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Exploring the prospects for deliberative practices as a conflict-reducing and legitimacy-enhancing tool: the case of Swedish carnivore management

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A new structure for decision-making in relation to management of large carnivores is presently being implemented in Sweden through a system of regional Wildlife Management Delegations (WMD). The governing idea is that strengthened regional influence will increase the legitimacy of both the management system and its outcomes. We use this institutional change as a backdrop for analyzing the possibilities to apply deliberative practices to reduce conflict and enhance legitimacy in the management of natural resources. We argue that structures alone do not determine the prospects of deliberative arrangements; the political context (i.e. the characteristics and relationships among participating actors) is equally important. An analytical framework is proposed that merges structural prospects for deliberation in co-management with stakeholder features, capturing the interests and beliefs of the actors involved. We illustrate the application of this framework by analysing original data from three Wildlife Management Delegations. Our findings show that there are significant differences in the beliefs among the actors within the system. Based on similarities in their beliefs, they can potentially form a relatively strong anti-carnivore/pro-WMD-coalition, opposing the pro-carnivore/anti-WMD-beliefs of the nature conservation interest. Furthermore, the structure is designed to meet vital deliberative criteria, yet we point at substantial differences between statutory and effective representation that, as it coincides with diverging beliefs, can affect decision-making. One qualitative criterion for successful deliberation stands out in our study – reasoned debate. The prospects for deliberation in WMDs to reduce conflict levels among opposing interests seem to depend on the capacity for ensuring exchange of reasonable and informed arguments.

The past decades' strong increase of collaborative arrangements in the natural resource management (NRM) field is, to a significant extent, motivated by research on the prospects for deliberative processes for increasing process and output legitimacy in contentious policy issues. (Legitimacy denotes that a decision, system or political order is normatively acceptable, and therefore voluntarily accepted as morally binding by those subject to it. As such, legitimacy is a necessary precondition for long-term, voluntary compliance, whether this is with a regime or with a policy, cf. Matti 2009). Broad participation and face-to-face communication among stakeholders throughout the decision-making and implementation processes have subsequently been suggested as tools both for conflict resolution (Dietz et al. 2003) and legitimacy creation (McLaverty and Halpin 2008). Given this 'transformative power of dialogue', the literature on both co-management and deliberative democratic theory propose that the introduction of deliberative practices will facilitate a number of positive outcomes: reduced conflict among competing interests (Dryzek 2000, Dietz et al. 2003); a deeper understanding and tolerance of opposing views as well as better, more reasonable and informed arguments (Gutmann and Thompson 1996);

and a broadened sense of collective, rather than individual, interests (Chambers 1996). Thus, deliberation caters to more informed personal positions, mutual understanding among participants, a stronger sense of communal responsibility and a higher process as well as outcome legitimacy.

Although the literature on deliberative practices in the NRM-field has grown rapidly over the past decades, to date it has mostly been theoretical. With some prominent exceptions (Delli Carpini et al. 2004, Zachrisson 2010, Saarikoski et al. 2013), comprehensive empirical work attempting to explore and explain the prospects of conflict reduction and legitimacy enhancement through co-management deliberation are quite rare, and those previous studies conducted present mixed empirical evidence on the ability of deliberative processes to deliver the proposed benefits (cf. Chambers 1996). In particular is the extent to which co-management deliberations can overcome conflicts characterised by multiple-uses dilemmas (Ostrom 1990) as well as its ability to build trust among stakeholders-groups divided by contextual, ethno-political circumstances not well researched (cf. Zachrisson 2004). Thus, the dynamics of co-management deliberations and, in particular, the prospects of them to positively affect legitimacy are in need of further

inquiry. This is particularly true for contentious policy areas as contemporary political practice places increasing faith in co-management deliberations as a conflict-reducing mechanism.

In this paper we aim at contributing to the literature analysing co-management deliberations in the NRM-field by exploring original data on one highly contentious case in particular: the Swedish management of large carnivores. Our main empirical interest is whether the new Swedish co-management system, set up in 2010 with the expressed political ambition to increase legitimacy and reduce the conflicts surrounding large carnivore management, holds the prospects to provide the suggested positive outcomes? We attempt to answer this question through an approach that integrates deliberative democratic theory with stakeholder analysis, thus allowing us to simultaneously explore the features of both structures and actors within the co-management system and better understand the challenges for and capabilities of a management system to foster learning and legitimacy over time. Although our empirical point of departure is on one particular case, we believe that our study also contributes more generally to the literature on co-management deliberation concerning contested and complex resources.

Carnivore conflicts and co-management in Sweden

The Swedish system for large carnivore management (LCM) is a textbook example of the complexity and the conflicts characterising much of contemporary NRM-policy. LCM is highly controversial in Sweden and surrounded by a range of conflicting interests and attitudes channelled through well-organized interests groups. The conflicts mainly relate to the status for and very existence of the large carnivores (i.e. lynx *Lynx lynx*, brown bear *Ursus arctos*, wolf *Canis lupus*, wolverine *Gulo gulo* and golden eagle *Aquila chrysaetos*). Nature-conservationist interests view carnivores as being a natural part of the Swedish fauna and its cultural heritage, advocating both a strengthening and a geographical spread of the populations well in line with the official Swedish carnivore policy (SOU 2011:37). This view is also supported by a majority of the Swedish public, in particular those living in urban areas. In contrast, the very existence of large carnivores is considered a major problem by hunters and herders in the sparsely populated Swedish north and northwest. In these areas, public opinion in general is also significantly less positive toward carnivores (Sandström and Eriksson 2009). However, previous research also demonstrates that the carnivore conflicts not only concern policy outcomes but are also connected to a wider range of issues, most prominently related to questions of power and representation within the management and decision-making system (Cinque 2008). A further dimension of both institutional and moral complexity concerns the relation between large carnivores and the indigenous Sámi minority located in the Swedish north. Although the legal status of Sámi land-use rights in Sweden still is rather unclear and subject to a number of high-profile court-cases (Allard 2006), the Sámi enjoys status as a national minority and their customary practice of reindeer husbandry is legally protected. A strengthening of the carnivore popula-

tions, however, threatens the traditional free-range grazing of reindeer and would potentially lead to significant negative effects on Sámi economy and culture.

