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Abstract

This article examines the capacity of management plans to respond to conflicts arising in conservation planning and management. As a widely adopted policy tool for nature conservation, management plans are often prepared in situations with diverging interests. Our starting point is that these plans inevitably influence planning situations, and the conflicts emerging in these situations, even though conflict resolution may not be their primary purpose. Inspired by Lucy Suchman's work on plans in technology development, we analyse the situated effects of four management plans dealing with wildlife and land-use conflicts. Based on the analysis, we identify features that increase the sensitivity of management plans to power asymmetries in planning situations. We suggest that attentiveness to power effects is a step towards 'uncomfortable planning', a principle identified by Rafael Ramirez and Jerome Ravetz to be key in responding to the possibility that plans in uncertain, complex and controversial situations make things worse. Uncomfortable planning seeks to involve the peripheral voices and experiences that plans tend to neglect and that often form the roots of conflicts in planning. Adhering to uncomfortable planning is thus a way to enhance the aptitude of management plans as tools in contentious conservation planning situations.

KEYWORDS
environmental conflicts, management plans, nature conservation, uncomfortable planning

1 | INTRODUCTION

Management plans identifying and prioritising measures for nature conservation are widely recognised tools for effective governance (Lockwood, 2010). Such plans often need to reconcile diverging land and natural resources use needs and interests. The nature of management plans as policy tools often aiming at predefined objectives raises the question of the extent to which they are suitable for this task. Valve et al. (2013) suggest that plans are, in fact, bound to raise tensions because they bring together different interests and social practices. But how well do they respond to such tensions?

By definition, plans prepare for futures. Plans are supposed to orient action and be anticipatory tools, also responding to the uncertainties about management. Conflicts over the planning issues or disagreement concerning the planning process form one dimension of uncertainties that may arise in planning situations. Although some planning approaches take such uncertainty as their starting point (e.g., Zandvoort et al., 2018) and some practical guidelines for preparing management plans stress the need to take the intensity of local conflicts into account in the plans (e.g., Linnell et al., 2008), management plans can become sources of or sites for conflicts. Even when the need for planning is legally determined, the parties may disagree

about the arrangements of planning, including what can and should be brought under the scope of planning and how (Valve et al., 2013). Hence, plans can increase rather than decrease uncertainty. Ramirez and Ravetz (2011) use the term 'feral futures' to designate such situations when attempts to apply standard procedures, such as plans, make things worse.

Our research identifies features that could make plans better resources in planning situations rather than further sources of conflict. We analyse four management plans dealing with conservation conflicts in protected areas or over wildlife. In conservation planning, management plans may be prepared for various purposes and with different mandates (Petersson et al., 2012a). Plans may have varying legal status, and they may be based on principles defined by national legislation, international organisations or NGOs (Arpin, 2019). Herein we use the term 'management plan' for action plans providing guidance on the overall management and use of a protected area or the conservation of a species.

The effectiveness of conservation planning has largely been evaluated in terms of environmental outcomes (Eklund & Cabeza, 2016). On the other hand, conservation conflicts have been deemed damaging and costly, preventing efficient measures (Redpath et al., 2015). In general, stakeholder participation and deliberation have been proposed as a means to facilitate the legitimacy of management plans (e.g., Olvera-Garcia & Neil, 2019; Parés et al., 2015; Reed, 2008; Suškevičs, 2019). Our focus is on a dimension that has gained less attention in conservation planning and management: the actual effects of management plans and the planning processes on planning situations involving various stakeholders and their needs.

Our starting point is that regardless of their purposes, plans and the way they are elaborated necessarily intervene in, and thereby influence, the situations in which they are prepared. They have effects on the circumstances, relations and interactions that are prone to induce or maintain conflicts in these situations. This view is nourished by social studies of technology – a field that has marginally inspired discourses on conservation management although it offers insights into complex socio-material practices, such as planning (Kangasoja, 2013). In particular, we draw on the inaugural work of Lucy Suchman (2007) on plans in technology development.

In technology development, plans are used for defining and communicating typical situations and appropriate actions for using technical devices; these scripts enable devices to respond to the user's intentions in expected ways. Often insensitive to the particularities and circumstances of using the devices, the plans may fail to convey the planner's purposes. The usefulness of plans thus depends on how well they anticipate situated actions, that is, ad hoc responses and 'alternative courses of action' (Suchman, 2007). Management plans differ from the plans used in technology development but they, too, prescribe action and intentions when they define appropriate measures for nature conservation. They orient action towards conservation goals, and similarly to technical scripts, they never determine or control the actual course of action. For this reason, the capacity of plans to act as resources for action needs to be investigated empirically by identifying their effects in real-life situations (Suchman, 2007). This view resonates with planning literatures emphasising the varying consequences and outcomes arising from the planning context (see, e.g., Flyvbjerg, 2001; Kurath et al., 2018).

