wildlife should be actively marketed. He said, “If funding from something like a sales tax isn’t forthcoming, you have to get serious about hiring someone to do marketing and promotion for the options that you have.” This observation illustrates not only conformity to institutional norms (i.e., SWAs

ought to find alternative funding sources) but demonstrates how acceptance might morph into strategic behavior to ensure that organizational interests are met.

Compromise

Organizations may accede to pressures but do so in strategic ways to ensure that their own interests, or interests of other organizations with which they are aligned, are promoted (Oliver 1991). For example, some leaders noted that although they had to accept nontraditional funding, they wanted to maintain a distinction between traditional and nontraditional funding sources and the programs and activities that each supports. One leader described the way that his agency had structured its funding allocation to ensure the separation of game and nongame programs:

In the last couple years, we have accepted some general fund monies, which always comes with that potential political interference...but we've kind of bifurcated everything. We looked at our programs, and we separated out traditional wildlife management programs, particularly ones that should probably be supported by hunters and anglers. Then we picked out programs that the general public should share in the cost: disease, capital construction, hatchery renovations, maintenance of some of our unit or habitat areas. For those, we are using some general fund monies. I think that if you have to accept some general fund monies, then separating those programs out and keeping legislatively-approved dollars out of basic wildlife management programs may be a good way to go.

This observation illustrates this agency's efforts to balance the interests of traditional and nontraditional stakeholders and perhaps, pacify traditional constituents that may feel threatened by the introduction of a new funding source.

Avoid

Of the behaviors in Oliver's (1991) typology, I found little evidence that SWAs avoided pressures to secure alternative funding. That is, all of the leaders said that their agencies recognized the need to augment traditional funding and have taken steps to secure alternative funding. Some leaders noted that their agencies had been ineffective in their efforts to pursue alternative funding and that environmental factors needed to change before their agencies could make significant changes in their funding situations. One leader described his agency's "wait and see" approach:

We're looking at alternatives, but we haven't been successful at all. . . . we've got a non-game check-off on our income tax. It doesn't get anything. . . . we're talking \$20,000 a year. It's just really not very effective at all. We would love to be able to find that magic whatever it is that would open some doors up, but I really don't think until we have a change with our financial situation in this state that we're going to open any doors, until we have some guaranteed federal money that we can go get if we've got a guaranteed state pot.

In this example, the SWA's decision to waylay additional action can be considered strategic in that it was a conscious choice. The extent to which agencies behavioral options are voluntaristic versus environmentally determined is situation-specific. I discuss the distinction later in the paper when I suggest that, due to environmental constraints, some SWAs may be unable to respond strategically and that environmentally determined outcomes (i.e., no change) may be a reality, at least in the short term, for some SWAs.

Leaders identified a variety of reasons for not pursuing alternative funding mechanisms, including state limitations on growth and hiring, lack of political and

public support, failure of past efforts, and hope that reliable and consistent federal funding sources would become available.

Defy

Although most leaders said that their agencies had pursued some type of alternative funding mechanism, some leaders said that they were focusing primarily on increasing revenue from traditional funding sources (e.g., by working with policy makers to raise license fees, hunter recruitment efforts). In some states, this approach continues to be used to address funding shortfalls because it is considered less politically charged than other approaches. When asked if his state had established alternative funding mechanisms, one leader described the situation as follows:

The only new thing on our horizon has been the State Wildlife Grant program which is not generated by the state. I know part of the program is to try to encourage the state to find new avenues of money, but it becomes this political hot potato in this state. . . I'll be open and honest about that as far as our increasing fees to non-residents which generally does not affect politicians.

Non-residents don't have a voice in the state of [X], a voting voice.

Other leaders questioned the long-term feasibility of working within the traditional structure and thought that hunters should no longer be subjected to license fee increases to support wildlife management that benefits all of the citizens of their states.

Manipulate

Although few examples of manipulation were offered as a response to pressures to secure alternative funding, some leaders mentioned strategies that their agencies had employed to influence public attitudes and behaviors. For example, one leader said that his agency recognized the need to secure alternative funding

mechanisms, so they were going to raise revenues creatively by going through an established process:

We're trying to make the public aware that what license money is actually spent on is not just things related to hunting and fishing. . . and information will be going out to explain what we do and, for example, we do a lot of things just for wildlife and habitats in general that affects all the citizens. . . So what we're doing is encouraging the non-users to go ahead and buy a license. So it's kind of looking at the non-traditional users but it's using a method—a method that's already there. We're most comfortable working within this system.

In addition to finding support for Oliver's (1991) typology of strategic response, I found evidence that some SWAs had engaged in active transformation (innovation adoption) and that others were unable to make strategic choices due to environmental constraints (environmentally determined).

Innovation adoption

Leaders provided examples of innovative behaviors in response to pressure for finding alternative funding. Organizational innovation is defined as the “adoption of a new idea or behavior” (Daft 1982: 131). Innovation adoption can refer to an entirely new idea or behavior, one that has not been used by any other organization within the organizational field, or an idea or behavior applied elsewhere that has not been used before by a particular organization. I define innovation adoption as the former versus the latter behavior because the latter option is captured by Oliver's (1991) acquiescence strategy (i.e., the “imitation” tactic). Further, I propose that innovation adoption is the most active of the strategic response options because organizational adoption and implementation of innovations often involves complex decision-making and implementation processes that requires organizational buy-in (Rogers 2003).

Although there are many barriers to innovation adoption (e.g., bureaucratic inertia), it is one of the fundamental processes within organizations (Wilson 2000).

Leaders identified many innovative ideas that had not been fully developed or pursued and some that had failed. Some innovations, however, were being implemented and were generating revenue as well as expanding the organizational field to include nontraditional stakeholders, both in terms of mechanisms to pay for wildlife conservation and by increasing overall interest in wildlife. One leader described his agency's innovative approach:

We also have something called the [X] Fund which is a way for folks to make donations to our agency. We have a theme every year. Usually it's a non-game bird or mammal and we'll go ahead and have art work generated and we'll sell that and we'll sell patches and so forth to try to promote this concept of people working with the Game Commission to support wildlife. So we're trying to reach out to a broader constituency.

Some leaders gave examples of how their agencies had been innovative in seeking out new partnerships to provide funding or to assist their states in meeting the match requirement for State Wildlife Grants and other federal funds. Other agencies have hired marketing experts to assist them with finding innovative ways to appeal to new constituencies and raise money for wildlife management.

Inability to make strategic choices (environmentally determined)

The response category of no change refers to the inability of agencies to make strategic changes due to constraints imposed by their external environments. This behavior is distinct from avoidance, which can involve strategic decisions to maintain the status quo until some environmental condition changes. I found that some SWA leaders perceived that their ability to seek and use alternative funding was constrained by environmental factors beyond their control. For example, one leader described his

frustration at trying to generate support among state leadership regarding long-term funding. In reference to obtaining alternative funding, he noted that:

It's one of the angriest flags I'm waving. I don't see a real vision in our upper administration on how to lead us out of this funding nightmare that we're in. It's a political situation in which the Governor has basically tied the hands of our upper administration from telling the public the dire straits that we're in because there are other agencies in state government that have larger deficits. For that reason, we're basically not able to go out and say 'look, we're very shorthanded, we need help developing a sustainable, solid, wide-based funding support for this agency.' We just aren't able to tell our story.

In addition to factors outside the state wildlife management institution (e.g., elected representatives, state budgetary constraints), forces within the institution may limit SWAs' abilities to make strategic choices. For example, leaders offered examples of defiance exhibited by other organizations within the organizational field (e.g., their boards and commissions, interest groups). One leader said that:

I think our board has made a fundamental decision that we're going to stay with our traditional customers and, quite frankly, we're not going to make a concerted effort to go and embrace the public at large. . .so we're going to focus basically on our traditional business of hunting and trapping, and we're going to primarily stay with those customers. We're certainly going to attempt to recruit new folks into it, but while we provide a lot of services, there's not been any concerted effort or any specific program that's been developed to try to help those folks see us as being relevant to their lives.

Some leaders thought that resistance by the organizational field to the introduction of alternative funding was unrealistic. One leader offered his philosophy on addressing resistance to change:

One of the whines that you get out of the traditional group is, hunters have always funded wildlife conservation, and why should the nonconsumptive user just assume that they can get the benefit of the state's wildlife management program without paying into it. So early on in the stage of thinking about this, we get a lot of people nodding their heads saying 'yes, it's about time that they pay.' The closer you get to some sort of concrete result, you start hearing well, we don't want them to be paying because as soon as they pay, they get a seat at the table. And we tell people that that's a pretty unrealistic way of looking at things because the nonconsumptive user already has a seat at the table.

Although this leader recognized the need to secure alternative funding, resistance from the organizational field has limited his agency's ability to do so, at least in the short term.

Modified typology of organizational response

Although I found more evidence of passive adaptation versus active resistance, leaders' descriptions of their agencies' behaviors were generally consistent with Oliver's (1991) typology in that I found some evidence for each behavioral response type. My research suggests that this typology has two primary limitations. First, it excludes the possibility that organizational behavior may be largely determined by exogenous factors, and strategic choice may not always be an option (Hrebiniak and Joyce 1985). This is particularly true with governmental agencies that are strongly influenced by external forces (Wilson 2000), specifically policy-makers who have budgetary and other oversight authority. Second, the typology omits innovation adoption (Rogers 2003) as a behavioral response to pressures for change.

To address my concerns about this typology, particularly in the context of the state wildlife management institution, I offer a modified typology of organizational response to pressure for change (Table 3.2). I believe that this typology more

comprehensively captures the range of SWA responses to pressures to secure alternative funding mechanisms. In addition to Oliver's (1991) response options, my typology includes two new categories: 1) inability to make strategic choices due to environmental constraints (environmentally determined) and 2) innovation adoption. The typology suggests outcomes of the various organizational response strategies.

Table 3.2. State wildlife agencies' responses to pressures to secure alternative funding sources and outcomes of each strategy.

Deterministic (inability to respond)	
Strategies	Outcome
Inability to make strategic choices	No change
Voluntaristic (ability to be strategic)	
Strategies	Outcome
Avoid, defy, manipulate	Resistance to change
Acquiesce, compromise	Passive adaptation
Innovation adoption	Active transformation

Discussion

The ability of SWAs to be effective in the face of changing biological and social factors depends in large part on their successes in securing alternative and consistent funding. My study demonstrated that SWA leaders recognized the need to find new funding sources, but they differed in their perceptions of how their agencies had responded to pressures to do so. Most leaders indicated that their agencies had made at least some changes, ranging from passive adaptation to active transformation, to address the changing funding environment. In general, the leaders offered more

examples of passive adaptation than resistance, likely because the need to secure new funding sources was widely recognized by interviewees. Similarly, leaders were more likely to describe instances where their agencies had imitated funding mechanisms that had been used by other SWAs than they were to provide examples of innovations new to the state wildlife management institution. Even so, innovation adoption was identified by some SWA leaders, so I believe that the addition of innovation adoption as a distinct strategic response improves the ability of the typology to capture the full range of strategic responses to institutional pressures for change. Oliver (1991) suggests that innovative behaviors emerge from resistance because organizations that resist, maintain some level of control and discretion (i.e., the ability to innovate). I agree that innovation is a highly strategic response, even more so than active resistance, however, I question whether innovation adoption is necessarily a function of resistance, or if it can instead be a proactive behavior exhibited by organizations with strong willingness and ability to change. Although I did not examine the antecedents to innovation adoption, I found clear examples of SWAs as early innovators (Rogers 2003) in finding and implementing new ways to fund their agencies. Further research is needed to understand the antecedents to organizational response, both strategic and nonstrategic.

In some cases, SWAs' ability to pursue new sources of funding was perceived by leaders to be environmentally determined. That is, these leaders believed that their agencies were constrained by their environments, either from outside or within the institution, so they believe that they were unable to make strategic choices about funding options. Consistent with institutional theory, this finding emphasizes the importance of understanding the influences of exogenous forces on organizational behavior. Sometimes organizations demonstrate a willingness to change, but their ability to do so is hampered by the general political or economic climate or lack of

support from key constituents, policy makers, or the public. My study indicates that other organizations within the organizational field can be considerable impediments to SWAs seeking to develop alternative funding, which suggests that the need for change is not uniformly recognized throughout the institution. Hrebiniak and Joyce (1985) contend that although organizations are influenced by their environments, they often have the ability to influence their environments as well. State wildlife agencies may not be able to impact the broad political or economic climate, but they may be able to increase understanding and support for new funding among their traditional constituents, potential new constituents, policy makers, and the general public. Many leaders stressed the importance of building coalitions of diverse constituents and how these partnerships had facilitated their efforts to find and use alternative funding. Expanding the boundaries of the organizational field is a natural part of organizational evolution and will be beneficial and necessary for SWAs in terms of political support for obtaining funding and accountability after funding is secured.

For those agencies able but unwilling to change, resistance of some kind is a likely response. Seldom are incentives for government agencies to transform obvious, and support for change is not always popular (Behn 1997). Nevertheless, resistance to alternative funding strategies in particular is not a long-term option because the changing nature and increasing costs of wildlife management as well as decline of traditional funding in many states are trends that are unlikely to be reversed (Hamilton 1992). Inevitably, SWAs will need to secure consistent alternative funding mechanisms to sustain their capacity to provide diverse conservation and management services that benefit a broader cross section of society than just hunters.

Management Implications

In many cases, SWAs have made strategic choices to address their needs for additional funding. SWAs willing to pursue alternative funding options should

evaluate the best course of action considering factors such as the political environment and degree of support from key stakeholders. If such evaluation suggests that alternative funding will be met with resistance from the organizational field, the best course likely is not to charge headlong into a controversy, but to lay the groundwork for strategic action in the future. Increasing understanding about the need for alternative funding, assuaging concerns about implications of alternative funding (e.g., giving voice to nontraditional stakeholders, sharing policy influence with new stakeholders), and establishing diverse partnerships may reduce resistance and even generate support for pursuing new funding sources. Done well, agencies may gain allies in the pursuit of innovative thinking and action to sustain effective wildlife management.

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CHAPTER 4

FUNDING STATE WILDLIFE MANAGEMENT IMPLICATIONS OF SOCIETAL CHANGE ON HIGHLY RESOURCE DEPENDENT ORGANIZATIONS

Abstract

The state wildlife management institution (Institution) is transforming due to changing biological and social factors. The ability of state wildlife agencies (SWA), key organizational actors within the Institution, to be effective in the face of these changes depends in large part on their success in securing alternative and consistent funding. Traditional sources of funding (i.e., revenue from hunting license sales and Pittman-Robertson Wildlife Restoration money) are no longer sufficient to sustain state wildlife management because of increasing demands for programs and services. I use resource dependency theory as a framework for understanding the current Institution and discuss how dependencies between SWAs and traditional stakeholders might impede change. Insights from organizational theory were used to help understand ways in which organizations transform in response to changing circumstances. I used a multiple case-study approach to examine four state wildlife management agencies, two with secure, alternative state funding and two without significant alternative funding, to provide insight regarding whether and how funding influences SWAs' ability to maintain legitimacy with a changing society. Legitimacy refers to the extent to which institutions are connected to a broad normative and cultural framework. I found that SWAs with secure, alternative funding demonstrated organizational transformation to address diverse stakeholder interests that to some extent preceded achievement of funding goals. States without secure, alternative funding had difficulty addressing changing and increasing demands for programs and services and had been unable to garner the political capital necessary for successful

funding campaigns. My results suggest that, in the long term, it would benefit SWAs to first promote internally, and then with interest groups and policy makers, an understanding and acceptance of the need to diversify programs and services to meet broad societal needs, regardless of the dominant funding source. Public outreach in the form of needs assessments and accountability reporting will aid in securing and maintaining alternative funding. By embracing a broader diversity of public interests and developing a strategy for change, SWAs will increase their chances of achieving funding goals and, perhaps more importantly, maintaining legitimacy with society.