Due to legitimacy deficits, both among stakeholders and the general public, a new structure for decision-making in relation to management of large carnivores is presently being implemented in Sweden through a system of regional Wildlife Management Delegations (WMDs, in Swedish Viltförvaltningsdelegationer). The WMDs are incorporated into an existing administrative structure – the County Administrative Boards (21 in number) and replace previous corporative committees on carnivore management (in Swedish: Regionala rovdjursgrupper, Rovdjursakutgrupper and Nationella rådet för rovdjursfrågor). (Sweden has a long corporate tradition involving negotiations between the State and organized interests, primarily on labor market policy, Lindvall and Sebring 2005). The delegations are chaired by the county governor, and their composition is regulated in detail to include five politicians (representing the general public), one expert on traffic safety/illegal hunting and one representative each from the following organized interests: agriculture, forestry, nature conservation, hunting/game management, outdoor life and local trade/tourism. When relevant, the WMDs also include representatives from commercial fishery, seasonal foraging (i.e. free-ranging livestock), reindeer herding and the Sámi parliament (SFS 2009:1474). Delegations have a formal mandate to make decisions regarding hunting arrangements in their region, yet keeping within the limits set by the SEPA. They manage ungulate populations (particularly moose) and, where appropriate, they decide on licensed hunting and culling and economic compensation for the damages caused by large carnivores. WMDs also submit proposals for minimum flourishing levels of some large carnivores (national minimum levels were introduced in 2011 for bear, lynx and golden eagles, to ensure that the management of these species is in line with the overall goal of viable populations. For lynx, the minimum flourishing level is, just to take one example, between 250 and 300 rejuvenations per year. If the number of animals falls below this level, culling should be highly restricted) and provide comments on the regional carnivore management plan (SOU 2012:22). The governing idea with this institutional change is that increased regional responsibility will enhance public trust in policy making and thus the legitimacy of its outcomes and of the management-system as a whole.

Although the recently implemented system has changed the formal structures of decision-making, the government's ambition to foster inclusion and participation in carnivore management is far from new. Several forms of corporative committees (the above-mentioned Regionala rovdjursgrupper, Rovdjursakutgrupper and Nationella rådet för rovdjursfrågor), with representatives from stakeholder organizations have been in place for many years for consulting the policy-making processes on the national and regional levels and for building understanding across interests and opinions (Sjölander-Lindqvist 2008, Sandström et al. 2009). Despite these efforts to increase dialogue and inclusion in the decision-making and implementation processes, the legitimacy problems have remained substantial. Empowering regional stakeholders further through the new management system that was introduced in 2010 has hitherto not, although it

was relatively recently implemented, contributed to lessening neither inter-stakeholder conflicts nor the legitimacy deficits of the policy itself. The heated national media debate concerning, primarily, the future for the Swedish wolf-population continues with unchanged strength (Ekengren 2012). Furthermore, in a study of stakeholder attitudes toward the Swedish carnivore management from 2007–2011, Duit and Löf (2011) find that, at one year into the reformed system, overall legitimacy has actually dropped. Given these developments, we find it reasonable to further explore the potential for the new management system to increase levels of legitimacy as well as to reduce conflicts in the future: Has the new management system failed, and if so, in what respects? Or have we yet to see the full potential ability of deliberative/participatory practices to reduce conflict and build legitimacy in Swedish LCM?

The article proceeds as follows. In the first part, our theoretical framework on prospects for deliberation will be elucidated, starting with the stakeholder perspective and thereafter reviewing the fundamental requirements for deliberative processes as outlined in democratic theory. We then turn to the empirical applications of the framework, expanding our research method and analysing the Swedish carnivore-management case. We conclude by discussing the prospects for deliberation in the co-management of large carnivores in Sweden, along with the general usefulness and applicability of our framework.

Analysing prospects for successful deliberation: a proposed framework

We propose that understanding the success or failure of deliberative processes (i.e. their ability to increase policy legitimacy or foster understanding and learning across stakeholder interests) is dependent both on the institutional structure within which the deliberations take place and on the attributes of the actors partaking in it. This is akin to the multi-level approach suggested by Saarikoski and colleagues (2013). Although with a slightly different focus, exploring collaborative land-use planning processes rather than NRM, they clearly demonstrate the benefits of widening the scope to amalgamate a macro and a micro-perspective when exploring the dynamics of a collaborative arrangement.

Previous research attempting to explain the success and failure of co-management regimes primarily adopts a structural perspective. As argued by, for example, Zachrisson (2010), the proposed positive outcomes of co-management deliberations are dependent on the practice of deliberation fulfilling a number of qualitative requirements, derived from democratic theory, that facilitate an open and free exchange of ideas on equal terms among the participants. Structures relating to the process of deliberation itself, then, constitute central variables when evaluating the prospects for its success. But structures alone do not determine deliberative success in terms of increased legitimacy. As acknowledged by Pinkerton (1989), the human dimension is equally important, comprising the characteristics of and relationships among actors within the system “[T]he motivations and attitudes of key actors can make or break co-management, no matter how much legal backing or supportive arrangements an agreement has” (Pinkerton 1989:29, see also Plummer

and FitzGibbon 2004). Following research on both co-management/NRM (Grimble and Wellard 1997, Ramirez 1999) and policy change (Weible 2006, Elgin and Weible 2013), the characteristics of the actors involved in a process point toward its overall feasibility. Focusing stakeholder attributes thus allows for conclusions regarding both when it is reasonable to assume that a process will work as intended and how the structures need to be designed to meet the challenges of conflict and reach common goals. Still, interest in the political context (the initial positions and actions of actors) within co-management literature is rather weak. Plummer and FitzGibbon (2004) list variables for explaining the outcome of deliberative co-management processes, but none of these variables (individually or all together) suggest any comprehensive survey of actors or inspire a discussion on how the political context affects the possibility for success.