We argue that by being sensitive to the situated effects of management plans, especially their impacts on the relations, interactions and asymmetries within planning communities, planners can follow the principles of 'uncomfortable planning', suggested by Ramirez and Ravetz (2011), citing Inayatullah (1990) to be key in responding to feral futures, to the possibility that plans worsen rather than improve contested situations.

2 | CONCEPTUAL BACKGROUND

2.1 | Conflicts, conservation and planning

According to Redpath et al. (2015), conflict refers to opposition that implies action. Conservation conflicts emerge when people destroy species or habitats that other people want to conserve or when the protection of land areas or wildlife threatens the livelihoods or well-being of people. A conflict is thus more than a mere public dispute: it is a serious disagreement between clearly identifiable parties. Naturally, these dimensions of contradiction are not separate; public debate can reflect deeper social conflicts between needs, priorities, worldviews and values underlying the planning situations (Madden & McQuinn, 2014; Ratamäki, 2022; Redpath et al., 2015).

In planning literature, extensive public participation, improved interaction and trust-building have been proposed as remedies for conflicts especially by consensus building approaches grounded in negotiation theory (Forester, 2009; Innes, 2004; Lederach, 2014) as well as analyses of specific environmental planning processes and conservation conflicts (Madden & McQuinn, 2014; Olvera-Garcia & Neil, 2019; Parés et al., 2015; Petersson et al., 2012b; Redpath et al., 2013; Reed, 2008; Saarikoski et al., 2012; Suškevičs, 2019; Young et al., 2013). Furthermore, co-management (Armitage et al., 2011; Berkes, 2009; Dale, 2018), co-governance (Kooiman, 2003) and collaborative governance frameworks (Emerson & Nabatchi, 2015; Wondolleck, 1985; Wondolleck and Yaffee, 2000) bring the process of co-creating plans to the forefront. Adaptive management frameworks, in turn, consider plans as a tool for setting the management goals from a broader perspective that takes into account the plan's implications for people's lives (e.g., Madsen et al., 2017; Scarlett, 2013). The legitimacy and effectiveness of conservation and management actions are thus seen to be dependent on both the quality of planning processes (Eklund & Cabeza, 2016) and planners' ability to assess the social outcomes of conservation and management in addition to the environmental outcomes (Blackstock et al., 2012; Ferraro & Hanauer, 2015).

Despite participatory approaches and efforts to manage conflicts in conservation planning, deep-seated tensions and underlying injustices tend to remain unaddressed (Turnhout et al., 2019). Planning theorists who consider conflicts as an important aspect of democracy warn against the risk of ignoring legitimate concerns in planning (Legacy et al., 2019; Mouffe, 2005; Rancière, 1995; Young, 2001).

Reflection on the goals of planning, participation and the underlying power relations is therefore crucial (Owens, 2000). It has also been proposed that the more controversial the problems are, the more important it is to open up the plan to co-managerial processes where power is shared between authorities and stakeholder groups (Armitage et al., 2011; Berkes, 2009; Kooiman, 2003; Leong et al., 2009). The notion of uncomfortable planning calls for a deeper understanding of the impact of management plans and planning processes on the underlying power relations in planning situations, and hence, the ability of plans to respond to contested planning issues.

2.2 | Towards 'uncomfortable' planning

Tackling feral futures, the possibility that plans make things worse, necessitates attending to what Ramirez and Ravetz (2011) called 'uncomfortable knowledge': knowledge that challenges the established understanding of and solutions to issues, as well as the hegemonic discourses and power asymmetries that maintain these. Their notion of uncomfortable planning thus invites reconsideration of the situation, attending to both the experiences of the participants and to 'what has been peripheral, denied, ignored, belittled and discounted' (Ramirez & Ravetz, 2011, p. 481). Ignorance of marginal voices and experiences, even when not intended, may undermine the legitimacy of a plan or its implementation. Listening to the marginal voices can make plans better equipped to respond to this kind of uncertainty arising from complex planning situations.

This kind of knowledge emerging from the conflict is also key to successful human-machine interactions in Suchman's (2007) work. 'Misunderstandings' between devices and users arise when designers have not anticipated users' purposes or reactions in particular situations. In the context of management planning, information about situated responses to the actions that plans convey can also be used for developing mutual understanding. Planners need to understand the situated outcomes of plans: how plans intervene into the realities of planning communities or reorganise the relationships constituting these communities, and what kind of political and spatial imaginaries they introduce, maintain or strengthen (Boucquey et al., 2016).

