Multi-level governance of British Columbia's mountain pine beetle crisis: The roles of memory and identity

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ABSTRACT

As multi-level environmental governance approaches have become increasingly popular, many researchers have critically examined their implications for devolution and withdrawal of the state. Others have suggested that such approaches are necessary for more resilient, flexible natural resource management. However, the qualitative social dimensions of multi-level governance remain less well understood. We explore how two such dimensions—memory and identity—are significant determinants of access to resources for adaptation in the case of regional governance of mountain pine beetle infestation in central British Columbia, Canada. We found that memory and identity are conceptual research lenses with the potential to elicit subtle detail about how participants in governance efforts mobilize, engage, or are limited by (both consciously and unconsciously) social relationships between communities and within a resource-dependent, rural region.

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1. Introduction

Rural forest communities in western North America are experiencing tremendous economic and ecological losses from mountain pine beetle infestation. For example, in British Columbia, Canada, more than 18.1 million hectares of pine forest are affected (BC Ministry of Forests, Lands, and Natural Resource Operations, 2012). Governments and communities facing complex environmental problems at multiple scales have responded by entering into new governance arrangements. These may combine municipal and indigenous leaders, sector-based interest groups, and other stakeholders across a region in multi-scale forms that scholars have variously identified as "metagovernance" (e.g. Parkins, 2008) and multi-level governance (e.g. Armitage, 2008; Lebel et al., 2006).

In the extensive literatures on these forms of governance, there have been two primary lines of inquiry. First, some scholars have promoted multi-level governance as a way to foster more resilient social-ecological systems (e.g. Folke, 2006; Lemos and Agrawal, 2006). They argue that multi-level governance suits complex environmental issues because multi-level institutions can enable adaptive response at local levels and throughout a system; and can improve fit between ecosystems and institutions (Lebel et al., 2006; Young, 2002). Second, other researchers have more critically suggested that multi-level governance is merely "collaboration in

the shadow of the state", and are concerned with how higher levels of governance can devolve responsibility without offering new powers (e.g. McCarthy, 2006; Wallington and Lawrence, 2008). Further, these scholars draw attention to issues of scale. They suggest that scale is not merely a straightforward descriptor of space and magnitude, but also a "relationship [that is] is continuously being defined, contested, and reconstructed based on power relations between actors across many political and economic levels" (Silver, 2009: 925).

These perspectives—both the supportive and the critical—have illuminated many possible benefits and costs of governing across scales. There has been a focus on institutional and often community-scaled issues including capacity building and enhancement (Berkes and Folke, 1992; Burch and Robinson, 2007), social capital formation and mobilization (Adger, 2003; Pretty, 2003), knowledge integration and social learning (Bullock et al., 2010), and organizational and institutional flexibility (Armitage, 2005; Danter et al., 2000; Grumbine, 1994; Lee, 1993; Ostrom, 2005). Yet there are also important social dynamics, such as trust and inclusiveness, that can affect how these multi-level forms of governance represent and include their participant communities of place and interest. Although study of the social dimensions of collaborative natural resource management has largely focused on dynamics *within* collaborating communities (e.g. Gray et al., 2001; Weber, 2003), relationships *between* multiple communities of place and interest matter as well. In regional governance, local actors with different kinds of power and resources are drawn together, and their interface shapes how they contribute to, and what they receive from, the establishment of regional strategies.

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The powers and resources available between communities participating in multi-level governance can be understood through approaches common to case studies of communities and local dynamics, often found in environmental history. For example, Ruth Langridge et al.'s study of water use (2006, n.p.) suggests that "a community's cumulative history shapes its particular distribution of assets, and how they are produced and reproduced; and it reveals how differential access to resources is embedded in the broader political economy." Jay Taylor's environmental history of the Pacific Northwest salmon fishery also suggests that more recent management decisions have involved the contestation of stories and memories, or historical knowledge about past management, between different communities of interest around salmon (Taylor, 1999). It seems logical that the history and context of natural resource management, and the ways in which actors construct history, should be just as significant for the relationships *between* communities within regional governance arrangements. However, such a strategy has rarely been applied to governance beyond the community scale (but see work in Gunderson et al., 1995). These perspectives warrant deliberate attention because they are less tangible and measurable than other dimensions such as socioeconomic status that are calculable and comparable, and require the use of qualitative social science and humanities research methods. In addition, they provide insights into the past of a community and its experiences, rather than a snapshot of a single moment or state.