The combination of these two perspectives, ‘structures’ and ‘actors’, results in a conceptual framework illustrated in Table 1 below. Predicting and explaining the extent to which the deliberative process succeeds in fostering learning and legitimacy as well as reducing conflict among opposing interests requires careful analyses on both the individual and the institutional level. By doing so, it will be possible to present tentative conclusions concerning the outcome of the deliberative practices on the system level; that is, the way in which the design of the management system as a whole will affect actor interaction and cross-coalitional learning over time. For such positive outcomes to be ensured, both the individual- and the institutional-level analyses should display favorable conditions.

Analyzing political context

Particularly in complex and conflict-ridden issues, it seems reasonable to assume that the outcomes of decision-making or management processes are determined by their political context. Indeed, conflicts surrounding public policy in general and environmental policy in particular can usually be attributed to actors holding diverging beliefs and political goals as opposed to difficulties finding adequate technical solutions to well-defined problems (Sabatier and Jenkins-Smith 1999, Weible 2006). Understanding the nature of the initial conflict is therefore fundamental for explaining and predicting results as well as for improving interventions and structuring stakeholder interactions. Thus, it seems reasonable that a stakeholder analysis approach should constitute an integral part of any study with the purpose of exploring the prospects for deliberative processes.

Stakeholder analysis is a collection of approaches originally developed for assisting policymakers in understanding the dynamics and context of a policy issue. As such, it is used both for identifying key actors (as key stakeholders in Swedish wildlife management were determined within the political process of setting up the WMD-system and are listed in the regulation (Bill 2008/09:210), stakeholder analysis here refers to the analysis of stakeholder interests, resources and interactions rather than identifying who the key actors in the system are or should be), assessing their respective interest and predicting future conflicts based on the distributional and socio-political impacts of a decision as well as for discovering paths to collective agreements and calculating the likelihood that a political strategy, venue, or

policy alternative will be successful in initiating belief and policy change (cf. Grimble and Wellard 1997, Ramirez 1999, Weible 2006). Most approaches to stakeholder analysis address the beliefs and interests of each stakeholder – their different ‘hats’ or roles, their power and control of critical resources, their use of strategies and venues to achieve objectives and/or the interaction among stakeholders (Grimble and Wellard 1997). Our study of political context focuses on two aspects of the actors within the system: their personal beliefs and their self-reported representation of interest.

Following a broad range of research within the behavioural and social sciences, an individual’s belief system is set in a hierarchical structure comprising both conceptions of the desirable (i.e. values) and conceptions of reality (i.e. beliefs or worldviews), where the abstract and enduring normative values inform more empirically oriented beliefs and opinions. The belief system thereby functions as both a driver, directing preferences and action, and a cognitive constraint, filtering the way in which the individual perceives and processes reality (Sabatier and Jenkins-Smith 1999). Thus, the structure on an individual’s belief system tells us about his or her general goals and conceptions of desirable outcomes; his or her understanding of the policy problem; and his or her preference for solutions. Furthermore, following empirical research on network building and coalition formation (Matti and Sandström 2011, Elgin and Weible 2013), actors seeking to influence decision-making engage in collective action processes by locating allies among stakeholders with similar or overlapping beliefs and tend to view those holding opposing beliefs with suspicion. Focusing belief systems thus enables us to map the strength and intensity of the inter-actor conflicts that need to be overcome through deliberative processes as well as the potential for stakeholders to group together into coalitions within the institutional structure.

When analyzing belief systems, our primary focus will be on a set of empirically oriented beliefs. Compared to values applicable across different contexts, these are more directed toward the policy issue in question and therefore are better predictors of both issue conflicts and coalition formation (Sabatier and Jenkins-Smith 1999, Matti and Sandström 2011, 2013). We will, however, also include a number of questions tapping actors’ expectations of and trust in the ability of the WMD system to contribute to belief change. As previous studies have demonstrated the significance of trust for achieving legitimacy or policy support (cf. Uslaner 2002), these beliefs will provide a further indication of the prospects and obstacles that the political structure of the WMD system needs to deal with. Lastly, our analysis of political context will address the power balance among stakeholders. As stated above, the political ambition with the WMDs includes a broad and balanced range of stakeholders in the management process so as to ensure that no single interest will be granted an unequally large influence. We therefore compare the formal interest representation in the WMDs with the informal, self-reported representation of interests.

Analyzing political structure

Deliberative democracy caused an upswing in participatory democratic theorizing in the early 1990s, with its focus on communication and also of contradictory discourses (cf. Dryzek 2000). Through dialogue, during which partici-

pants treat each other respectfully and listen to each other’s arguments, participants can increase their understanding of competing interests and outlooks. As a result, not only can conflict levels decrease, but also individual preferences can change, increasing the chances of reaching consensual outcomes and thereby enhancing both process- and output-related legitimacy (Dryzek 2000). These anticipated positive outcomes of deliberations, not the least in co-management arrangements, strongly depend on the quality of the deliberative setting. Therefore, instead of taking deliberative practices in adaptive co-management at face value, they must be carefully evaluated according to the extent to which they fulfill key procedural requirements derived from deliberative democratic theory. Although there is no agreement as to precisely what requirements are in place to constitute a fully developed deliberative setting from a theoretical viewpoint, we will focus on four requirements that are often singled out as being essential: a) equality, b) reasonableness, c) transparency and d) influence (Bohman 1996, Dryzek 2000, Meadowcroft 2004, and see Zachrisson 2010 for an excellent empirical application of these criteria in a co-management case).