Uncomfortable planning thus places a particular demand on planners who are balancing between conflict and consensus: they need to be sensitive to what and whose priorities, values and needs plans legitimise and take forward, and with what consequences. Irrespective of the intentions of planners, plans may either maintain or transform power asymmetries. This is also the case with efforts to make 'neutral' plans (Bollens, 2005). To sensitise themselves to the power effects of plans, planners must attend to the impacts of plans on the interactions and relations of the planning communities and the ideas about planning issues that are allowed to come forward.

Previous analyses of environmental and conservation management have pointed out some potential effects of management plans. First, it has been argued that management plans tend to strengthen the power position of formal scientific institutions. For example, reviewing a number of wildlife management plans, Petersson et al. (2012a) argued that, in these plans, the input of scientific experts was typically central and the level of public participation and stakeholder representation varied considerably. In effect, plans tend to institutionalise scientific knowledge and principles as a foundation for wildlife management. In the plans, technical tools and economic compensation were often recommended for mitigating human–wildlife conflicts while improvements in institutional arrangements, such as collaboration in management or research, were only rarely recommended (Petersson et al., 2012b).

Second, plans may validate top-down approaches to the planning issues. As instruments for achieving conservation goals, plans may be understood to serve as consensus reports. Wildlife management plans typically strive for conflict mitigation through public participation (Petersson et al., 2012b), but if participation takes place at a stage when goals, procedures and methods have already been set, it only validates earlier decisions (Hird, 2017).

Third, management plans not only function as science-based conservation instruments, they may also normalise a specific political imaginary. This has been observed in the context of conservation planning where management plans are used to compile data about and monitor the effectiveness of conservation measures in protected areas. When attempting to reach their targets, management plans have been argued to generate 'policing effects' (Gualini, 2015, p. 20). This has been interpreted as a sign of the neo-liberalisation of conservation, extending management principles initially designed for businesses, such as strategic planning, standardised planning processes and quantified indicators to protected areas (Castree, 2008a, 2008b; Igoe & Brockington, 2007).

Management plans can thus be read from the perspective of what kind of power relations constitute planning and how these underlying power relations influence their outcomes. In social sciences, planning has been approached from this perspective (e.g., Flyvbjerg, 2001), and also environmental management has been critically viewed from this angle, especially in analyses grounded in political ecology (Lippert et al., 2015). But plans do not only mirror the underlying power relations. They intervene in the relations that constitute the planning situation. This is the aspect we explore by analysing four different management plans dealing with conservation conflicts.

3 | RESEARCH MATERIALS AND ANALYSIS

3.1 | Case studies

The four plans we scrutinised are motivated by a broadly recognised need to carry out conservation planning in a systematic manner, leaning on international principles and guidelines (see, e.g., Eurosite, 2004; Middleton & Thomas, 2003). Two of the plans, the management plan of the Grande Sassière Nature Reserve in France and the Hammastunturi Wilderness Area management plan in Finland, seek to reconcile diverging land and natural resource use interests. The management plans for wolves and cormorants drawn up in Finland