Introduction

Societal pressure for change has resulted in transformation of the state wildlife management institution (Institution), the people, processes, and rules as well as the norms, values, and behaviors associated with state wildlife management (Jacobson and Decker 2006). Part of this change is the deinstitutionalization (Oliver 1992) of the traditional funding mechanism for state wildlife agencies (SWA). The traditional funding mechanism for SWAs, not including fisheries management, has been revenue from hunting license sales and Pittman-Robertson Wildlife Restoration funds. In the last 30 years, the Institution has recognized the need to reform the traditional funding model (Heberlein 1991, Hamilton 1992, Franklin and Reis 1996, Bies 2005) due to difficulties in sustaining existing activities as well as expanding into new program areas (Hamilton 1992, Anderson and Loomis 2006). Specifically, this model reinforces historical dependencies between hunters (and to a steadily growing extent, shooting sports enthusiasts via their increased contributions to Pittman-Robertson) and the organizations (i.e., SWAs) that are funded by them. It has been suggested that funding of state management has “blurred the essential distinction between public interest and special interest and inevitably eroded both scientific credibility and public trust” (Gill 1996: 63). Hamilton (1992) asserts that SWAs’ dependency on one user

group to fund wildlife conservation and management leaves agencies in vulnerable positions. Further, the current funding paradigm, according to Anderson and Loomis (2006), perpetuates a client (i.e., hunters) versus stakeholder (i.e., all interested citizens) approach to wildlife management (Hamilton 1992). SWAs will need to develop alternative funding mechanisms to sustain their capacity to provide diverse conservation and management services that benefit hunters and nonhunters alike. Hamilton (1992) notes that it is not likely that SWAs will become “extinct,” but that their legitimacy with new as well as traditional stakeholders may be compromised. The degree to which an institution is considered legitimate to society depends on its consonance with societal laws, norms and cultures (Scott 2001). Legitimacy refers to the extent to which institutions are connected to a broad normative and cultural framework. Legitimacy is necessary for institutions to survive in the long term, particularly those institutions existing because of interest in common resources or public services (Mazmanian and Nienaber 1979, Scott 2003). One way that SWAs can maintain legitimacy with a changing society is by increasing their efforts to be responsive to the needs of a diversity of stakeholders interested in wildlife (Decker and Chase 1997).

As traditional funding for state wildlife management becomes increasingly inadequate (e.g., because of declining hunter numbers and corresponding license revenues in some states, increasing demands and subsequent costs of wildlife management), most states have sought alternative funding (e.g., state general funds, tax check-offs) (Hamilton 1992). These new funding sources present challenges to the Institution (Jacobson et al. 2007). In addition to the creation or expansion of programs, agencies using new and general funding sources will likely need to be more accountable to a larger and more diverse constituency. It will be incumbent on the Institution to overcome an historical dependency on funds derived from hunting

without alienating traditional constituencies. Putnam (1993: 179) notes that tensions emerge as institutions “bearing the imprint of the past” try to address current and future problems.

The resource dependency perspective posits that organizations become dependent on those entities that have control over critical resources, particularly when options for obtaining those resources are limited (Johnson 1995). The extent to which resource dependency impacts the Institution’s ability to maintain legitimacy in contemporary society has not been examined. The purpose of this paper is to offer: (1) a framework for understanding how the traditional funding model for SWAs has shaped the status quo and influences SWAs’ ability to transform to meet changing societal interests; (2) case study data to examine whether and how resource dependent organizations change; (3) insights into how SWAs have secured and maintained alternative funding; and (4) implications of my findings for SWAs seeking to maintain legitimacy with contemporary society.

Resource dependency

The resource dependency perspective suggests that managers ensure organizational survival by aligning their organizations with organizations that provide resources and support (Pfeffer and Salancik 1978, 2003). Although organizations are dependent on other organizations for resources, they take strategic actions to manage interdependencies with these organizations. While all organizations are dependent on other organizations or individuals, the degree of dependence ranges from fully captive organizations that are largely dependent on other organizations for their survival to resource-rich organizations that are less susceptible to influence from other organizations (Johnson 1995). Captive organizations have fewer options to exert control and are more constrained in their attempts to modify dependent relationships. SWAs have been labeled as captive organizations due to a dependency on a “single-

source” (i.e., hunters) to provide resources in the form of funding for state wildlife management (Heberlein 1991, Hamilton 1992, Anderson and Loomis 2006). Historically, this dependency has been mutually beneficial in that sportsmen and women received the benefits they desired (e.g., regulated management of game), and SWAs received the funding that they needed. Overall, wildlife benefited from the conservation and management activities made possible because of hunter-generated revenue. This system worked well as long as the funding was adequate and demands on SWAs were limited in scope.

Pfeffer and Salancik (2003: 3) note that “problems arise not merely because organizations are dependent on their environments, but because these environments are not dependable.” When environments change, organizations are forced to adapt or fail to survive. Diversification is one strategy used by organizations to “diminish the criticality of a particular exchange relationship” (Pfeffer and Salancik 2003: 111). The resource dependency theory offers a unique perspective for helping us understand impediments to organizational change and ways in which SWAs might transform to accommodate a changing society.

Organizational transformation

As the historical mechanism for state wildlife management becomes less dependable, SWAs will need to break free from dependencies or risk becoming ineffective (i.e., unable to meet the diversity of wildlife-related interests). An inability to be responsive to diverse societal needs could result in SWAs losing legitimacy to society. Hamilton (1992) stresses that SWAs that continue operating under the traditional funding paradigm will face significant threats to programs because of funding shortfalls. He suggests that securing a diverse funding base, including traditional sources, is critical to meet societal demands and conserve wildlife. Like many other examples of institutional change, transformation from the traditional to a

nontraditional model for funding wildlife management will be incremental and likely met with resistance (Tolbert 1985). Aldrich (1999) defines organizational transformation as a major change that occurs along 3 possible dimensions: *goals, activities, and boundaries*. According to Aldrich (1999), organizational research has identified two primary elements of goal transformations: (1) changes in the breadth of organizational goals, particularly evolution from specialism to generalism; and (2) changes in the domain served by an organization. These elements are often correlated.

The second dimension of transformation includes changes in activities that have a significant effect on organizational knowledge (Aldrich 1999). Transformation in activity systems might involve changes in products and services provided due to the introduction of new technologies or management systems, as well as changes in the availability of resources. Expansion and contraction of boundaries is another way organizations change. Organizational boundaries are delineated by membership, both of individuals and organizations (Aldrich 1999). Consistent with resource dependency theory, diversification is a strategy to minimize dependence on critical exchange relationships.

My research sought to assess whether and how highly resource-dependent organizations transform due to changes in their dominant funding paradigms. I explored whether or not SWAs that had established nontraditional funding sources were more likely to demonstrate organizational transformation toward responsiveness to a diverse constituency compared to SWAs that relied on more traditional funding mechanisms. The primary assumption of this research was that SWAs' responsiveness to a diversity of stakeholders was key to their continued legitimacy with society. The question guiding this research was: How are SWAs that have nontraditional funding similar/different from those that rely primarily on traditional funding in terms of their ability to meet the need of a diverse constituency?

Methods

I used a multiple-case-study design with a mixed-methods approach (Tashakkori and Teddlie 1998) for data collection to address the research question. Case study research is the preferred method when “how” or “why” questions are being asked, when the investigator has little control over behavioral events, and when the focus is on a contemporary phenomenon within a real-life context (Yin 2003). A two-tailed (i.e., sampling for extremes) approach (Yin 2003) was used to identify four case study states, with the SWA being the unit of analysis. The states had the following characteristics: (1) two SWAs that had established nontraditional, state-based funding that comprised a significant portion of their total funding ($\geq 40\%$ of their total budget), the Missouri Department of Conservation (MDC) and the Arkansas Game & Fish Commission (AGFC); and (2) 2 SWAs that relied primarily on traditional funding ($\geq 70\%$ of their total budget), the Maine Department of Inland Fisheries & Wildlife (MDIFW) and the New Mexico Department of Game & Fish (NMDGF). Percentages roughly reflect the reality of the two extremes for SWAs. In both Missouri and Arkansas, the state constitutions were amended (in 1976 and 1996, respectively), increasing their state sales tax by 1/8 of a cent and dedicating those funds to conservation programs (MDC receives all of the revenue generated while AGFC receives 1/4 of the total revenue). Yin (2003) contends that replication logic should be the basis of case selection in multiple case studies because it helps ensure external validity of the research design. He notes that with multiple-case studies, each case must be selected so that it “either (a) predicts similar results (a literal replication) or (b) predicts contrasting results but for predictable reasons (a theoretical replication)” (Yin 2003: 47). My design allowed for exploration of replication from a literal (i.e., is replication apparent between the 2 agencies that have similar funding?) and theoretical (i.e., contrasts apparent between the 2 types of SWAs) base. With the intent of

utilizing data collected via interviews with 24 SWA leaders at the director/chief/section head level in Phase I of my research, the four cases were selected from the original 24 SWAs.

Based on insight from organizational theory and data collected in Phase I, I identified three *a priori* indicators of SWA transformation towards responsiveness to a diversity of stakeholders. These indicators included were: (1) expansion of goals beyond a traditional focus; (2) a diversity of programs and services offered; and (3) organizational boundaries expanded beyond traditional stakeholders.

A case-study protocol was developed to guide, focus, and increase the reliability of multiple-case study research (Yin 2003). Data were collected between June 1 and August 1, 2007. The 4 leaders interviewed in Phase I provided the original list of interviewees, and a snowball sampling approach (Patton 1990) was used to identify additional people. Data collection consisted of semi-structured interviews with key stakeholders and review of documents (e.g., budgets, organizational charts, annual reports). Data from Phase I were used as a starting point for understanding the 4 SWA leaders' perspectives, and in Phase II, follow-up interviews with these agency directors/bureau chiefs were conducted. Additional interviewees included other state agency leaders (i.e., but at different levels within the agencies' hierarchies); SWA administrators; nontraditional staff (e.g., education/communication specialists, nongame program leaders, and planners and human dimensions staff); supervisors/area managers; leaders from mainstream conservation groups; and decision makers such as legislators (and/or legislative staff) and board/commission members.

Semi-structured interviews (Patton 1990) were conducted with interviewees in Arkansas, Maine, Missouri, and New Mexico (n=14, n=16, n=13, n=14, respectively). Most of the interviews were conducted in-person in each of the 4 states, but some

were conducted via telephone. Interviews were confidential (i.e., interviewee names were not associated with their responses). Interview guides varied depending on interviewee category (e.g., director, planner), and interview questions were structured to capture the richness and detail of a range of perspectives and not to represent the viewpoints of all organizational actors (Appendix II). To determine the face validity (Lacity and Jansen 1994) of my interview guides, I asked a sample (n = 10) of wildlife professionals to review the instruments; modifications were made to the draft guides based on their input. Interview durations ranged from 30 – 120 minutes. Interviews were digitally recorded and transcribed, resulting in over 950 pages of transcriptions. I analyzed data using ATLAS.ti 5.0 (Scientific Software Development, Berlin, Germany). I read each transcript and labeled data (i.e., quotes) with pre-specified codes that corresponded to the broad indicators of transformation towards responsiveness to a diversity of stakeholders, expansion of goals, activities and boundaries. Codes are labels “for assigning units of meaning to the descriptive or inferential information compiled during a study” (Miles and Huberman 1994: 56). Codes serve as the primary unit of analysis.

My literature review and Phase I research helped me define these categories as they relate to SWAs: (1) Goals: statements that reflected SWA culture regarding the importance that was placed on responsiveness to a diversity of stakeholders versus hunters alone; (2) Activities: statements that demonstrated that programs and services were offered to address the interests and demands of a constituency broader than just hunters; (3) Boundaries: statements that demonstrated the SWAs interest and effort to (a) expand partnerships with individuals and groups that were not hunting focused, and (b) understand public values and attitudes regarding wildlife in their state. Each time data were labeled with a code: a “+” or “-“ indicating transformation or not was assigned to that code. A code-recode process (Miles and Huberman 1994) was

conducted by the primary researcher to determine coder consistency (Emmerson 2001).

Documents were used in two primary ways: (1) as part of the original selection process, budgets were used to verify the funding sources for each state; and (2) to augment interviewee data. Triangulation of data (Miles and Huberman 1994) is a method used to substantiate and expound on information provided by other sources. Triangulation and maintaining a chain of evidence improves construct validity of case-study data (Yin 2003). To further improve construct validity, key interviewees were asked to review the results to assess if I accurately captured the “facts” of the case (Yin 2003). Revisions were made as appropriate.

The research was approved by Cornell University Committee on Human Subjects (Protocol no. 04-06-008).

Results

SWAs with secure, alternative funding: Missouri and Arkansas

Organizational goals

Staff from MDC and AGFC stressed that prior to securing the sales tax, their SWAs recognized that organizational goals needed to be expanded to address a diversity of wildlife-related interests, including nongame research and management, education, watchable wildlife, and habitat acquisition. For example, when asked if nongame research and management was part of MDC’s culture, one retired program manager noted:

It is now and, to some extent, it was even before the sales tax passed because it was the agency that said ‘here’s what we want to do with the new money, we want to expand this and that.’ What it did was it changed the percentage of funds invested in those programs in a huge way. . . We might have one nature center instead of five or six of them.

As part of their campaigns to generate support for the sales tax initiatives, both states made considerable efforts to conduct social and economic analyses to understand public interests and the feasibility of various funding approaches. Both MDC and AGFC also made commitments to the public, via their Design for Conservation and Plan for Conservation, respectively, regarding how sales tax revenues would be used to meet public needs.

MDC maintains a feedback loop with the public via survey research, planning and outreach. In their latest strategic plan revision, MDC related each of its goals to interests identified by the public (Conservation Commission of the State of Missouri 2006). Although AGFC has made considerable progress in fulfilling the promises outlined in the Plan for Conservation (e.g., land acquisition, nature and centers, more enforcement officers), unlike MDC, it is in the early stages in development of a mechanism for facilitating dialogue with the public to improve accountability. One AGFC leader observed:

In order to get public support and to pass our conservation sales tax, we actually conducted a survey and we asked folks out in the counties what they wanted and we put together a list, a county list. We have tried to do as many of those things as humanly possible. . . we have tried to be very responsible, tried to spend their money wisely. . . we need to do a better job of communicating back to them.

According to interviewees in Missouri and Arkansas, goal expansion was critical prior to securing the sales tax, and maintenance of a “public service” approach—the public being voters of their states—was institutionalized in both SWAs. Staff from MDC and AGFC recognized that the sales tax was under continual political scrutiny, and that broad public support, as well as support from a diversity of organizational partners, was needed to maintain the level of programs and services the

sales tax revenue allowed them to provide. For example, a leader from MDC stressed the importance of the sales tax for meeting public needs and expectations:

I think it's been critical. There is no resemblance. . .to the Department in the mid-1970's before the sales tax in terms of the range of programs that we're able to fund, the range of partnerships that we have in place, the range of services that we've been able to provide to the public and a good example of that is our new Private Land Services Division. . .if this department would ever lose that sales tax funding. . .and go back into a situation where you couldn't have that predictable, stable source of funding coming in and had to go back and rely on the permit revenues which are right now about only 20 percent of our budget,. . .this department would cease to exist as you see it today. There's no question in my mind.