For authentic deliberation, Dryzek (2000) requires that all those subjected to a collective decision are able to take active part in deliberation on that decision. In this study, we settle for a less-restrictive definition of equality in that all affected stakeholder interests are allowed to publicly express their opinions and thereby influence the outcome on equal terms. Apart from its democratic connotations, this requirement also has strong influence on the possible outcomes of deliberation, as inclusion of relevant interests is likely to expose participants to a broad range of perspectives. Scholars disagree as to whether only reasoned arguments should be considered (unlike gossip, story-telling, etc.) and whether or not deliberation should aim at consensus (ibid.). Here, we define deliberative processes as being open and reasonable when stakeholders are able to present their positions and preferences and to explain their reasons in a tolerant and respectful atmosphere, enabling participants to scrutinize and compare their arguments. Deliberative processes thus contain a considerable amount of reciprocity. Participants must understand the different positions present in the dialogue and be relatively open and willing to modify their positions to achieve more knowledge or better arguments (Jentoft 1999). Good and well-thought-out arguments are, thus, assumed to have the capacity to convince, ideally ensuring that the best possible decision will be chosen (cf. Rosenberg 2007). This brings us to the final qualitative requirements of deliberative settings – they must be transparent and have a significant influence over key decisions, enabling a higher degree of external legitimacy (cf. Ostrom 2001).

Material and methods

The research design is constructed as an embedded single case study (Yin 2003), as the case of Swedish LCM itself contains several sub-units of analysis (i.e. the WMD’s), comprising both interview and survey data from the set-up phase of the new management system. As the overall institutional framework governing Swedish LCM is identical across

Sweden, this allows for overall conclusions to be drawn on the prospects of the new co-management arrangement. However, acknowledging that both structures and actors may vary in practice between the sub-units of analysis, in the qualitative parts, the analysis is delimited to three WMDs. All three cases are situated in regions with well-established populations of large carnivores, selected to reflect diversity regarding the nature of the conflict as well as prevailing conflict levels. Sweden is divided into three carnivore management areas; one in the north of Sweden, one in the middle and one in the south. The southern area does not have established populations of large carnivores and was therefore excluded. In the northern area, the Swedish EPA describes the carnivore situation as mainly constituting problems for reindeer herding. We selected two WMDs from this area, both with substantial reindeer herding interest and one also containing seasonal foraging which, similar to reindeer herding, requires free-range grazing of cattle. In the middle area, carnivore related conflicts primarily concern interferences with people's way of life taking the form of occasional attacks on domestic animals, especially hounds (SEPA 2011). Here, we selected a high-conflict WMD in which the introduction of wolves have spurred a broad public debate and attracted extensive media coverage.

Telephone interviews with all permanent members of the three WMDs were conducted from June–August 2010 (43 interviews in total); that is, a few months after the initiation of this new management form. This timing was ideal for a study of the prospects for the new management structure, as it allowed us to capture opinions that presumably were not affected by participation, as well as participants' anticipations on the new system. (This investigation is part of a longitudinal case study of the Swedish wildlife management system). Interview data, recorded and transcribed, provide detailed insights into the respondents' policy beliefs and how strongly they position themselves as well as their expectations with regard to deliberation. (The interviews varied considerably in length, from 45 min to approximately 1.5 h. An interview guide with mainly open-ended questions was used, covering the respondents' views on the new wildlife management structure and the problems it is designed to address. The interview questions also captured their organizational affiliation and perceived mandate.). Qualitative content analysis (idea analysis) of interview transcriptions was employed, based on the theoretical framework (identifying the respondents' views on the deliberative qualities of the WMD as well as their beliefs on the wildlife/carnivore situation). In parallel with conducting the interviews, short questionnaires were also sent to all permanent members, inquiring their views on wildlife management; their expectations, concerns, views on their mandate and the ability to influence (see Table 2–5 for detailed wording and scales). The questionnaires were designed with the ambition to capture the policy-core beliefs outlined in the advocacy coalition framework (ACF) (Sabatier and Jenkins-Smith 1999). Throughout a range of previous studies on different empirical topics (cf. Weible et al. 2011), the policy core beliefs outlined by the ACF have been demonstrated as the main factor determining the way people view the world and develop policy preferences as well as for how they identify allies among other stakeholders and subsequently form coalitions with the aim of influenc-

ing the outcome of political processes. Our questionnaire therefore contained a range of questions covering both normative and empirical policy core beliefs, and thus elucidating both stakeholders' normative pro/anti sentiments concerning carnivores and the WMD-system in general, as well as more practically oriented questions on preferences for policy strategies and the proper level of decision-making (cf. Weible 2006, Matti and Sandström 2011, 2013). As a result, this allows us to map and explore stakeholders' "fundamental policy positions concerning the basic strategies for achieving core values within the subsystem" (Sabatier and Jenkins-Smith 1999:133). The quantitative data are reported as descriptives in order to illustrate stakeholders' beliefs both within and between the WMDs.

All respondents returned the questionnaire and answered the sociometric questions. A few did not answer all the questions on policy beliefs (four respondents in WMD A and three in WMD B). As the information can be perceived as sensitive, the results will be presented without specifying the concerned region. Subsequently, respondents are labeled with a letter (A–C) signifying the region and a number (1–15). All questions and quotations have been translated from Swedish to English.