In response to this gap, the first author conducted a broad study focused on understanding the history of a region facing mountain pine beetle, identifying the social dimensions of regional environmental governance and using those dimensions to better understand how a regional governance system was established and operated to address a contentious forestry management issue in British Columbia, Canada. Review of academic research on governance (e.g., Lockwood, 2010) and local history of the case study region revealed ten social dimensions of governance.[1] In examining these dimensions through qualitative interview research, we found that several of them were especially significant to the case, including framing, learning, memory, identity, and inclusion. These results are presented in a larger study (Davis, 2011). However, given that existing knowledge about some of these dimensions is strong—e.g. framing (Gray, 1989), learning (Reed, 2010) and inclusion (Reed and Davidson, 2011), we chose to draw out and highlight our findings on memory and identity here in order to contribute to a richer discussion of historical and contextual dynamics that also shape multi-level governance. Memory and identity are conceptual research lenses with the potential to elicit subtle detail about how participants in governance efforts mobilize, engage, or are limited by (both consciously and unconsciously) reported social dimensions—e.g. social capital or socioeconomic status. In other words, they are tools for understanding the workings of well-known concepts like social capital. For example, participants' social connectivity within their communities may be based on their identification with a common profession, residence, or way of life. This may expand or limit the scope of what they prioritize and are able to value when working collaboratively. In short, memory and identity shape how participants "play together" in a multi-level, multi-actor setting.

The purpose of this paper, then, is to explain how memory and identity affected the functioning of multi-level governance through a qualitative case study of the Cariboo–Chilcotin Beetle Action Coalition (CCBAC) in the northern Cariboo–Chilcotin forest region of British Columbia (BC), Canada. CCBAC is a multi-stakeholder, multi-community entity that created regional strategies to address the

impacts of an outbreak of mountain pine beetle that has damaged merchantable timber and threatened the socioeconomic viability of forest-reliant communities in that region.

We begin by describing conceptual perspectives on environmental governance at multiple scales, which have been both prescriptive or supportive as well as critical. Then, we briefly review what we mean by memory and identity as social dimensions of natural resource governance. We place emphasis on the work of scholars concerned with scale, institutions, historical processes, and power in environmental governance. We then illustrate how these social dimensions matter in a case of multi-level environmental governance by presenting evidence of how memory and identity shaped the benefits and challenges to communities of place and interest that participated in CCBAC. We use analysis of government and coalition documents and semi-structured interviews with participants of the coalition to understand how the social dimensions of memory and identity affected who held power, who benefited, and how resources for adaptation to pine beetle challenges flowed in this multi-level governance arrangement.

2. Multi-level governance

We adopt a definition of environmental governance as "the decisionmaking process we follow, the models, principles and information used to make decisions and determin(ing) who gets to decide" (Bakker, 2007, p. 16). Environmental governance is focused broadly on institutions and decision-making processes, involving "a range of formal and informal institutions, social groups, processes, interactions, and traditions, all of which influence how power is exercised, how public decisions are taken, how citizens become engaged or disaffected, and who gains legitimacy and influence" (Reed and Bruyneel, 2010, pp. 835–836). Researchers studying environmental governance in western democracies over the past two decades have taken two primary lines of inquiry. First, scholars have tracked increased interest in using participatory, collaborative, and local approaches to manage the environment in forest communities in North America (Reed and McIlveen, 2007). As the popularity of these approaches has grown in practice, researchers have identified ways in which local actors are closely tied to external dynamics; and have increasingly suggested that multi-level governance may be a means to address the interplay of drivers and actors across scales. Resilience scholars, for example, have emphasized the possible benefits of polycentric, multi-level institutional arrangements including the ability to better manage larger ecological dynamics that are not confined to political boundaries. This line of research generally has been less critical of multi-level governance's potential pitfalls, and how power and agency may affect resource allocations in such arrangements remains limited in this literature (e.g. Adger et al., 2005; Armitage et al., 2009; Berkes, 2008, 2009).

A second research emphasis is more critical of the de-concentration of roles and responsibilities from centralized state actors towards local and regional governments, nonprofit organizations, and the private sector (Lockwood, 2010) without concomitant provisions for sharing power (Bradshaw, 2003; Kellert et al., 2000; Lockwood and Davidson, 2010; Ribot and Peluso, 2003). Scholars have suggested that the hollowed-out state has led to forms of metagovernance that appear to act locally on behalf of communities, but still rely on the state for resources and direction (Parkins, 2008, p. 12). Regional metagovernance institutions have upward linkages to intermediary and federal levels of the state and downward linkages to local municipalities and stakeholders. Often, a collaborative of local leaders meets to build strategies for common regional issues, while provincial and federal agencies provide financial support, general guidance, and coordination.

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[1] The 10 dimensions in the study were structure, devolution, framing, inclusiveness, access, memory, identity, networks, integration, complexity, and learning.