Interviewees in Missouri and Arkansas identified how the availability of alternative funding facilitated a transformation from traditional SWAs focused on game management to SWAs with broader conservation foci. Although the availability of additional funding provided resources to hire staff and pay for tangible items such as equipment and nature centers, it also allowed both SWAs to fulfill broader visions expressed prior to securing the sales tax. The role of funding in broadening organizational goals was not underestimated by interviewees. One leader from AGFC believed that the availability of a secure funding source transformed his SWA into a leading conservation organization:

We promised a strong educational effort and then coupled with that was that we would invest in nongame programs and so that's made a pretty big difference in our agency. I mean, we have hired some additional people in that area but across the board, it's probably changed the way most of our employees do their work and how we view our responsibility. Because of that

funding, I think, we've become a conservation leader, and that's a big deal to me. We were not that. We were just an agency, just a game and fish agency. Although additional funding necessarily increased SWAs capacity to provide a diversity of benefits to the public, strategic designs to meet the expressed interests of the general public were key to the successful funding campaigns. Both MDC and AGFC staff referred to public accountability as important in defining the direction of their agencies. When discussing their efforts to offer a diversity of services, staff from both agencies highlighted the importance of accountability to the public. The following perspective from an AGFC leader represents this viewpoint:

We used to be very much focused on hunting and fishing before, and now we are trying to expand that to include, you know, bird watching, hiking, canoeing, anything that you might do outdoors in the natural state. . .now that we passed the sales tax, our constituents are all citizens of the State of Arkansas, instead of more focused on those who are buying hunting and fishing licenses.

For both Missouri and Arkansas, availability of the sales tax was intimately tied to promises made to a diverse public (i.e., statewide voters). Subsequently, the goals of the SWAs were broadened to assure accountability to the voting public.

Organizational activities

The two states with alternative funding demonstrated considerable diversity in the services and programs offered. For example, both MDC and ADGF had (1) produced conservation magazines; (2) constructed and maintained nature and wildlife education centers; (3) acquired land to increase access to wildlife for both consumptive and nonconsumptive stakeholders; (4) offered a breadth of educational programs and opportunities; (5) implemented urban/suburban-focused programs; and

(6) provided innovative programs to address issues related to private land owners. A leader with MDC describes the activities and function of their Private Lands Division:

We also have a staff of what we call community conservationists out there now, two in St. Louis, two in Kansas City and one in the Springfield area. Their job is to work with city governments, local developers, those types of people within the urban community to bring conservation-related programs to those people and to help them and provide any technical assistance we can to help with the green developments, helping local governments understand an effective way to do green developments or to bring conservation into an urban community. . . we also have what we call area biologists and these are a group of five people that work in the USDA area offices out there, and their job is to help coordinate conservation with agriculture.

Interviewees from NGOs outside of the two SWAs were encouraged by the expansion of agency programs and staff. One NGO leader's description of agency activities illustrates this perspective:

Oh, they've done a lot of good stuff. They've hired people, very important non-game fish people, non-game mammal people, herp. people, bird people. . . just having that extra staff has been tremendous boost for this group of critters.

In both states, nontraditional NGO leaders interviewed believed that the services provided by the SWAs were in line with the interests of their organizations' memberships. Both agency and NGO staff attributed the ability of these agencies to diversify their programs to the availability of sales tax revenue. One NGO leader's description of MDC's situation is illustrative of the responses:

The fact that Missouri had this stable funding base allowed them not only to hire great people to manage the hunting season and the fishing resources and so forth, but it allows them to hire real ornithologists and people who can be

interested in systematics and people who can get the idea of an ecosystem and biodiversity into the conservation organization. When you have enough money that you can hire the people who spend their career doing it, then the lessons of ecosystems and habitat and the lessons of biodiversity and conservation become a part of your conservation organization. . . and so it really comes down to ‘you get what you pay for.’

Agency staff in both states were confident that significant public support existed for their agencies, primarily because they had made demonstrable progress toward fulfilling promises they had made to the public as part of their funding campaigns.

One MDC leader’s observation captured the essence of the responses:

I think 31 years of an expanded, more aggressive outreach and education program in the state has paid dividends in terms of public support, public interest in natural resources and that’s a long-term investment that, without that kind of funding—and dedicated, consistent funding—you just can’t do.

As part of their campaigns to secure a portion of sales tax revenues in their states, both MDC and AGFC prepared plans for how the funding would benefit all of the people of their states via expansion in breadth and depth of agency activities. Accountability to the public was a theme that emerged in both SWAs. For example, one educator from MDC noted:

We wanted to get more contact with the general public and let them see that those sales tax dollars meant something to everybody, to their kids in school that do a field trip there, it’s—in Missouri, it’s so much more than—hunting and fishing is big but everybody pays the sales tax and you want to make it clear that everybody’s benefitting from it.

For both SWAs, the availability of a diverse funding source necessitated and facilitated expansion of program activities beyond game management.

Organizational boundaries

Partnerships: Both MDC and AGFC established enduring partnerships with NGOs and other entities, both traditional and nontraditional. The importance of partnerships in accomplishing these SWAs' conservation goals was emphasized by SWA and NGO staff. Specific outcomes of partnerships included provision of funds for projects and staffing, land acquisitions, and sharing of knowledge and expertise. One MDC leader's description of the importance of partnerships to his SWA, including how these partnerships had translated into political capital when their funding source had been compromised, was typical of the responses:

We have absolutely wonderful involvement by our partners in a number of different areas. . . we have a very powerful and wonderful alliance of groups that would include our Missouri Prairie Foundation, Audubon Missouri, the national Audubon Society's affiliates here, our own conservation federation, the National Wild Turkey Federation, individual Ducks Unlimited members and on and on. . . Who will almost at the drop of a hat when our programs are threatened show up to provide that critical kind of testimony.

For both SWAs, partnerships were integral to their organization and building and maintaining these relationships was a conscious effort. One AGFC program manager's statement captured the theme expressed by interviewees:

We have deliberately tried to change our stakeholders, and we've done it through partnerships and when you've got The Nature Conservancy coming to the table and Audubon and those folks that traditionally are not over here day in and day out, then I think that's a step in the right direction.

A leader from Arkansas Audubon Society stressed the importance of their organizations' partnership with AGFC: “. . . we want a positive relationship with the

agency. We respect them and we want them successful. . .and I guarantee you we will do everything we can to keep that agency doing the good work it's doing.”

Partnerships were considered key in achieving the goals of both organizations. Although both SWAs had relatively stable and consistent funding, the ability to hire additional staff to meet growing public demands or to match federal money (e.g., State Wildlife Grants [SWG]), was a concern. Interviewees noted that partners were important sources of expertise and resources that were not necessarily available within their agencies. For example, Missouri's Bird Conservation Initiative (MoBCI), a coalition of 46 diverse organizations whose purpose is to conserve, restore and protect bird populations, is an example of a partnership spearheaded by the MDC to help establish collective conservation goals and to serve as a conduit in providing financial support to organizations seeking to meet these conservation goals (<http://www.mobci.org/>).

Some NGOs had antagonistic relationships with AGFC or MDC, but relationships with most NGOs were positive, based on reports from interviewees. For example, NGO leaders interviewed interacted with various staff members on a weekly and even daily basis. Similarly, agency leaders provided examples of how they had worked collaboratively with a diversity of organizations on specific issues as well as through enduring partnerships via large coalitions or frequent interaction and involvement with partners. One MDC leader described his perspective on the importance of partnerships:

They can all be winners. We can all get what we want and have—get the world of conservation and natural resource management to be what we want it to be, but it's about coalition building. It's about bringing together partners not just for money but partners in terms of attitude and desire and priority.

Broadening partnerships did not eliminate all conflicts for AGFC and MDC, but it allowed them to expand upon common ground with most conservation NGOs. This resulted in conflicts occurring more at the fringes and much less at the center of the conservation community.

Understanding and involving the public: The use of social science to inform decision making was institutionalized within MDC's organizational culture as demonstrated by the staff interest, use and resources expended on human dimensions inquiry. In response to a question regarding the demand for understanding and involving the public, one human dimensions specialist noted:

[We use it] extensively, ranging from public meetings to large statewide surveys. . . it is used for decision making . . . to help reduce uncertainty and make more informed decisions. . . It is so ingrained in our culture that we have to talk people out of doing surveys.

MDC staff at different levels within the organization referred to the importance of public support and accountability. Thus, considerable resources were expended to conduct social science research and engage the public in dialogue about conservation issues in Missouri. For example, MDC had six staff with social science expertise (e.g., with survey and focus group research and public involvement). MDC's 2006 strategic plan, The Next Generation of Conservation: Serving Nature and You (Conservation Commission of the State of Missouri 2006), illustrates the priority MDC places on understanding and responding to public interest. Throughout the plan, references are made to survey data regarding public attitudes and desires, and specific goals for addressing public interests are outlined. One human dimensions specialist noted that every three years MDC commissions a statewide survey to "check in" with the public to determine if they are still "on the right track." As reflected in their 2006 strategic plan, human dimensions information, combined with biological and other

input was used to create and modify programs. The strategic plan offers a feedback mechanism to the public about the services MDC provides.

Although AGFC did use survey research periodically, it did not have a human dimensions specialist. Some staff said that they used survey research conducted by outside entities, particularly in the mid-1990s during its efforts to secure a percentage of the sales tax for conservation campaign and on other occasions. AGFC leaders recognized how understanding public interests is critical to facilitating responsiveness, particularly in terms of accountability back to their primary funding source (i.e., Arkansans). One leader describes this perspective as follows:

The first thing is that we've got to tell them [the public] is that we're responsible to them. I mean, they are paying a one-eighth of one cent sales tax. They are buying a hunting license or a fishing license so we are—we should be—held accountable for the things we do. We should do better at communicating with the public, not just talking to them but listening to them. You know, communication's a two-way street and so, I mean, we've got to be more responsive and more forthright.

This leader discussed the direction AGFC is moving and noted that they are starting to involve the public in development of species management planning and are hoping to start a strategic planning process in the near future. AGFC is still in the process of fulfilling some of the promises that it made to the public when the sales tax passed in 1996, but interviewees noted that AGFC had made considerable progress in doing so (e.g., building four nature centers). One AGFC leader described how their SWA had begun to broaden organizational boundaries beyond their traditional stakeholder base:

So our stakeholders have changed. Now, we're not going to forget about, if you will, pardon me, those folks that brought us here. . . We are certainly loyal

to those folks but we owe the others a lot too. . . we are now working toward that true conservation agency where we are responsible to everybody.

Most interviewees from both states believed that organizational boundaries had expanded in the process of institutionalization of the sales tax as a key funding source. Accountability to the public that supports both SWAs was a prevalent theme among interviewees.

SWAs without secure alternative funding: Maine and New Mexico

Organizational goals

Both MDIFW and NMDGF demonstrated efforts to expand the domain served by their agencies. For example, many MDIFW staff believed that, for nearly two decades, game, nongame, and habitat research and management were integrated into their SWA's culture, even though funding was primarily derived via traditional sources. One program leader noted: "I think Maine has long felt the importance of both nongame and game work in our agency and rather than segregating the two, we've really worked towards integrating it into our program." A shortage of funding, however, compromised both traditional and nontraditional programs. One agency leader described MDIFW's funding situation:

Maine was very proactive in recognizing its obligations for nongame endangered species probably as far back as two decades ago. . . and we began expending a sizable chunk of P-R money to be able to begin affecting nongame and endangered species programs. One of the things that I need to do is I need to begin to restore some of that P-R money back to our game programs because I can't afford to do a moose census. I can't afford to hire a furbearer biologist. We have foregone certain game management things to be able to carry forward in a responsible way with nongame and endangered species before there was funding. . . The nongame and endangered species people are

going to have to understand that we stepped up to the plate and used these monies to help their nascent program get off the ground, and at some point, I've got to have those monies back.

Many interviewees, both within and outside of the agency, thought that lack of funding was an impediment to MDIFW's ability to achieve its goals. One NGO leader offered his perspective regarding how their funding shortfall impacted MDIFW: "If they had more money to do more things, they could be more proactive and responsive, they could do more stuff. . . If you don't have money, you can't take on a new program. You're too busy trying to save the small things that you do." Similarly, a member of the Maine Advisory Council said: ". . . with very limited funding, I think they [MDIFW] struggle. . . there are a lot of folks in Maine who feel that they do not do a good job of managing nongame species. . . and educating people about wildlife." Most interviewees identified a paucity of funding, not a lack of interest or motivation, as the reason why MDIFW had limited capacity to diversify agency activities.

In New Mexico, some interviewees thought that goal expansion was occurring but slowly due to political factors, such as lack of public support for increasing NMDGF's general fund appropriation, resistance from traditional stakeholders, and an inability to secure legislative approval for additional staff positions. Other interviewees thought that a traditional organizational culture hindered expansion of agency goals. When asked whether nontraditional programs such as watchable wildlife and wildlife education were part of his NMDGF's culture, one program manager responded: "No, I would say that it's becoming so, slowly as we retire more traditional conservation officers. In many ways, we're a really traditional hook and bullet agency and it's only been in the last five or six years that that's started to shift slowly." Unlike MDIFW, game and nongame research and management were, for the most part, segregated in NMDGF, and interviewees noted that the clear majority of

funding was focused on game-related staff and activities. Aside from the availability of SWG money, nontraditional programs were losing ground in terms of funding. For example, a Commissioner in New Mexico thought that lack of staff and funding were the biggest problems NMDGF had and was supportive of broadening the funding base to stakeholders that benefit from but currently do not financially support the SWA:

We need to definitely develop an alternate method of funding for the Department. . .The problem that we have is the sportsmen are the ones that are paying the bills through the game management fund. . .and yet the environmentalists pretty well want a lot of things, yet they're not putting anything into the pot. . .and I think it would be great, one-eighth of one percent or even one-sixteenth of one percent of the gross receipts tax. That means we would all share in the responsibility of maintaining the wildlife that everybody wants.

MDIFW and NMGFD had made efforts to broaden the domain served by their agencies. MDIFW staff demonstrated that the goal to be responsive to a diversity of the public was ingrained in the SWA's culture. Interviewees in New Mexico thought that NMGFD was changing, particularly in recent years, but that it still was primarily a traditional agency.

Organizational activities

Both SWAs were engaged in some efforts to provide a diversity of services to the public. For example, MDIFW managed two educational and watchable wildlife sites, produced a quarterly fish and wildlife magazine, and spearheaded a collaborative program (Beginning with Habitat) to identify and maintain habitat for native plant and animal species in Maine. NMDGF, according to leadership, was a traditionally focused SWA in terms of budget and services provided, although, it offered some programs and services oriented towards nontraditional interests (e.g., Gaining Access

Into Nature). In addition, NMDGF had a Conservation Services Division that focused on broad issues related to game and nongame species (e.g., habitat management, endangered species). Although both agencies had diversified programs and services to some extent, interviewees from both states considered their resources inadequate to address the breadth of public interests and expectations in their states. In New Mexico, an inability to hire new staff was frequently mentioned as an impediment to NMDGF's capacity to maintain and grow programs. One leader from NMDGF described his frustration:

I believe very strongly that what they [the public] expect of us and our present capability are—there's a huge gap. We don't have the ability to address all the environmental permitting and damage control and basic species work, things that could affect conservation in a big way. We do the best we can, but our staff are stretched very thin.