Results

The results of the study are presented in a three-part analysis, addressing 1) stakeholder beliefs, 2) interest representation and 3) the quality of the deliberative setting. The conclusions are based on both quantitative and qualitative data, following the logic of our framework for analyzing the prospects for deliberation (Table 1).

Stakeholder beliefs

Following interview data, the carnivore situation differs in the regions under investigation. While all three have populations of large carnivores, the mix between species varies, as does the type and severity of the conflicts. The problems fall into two main categories: carnivore attacks on reindeer or farm animals and carnivores affecting the locals' way of living. In area A, the dominant conflict in the first category is between carnivore and reindeer herding; in area B, carnivores constitute a problem both for reindeer herding and for seasonal foraging, which also has strong cultural importance in this region, while in area C, large carnivores primarily constitute a threat to sheep, cattle and hunting dogs. The interviews suggest that the conflict level was most pronounced in areas B and C. The main indicator is the presence of strong language when describing the carnivore situation. In area A, respondents tend to describe carnivore related conflicts using a relatively value free vocabulary, acknowledging the conflicts rather than valuing them. Six out of 15 respondents state that conflicts are grave, while two of them add expressions that reinforce the severity of the situation, for instance by stating that the bear population is "exploding" (respondents A:5). In areas B and C, all but two respondents in the respective WMD find carnivore related conflicts very serious, and nine respondents use very strong language when they refer to the conflicts (e.g. "fatal", "inflamed", "infected", "terrible",

Table 1. Framework for analyzing the prospects for deliberation.

Level of analysis	Description	Factors for analysis
Individual level (political context) [input]	The nature of the initial conflict	Key stakeholders' beliefs and interests
Institutional level (political structure) [process]	The extent to which the structural attributes of the institution is designed to facilitate productive interaction among participants	Qualitative aspects of the deliberative setting (equality, reasonableness, transparency and influence)
System level [output/outcome]	The extent to which the system is capable of fostering learning, legitimacy and adapting to societal issues	Interactions of actors/coalitions over time; learning and policy change within a system

“hateful”, “damn serious” and “confrontation”; cf. respondents B:1, B:2, B:4, B:11, B:15, C:1, C:2, C:3 and C:6).

To investigate the political context in greater detail, we have pursued a statistical analysis of ten items in the questionnaire, designed to capture the respondents' policy beliefs. These range from questions focusing on the overall issue of large carnivores in Sweden (items 1 and 2), questions tapping pro/anti sentiments towards the new WMD-system (items 3 and 4) and items concerning preferences for alternative policy strategies (items 5 to 10). In Table 2 below, descriptive data (means) for the ten belief measurements are presented for all three WMDs and are structured by the stakeholders' organizational affiliation.

Considering the descriptive results illustrated in Table 2, we note that the organizational representatives seem to differ only marginally on the broad question concerning the very existence of large carnivores in Sweden, with only the representatives for the reindeer herding/Sámi- and the agriculture/forestry- interests display a mean slightly below 4 on a 5-point scale. However, when it comes to views on increasing the number of carnivores, the views of the stakeholders seems to be more polarized. On one end, the nature conservation- and the outdoor life-interest (mean > 3.79) are apparent supporters of an increase in large carnivores. On the other end, the reindeer/Sámi-, agriculture/forestry-, hunting- and fishery-interests (mean < 2.40) are overall more negative to this suggestion. The interview data exemplifies that the conflict over an increase in the number of carnivores particularly concerns the challenges an increasing numbers of carnivores pose for cattle grazing activities.

“For some it's pretty damn serious. There are reindeer owners who consider changing jobs [because of attacks from large carnivores]...” (respondent B:3).

“There is no sheep farming anymore in some areas in the northern part of the county where there are lots of wolves and bears... this alters the structure... the land is no longer grazed” (respondent C:10).

A similar pattern of polarization between stakeholder interests can be noted concerning pro/anti sentiments towards the WMD-system itself as well as on the related question about preferences for increased state regulation. Most stakeholders, including political party representatives, display positive views both on the ability of the WMDs to improve Swedish carnivore management and on increasing the responsibilities of the WMDs and are consequently negative toward state regulations. Nature conservation interest, on the other hand,

is clearly negative (mean = 1.33) toward the WMD system and demonstrates strong preferences in favor of state regulation (mean = 4.67). (Following interview data, the nature conservation interest strongly appreciated the prominent role of the SEPA in the former management system).

Based on these results, we can conclude that the respondents clearly differ along some important lines: concerning the future development on the carnivore populations in Sweden and concerning the views on the new regionally based system. We can also conclude that, based on belief similarity, the represented interests can potentially form into one rather strong anti-carnivore/pro-WMD coalition opposing the pro-carnivore/anti-WMD sentiments of the nature conservation interest.

Illustrated in Table 3 below, respondents have overall positive expectations for the ability of the new WMD system to address important issues and solve the most pressing problems surrounding carnivore management. Corresponding rather well with their policy beliefs, however, representatives from the hunting/wildlife management interest along with political party representatives are the most positive. As deliberative democratic theory proposes that the introduction of deliberative practices will facilitate belief change among the participants and thereby reduce policy conflicts, the extent of trust actors have in the system to contribute to changing beliefs on carnivore management is a key issue. A slight majority of the respondents believe that participation in the WMDs will lead them to reconsider their opinions in this regard. This belief is rather evenly distributed across interests, with the exception of the reindeer herding/Sámi-interest representatives who all choose the No-alternative. During interviews, nine respondents indicated increased factual knowledge as the most likely reason for altered beliefs (A:7, B:5, B:9, B:10, B:12, B:13, C:6, C:9 and C:12). Two respondents explicitly linked the anticipated belief change to deliberation.

“I will gain insight into other people's worlds... and ways to handle things... I'm the kind of person who likes to understand and comprehend things” (respondent A:11).

Concerning the WMD system's ability to change the belief of organizations, the same level of trust is, however, not evident. Most respondents instead state that they do not think their organization will change its official stance over time. This is certainly a challenge for the system, as it points toward the difficulty ensuring strong links between

Table 2. Strength of policy beliefs for three WMDs by organizational affiliation (n = 43).

	Political party (n = 15)	Reindeer herding/ Sámi(n = 4)	Agriculture/ forestry (n = 6)	Seasonal foraging (n = 1)	Nature conservation (n = 3)	Outdoor life* (n = 3)	Hunting/ wildlife management (n = 3)	Industrial life/tourism (n = 3)	Fishery (n = 2)	Total (n = 40)
1. Carnivores positive	4.07 (1.100)	3.50 (1.291)	3.80 (.837)	5.00 (-)	5.00 (.000)	4.67 (.577)	4.00 (1.000)	4.33 (1.155)	5.00 (.000)	4.18 (.997)
2. More carnivores needed	2.53 (1.302)	1.00 (.000)	2.40 (1.140)	2.00 (-)	4.67 (.577)	3.80 (.837)	1.33 (.577)	3.00 (2.000)	1.50 (.707)	2.54 (1.466)
3. Pro-WMDs	4.00 (.756)	3.75 (.500)	3.83 (1.169)	3.00 (-)	1.33 (.577)	3.67 (.577)	4.00 (1.000)	4.67 (.577)	4.50 (.707)	3.78 (1.050)
4. More power to WMDs	4.27 (.799)	4.50 (.577)	3.80 (.837)	5.00 (-)	1.33 (.577)	4.33 (.577)	4.67 (.577)	4.33 (1.155)	4.50 (.707)	4.08 (1.085)
5. Technological optimism	2.73 (1.033)	1.75 (.957)	3.00 (.632)	3.00 (-)	3.00 (1.732)	3.67 (1.528)	2.00 (1.000)	3.33 (1.528)	1.50 (.707)	2.70 (1.137)
6. Adaption of human behaviour	2.80 (1.373)	2.75 (.957)	2.67 (.816)	1.00 (-)	5.00 (.000)	3.67 (1.528)	2.00 (.000)	3.00 (1.732)	2.00 (-)	2.90 (1.314)
7. Preference for state regulations	2.40 (0.91)	2.00 (.816)	2.50 (1.049)	1.00 (-)	4.67 (.577)	3.33 (.577)	2.33 (1.155)	2.67 (1.528)	1.50 (.707)	2.55 (1.131)
8. Preference for market solutions	2.13 (1.06)	2.00 (1.155)	2.67 (1.211)	5.00 (-)	3.33 (1.528)	2.67 (2.082)	3 (.000)	2.33 (1.155)	2.50 (2.121)	2.50 (1.240)
9. Scaling down power	4.27 (.884)	4.00 (.816)	4.33 (.516)	5.00 (-)	1.67 (1.155)	4.33 (.577)	4.67 (.577)	4.33 (1.155)	4.00 (1.414)	4.10 (1.057)
10. Increased co-management	3.47 (.990)	4.00 (1.000)	4.17 (.753)	5.00 (-)	2.33 (1.155)	4.00 (1.000)	4.33 (.577)	4.33 (1.155)	4.00 (1.414)	3.77 (1.038)

Note: all numbers are means with standard deviations in parentheses. Scale ranges from 1 (“completely disagree”) to 5 (“completely agree”). Exact wording of the questions were as follows: (1) “The existence of carnivores in Sweden is a good thing”; (2) “We need more carnivores in Sweden”; (3) “WMDs will improve the management of carnivores in Sweden”; (4) “WMDs should be granted more responsibility for the Swedish carnivore management”; (5) “Problems in the relationship between humans and carnivores can be handled by technological progress and scientific findings”; (6) “We humans must adapt our behavior and our activities to handle the problems in the relationship between humans and carnivores”; (7) “State regulation is the best way to handle problems in carnivore management”; (8) “Economic management control measures are the best way to handle problems in carnivore management”; (9) “Increased decision-making power on the regional/local level is the best way to handle problems in carnivore management”; (10) “Increased co-management is the best way to handle problems in carnivore management.” *often outdoors; e.g. picking berries and mushrooms, bird watching, snowmobiling, skiing and hiking.

the actors participating in the WMDs and the organizations they are representing. (This problem is accentuated by the fact that most respondents (70.6%) state that they would vote in accordance with the latter in situations in which their personal opinion conflicts with the official stance of their organization).

Interest representation

Respondents within the WMDs do not define themselves exclusively as belonging to the organized interest they officially represent. Rather, participation in the WMDs seems to be driven by a personal interest in wildlife issues due to a broad range of affiliations. When asked, 60% of the respondents self-identify as hunters, in addition to their formal organizational affiliation (see also Duit and Löf 2011). This figure should be compared to the formal interest representation specifying the hunting/wildlife interest as amounting to 7% of the total number (n = 43). In WMD B, 13 out of 15 delegates are hunters, while a majority of all three WMDs picture themselves as outdoor people.

Those self-identifying as hunters also hold beliefs that are significantly different (independent samples Mann–Whitney U-test, 90% level) from those not identifying as hunters on a number of issues: more negative to governmental regulation (U(DF) = 58.000, Z = -3.120, p = 0.002); technological solutions (U(DF) = 81.500, Z = -2.341, p = 0.026), human adaptation (U(DF) = 71.000, Z = -2.493, p = 0.015), large carnivores in general (U(DF) = 91.000, Z = -1.856, p = 0.90) and an increase in carnivore populations (U(DF) = 92.500, Z = -1.710, p = 0.097), as well as more positive to management arrangements implying a scaling down of decision-making power to the regional and/or the local level (U(DF) = 200.000, Z = 1.951, p = 0.77). A similar pattern can be seen for those self-identifying as belonging to the agriculture/forestry interest. (The two groups are strongly and significantly correlated (r = .507, p = .002), suggesting that many hunters also self-identify as landowners). Self-identification as any of the other interests displayed few significant differences in policy beliefs, with self-identifying reindeer owners differing significantly from other interests in that they are more negative toward an increase in carnivore populations (p = 0.034). Table 4 below displays self-identification across the three WMDs.