In Maine, a lack of funding and related implications (e.g., inability to hire staff for nontraditional programs) was the primary focus of concern. A leader from MDIFW, for example, expressed concern that his staff was overextended in their efforts to meet the expectations of citizens of the state. He said:

Many of the people who get into wildlife management—it's not a job, it's a way of life—and it's something that they're passionate about. And what we're seeing is that staff are spending incredible amounts of time—over and beyond 40 hours a week—to get things done. . . plus you've got dedicated professionals who are constantly barraged by the public about well, 'why aren't you doing this, why aren't you doing that.' . . .

NGO leaders interviewed suggested that MDIFW was considerably underfunded and, because of that was compromised in its' ability to be creative or responsive to the

conservation needs of the state. When asked how the availability of secure alternative funding might change MDIFW, one NGO leader stressed:

Instead of having them [MDIFW] being in a position of always being reactive, always kind of being conservative and worried about not having any money and worried about not having the money to continue to fund their programs out there—I think having secure funding source will allow them the freedom to do more and allow them the freedom to take on new initiatives and take on new projects. . .instead of having to be in defense mode, protecting what they have.

Although MDIFW had made demonstrable efforts to broaden its programs beyond game management, most interviewees, including agency staff, agreed that the MDIFW did not have the resources to maintain and grow these programs.

NMDGF staff realized the need to be responsive to changing and increasing public interests and demands, however, it was acknowledged by many staff that historical relationships with traditional stakeholders made responsiveness to a broader constituency challenging. One NMDGF leader described this situation:

A major impediment in dealing with this broader set of interests is that we're still largely a traditionally constructed agency with primarily traditional responsibilities and a staffing level that is still largely modeled on a traditional structure. Although in the last three years, we've increased our staffing by about five percent. We're still a relatively small agency and the places where we've increased staffing has been about half traditional interests such as basic wildlife law enforcement and about half in delivering a broader range of programs, outreach, wildlife facilities, so on. But we are still largely traditionally constructed, still relatively minimally staffed and, of course, the staffing is largely driven by the ability to generate revenue as an enterprise agency, and our revenue is primarily generated from traditional activities.

Similarly, NGO interviewees thought that NMDGF was diversifying but still focused primarily on traditional activities. When asked if NMDGF meets the needs of his constituency, one nontraditional NGO leader commented:

I think there's always room for improvement. I think they're doing more than they have in the past and I think that the state wildlife plan has been important from that standpoint in focusing on their need to look beyond game species and the hook and bullet crowd. . .they're kind of a throw-back in that their moniker has never changed. Most states now are called the state wildlife agency, not the Department of Game and Fish. . .it's kind of analogous, it used to be all states had highway departments, not transportation departments because they didn't think beyond roads, and it's the same kind of situation. I think that the agency has evolved beyond the Game and Fish Department to be a wildlife agency, at least in part, but, you know, you'd like to see it reflected in their name at some point. But there's opposition to that because they don't have a dedicated revenue source outside of hunting and fishing licenses.

Resistance to changing its name, in this case, was attributed to the historical dependency between NMDGF and its traditional stakeholders. Although there was a recognition of the demand to diversify programs and services provided by NMDGF, most staff and NGO leaders thought that the process was evolving slowly. One NMDGF leader noted:

We're starting to recognize that there's more of a demand for nonconsumptive use of wildlife resources and we're starting to take advantage of that. We got a couple new programs in place that do that, allow people to partake of wildlife resources that otherwise they couldn't get to that are nonconsumptive; you know, viewing opportunities and participating in various projects, stuff like

that. We're doing a lot of that or more of that now. . . just happened in the last year or so.

Interviewees from both states identified ways in which their SWAs were transforming due to changes within the Institution (e.g., the SWG program) and outside of the Institution (e.g., a changing society). In Maine, dependency on traditional funding did not limit the SWA's proclivity to expand its activities, but a lack of resources to support expansion did. In New Mexico, the SWA is steeped in a traditional culture that defines budget allocations, staffing and programmatic decisions. According to some interviewees, change is occurring at an appropriate pace. Although availability of alternative funding could facilitate expansion of public expectations, many interviewees expected that the nature of NMDGF would not change substantially. One NMDGF leader noted: "I believe that the agency's is in a transition from pretty much traditional to incorporating a lot of nontraditional interests, I don't think it's [alternative funding] going to move it to a more nontraditional agency, I think its just going to broaden recognition of what the agency already does."

Organizational boundaries

Partnerships: The existence of enduring partnerships with NGOs, both traditional and nontraditional, was not a theme that emerged often in interviews with staff from NMDGF or MDIFW. Although partnerships did exist because of specific projects (e.g., MDIFW's Beginning with Habitat program), these partnerships tended to be project/issue/species focused, and were not generally characterized as institutionalized partnerships (i.e., enduring, mutually beneficial relationships). One NMDGF leader, described his SWAs' relationships with nontraditional NGOs:

[It is] varied I suppose. Up until we got involved with this land conservation appropriation, there was less engagement, at least with NGOs who are, you know, day-to-day engaged in a variety of conservation purposes. It's not that

we've never had any engagement but most of the partners tend to be sportsmen and sportswomen organizations.

Both SWAs had engaged in efforts to expand relationships with NGOs via public involvement requirements to develop their Comprehensive Wildlife Conservation Strategies (CWCS). Both SWAs had done so to some degree. For example, at the time of data collection, NMDGF had contracted with a third-party to strengthen and establish partnerships built during their SWAP development process. One NMDGF leader described this effort as follows:

We've just put a contract in place to engage in a two-year endeavor to facilitate awareness and understanding of the CWCS across, basically, the full array of public and NGO constituents. It's not a reach out to the masses kind of process but, rather, ensures that there's a common awareness and understanding across state agencies, federal agencies, NGO's of a wide array about what the comprehensive strategy provides and how it's a guide, whether it ultimately guides them in making decisions about what they might do just within their own organization, whether they choose to partner up with some other organizations or whether they ultimately are partnered with us, whether they're engaged in activities we put in play, etcetera, etcetera. The whole point is we're not so much concerned with how you do it but that you be guided by what this effort has produced.

This effort and the considerable resources allocated to implement it is a clear example of boundary expansion to nontraditional partners. Through its species planning processes, MDIFW builds relationships with traditional and nontraditional groups. A leader with MDIFW described a change in his SWA's relationship with NGOs as a result of its' efforts to increase public involvement in wildlife planning efforts:

One of the things that the species planning process has done is allowed us to identify efficiencies to conduct our game management program, and those efficiencies have allowed us to really spend much more time on nongame, threatened and endangered species and overall wildlife habitat conservation issues and so yes, because of that programmatic shift and because we recognized that this was so important, that yes the NGOs and the groups we work with have broadened dramatically because. . .we need the partnering with them to achieve these broader programmatic goals and objectives.

Although this leader said that relationships have improved between his SWA and some groups, it has remained tenuous with others. For example, he described how some mainstream groups, consumptive and nonconsumptive oriented, had opposed each other politically on opportunities to secure alternative funding for their SWA, and therefore the ideas had not generated the political capital necessary to succeed. Interviewees in both states expressed concern about the impacts of adversarial relationships between traditional and nontraditional groups. One program leader in MDIFW illustrates this perspective:

I think we're missing a real opportunity by not having these groups really work together. . .Because a lot of their desires are very similar but it's always us versus them. . .I think it's just hurting the natural resources process and ability of our agencies having these groups at each other instead of working in concert toward a common goal.

This interviewee as well as other agency leaders from both states thought that it would benefit their SWA to facilitate partnership building among wildlife-interest groups.

Both SWAs worked with NGOs and other entities on a regular basis, but, according to staff in both states, no effective coalitions had been formed to build

political support necessary to secure adequate funding for the agencies. One leader with NMDGF described the political environment in his state:

Custom and culture is relatively conservative in New Mexico, and that includes in the legislature. We've had a alternative funding mechanism go through the legislature twice in 2006 and 2007, unsuccessful both times. . .And you might just say well, the right mechanism hasn't been found that just everybody can support. . .New Mexico has some custom and culture that's going to make funding for alternative kinds of endeavors somewhat difficult.

Similarly, a program manager in Maine noted:

What we really need is a higher level push on this whole funding effort. . .and unless that's going to happen where we have somebody really motivated to get out there and try to get some interest groups together that can form a coalition to push this whole idea of another funding source that's more stable, I don't think it'll ever happen.

Both SWAs had made some efforts to expand partnerships beyond traditional groups, but neither had garnered the political capital necessary to secure resources needed to support their agencies.

Understanding and involving the public: MDIFW staff noted that public attitude surveys were conducted regularly in the past, but use of survey research has been cut “dramatically” due to lack of funding. The agency did not have a human dimensions specialist on staff, but they did have one staff person focused in large part on implementing species planning and other staff involved in public outreach efforts. According to one leader, MDIFW once had a Division of Planning and contracted with the University of Maine and others to conduct survey research on a regular basis. As discussed in the previous subsection, MDIFW conducts species planning, including a considerable public input and involvement component, on a regular basis.

NMDGF had one human dimensions specialist on staff, and according to one program leader, NMDGF was more likely to rely on public involvement for specific issues than conduct surveys to understand broad public attitudes and values:

The agency has learned that when you're considering doing something that's going to affect someone's interests or there's a potential for conflict or there's a diversity of interests, then we'd better do some public involvement. . . So in that sense, they're not locking the public out because they know in reality they can't get away with it. It's going to cause a lot of grief if they do it and so most administrators now are smart enough and experienced enough to know that oh, man, that's going to be a hot one, we'd better do some public involvement. So they're more likely to use public involvement than they are say an attitude or value survey.

Another SWA leader thought that his agency had not been able to identify and utilize public involvement to its greatest capacity. He said: "We've exhausted a lot of different ways to try to get public involvement into our decision making processes and have yet to find the right one." Although understanding general public attitudes was recognized by some interviewees as being important, NMDGF leaders agreed that social science research is not generally conducted by the agency nor is it used regularly.

According to agency interviewees, MDIFW believed that it was important to understand public attitudes regarding wildlife, and this was reflected in past participation in social science research. A lack of funding limited its ability to fund studies at present. For NMDGF, survey research and public involvement were considered important to some leaders, but was not yet institutionalized within the agency's culture.

Discussion

Resource dependency theory offers a perspective to help us understand relationships between organizations and their resource base. The theory posits that it is in an organization's best interest to minimize dependence on a single resource (Pfeffer and Salancik 2003), particularly in the face of changing environmental conditions. In the case of the Institution, the traditional mechanism for funding state wildlife management functioned adequately until changing environmental factors pressured the Institution to reform (Anderson and Loomis 2006). Jacobson et al. (2007) examined SWAs' responses to institutional pressure to minimize dependency on traditional funding by securing alternative funding sources. Most SWAs had exhibited strategic behavior to obtain funding, but the majority had not reached their desired funding goals. For some SWAs, obstacles (e.g., real or perceived environmental determinism) impeded their efforts to diversify the traditional funding model. I used a case study approach to provide in-depth insight into how highly resource dependent organizations managed interdependences in response to a changing institutional environment, recognizing that every SWA likely experienced different degrees of pressure to change based on political and other factors. I sampled on two extremes so that I could compare the differences among organizations that had broken from the traditional funding model and those that had not. I expected my inquiry to reveal two distinct organizational models (i.e., literal replication and theoretical replication) that reflected a difference in responsiveness due to the two divergent funding mechanisms. I found that organizational transformation toward broader responsiveness had occurred in SWAs with and without secure alternative funding; however, the extent and depth of that transformation depended on exogenous (e.g., societal and institutional) and endogenous (i.e., internal organizational) factors

and was facilitated, but not contingent on, minimizing dependence on a single resource.

Consistent with organizational behavior described in resource dependency theory (Pfeffer and Salancik 2003), MDC and AGFC diversified their funding bases and thereby minimized their dependence on a single stakeholder group for resources. The means by which MDC and AGFC accomplished their funding goals was by innovation and acquiescence, respectively (Jacobson et al. 2007). As other SWAs hope to emulate this model (e.g., The Vermont Wildlife Partnership 2008), it will be important to understand the antecedents to strategic behavior that led to funding success. My research showed that in response to exogenous pressures for expanded programs and services, both MDC and AGFC identified the need for additional funding as a means to goal expansion, not as an end in itself. Prior to their campaigns to secure alternative funding, both SWAs developed a clear vision for goal, boundary and activity expansion beyond a traditional focus and began to implement new programs on a limited basis. They applied social science to study public needs and used the results to inform and develop their visions. The expanded visions, programs, and public accountability components of these SWAs represent a manifestation of organizational culture change—a critical antecedent for strategically expanding their funding bases. Further, through extensive funding campaigns, including collection of socioeconomic data, exogenous factors were likely analyzed and influenced to improve the chances of success.

Both MDIFW and NMDGF exhibited strategic behavior to minimize their dependencies on traditional funding. They differed from MDC and AGFC in that the full suite of antecedents that positioned those SWAs to achieve their funding goals were not in place. For MDIFW, some of the antecedents characteristic of MDC and AGFC were exhibited. Specifically, a conscious effort was made toward expanding

organizational goals via integration of game and nongame programs and proactively including the public in establishment of management goals and objectives. MDIFW lacked strong and diverse partners willing to advocate politically for increased agency funding to achieve expanded goals and respond to the diversity of demands of the people of their state via activity expansion. The voluntaristic approach to organizational change (Oliver 1991) contends that organizations have the ability to exhibit strategic behavior to fulfill organizational goals. Consistent with this approach, MDIFW leaders expressed the need for their agency to take an active role in expanding partnerships, both between themselves and other organizations as well as among other organizations. Unlike MDC and AGFC, MDIFW had not translated goal expansion into a strategy to gain political capital necessary to secure alternative funding.

Similar to the other three SWAs, NMDGF had diversified to some degree via goal, activity, and boundary expansion. For example, establishment of a statutorily created Conservation Services Division brought more of a nontraditional focus to the agency. Most resources and subsequent programs, however, were still directed towards traditional activities. Further, interviews suggested a lack of emphasis on boundary expansion via partnership building and public needs assessments. The limited extent to which NMDGF had diversified reflects the deep traditional focus of both endogenous and exogenous interests; pressure to diversify was perceived to be minimal. In recent years the greatest exogenous pressures were directed towards maintaining traditional programs, hence a complete cultural shift toward diversification had not been fully embraced by the agency. Because NMDGF maintained more traditional goals for programs and services, the lack of alternative funding presented less of an obstacle for them. Nevertheless, they had gradually expanded the activities and boundaries as they deemed appropriate to be responsive to

public needs and expectations within their state. Their investment in an implementation and outreach effort for their CWCS reflects such gradual broadening.

In their interviews with 24 SWA leaders, Jacobson et al. (2007) reported that securing reliable and consistent funding was identified by interviewees as the greatest challenge facing their SWAs. Most SWAs exhibited strategic behavior in response to pressures to find alternative funding, but some believed that their ability to make strategic choices was hampered by exogenous factors. My research indicated that SWAs that broke from reliance on primarily traditional funding had directional alignment for change among endogenous and exogenous factors. The response of these agencies to pressure to secure alternative funding was to first strategically align both endogenous and exogenous factors through organizational culture change, broadened partnerships, and investment in social science research. These antecedents built the foundation for successful funding campaigns, as the agencies and their partners were delivering consistent messages that resonated with public attitudes, values, and needs. Many of the 24 SWA leaders studied in Jacobson et al. (2007) focused on obtaining funding and not on development of antecedents that lead to political support for the funding. My results suggest that, in some cases, the traditional funding model impedes agency diversification not so much because of hunters' unwillingness to see programs expanded, but because of SWAs' perceptions of their responsibilities to those who pay the bills. This underscores the importance of organizational transformation as an antecedent to securing alternate funding.

My results suggest a need for a strategic step-wise approach to organizational transformation and ultimately securing and maintaining alternative funding. This approach includes: (1) leadership that promotes a cultural change toward broadening goals; (2) development of a strategy to expand organizational boundaries and grow coalitions including traditional and nontraditional groups; (3) assessment of public

interest and design of a feedback loop to demonstrate accountability; and (4) expansion of programs and services promised as part of SWAs' funding campaigns. Without first expanding their organizational cultures to embrace the need for diversification, SWAs will likely be unable to effectively garner public and political capital necessary to meet their funding needs. Perhaps the real impediment to securing alternative funding is the belief that lack of funding is the problem. Recognizing that lack of funding is a symptom of a larger problem—declining relevance of SWAs to a changing society—can lead to organizational transformation that will increase SWAs' relevance. While many SWAs believe that agency change cannot occur until they have new or increased funding, my findings suggest increased funding is unlikely until agency change occurs.

Management implications

The two SWAs that had broken from dependence on a single revenue source to securing broad-based alternative funding demonstrated responsiveness to a diversity of public interests as indicated by goal, activity and boundary expansion. Close examination of these SWAs, showed that vision to expand organizational boundaries and ensure responsiveness to a broad public, as well as a combination of factors such as leadership and perseverance, predicated SWAs' ability to obtain the public support and political capital necessary to secure broad-based funding. Subsequently, designs for accountability to the public were key to both SWAs' funding campaigns. Responsiveness to a diversity of interests remains integral to the organizational culture of both of these SWAs. The two SWAs that relied primarily on traditional funding sources recognized the need to be responsive to a broad public, but they had not developed strategic approaches to garner internal and external support necessary to launch successful alternative funding campaigns. My results suggest that it would benefit SWAs to first promote internally, and within the organizational field, an

understanding and acceptance of the need for organizational transformation. By embracing a broader diversity of public interests and developing a strategy for change, SWAs will increase their chances of achieving funding goals and, perhaps more importantly, maintaining legitimacy with society. SWAs used effective political leadership to promote organizational culture and champion the agency's vision. In addition, SWAs need to forge partnerships that will engender broad-based support and advocacy for the agency among the NGO community. Finally, SWAs need to develop systematic approaches to maintaining accountability to the public.

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CHAPTER 5

FUTURE GOVERNANCE OF STATE WILDLIFE MANAGEMENT: REFORM AND REVIVE OR RESIST AND RETRENCH?³

Abstract

Governance of state wildlife management has been under scrutiny with respect to its ability to change to reflect the values, norms, and cultural beliefs of contemporary society. This article reviews the existing model of governance for state wildlife management; outlines concerns about this model in light of a changing social context; discusses alternative approaches; and offers considerations for how governance could be reformed to meet societal needs.

Background

Citizens are increasingly skeptical of government generally (Orren 1997; Dalton et al. 2004), including governmental bureaucrats (Wilson 2000) and policymakers (Mathews 1994). People are demanding better access to decision-making processes and reform of government institutions that are unresponsive to their needs (Webler and Renn 1995). According to Holland (2003), the traditional government machinery is being reevaluated because of its inflexibility and inability to reflect a diversity of interests. I suggest that a similar trend exists with respect to governance of wildlife management in many states. That is, critics of the board/commission system for governance of state wildlife management (Beck 1998, Patterson et al. 2003, Nie 2004) have called for evaluation and reform to reflect fully the values, norms, and cultural beliefs of contemporary society.

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The purpose of this article is to review the existing model of governance for state wildlife management; outline concerns about this model in light of a changing social context; discuss alternative approaches; and offer considerations for how governance could be reformed to meet the needs of society.

Governance

In the most general terms, governance in a democracy is state rule by the people (Catt 1999). Although democracy has both philosophical and practical components, this article is concerned with the practice of democracy (i.e., the processes facilitating decision making and implementation of actions—governance) vis-a`-vis wildlife management by states. Catt (1999) identified three primary types of democratic procedures: representative, direct, and participatory. Although each procedure can be used for decision making, typically wildlife laws and regulations made at the state level are the products of representative democracy.

Representative democracy: the status quo

Representative democracy is the election of elites responsible for making decisions (i.e., laws) in the best interest of the public (Catt 1999). Elected officials enact broad laws for wildlife management, but in most states an appointed board or commission/commissioner interprets such laws by adopting policies and setting specific regulations that are implemented by state wildlife agencies. Although states vary (e.g., some states have only one commissioner), policymaking bodies normally host regular public meetings and adhere to public participation requirements (e.g., state administrative procedures acts) that permit the public to comment on proposed regulations and policies. In terms of decision-making models, the process by which boards=commissions make decisions can be considered an extension of representative democracy because members of the decision-making bodies (1) are appointed by elected representatives; (2) often are statutorily required to represent specific interests;

and (3) are responsible for making decisions in the best interest of wildlife and the public. According to Mitchell (1997), the concept of boards and commissions emerged during the Progressive era because of concerns that elected officials or solitary administrators were less able than appointed citizens to represent the public interest. Thus, when the idea emerged a century ago, boards/commissions were a reform measure to insulate state fish and wildlife agencies from political influence (American Game Association 1930) and to ensure that stakeholder interests were represented in the wildlife policymaking process. At the time, the primary stakeholders were consumptive users (i.e., hunters and trappers) and agriculturalists (Patterson et al. 2003). Consumptive users were and continue to be the main funding source for wildlife management, initially via revenue from hunting and trapping license sales and later via a federal excise tax on firearms, ammunition, and archery equipment (Trefethen 1961).

Today, demographic and socioeconomic forces such as population movement (e.g., suburban sprawl, transportation and residential development) and aging, economic growth (e.g., resource extraction, commercial and industrial development), and changing patterns of participation in outdoor recreation have resulted in new, diverse, and interested stakeholders with growing expectations for state wildlife management. As traditional funding for state wildlife agencies becomes inadequate because of increasing demands and higher costs of wildlife management, most states are seeking alternative funding (e.g., state general funds, revenue from sale of wildlife license plates or tax check-offs). Success in finding new sources of funding typically results in expectations for increased accountability to a broader stakeholder constituency. Because of the historical relationship with consumptive users, a challenge unique to state wildlife management agencies is how to expand their constituencies in terms of funding and services offered without alienating traditional

stakeholders (Jacobson and Decker 2006). Putnam (1993, 179) notes that tensions emerge as institutions “bearing the imprint of the past” try to address current and future problems.

Governance of state wildlife management

In addition, the situation with respect to public input and involvement has evolved in recent decades, to where some scholars and members of the public, particularly nonconsumptive wildlife interest groups, believe that bias is inherent in the state wildlife management governance structure. Critics (Pacelle 1998; Gill 2004; Nie 2004) contend that access to decision-making processes is unequal, not necessarily because of the formal structure of the boards and commissions, but because of historical and cultural barriers to participation (e.g., representatives are primarily consumptive users). Decker et al. (2001) note that the “science” and practice of wildlife management was originally designed to serve the needs and interests of consumptive users and that this bias impacts public perception and support for wildlife agencies and policy makers. It has been suggested that reform of boards and commissions should start with appointment of members that better represent the breadth of contemporary society’s interests and concerns regarding wildlife, not just consumptive users (Nie 2004).

Direct democracy: indicators of societal pressure for reform

The emergence of direct democracy resulted from concerns among populists and progressives that representative democracy, specifically elected representatives, was captured by special interest groups and therefore could not represent the collective good (Bowler and Donovan 1998). Ballot initiatives and referenda, forms of direct democracy, regarding wildlife issues have become common in the last 50 years (Williamson 1998; Eliason 2001). The increased use of such avenues for direct democracy may be an indicator of widespread dissatisfaction with the representative

system in place, an attempt by interest groups to influence public opinion to achieve an end they could not achieve through the representative process, or both.

Twenty-four states have provisions for ballot initiatives, and all states have some mechanism of direct democracy (e.g., referenda or recall) available for their citizens (Alexander 2002). Of the states that have a ballot initiative option, nearly all have had some type of natural resources initiative, and many have had wildlife initiatives appear on a ballot. Nearly all sought to prohibit certain means of hunting or trapping (Minnis 1998). Many wildlife professionals have concerns about wildlife being managed by ballot initiative or popular referenda because they believe such measures are based on public opinions versus scientific judgments (Whittaker and Torres 1998), reduce complex biological and social issues to single-dimension dichotomous decisions (Papadakis 1996), and do not stem from information exchange and discussion among wildlife agency professionals and stakeholders (Loker et al. 1998).

Others in the wildlife profession and nongovernmental organizations interested in wildlife believe that ballot initiatives or referenda indicate fundamental flaws in the normal processes of the state wildlife management institution (Beck 1998; Pacelle 1998; Cockrell 1999). These critics suggest that the current norm of exclusive and rigid institutional culture results in wildlife regulations and policies unreflective of contemporary needs and interests of society with respect to wildlife management. Pacelle (1998) notes that unequal access to wildlife decision-making bodies and processes leaves citizen activists with no other alternative to affect wildlife policy. Minnis (1998, 81) suggests that for those who do not share the values that underlie the consumptive use of wildlife, “direct democracy may be the best way to reform wildlife management practices in a bureaucracy that many of them [animal protectionists] feel is catering to consumptive use interests.” Loker et al. (1994)

contend that in Colorado, a ballot initiative banning three methods for black bear (*Ursus americanus*) hunting (spring bear hunting, the use of bait, and the use of dogs) might have been avoided had the Colorado Wildlife Commission been more responsive to public concerns about spring bear hunting, one of the three practices prohibited by the outcome of the ballot initiative.

Participatory democracy: the panacea?

Concerns about the ability of agency governance structures to address contemporary natural resources issues has spurred a growing interest in the use of a more participatory decision-making approach (Ryan 2001; Stankey and McCool 2004). Participatory democracy—often referred to as deliberative democracy or collaborative decision making—is simply civic governance by deliberation. The distinguishing feature of participatory democracy as compared to representative and direct democracy is emphasis on communication among citizens and subsequent consideration of the viewpoints of others (Mathews 1994). The popularity of the participatory democracy ideal increased during the last half century (Catt 1999; Beierle and Konisky 2000). Many scholars consider this trend to be positive; others are more critical about the practical implications of a deliberative approach. Much of the debate focuses on the competence of citizens to participate in substantive deliberations about political issues (Soltan 1999). Other issues of concern include the lack of citizen authority to implement policies (Mathews 1994); the need for cost-benefit analyses to justify efforts to facilitate citizen participation; minimal citizen interest in participating in governmental affairs; problems with the imposition of a deliberative democratic model on governance structures (e.g., elected officials, bureaucracies) that were not designed to encourage citizen participation; and unrealistic expectations for the outcome of collaborative efforts (Kweit and Kweit 1981). Catt (1999) stresses that participatory democratic approaches are more

successful when (1) there is a high degree of equality between members of the decision-making body; (2) a consensus-based decision-making process is feasible; (3) the group is fairly homogeneous and small; and (4) decision makers support the participatory process. Subsequently, the author questions the utility of participatory democracy for highly polarized, value-laden issues such as those that often emerge in state wildlife management (e.g., predator control, trapping). Others (Elliott et al. 2003) contend that it is possible to resolve seemingly intractable environmental conflicts by helping stakeholders reframe issues (i.e., develop new ways of interpreting issues or understand others' viewpoints) via participatory processes.

Some state wildlife management agencies have embraced a more deliberative approach. Evidence for this tendency is in the increased use of citizen advisory groups and strategic planning efforts (Webler and Renn 1995; Gill 2004; Lafon et al. 2004). As with most institutional reforms, the shift from an authoritative to a more transactional model (Decker and Chase 1997; Chase et al. 2004) of decision making has been slow and has not been embraced at all levels. Gill (2004) cautions that increasing citizen participation without offering citizens shared decision-making power is disingenuous and can erode agency credibility. Research evaluating citizen-participation efforts from the perspective of participants provides support for this concern (Chase et al. 2004; Mascarenhas and Scarce 2004). For example, in their study of two communities experiencing wildlife-management conflicts, Chase et al. (2004) found that citizen influence regarding decisions, among other quality attributes, was considered by citizens to be an important element of a successful public involvement process.

Although some natural resources agencies have used various forms of collaboration for many years, the effectiveness of this decision-making framework in different contexts is debated among scholars (Stout and Knuth 1994; Beierle and

Konisky 2000; Mascarenhas and Scarce 2004). Nie (2004) questions whether initiators of ballot measures will be willing to compromise and accept incremental policy change that is often the outcome of legitimate collaborative efforts. In their study of forest land planning in British Columbia, Mascarenhas and Scarce (2004) identified factors that residents perceived to be important in the success of forest planning processes in the province. The researchers found that legitimacy was the defining element of a successful collaborative process. From the respondents' perspectives, legitimacy had three primary components: fair representation, appropriate government resources, and a consensus-driven decision-making process. Similarly, Lauber and Knuth (1997) found that evaluations of decisions made by the New York State Department of Environmental Conservation regarding moose management were closely related to perceptions of the public process (particularly fairness) used to help inform those decisions.

Concluding Remarks

Patterson et al. (2003) observe that the institution of state wildlife management emerged in a particular social context (i.e., particular values, interests, needs, etc.) vis-à-vis human-wildlife interactions. They and many other authors (Heberlein 1991; Manfredo et al. 2003; Gill 2004) have argued that the social context has changed significantly over time, especially during the last 30 years. State wildlife agencies, their governing bodies, and their policies, Patterson et al. (2003) argues, must evolve as well. If wildlife boards=commissions do not reflect broad societal norms and values, it is likely that their legitimacy will be questioned by society, and their long-term viability will be uncertain (Scott 2001).

Manfredo et al. (1997, 38) ask, “What processes might be developed that retain the democratic nature of ballot initiatives, but promote an informed basis for decisions and allows compromise alternatives to evolve?” The authors suggest that

the solution may lie in reform of the existing governance structure, particularly by shifting to a more participatory decision-making processes. Nie (2004) contends that reform of existing governance structures is needed and recommends that a more inclusive collaborative decision-making structure in lieu of or to complement the commission=board process be considered. Large-scale change, however, is slow and tends to be met with resistance in an established institution, particularly in situations where historical dependencies exist (Pfeffer and Salancik 2003), like that with state wildlife management governance.

An alternative to a revolutionary change in governance structure (i.e., a “shift” rather than a “revolution” in the governance paradigm) for state wildlife management might be adaptation of existing structures that (a) improves representative membership on boards and commissions, (b) increases efforts via social science inquiry to understand beliefs and attitudes of various segments of stakeholders in management, and (c) develops meaningful participatory decision-making processes appropriately focused and scaled for specific issues and situations. That is, rather than shifting to an entirely different governance structure, the traditional representative model could be modified, and systematic social science information and participatory elements could be incorporated as appropriate. As agencies seek nontraditional funding to support state wildlife conservation and management, a more broadly representative and flexible governance model will help establish relationships with and improve accountability to a broader stakeholder base that will have greater inclination to provide funding for wildlife management (e.g., via tax dollars, revenue from license plates, user fees). Although this approach would be unlikely to eliminate concerns of all stakeholders or avoid entirely the use of direct democracy, it may improve actual and perceived agency responsiveness to public needs and interests,

help build long-term partnerships, and increase public trust of agencies (Beierle and Konisky 2000).