Deliberative quality

When all affected interests are allowed to express their opinions and thereby influence the outcome on equal terms, equality in deliberative settings is presumed to be at hand. Although the Bill (2008/09:210) declares that each interest shall have similar representation, besides the general public that is represented by five politicians in each WMD, our study (and the study by Duit and Löf 2011) shows that certain interests (mainly hunters and outdoor people) have substantially stronger informal representation. At an early stage of this new wildlife management system, however, few delegates considered biased representation to be troublesome. On the contrary, following interview data, broad representation of affected interests is pictured as one of the biggest advantages (e.g. respondents A:1, A:5, A:11, B:2, B:9

Table 3. Trust in the WMD-system by WMD-membership.

	WMD A (n = 14)				WMD B (n = 11)				WMD C (n = 9)			
	Yes	Maybe	No	Don't know	Yes	Maybe	No	Don't know	Yes	Maybe	No	Don't know
1. Change in organization's beliefs	21.4	14.3	42.9	21.4	45.5	9.1	45.5	–	22.2		44.4	33.3
2. Change in personal beliefs	64.3	7.1	28.6	–	42.7	–	47.3	–	44.4	11.1	22.2	22.2
3. Ability of WMDs to solve problem	57.1	7.1	7.1	28.6	72.7	9.1	9.1	9.1	44.4	–	11.1	44.4

Note: all numbers are percentages per response alternative.

Exact wording of the questions were as follows: (1) "Do you think that the organization you represent will change its official stance on carnivore management over time as the WMDs' work progresses?"; (2) "Do you think that your personal opinion on carnivore management will change over time as the WMDs' work progresses?"; (3) "Do you think that the new system of WMDs has the ability to address the important issues and solve the most pressing problems surrounding carnivore management?"

and B:15). Only a few critical voices are raised. For instance, six respondents consider a particular interest to be under-represented either in terms of seats (land owners and the general public) or in proportion to the losses they experience from carnivore attacks (primarily reindeer herding/Sámi-interest).

Equality in deliberative settings is not just a question of the number of seats. Already after the first few meetings, respondents had observed that some members of their group have considerable cognitive advantages, as they possess more knowledge of the species that decision-making comprise due to prior experience in wildlife management (e.g. respondent A:9). For other members, wildlife management is an entirely new experience. Varying commitment and personality also cause inequalities in the debate. "Some are more passionate about their issue and... have a stronger influence on the debate..." (respondent A:9).

Besides being equal (in various meanings of the term), deliberative processes also are reasonable, in the sense that they enable participants to state and explain their arguments in a tolerant and respectful setting. As the delegates only had met a few times at the time of the interviews, their reflections took the form of anticipations rather than actual experiences in this regard. They expressed hopes for "judicious debates" (respondent A:9) and "thought-out discussions" (respondent B:5) when "all sit by the same table" (respondent C:5) and "all interests are heard" (respondent B:1) in a respectful and tolerant atmosphere (respondents C:7 and 9). Only one respondent (B:9) explicitly elaborated on the content of

the discussion and stated the importance of justifying the reasons for one's arguments in true deliberative spirit.

In addition to broad interest representation, delegates highlight decision-making authority (i.e. 'influence') as the strongest benefit of the new management system. (Delegates who also participated in the previous wildlife management committees and/or carnivore groups and told of long lines of communication, slow processes and limited influence (e.g. B:7, B:9, C:5 and C:12)). Most respondents seem satisfied with the delegations' room for maneuver, primarily influencing the general framework for wildlife management. Three participants (one in WMD A, two in WMD B), however, are very disappointed when realizing the limited extent of decision-making authority and think decision-making power should also include detailed management decisions.

"Several delegates expressed big disappointment as they did not understand... that there actually are... parliamentary decisions and laws and rules and things that we must follow. They had probably imagined that the delegation would take decisions in individual culling cases... and that our work would be at a much more concrete level... that we should have more power than we actually have" (respondent B:8).

Five delegates experienced ambiguities regarding working procedures, both in terms of the WMDs' mandate to make decisions and the internal work. Unclear discretion vis-à-vis the SEPA and the County Administrative Board is the most common subject of critique (respondents A:8, B:3, B:7, B:10 and C:7). Similar results are reported in a recent government inquiry (SOU 2012:22). Seven participants (most in WMD B and C) anticipated increased 'transparency' as an effect of the new management system. In comparison with other deliberative features, however, transparency was of minor importance to the respondents. Nine delegates (two in WMD A, three in WMD B and four in WMD C) explicitly stated that the new administrative system, with its strong deliberative features, will make it easier to agree about carnivore management, but at the time of the data collection, the WMDs only had assembled a few times. Multiple interests, particularly if they are strongly felt and far apart, inevitably make it more difficult to reach unity in decision-making. We recall that the size of carnivore populations was highlighted as the most critical issue and also where differences in opinions were most accentuated in summer 2010. Even so, only three respondents, one in each WMD, considered consensus unlikely.

Table 4. Self-identification interest representation by WMD.