Pivotal to reform of state wildlife management governance is adoption of a new philosophy. As I look to the future of wildlife management in hopes of increasing effectiveness of governance by a more inclusive approach, embracing needs of a broader set of stakeholders, I wonder whether a viable premise is this:

“Good” wildlife management is not simply exercising authority over, steadfastly retaining control of, or even taking sole responsibility for wildlife resources; good management is wisely managing the sharing of responsibility for wildlife conservation with stakeholders. (Decker et al. 2005, 234)

This philosophy might be viewed as a major paradigm shift to some wildlife professionals, decision makers, and stakeholders. But I am confident that the reorientation suggested will help realign the governance structure for state wildlife management, a reform that could be reasonably anticipated to help this institution better reflect the needs and interests of contemporary society.

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CHAPTER 6
CONCLUSIONS

“Any change, even a change for the better, is always accompanied by drawbacks and discomforts.”

~Arnold Bennett

“The first step toward change is awareness. The second step is acceptance.”

~Nathaniel Branden

“The single most important issue facing the future management of all wildlife today is a lack of adequate funding for management and conservation.”

~Terry Cleveland, Director, Wyoming Game and Fish Department

The institutional environment within which state wildlife agencies (SWA) operate is growing increasingly complex because of changing environmental and social factors. Similar to many governmental organizations, SWAs are slow to transform in response to exogenous pressures for change. Compounding typical organizational inertia is the fact that SWAs are highly path and resource dependent organizations. Their structures and functions largely reflect their traditional relationship with hunters—shared history and user pay/user benefit funding model—in that much of what they do is game-management focused. Thus, SWAs are ill-equipped to address the breadth of contemporary wildlife-related issues such as climate change, wildlife disease, endangered and threatened species, wildlife overabundance, urban/suburban human-wildlife conflicts, animal welfare and rights concerns, and demand for nonconsumptive wildlife opportunities. While SWAs’

dominant institutional logics reflect a shared history and culture with hunters, a transformation is likely occurring incrementally through endogenous change (Organ and Fritzell 2000) and exogenous (societal and institutional) pressures (Manfredo et al. 2003). A greater impediment to change, however, is likely the institutionalized funding mechanism for state wildlife management: the user pay/user benefit model (Anderson and Loomis 2006). Dependency on a single funding source has left SWAs vulnerable to funding shortfalls (Pfeffer and Salancik 2003) and limited their ability to be responsive to the needs of even those who do provide funding. SWAs efforts to find and secure alternative funding are consistent with the resource dependency theory in that organizations seek to minimize dependence by decreasing their reliance on single funding sources. Similar to most bureaucracies (Wilson 2000), change is gradual and often met with resistance. However there is evidence that reform is occurring among SWAs (Jacobson et al. 2007). My inquiry focused broadly on why and how SWAs are transforming in response to exogenous pressures, particularly institutional pressures to find and secure alternative funding. The unit of analysis was SWAs because they are key agents of change within the State Wildlife Management Institution (Institution). I examined SWA behavior using a combined voluntaristic (institutional) and deterministic (resource dependency) perspective. That is, I assumed that SWAs were influenced by exogenous factors, but they have the ability to behave strategically in response to these pressures.

Summary of Findings

A key assumption underlying my research was that a changing social context was pressuring the Institution to reform. Organizational theory helped frame my understanding of SWAs' behavior in response to this pressure. The institutional perspective offered insight into the influence of exogenous factors on organizational

behavior, particularly as they foster deinstitutionalization of existing organizational structures and practices and the institutionalization of new arrangements (Tolbert and Zucker 1983). The first contribution of my efforts was defining the Institution as **the people, processes, and rules as well as the norms, values, and behaviors associated with state wildlife management**. This designation provides the context and framework for understanding the enduring qualities of and relationships that exist among society and the organizational actors and processes involved in state wildlife management. Other concepts were defined as they pertained to the Institution. First, I characterized the organizational field as being comprised primarily of regulatory agencies, consumptive-oriented interest groups, and policy makers. The dominant institutional logic was identified as the consumptive viewpoint, while other viewpoints were less prolific. Governance structures of the majority of SWAs include the policy making bodies (e.g., game commission/board), the regulatory process and informal networking.

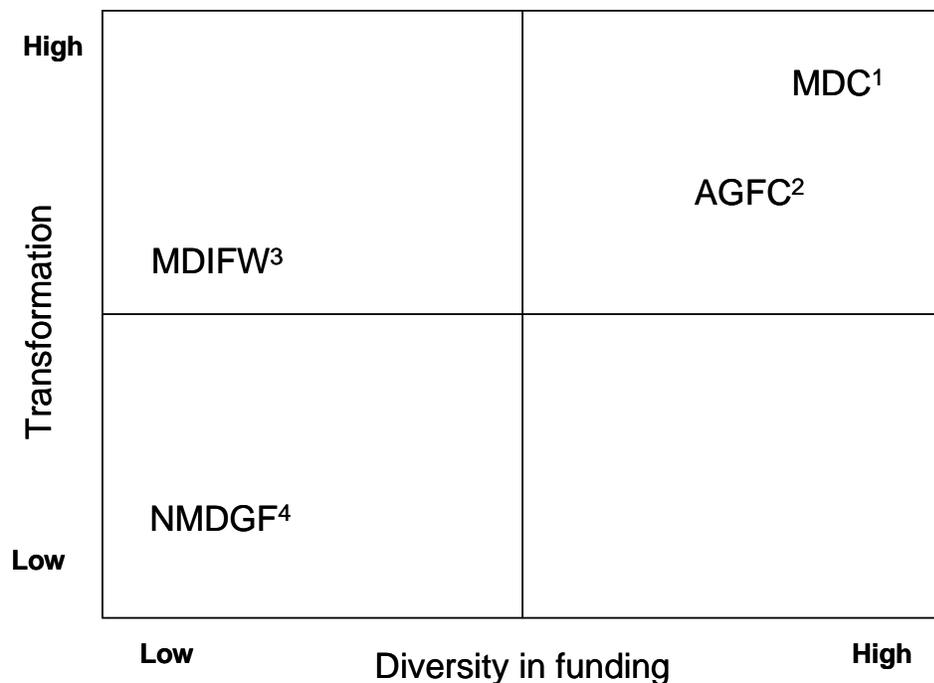
Characterizing state-based wildlife management as an institution helps further our understanding of the influences various exogenous factors, both environmental and institutional, have on SWAs' ability to transform. The institutional approach assumes organizational behavior is deterministic and minimizes organizations' ability to behave strategically in response to pressure for change (Oliver 1991). In an effort to understand SWA behavior in response to pressures to reform, I interviewed 24 SWA leaders in Phase I of my research. Because SWA leaders identified funding as the greatest challenge facing their agencies, I focused on understanding leaders' perceptions of how their SWAs had responded to pressures to find alternative funding. Using Oliver's typology of strategic response (Oliver 1991), I found that most SWAs had behaved strategically in response to these pressures. Strategic behaviors ranged from resistance to passive adaptation to active transformation. In addition to the

strategic behaviors in Oliver's typology, I found evidence for other strategic responses. "Innovation adoption" is the term I use to describe active transformation. "Inability to change" describes the perception among some leaders that strategic behavior was not possible and their agencies' behavior was dictated by outside forces beyond their control (deterministic perspective). Innovation adoption and inability to change, whether real or perceived, was included in a modified continuum specific to the Institution. I concluded that most SWAs had made strategic choices to address their needs for additional funding. Of the strategic behaviors described by leaders, resistance to change was not a viable long-term option, whereas managed change could potentially ensure the desired outcome for the SWA. In managing change, SWA leaders' ability to impact the broad political or economic climate is limited, but their role in increasing understanding and support for alternative funding within their agencies and the organizational field can be significant.

SWA leaders and professional staff must play key roles as agents of change if transformation is to occur. They will likely confront significant challenges, including agency culture and resistance from traditional stakeholders and policy makers. Some stakeholders may be concerned that by broadening the funding base and interests served by the SWA, their traditional interests will be compromised and their influence on policy will be minimized (Nie 2004). These are important issues for SWA leaders and staff and may be overcome by identification of strategic opportunities to build and maintain trust among traditional stakeholders—and more importantly between traditional and nontraditional stakeholders—and engage them as advocates for change. Coalition-building can be a useful tool in this approach, and leaders must be able to identify common ground among otherwise divergent groups and aid in development of working towards mutual goals. Leadership and commitment to partnering is key to enabling such efforts to facilitate change. Further, the greater the autonomy of a

leader, the less likely that leader is to be influenced by political pressure (Meyer 1975). Although most SWA directors are politically appointed, some can be terminated at the discretion of their board/commission. The resulting political influence can minimize the ability of a director to advocate for transformation to include a greater diversity of interests, particularly because most board/commissions are predominantly comprised of traditional stakeholders.

In Phase II of my research I found by examining four SWAs in depth that organizational transformation had occurred among all (Figure 5.1), but the extent of transformation depended on exogenous and endogenous factors. The two SWAs that had secured stable, alternative funding, Missouri Department of Conservation (MDC)



1. 30 + years w/alternative funding. Goal, activity, boundary expansion.
2. 10 + years w/sales tax. Demonstrable goal, activity and boundary expansion. Not as diversified as MDC.
3. Traditional funding. Goal expansion and some activity expansion. Minimal boundary expansion
4. Traditional funding. Early stages of goal and activity expansion. Little evidence of boundary expansion

Figure 5.1: SWA's transformation related to diversity of funding.

and Arkansas Game and Fish Commission (AGFC), recognized the need to diversify to meet the changing interests of society prior to obtaining a percentage of the state sales tax. In response to pressure for change, both SWAs demonstrated strategic behavior via development of a vision and strategy for reform that was based on public input and promises of expansion of programs and activities. Responsiveness to a diversity of interests remains integral to the organizational culture of both SWAs. To these SWAs, funding was a means to achieving their vision and not an end in itself.

Both the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the New Mexico Department of Game and Fish (NMDGF) exhibited strategic behavior in response to pressure to secure alternative funding. Neither SWA, however, had been able to garner the political capital necessary to achieve their funding goals. For both SWAs, endogenous factors were impediments to change. MDIFW underwent a cultural transformation and had attempted to parlay that into activity expansion but lacked the funding to do so. Unlike MDC and AGFC, MDIFW lacked strong and enduring partnerships to advocate politically for a broadening of the traditional funding mechanism. Although NMDGF had diversified to some degree via goal, activity and boundary expansions, they remained more of a traditional agency in terms of the programs and services they offered. The limited extent to which NMDGF had diversified beyond game-related activities and programs reflects the traditional focus of the exogenous and endogenous forces that influence their agency.

I found that antecedents to strategic behavior to secure alternative funding included goal, boundary and activity expansions by SWAs. Goal expansion was the critical first step in that SWAs should first promote internally, and within the organizational field, an understanding and acceptance of the need for organizational transformation. After goal expansion occurs, a vision and strategy for change, including an assessment of public needs and clear objectives for meeting those needs,

should be developed. Establishing and building partnerships and accountability to the public was critical to MDC's and AGFC's successful funding campaigns, was maintaining support for continuation of broad-based funding. By embracing a broader diversity of public interests and developing a strategy for change, SWAs may increase their chances of achieving their funding goals and, perhaps more importantly, maintaining legitimacy with society. The real impediment to securing alternative funding may be the belief that lack of funding is the problem. Recognizing that lack of funding is a symptom of a larger problem—declining relevance of SWAs to a changing society—can lead to organizational transformation that will increase SWAs' relevance. While many SWAs believe that agency change cannot occur until they have new or increased funding, our findings suggest increased funding is unlikely until agency change occurs.

The governance structure of most SWAs is a politically appointed board/commission/advisory body, an extension of representative democracy. In many cases, these bodies have regulatory authority, and while exogenous to the SWA, they are endogenous to the Institution. Members of these bodies tend to represent traditional interests, either formally (i.e., in statute) or informally (i.e., are hunters themselves) (Nie 2004), and thus unlikely to pressure SWAs for change. In Phase I of my research, leaders that adhered to a deterministic perspective often identified board/commissions as impediments to reform. I critically examined the governance structure of the Institution. The use of direct democracy to circumvent governance was identified as an example of dissatisfaction with the process. I suggested that a transformation of the existing structure to include a diversity of representation on boards/commissions, increased use of social science inquiry to understand beliefs and attitudes of various stakeholders in management, and more participatory approaches to inform decision making would increase legitimacy.

I chose transformation of the existing governance structure instead of development of a distinct new model because the underlying structure is grounded in a solid premise (i.e., a group of interested stakeholders that can balance government's power and represent those who are affected by decisions). Its current manifestation, however, has flaws that depart from its idealized form because representation on boards/commissions has not kept pace with the changing societal needs and interests. Historical and resource dependencies are the leading factors that has narrowed representation and limited effectiveness of this governance structure. For example, the user pay/user benefit approach has resulted in representation on governing boards being predominantly limited to hunters, the primary financier of state wildlife management. It has been suggested that repercussions of the existing model include ballot initiatives, law suits and other efforts to circumvent the governance process (Loker et al. 1998, Nie 2004). Perhaps the most important shortcoming of the existing governance model is a general lack of input and participation in wildlife decision-making processes among those nonhunters who are interested or concerned about wildlife-related issues. The question of interest is whether these stakeholders are not participating because of lack of information, time or whether institutional barriers such as board/commission representation is the reason. Recent trends among some SWAs to understand public attitudes and values via social science research is encouraging and can inform decisions at the agency level. However, if this information or even the need to expand the nature and scope of wildlife-related dialogue is not acknowledged by boards/commissions, a true transformation of the Institution will likely not occur. Diversity of representation combined with use of social science information to inform governance would steer the model back towards the ideal. From a pragmatic view, this is achievable, whereas adoption of an entirely new model is less likely due to institutional inertia and political realities.

As agencies seek alternative sources of funding, a broadly representative governance structure will help establish relationships and improve accountability to the broader funding base. Institutional reform involves cultural change within the organizational field, including SWAs and their governance structures. The Institution can itself adapt to a continuously changing social, political and ecological environment through expansion of goals, activities and boundaries, including adoption of a broadly representative governance structure. Without such transformation, the Institution and its key organizational actors risk losing legitimacy with society. Suchman (1995: 574) notes that “Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions.” It seems that this is the very minimum to which the Institution should aspire. Ideally, the Institution and its organizational actors would embrace fully the concept of serving the public trust for current and future generations. Politicians and interest-based stakeholders will be less likely to lead this charge. SWAs are the best positioned to facilitate change and the challenge will be to not only maintain legitimacy but to make themselves relevant and useful to society and the wildlife resources they serve.

Revisiting Assumptions

Based on a review of the literature and my experiences as a wildlife professional, I identified the following key assumptions as I began my research: (1) path and resource dependencies helped define the existing institutional logics and governance structures of the Institution; (2) the biological and social context has changed considerably since the emergence of the Institution; (3) the Institution must transform to become more diversified in terms of goals, activities, and boundaries to sustain its legitimacy to society; and (4) historical dependencies among SWAs, policy makers, and NGOs impede transformation. Although these assumptions are not tested

directly in my analyses, I gleaned insights that provide perspective on their validity with respect to my research. My research substantiated the identification of the state wildlife management system as an institution. The three elements that generally characterize institutions—normative, cultural-cognitive, and regulative (Scott 2001)—are, in the case of the Institution, clearly influenced in large part by historical dependencies among organizational players. Specifically, consumptive values and norms are the basis for existing institutional logics and define organizational behavior, composition of the organizational field, and relationships among organizations. Examination of documents and interview data illustrated the considerable influence the consumptive logics had on resource allocation, the nature and extent of relationships among SWAs, traditional organizations and policy makers, and SWA structure and function. A changing biological and social context is pressuring the Institution to reform, and there is clear evidence that it is beginning to change. Expansions of boundaries to include traditional and nontraditional organizations in the pursuit of alternative funding (i.e., the Teaming With Wildlife effort) is an example of institutional reform. Similarly, the institutionalization of State Wildlife Grants (SWG), a federal source of funding focused on species of greatest conservation need, represents institutional pressure for SWAs to broaden its focus beyond game species. I expected to find evidence that SWAs were resisting institutional pressures to change because of their historical relationships with traditional stakeholders. Although I found that these historical relationships influenced SWA behavior, most SWAs did not exhibit active resistance. According to some SWA leaders, resistance from other organizations within the organizational field (i.e., traditional interests, policy makers) impeded their ability to diversify, particularly their ability to secure alternative funding. Deeper examination of SWAs through case study research indicated that

resistance to change occurred from both exogenous and endogenous sources, but SWA transformation to some degree was occurring regardless.

Contributions to theory, policy, and practice

Collectively, my findings have several implications for theory, policy and practice. Theoretical contributions include:

1. The first comprehensive application of institutional theory to help understand the state wildlife management system. Specifically, it placed the key organizations of interest (SWAs) within an institutional context that facilitated understanding of how environmental and institutional forces affected SWAs forms, processes, relationships and transformation.

2. Application of a combined deterministic and voluntaristic perspective to help further understanding of organizational behavior in response to environmental and institutional pressures for change. Pure institutional theorists (Aldrich 1999) draw a clear distinction between these perspectives, but other scholars (Oliver 1991) believe it is valuable to extract critical insights from both to help understand institutional phenomena. In the case of the Institution, the combination of approaches was needed because even though there were strong exogenous pressures for change, strategic behavior was employed by some SWAs in response. Thus, evidence for both the deterministic perspective (at least as it was perceived by some agency leaders) and the voluntaristic perspective was found. Accordingly, I revised Oliver's (1991) typology of strategic response to capture behavioral nuances as described by SWA leaders. Addition of innovation as an active transformative response provided further evidence for the ability of organizations to behave strategically. I found Oliver's (1991) typology a useful starting point for understanding organizational behavior. However, the crude and somewhat undefined categories made measurement difficult. The inductive nature of Phase I allowed exploration of these categories, further refinement

of the constructs, and theoretical expansion of the typology. Additional qualitative work with the purpose of further refining these categories is needed. After the constructs have been defined and validated, quantitative scales can be created to measure the existence of these behavioral responses among a variety of organizations.

3. Support for postulates of resource dependency theory, particularly that dependent relationships can facilitate institutionalization of organizational structure and function and can hinder organizational transformation when that organization is dependent on a single source for resources (Pfeffer and Salancik 2003). The resource dependency perspective assumes that organizations will exhibit strategic behavior to minimize their dependence on a single source for funding. My research demonstrated that most SWAs had behaved strategically to reduce dependence on hunter-license revenue and Pittman-Robertson Wildlife Restoration funds but had not been able to achieve their funding goals. In-depth examination of four SWAs showed that those SWAs that had demonstrated broadening of agency culture and subsequently their funding bases, were also able to maintain strong partnerships and critical exchange relationships with traditional stakeholders. Thus, my research advances understanding of how seemingly captive organizations can minimize resource dependencies.

4. Application of theory regarding democratic decision-making models to the Institution's governance structure to understand processes used to circumvent or augment that structure. Examination of how each of the three types of decision making models, representative, direct and participatory, are used to affect wildlife policy is helpful in refining and strengthening this theoretical area.

Many implications for policy and practice emerged from my research. Consistent with the voluntaristic perspective, my research suggests that SWAs have the ability to plan and manage change in the best interest of their organizations and the public. Although most SWA leaders recognized the need to change, some expressed a

deterministic perspective or resistance to change, specifically in terms of finding alternative funding. Neither of these perspectives alone will suffice in the long term because of the changing nature and increasing costs of wildlife management as well as decline of traditional funding in many states. Based on my research, I offer a step-wise approach that, with modifications to fit the state's specific environments, SWAs can use to facilitate organizational transformation and ultimately secure and maintain alternative funding. Leaders are the key organizational actors to promote cultural change toward broadening goals. While others, including those organizations or individuals within or outside of the organizational field, can inspire change, leaders with both vision and authority to affect change are essential in the transformation process.

Exogenous factors—both societal and institutional—are critical to the transformation process. Those SWAs with enduring and strong partnerships had developed the synergy (Lasker et al. 2001) necessary to transform. Those that had not established such partnerships, or whose partners were not aligned in support of the SWA, lacked the political capital necessary to achieve their funding goals. Partnership building with and among interest groups and providing opportunities for collaboration on shared issues (e.g., habitat) broadened support for SWAs. Strategic partnership building will benefit both the SWA and other groups in meeting their conservation missions. Such political capital can be leveraged in reform efforts. Boards and commissions must be engaged in the transformative process. Partners can influence these bodies and can facilitate reform by strategically positioning key players to replace outgoing board members. In SWAs where policy makers are political appointees, partners can exert influence over the political base.

Limitations

Two primary limitations of my research are identified. Most notable is that the original design for Phase II focused on nontraditional programs, staff and stakeholders. Although I was able to interview some staff that were primarily game management focused, agency leaders who oversaw traditional and nontraditional programs, representatives of groups that represented both consumptive and nonconsumptive interests, and board/commission representatives, the interviewees by design were heavily weighted towards nontraditional programs. Because my research was focused on understanding diversity and change, it was critical to interview nontraditional staff and NGO leaders to understand expansion of nontraditional programs and boundaries. That focus limited my ability to gather in-depth information about attitudes and perceptions of traditional groups regarding change and their roles as facilitators of SWA expansion (e.g., MDC). In addition, resistance to change in situations where nontraditional and traditional groups were adversarial was not explored.

Second, my approach to state selection in Phase II was designed to explore replication from literal (i.e., are there commonalities between the two agencies that have similar funding?) and theoretical (i.e., are contrasts apparent between the SWAs with different divergent funding mechanisms) perspectives. I saw some evidence of literal replication in similarities in organizational transformation between MDC and AGFC. The differences between the two were likely due to the length of time each had access to consistent, alternative funding. Literal replication was less apparent between NMGF and MDIFW in goal transformation. This is to be expected to some degree because they were selected as representatives of the traditional model, and divergence over time would mask replication. My investigation looked at program breadth, but did not explore depth. It is likely that even greater similarities within

funding models and differences between them would arise if I had explored programs in greater depth. Breadth of actual funding mechanisms was difficult to examine with this approach. It may have been possible to identify a continuum based on funding mechanisms with more nuances in between the two extremes and explore differences in degree and nature of transformation among the different SWAs.

Future Research

The dynamics of organizational transformation are complex and nuanced. This body of work provides a foundation for understanding SWA behavior in response to pressures for change, including identifying possible impediments to transformation. Further inquiry should focus on understanding the degrees to which individual institutional factors (e.g., institutional logics, governance structures, organizational resistance) are impediments to SWA diversification and the dynamics associated with them. Refinement of the antecedents necessary for strategic behavior is needed, particularly innovation. Specifically, why have some agencies been successful innovators while others have not? A percentage of a sales tax is not necessarily an option for all SWAs, so they will need to be creative and find options that fit the economic and political realities of their states. A possible research question might be: what are the factors (endogenous or exogenous) that influence SWAs ability to move from a deterministic to a voluntaristic perspective? My research has identified factors such as leadership, vision, and organizational culture change that have resulted in an expansion of goals, activities and boundaries. Further inquiry is required to identify the internal components and the range of these factors, as well as the interactions or synergy among them that may be required to move from determinism to voluntarism. One source to which SWAs have turned for funding is state general funds. Understanding whether and how availability of these funds versus earmarked funds from sources such as lottery revenue or conservation sales tax revenue have changed

SWAs' behavior would offer insight regarding the influence of resource (i.e., funding source) versus path dependency (i.e., traditional relationships between SWAs and hunters) on organizational transformation.

Finally, the Institution's governance structure has received much criticism, and is a rich area for exploration. Future research should focus on variability within the major governance models, particularly boards and commissions and systems such as MDIFW where a political appointee rather than a commission directs the agency. MDC, AGFC, and NMDGF had similar governance models, but the former two SWAs had secured alternative funding and diversified to a greater extent than NMDGF. Understanding variation within models can yield further insights. In addition, inquiry could expand on Loker et al. (1994) and Williamson's (1998) work regarding how and why unsatisfied stakeholders circumvent representative democracy (the board/commission process) via direct democracy.

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APPENDIX I

ID#: _____

INTERVIEW GUIDE—STATE WILDLIFE AGENCY DIRECTORS

Name: _____ Title: _____

Agency: _____ Phone number: _____

Date: _____ Time: _____

Introduction:

- I am a doctoral student at Cornell University
- Working on dissertation research to help understand how state wildlife management agencies are addressing change in light of, for example, new funding sources, an increasingly urban society, declining numbers of hunters and trappers, increased interest in watchable wildlife opportunities, etc.
- As a _____ of a state wildlife agency, your input is of critical importance to this research.
- For Phase I of my research, I will be interviewing 24 state wildlife agency directors/chiefs/section leaders.
- The purpose of this interview is to obtain your insight regarding how your agency has addressed change and challenges you face in the future.
- I will be asking 20 open-ended questions. The interview will take ½ hour to an hour, depending on your responses.
- Your responses will be confidential (i.e., I will not associate your responses with your name).
- Do I have your permission to record this interview? I and a 3rd party transcriber will be the only people that will hear the recording, and it will be destroyed after it is transcribed.
- Your participation in this interview is voluntary, and you may terminate the interview at any time.
- Do you have any questions before we begin?

Director's background

1. How many years have you worked for _____
2. How many years have you been the _____ of the _____?
3. What is your educational background?

The next questions deal with change.

4. Describe the ways in which your _____ has changed over the last 5 - 10 years?
(make sure funding, organizational structure, programs, authority, governance, staff is addressed)
5. What do you believe are some of the factors that have caused change in your _____ in the last 5 years?
(make sure that external and internal factors are addressed. Provide examples if needed)
6. How have policy makers (e.g., board/commission, legislature) responded to these changes?
(supported, resisted, etc.)
7. How have different stakeholders responded to these changes?
(make sure they specify which stakeholders supported, resisted, etc.)
8. Of the changes that you mentioned, which do you think were the most beneficial to your _____?
 - a. Why?
9. Are there any changes that **have not been made** that you think would be beneficial to your _____?
 - b. Why?

The second set of questions deals with organizational structure and governance.

10. State wildlife agencies are organized in different ways. For example, some are part of a larger agency and some are stand-alone agencies. Some have many divisions/bureaus, and some only have a few. Do you consider the existing organizational structure of your agency to be "ideal" to fulfill the mission of your agency?
 - Why or why not?
 - Are there any changes that you would suggest?

11. Most states have some type of board or commission that has authority, designated in statute, relative to the state agency. Each state is somewhat different in this respect. In general, how would you evaluate the board/commission system for state wildlife policy making?
(effective, efficient, representative of needs of stakeholders, fair)
 - Are there any changes that you would suggest?
12. Do you believe that the membership of the board/commission adequately represents the wildlife-related interests of the citizens of your state?
 - if no, why?
 - which interests are/aren't being represented?
13. Do you consider the authority designated in statute to the *_(insert name of board/commission)_* to be adequate, or should it be increased, should be decreased, or changed in some other way?
 - How?
 - Why?
 - Are there any changes that you would suggest?
14. Do you believe that any component of the board/commission process in your state limits participation of interested members of the public?
 - If so, how?
(formal or informal barriers to access)

The final questions address funding and the future of state wildlife management.

15. As you know, state wildlife agencies have a relationship with hunters and trappers because of a mutual interest in wildlife and the funding that hunters and trappers provide via license dollars and Pittman-Robertson monies. Declining numbers of hunters and trappers in most states raise issues about the future of state wildlife management. Is your agency taking steps to try to maintain and recruit hunters and trappers?
 - Describe?
16. Please describe any steps your agency is taking to try to find funding from alternative sources (i.e., other than hunter/trapper license sales, P-R money, State Wildlife Grants [SWG])?
17. Is your agency taking steps to try to increase interest in non-consumptive uses of wildlife?

- if yes, please describe
18. Please describe the major changes, if any, that your agency has made because of the availability of Wildlife Conservation and Restoration Program (WCRP) or SWG money?
(only ask if not addressed above. Address changes in program, staff, and organizational structure)
 - 18a. Do you believe that the CWCS and the process that you used to develop it was beneficial to your agency?
 - why?
 19. Has the availability of WCRP or SWG money resulted in your agency taking steps to develop new constituencies?
 - if yes, please describe
 20. What do you consider to be the greatest challenges that face your agency in the next 5 years?
 - why?
 - how do you think it will be addressed?

Do you have anything else to add?
Thank you for your time and input.

APPENDIX II

INTERVIEW GUIDE STATE WILDLIFE AGENCY DIRECTORS⁴

Name: _____ Title: _____

Agency/State: _____ Phone number: _____

E-mail: _____ Date: _____

Time: _____

Introduction

- I am a Doctoral candidate at Cornell University
- Working on dissertation research to help understand how various factors, particularly funding, influence state wildlife agencies' ability to address changing societal needs and desires.
- The purpose of this interview is to help me gain insight into your agency's culture as indicated by factors such as budget, program, activity priorities. Specifically, I am interested in those factors as they relate to nontraditional programs
- Clear on what I am referring to when I say "nontraditional" = not focused primarily on game research and management. Another term I will use is alternative funding = funding not derived from license sales, PR money, or fines for breaking hunting regulations.
- I will be asking 29 open-ended questions. The interview should take approximately one hour, depending on the length of your responses.
- Your responses will be confidential (i.e., I will not associate your responses with your name in any reporting).
- Do I have your permission to record the interview? I and a 3rd party transcriber will be the only people that will hear the recording, and it will be destroyed after it is transcribed.
- Your participation in this interview is voluntary, and you may terminate the interview at any time.
- Do you have any questions before we begin?

⁴ The purpose of this interview is to expand on the interview conducted with the agency directors in Phase I. However, may use the same interview for directors' counterparts for different divisions.

Interviewee's background

1. How many years have you worked for X agency _____?
2. What is your educational background (degree, discipline) _____?
3. How many years have you been in your current position _____?
4. What other positions have you held, if any, in your agency/other agencies _____?

Organizational structure, programs, staff

5. Please describe your agency's mission and vision. Has this changed in the last 10 years? If so, why?
6. Please describe the current structure of your agency.
 - o centralized or decentralized?
 - o statewide programs/staff vs. regional?
7. Are nontraditional programs/staff interspersed with traditional or are there separate divisions? Level of nontraditional programs, activities within the agency.
 - o Please explain?
8. Would you say that there is a clear delineation between game and other programs/activities within your agency in terms of staff, funding sources, expenditures, research, etc? Is this changing or has it changed in the last 10 years?
9. What are the pros and cons of this structure?
10. Approximately, what percentage of your agency is focused on nontraditional versus traditional activities in terms of (1) programs, (2) staff, and (3) expenditures?
11. What are the names and functions of the nontraditional programs/activities within your agency?