	WMD A (n = 14)	WMD B (n = 11)	WMD C (n = 10)	Total (n = 35)
Agriculture/ forestry-owner	36.7	45.5	30.0	37.1
Reindeer owner	7.1	18.2	0.0	8.6
Outdoors-type person*	64.3	81.8	70.0	71.4
Hunter	57.1	90.9	30.0	60.0
Fisher	36.7	45.5	60.0	45.7
Other	14.2	9.1	40.0	20.0

Note: all numbers are percentages.

Exact wording of the question was thus: "Not counting the organization that you represent in the WMD, do you consider yourself as one or several of the following?"

*often outdoors; e.g. picking berries and mushrooms, birdwatching, snowmobiling, skiing, hiking, etc.

“If politicians think we’ll get along, it will never happen... because we represent completely different interests... I don’t think we will reach consensus...” (respondent A:8).

Discussion

This article studies the prospects for applying deliberative practices as a conflict-reducing and legitimacy enhancing tool through a case study of the recently reformed carnivore management system in Sweden, thus aiming towards a better understanding of the challenges for and capabilities of a management system to foster learning and legitimacy over time. Linking structure and context, we have explored the prospects of the deliberative co-management system through an analytical framework that integrates deliberative democratic theory with stakeholder analysis. As previously demonstrated by, for example, Saarikoski et al. (2013), linking multiple levels of analysis provides a broader understanding of the challenges facing a collaborative arrangement as the actors partaking and the conflicts among them heavily influence the deliberative situation.

Starting with the political context, our findings show that stakeholders are polarized when it comes to their views on large carnivores. While nature conservation and outdoor life interests support an increase in numbers, the reindeer/Sámi interest, agriculture/forestry and fishery interests are against. These results align well with those presented in previous studies on large carnivore attitudes. In both Sweden (Heberlein and Ericsson 2008) and elsewhere in the Nordic countries (Bisi et al. 2007, Røskaft et al. 2007) a main line of disagreement is noted between proponents of different interests where hunters and farmers regularly display more negative attitudes.

A similar pattern was noted regarding the management system itself. Most respondents were positive regarding the ability of the WMDs to improve Swedish carnivore management and also wished to increase their responsibilities. The nature conservation interest, however, was more negative toward the new management system. Thus, based on similarities in belief, the respondents can possibly form a relatively strong anti-carnivore/pro-WMD coalition, opposing the pro-carnivore/anti-WMD beliefs of the nature conservation interest.

In 2010, most respondents had positive expectations for the ability of the new WMD system to solve the most pressing problems relating to large carnivore management. Furthermore, a slight majority believed that they would alter their views on carnivore management as the result of participation in the WMDs. This belief was relatively evenly distributed across interests, with the exception for the reindeer herding/Sámi-interest representatives. Most participants, however, felt that their organization’s stance was less open to change. Here we see a possible source of conflict in the future, when representatives may lack support for their revised views within their own organization.

For deliberative arrangements to be successful, that is, to reduce conflict levels and enhance legitimacy, previous research suggests that the political structure of the deliberations needs to fulfil a number of qualitative criteria, starting with ‘influence’. The WMDs have decision-making authority

over certain issues related to wildlife and carnivore management and thereby fulfil this deliberative criterion (which the former advisory management system did not), even though several participants felt that decision-making authority was strongly conditioned by the SEPA, following national and international carnivore policy. ‘Transparency’ is another deliberative feature that is related to decision-making, implying that those who do not directly participate in the WMDs shall have access to information. A few participants foresaw increased ‘transparency’ as an effect of the new management system, but in comparison with other deliberative features, this was of minor importance. This result does not necessarily imply a shortcoming in terms of deliberative quality, as delegates act as representatives for (more or less) specific interests and can be anticipated to report back to them.

‘Equality’ is presumed to be present in the deliberative setting when all affected stakeholders are allowed to express their opinion publicly and influence the outcome on equal terms. Broad participation is ensured by the legal framework surrounding the new carnivore management system, but both this and the study by Duit and Löf (2011) point at substantial differences between statutory and effective representation, in that outdoor and hunting interests are strongly over-represented. Since the respondents self-identified as hunters also held different beliefs than those who did not identify as hunters, for instance concerning the very existence of large carnivores in Sweden and views on the size of the populations, the participants’ decision-making is likely to be affected.

To reduce conflict among competing interests, WMD participants need to experience a deeper understanding of opposing views. Following deliberative democratic theory, this is obtained through ‘reasoned debate’; i.e. a respectful and mutual exchange of experiences and arguments. At the time of our interviews, respondents generally held high expectations in this regard, yet we should note that the empirical material was collected at an early stage, when only a few WMD meetings had been held. One year later, in 2011, the study by Hallgren and Westberg (2015) shows that meeting procedures in some WMDs significantly hamper dialogue, as not enough time is provided for participants to sort out contested and complex issues. Furthermore, their study indicates that some delegates try hard to win the debates, which is at odds with the deliberative ideal of openness toward other participants’ beliefs.

In sum, our study shows that there are significant differences in beliefs among the actors within the new carnivore management system, which the structure of the system needs to handle in order for it to contribute positively to lowering the degrees of conflict and increasing legitimacy. In particular, the uneven balance between interests and the potential for a strong anti-carnivore/pro-WMD coalition suggests that the system must take extra care to ensure equality within the deliberative processes. Furthermore, the structure is designed to meet deliberative criteria. However, as Duit and Löf (2011) show that the legitimacy of the management system had dropped one year after our study, in addition to the anti-deliberative tendencies in meeting procedures noted by Hallgren and Westberg (2015), we would like to stress that the outcome in terms of internal legitimacy put focus on one particular deliberative quality – reasoned debate. The prospects for successful deliberation in WMDs seem to depend

on their capacity to ensure the exchange of reasonable and informed arguments. Designing deliberation that promotes understanding and learning among participating stakeholders, thus paving the way for a higher degree of legitimacy, is a complicated endeavour that is likely to take time.

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