Responsiveness

12. In your opinion, who are your primary stakeholders? Please explain? Are there other groups that the agency devotes a lot of energy to serving as well? Has this changed in the last 10 years? How?
13. Do you believe that demands on your agency for services and program outcomes have changed? If yes, how? What are these new demands? If yes, what has your agency done to meet these changing demands (i.e., in terms of programs, spending, staff)?
14. What do you see as emerging public expectations relative to wildlife? What are your agency's strengths and weaknesses in terms of its ability to meet these expectations?
15. Do you believe that your agency's current programs, staffing and expenditures reflect the public demand for services and outcomes? Please explain.
16. What do you think needs to be done, if anything, to respond to any unmet demands?
17. Do you believe that nontraditional programs are adequately funded/staffed or otherwise supported in your agency? If not, why not? If so, explain.
18. How do you think the public perceives your agency? (e.g., hunting/fishing, or broad mission?)

Partnerships

19. How would you describe your agency's relationship with nongovernmental groups?
 - traditional (RMEF, TU)
 - nontraditional (TNC, Audubon)
20. How important is it that your agency reaches out to new stakeholder groups?
21. What factors do you think facilitate/impede your agency's ability to work with new stakeholder groups?

Human dimensions

22. Please describe your agency's efforts to understand the public's attitudes/interests/concerns about wildlife in your state?
 - surveys (harvest/user, opinion, attitude/values)?

- human dimensions staff?
 - contractual arrangements with human dimensions experts?
 - budget?
 - legal requirements/limitations
23. How important is the use of survey information to your agency? How is it used?
24. Please describe your agency's efforts to involve the public in decision making for wildlife in the state?
- e.g. stakeholder groups, public meetings
 - planning staff?
 - budget?
 - legal requirements/limitations
25. How important is the use of planning/public involvement efforts to your agency? How is it used?

Funding

26. Please describe your agency's funding (relative %) in terms of traditional versus nontraditional sources.
27. Please describe your agency's expenditures (relative %) in terms of traditional versus nontraditional programs, staff, and activities.
28. How do you think the availability of alternative funding (i.e., not from hunting license sales or PR money) has/could affect your ability to meet the expectations of the public?
29. Has/could the availability of alternative funding sources change(d) the nature or focus of your agency (e.g., programs, staff, activities). If so, how?

Do you have anything else to add? Can you think of anyone else I should talk to?

Thank you!

INTERVIEW GUIDE
PLANNERS/HUMAN DIMENSIONS STAFF

Name: _____ Title: _____

State: _____ Phone number: _____

E-mail: _____ Date: _____

Time: _____

Introduction

- I am a Doctoral candidate at Cornell University
- Working on dissertation research to help understand how various factors, particularly funding, influence state wildlife agencies' ability to address changing societal needs and desires.
- The purpose of this interview is to help me gain insight into your agency's culture as indicated by factors such as budget, program, activity priorities. Specifically, I am interested whether and how public input and engagement is sought and used in your agency.
- Clear on what I am referring to when I say "nontraditional" = not focused primarily on game research and management. Another term I will use is alternative funding = funding not derived from license sales, PR money, or fines for breaking hunting regulations.
- I will be asking 17 open-ended questions. The interview should take approximately one hour, depending on the length of your responses.
- Your responses will be confidential (i.e., I will not associate your responses with your name in any reporting).
- Do I have your permission to record the interview? I and a 3rd party transcriber will be the only people that will hear the recording, and it will be destroyed after it is transcribed.
- Your participation in this interview is voluntary, and you may terminate the interview at any time.
- Do you have any questions before we begin?

Interviewee's background

1. How many years have you worked for _____?
2. How many years have you been in your current position _____?

3. Where does your position fall in the agency's organizational structure_____?
4. Are you the only planner/hd specialist in your agency? If not, how many others?
5. What is your educational background (degree, discipline)_____?

Human dimensions

Use of survey research

6. Does your agency use survey research to obtain public input? If yes, how often, what type (e.g., harvest/participation, opinion, attitudes/values), \$ spent?
7. Please describe how survey research is used within your agency?
 - o Give examples of projects. How was the information actually used (e.g., presented to decision makers, internally by agency staff)?
8. Is survey research used primarily to understand traditional stakeholder groups (e.g., hunter surveys), nontraditional stakeholders (e.g., bird watchers), the general public, or a combination of these groups?

Use of planning/public involvement

9. Does your agency use planning/public involvement to engage stakeholders? If yes, how often, what type (e.g., focus groups, stakeholder groups, workshops), \$ spent?
10. Please describe how planning/public involvement is used within your agency?
 - o Give examples of projects
 - o How was the input actually used? (species management plans, habitat plans, goal setting, controversial issues, marketing ideas, hunter recruitment/retention?)
11. What types of stakeholder groups have been engaged in your planning efforts? (e.g., traditional, nontraditional, mix)?

Legitimacy

12. In your opinion, how important is it to your agency that public attitudes about wildlife are understood? Why or why not?

13. Is the use of survey research part of your agency culture (e.g., written policy on public involvement)? Please explain.
 - Do staff/policy makers seek it out?
 - Is it well received?
 - Is it funded/staffed?
14. Is there any resistance to the use of survey data to understand the general public? nontraditional stakeholder groups (e.g., from traditional stakeholders, policy makers)?
15. Is planning/public involvement part of your agency culture? Please explain.
 - Do staff/policy makers seek it out?
 - Is it well received?
 - Is it funded/staffed?
16. In your opinion, how important is it to your agency that the public is involved in wildlife decision making?
17. Is there any resistance to involving nontraditional stakeholder groups in wildlife decision making? Is this internal or external (e.g., from traditional stakeholders, policy makers)?

INTERVIEW GUIDE
BOARD/COMMISSION MEMBERS

Name: _____ Title: _____

State: _____ Phone number: _____

E-mail: _____ Date: _____

Time: _____

Introduction

- I am a Doctoral candidate at Cornell University
- Working on dissertation research to help understand how various factors, particularly funding, influence state wildlife agencies' ability to address the public's needs and desires.
- The purpose of this interview is to help me gain insight into your perceptions of whether and how availability of alternative funding sources influences Xs ability to meet public expectations for wildlife conservation and management.
- I will be asking 22 open-ended questions. The interview should take approximately one hour, depending on the length of your responses.
- Your responses will be confidential (i.e., I will not associate your responses with your name in any reporting).
- Do I have your permission to record the interview? I and a 3rd party transcriber will be the only people that will hear the recording, and it will be destroyed after it is transcribed.
- Your participation in this interview is voluntary, and you may terminate the interview at any time.
- Do you have any questions before we begin?

Interviewee's background

1. How many years have you been on the X board/commission _____?
2. How did you become interested in being a member of the board/commission _____?
3. What is your educational background? _____?
4. What is your occupation? _____?

5. Are you selected to serve based on a specific criterion (e.g., geography, representation of a stakeholder group, political party, etc.)_____?
6. What about your background makes you uniquely qualified to be a board/commission member_____?

Role

7. Please describe the role of the X board/commission?
8. Please describe your specific role as a board/commission member.
9. Whose interests do you represent as a member of the board/commission?

Perspectives on SWA

10. In your opinion, what are the contemporary wildlife challenges facing X agency?
11. Who are the primary stakeholders that should be considered when making decisions about wildlife in state X? Who should the agency serve?
12. Do you think that the portfolio of programs/services the agency offers is adequate to meet the wildlife-related needs of your state? If so, why? How?
13. What do you see as the strengths and weaknesses of X agency in meeting the wildlife-related needs of the citizens of X (state)? Are there any changes that you would recommend regarding the SWA that might make it better prepared to deal with contemporary wildlife challenges?

Expectations for board/commission

14. What do you see as the strengths and weaknesses of the board/commission process for meeting the expectations of the citizens of X (state)?
15. Are there any changes that you would recommend regarding the board/commission system that might make it better prepared to deal with contemporary wildlife challenges?
16. Do you believe that the membership of the board/commission adequately represents the wildlife-related interests of the citizens of your state?

- if no, why?
 - which interests are/aren't being represented?
17. How important is it that all citizen interests are represented by the board/commission?
 18. Do you consider the authority designated in statute to the *_(insert name of board/commission)_* to be adequate, or should it be increased, should be decreased, or changed in some other way?
 - how?
 - why?
 - are there any changes that you would suggest?
 19. Do you believe that any component of the board/commission process in your state limits participation of interested members of the public?
 - if so, how?
 20. Which types of input would you say carries the most weight in the decisions you make as a board/commission member? (e.g., input from the SWA, the public [who], personal experience, other)

Agency and funding

Increasing demands on state wildlife management agencies and subsequent costs, as well as the declining relative numbers of hunters in many states have caused state wildlife agencies to seek alternative sources of funding.

21. Do you think that the availability of nontraditional funding has/will change(d) wildlife management in your state? If so, why? How?
22. In your opinion, are these changes (if any), a positive or negative step for the agency? Wildlife? The public? Why?

INTERVIEW GUIDE
BOARD/COMMISSION MEMBERS

Name: _____ Title: _____

State: _____ Phone number: _____

E-mail: _____ Date: _____

Time: _____

Introduction

- I am a Doctoral candidate at Cornell University
- Working on dissertation research to help understand how various factors, particularly funding, influence state wildlife agencies' ability to address the public's needs and desires.
- The purpose of this interview is to help me gain insight into your perceptions of whether and how availability of alternative funding sources influences Xs ability to meet public expectations for wildlife conservation and management.
- I will be asking 22 open-ended questions. The interview should take approximately one hour, depending on the length of your responses.
- Your responses will be confidential (i.e., I will not associate your responses with your name in any reporting).
- Do I have your permission to record the interview? I and a 3rd party transcriber will be the only people that will hear the recording, and it will be destroyed after it is transcribed.
- Your participation in this interview is voluntary, and you may terminate the interview at any time.
- Do you have any questions before we begin?

Interviewee's background

23. How many years have you been on the X
board/commission _____?

24. How did you become interested in being a member of the
board/commission _____?

25. What is your educational
background? _____?

26. What is your
occupation? _____?

27. Are you selected to serve based on a specific criterion (e.g., geography, representation of a stakeholder group, political party, etc.) _____?
28. What about your background makes you uniquely qualified to be a board/commission member _____?

Role

29. Please describe the role of the X board/commission?
30. Please describe your specific role as a board/commission member.
31. Whose interests do you represent as a member of the board/commission?

Perspectives on SWA

32. In your opinion, what are the contemporary wildlife challenges facing X agency?
33. Who are the primary stakeholders that should be considered when making decisions about wildlife in state X? Who should the agency serve?
34. Do you think that the portfolio of programs/services the agency offers is adequate to meet the wildlife-related needs of your state? If so, why? How?
35. What do you see as the strengths and weaknesses of X agency in meeting the wildlife-related needs of the citizens of X (state)? Are there any changes that you would recommend regarding the SWA that might make it better prepared to deal with contemporary wildlife challenges?

Expectations for board/commission

36. What do you see as the strengths and weaknesses of the board/commission process for meeting the expectations of the citizens of X (state)?
37. Are there any changes that you would recommend regarding the board/commission system that might make it better prepared to deal with contemporary wildlife challenges?
38. Do you believe that the membership of the board/commission adequately represents the wildlife-related interests of the citizens of your state?
○ if no, why?

- which interests are/aren't being represented?
39. How important is it that all citizen interests are represented by the board/commission?
 40. Do you consider the authority designated in statute to the *_(insert name of board/commission)_* to be adequate, or should it be increased, should be decreased, or changed in some other way?
 - how?
 - why?
 - are there any changes that you would suggest?
 41. Do you believe that any component of the board/commission process in your state limits participation of interested members of the public?
 - if so, how?
 42. Which types of input would you say carries the most weight in the decisions you make as a board/commission member? (e.g., input from the SWA, the public [who], personal experience, other)

Agency and funding

Increasing demands on state wildlife management agencies and subsequent costs, as well as the declining relative numbers of hunters in many states have caused state wildlife agencies to seek alternative sources of funding.

43. Do you think that the availability of nontraditional funding has/will change(d) wildlife management in your state? If so, why? How?
44. In your opinion, are these changes (if any), a positive or negative step for the agency? Wildlife? The public? Why?

INTERVIEW GUIDE
LEGISLATORS

Name: _____ Title: _____

State: _____ Phone number: _____

E-mail: _____ Date: _____

Time: _____

Introduction

- I am a Doctoral candidate at Cornell University
- Working on dissertation research to help understand how various factors, particularly funding, influence state wildlife agencies' ability to address changing societal needs and desires.
- The purpose of this interview is to help me gain insight into your perceptions of whether and how availability of alternative funding sources influences Xs ability to meet public expectations for wildlife conservation and management.
- Clear on what I am referring to when I say "nontraditional" = not focused primarily on game research and management. Another term I will use is alternative funding = funding not derived from license sales, PR money, or fines for breaking hunting regulations.
- I will be asking 16 open-ended questions. The interview should take approximately one hour, depending on the length of your responses.
- Your responses will be confidential (i.e., I will not associate your responses with your name in any reporting).
- Do I have your permission to record the interview? I and a 3rd party transcriber will be the only people that will hear the recording, and it will be destroyed after it is transcribed.
- Your participation in this interview is voluntary, and you may terminate the interview at any time.
- Do you have any questions before we begin?

Interviewee's background

45. How many years have you been a Senator/Representative _____ ?

46. How many years have you been a legislator _____ ?

47. What is your educational background? _____ ?

48. What is or was your occupation? _____?
49. Which legislative committees or groups do you serve on _____?
50. Please describe your interest in wildlife conservation and management member _____?

SWA and board/commission

51. In your opinion, what are the contemporary wildlife challenges facing X agency?
52. Who are the primary stakeholders that should be considered when making decisions about wildlife in state X? Who should the agency serve?
53. Do you think that the portfolio of programs/services the agency offers is adequate to meet the wildlife-related needs of your state? If so, why? How?
54. What do you see as the strengths and weaknesses of X agency in meeting the wildlife-related needs of the citizens of X (state)? Are there any changes that you would recommend regarding the SWA that might make it better prepared to deal with contemporary wildlife challenges?
55. What do you see as the strengths and weaknesses of the board/commission system for meeting the wildlife-related needs of the citizens of X (state)? Are there any changes that you would recommend regarding the SWA that might make it better prepared to deal with contemporary wildlife challenges?
56. Do you believe that the membership of the board/commission adequately represents the wildlife-related interests of the citizens of your state?
- if no, why?
 - which interests are/aren't being represented?
57. Do you consider the authority designated in statute/constitution to the (insert name of board/commission) to be adequate, or should it be increased, should be decreased, or changed in some other way?
- how?
 - why?
 - are there any changes that you would suggest?

58. Do you believe that any component of the board/commission process in your state limits participation of interested members of the public? If so, how?

Agency and funding

Increasing demands on state wildlife management agencies and subsequent costs, as well as the declining relative numbers of hunters in many states have caused state wildlife agencies to seek alternative sources of funding.

59. Do you think that the availability of nontraditional funding has/will change(d) wildlife management in your state? If so, why? How?
60. In your opinion, are these changes (if any), a positive or negative step for the agency? Wildlife? The public? Why?