TABLE 1 Key characteristics of the examined management plans

	Purposes of the plan	Authorisation and validation	Planning process
Grande Sassière Nature Reserve management plan, France	1. Diagnosis of the natural and socio-economic characteristic and identification of conservation stakes of the reserve 2. Definition of the long-term conservation goals and ways of achieving them 3. Evaluation of management measures	Writing plans for nature reserves has been compulsory since 1995. Validation by the Management Committee of the Reserve. Plans are examined to ensure that they consider all relevant stakes and respect official guidelines: Initial examination was done by the National Council for Nature Protection; updates are examined by the regional Scientific Council for Nature Protection.	The initial plan (2004) was written by the *conservateur* (the person in charge of reserve's management). The update (2014) was outsourced to a consultant.
Hammastunturi Wilderness Area management plan, Finland	1. Definition of the zoning of land uses and management activities in the area 2. Analysis of the ecological and cultural values of the area 3. Identification of threats to the values and targets, and the means to respond to the threats	A management plan for the area is required by the Wilderness Act (62/1991). Approval is granted by the Ministry of the Environment. Voluntary 'Akwé: Kon' guidelines are outlined in the National Biodiversity Strategy and Action Plan in order to fulfil legal responsibilities to consult and negotiate with the indigenous Sámi people and to assess cultural, social and environmental impacts.	The initial management plan (Metsähallitus 1996) was updated in 2016. The updated plan was drafted by the Metsähallitus project group. The draft was accepted by the executive committee of Metsähallitus. A broad stakeholder working group was consulted during the drafting process. Statements from the public were collected. A separate 'Akwé: Kon' working group of local Sámi representatives was consulted.
National wolf management plan, Finland	1. Documentation of information about Finnish wolf population 2. Justification of policies ensuring the viability of the population 3. Communication of the measures and goals of wolf policy to the wider society 4. Demonstration of the capability of Finnish wildlife administration to fulfil EU conservation obligations 5. Managing the conflict over wolves	Planning supervised by the Ministry of Agriculture and Forestry. Planning follows the Bern Convention concept of management plans.	The initial plan (2005) was drafted and public hearings were organised by the Wildlife Agency, initiated and supervised by the Ministry of Agriculture and Forestry. Background surveys and public hearings for the update (2015) were outsourced. The second update (2019), led by the ministry, included a stakeholder task force, a steering group and regional workshops.
National management plan and the Ostrobothnian regional action plan for cormorant management, Finland	National plan: Assessment of the impact of cormorants on fish stocks, fisheries and the sea; a report on potential actions. Regional plan: 1. A description of the regional population, damages and acceptable methods for population management 2. Actions to mitigate the problems and simplify the derogation permit process	National plan: Launched and steered by the Ministry of the Environment as a response to pressure from a member of parliament. Regional plan: The joint initiative of a regional fisheries organisation and a coastal inhabitants and landowners' interest group. Instructions were set by the ministry; the plan has no formal status in decision-making.	The national plan (2005) was compiled by representatives from environmental administration, a commercial fishers organisation, agriculture and forestry producers, and fisheries research. The regional plan (2017) was compiled by a regional cormorant co-operation group.

target contested species, with explicit hopes set for mitigating conflicts. The four plans reflect the diversity of conservation conflicts, ranging from localised or regional (Grande Sassière, Hammastunturi) to more widely expanding conflicts (wolves, cormorants). Although the conflict is more recent in the case of the cormorants and longstanding in the others, all the conflicts arise from circumstances and factors that go beyond the planning issues. These include distrust arising from previous conservation or resource use actions, and decisions or relations between managing bodies and other actors. The key characteristics of the plans summarised in Table 1 show that not all of

TABLE 2 Research materials documenting the cases

Grande Sassière Nature Reserve management plan	Participatory observation: a co-author acting as the chair of the scientific council of the national park responsible for the reserve management and as a mediator in a local conflict. Interviews: supervisor of the updated management plan, author of the current management plan, person responsible for establishing the guidelines for management plans at Réserves Naturelles de France.
Hammastunturi Wilderness Area management plan	Previous research on the 'Akwé: Kon' process in the area using interviews and documents (Sormunen, 2017) Documents: Management and land use plan for the area (Metsähallitus, 2016a); Final report on the application of Akwé: Kon guidelines (Juntunen & Stolt, 2013).
National wolf management plan	Previous research documenting the evolving wolf policy in Finland (Ratamäki, 2008, 2009, 2013, 2015). Documents: management plans (MAF, 2005, 2015, 2019), background survey reports (Bisi & Kurki, 2005; Pohja-Mykrä & Kurki, 2013). Interviews: responsible officer at the Ministry; leader of the 2015 update process, Finnish Wildlife Agency. Participatory observation of the second update process (2018–2019) by two co-authors.
National management plan and the Ostrobothnian regional action plan for cormorant management	Previous research on cormorant policy using documents and interviews (Marzano et al., 2013; Nordberg & Salmi, 2019; Petersson et al., 2012a, 2012b; Salmi, 2009) Documents: plans and working group reports (MoE, 2005, 2016; Pohjanmaan, 2017). Interviews: the chairs of the national working group and the regional cormorant co-operation group.

the plans explicitly target conflicts. Nevertheless, all the plans had effects on them.

We used multiple types of materials available to us to document the situated effects of the plans and to interpret what kind of features make the plans more susceptible to conflicts. We started by reading the planning documents to understand how they communicate or indicate the contentious nature of the planning situations. Previous studies documenting earlier planning phases enabled us to attend to the temporal dimension of factors influencing the planning situation. Interviews based on a common interview guide complement these written materials and enabled us to investigate how planners and other participants envisioned the capacity of plans to address conflicts in the planning situations. In two cases, we also had access to the planning processes as participatory observants and facilitators of the planning rounds or conflict mitigation processes related to the plans. The observations were documented in field notes and they enabled us to identify planning outcomes that were not formally documented or identified by the planners or participants themselves. Table 2 provides a more detailed description of the research materials for each plan.

3.2 | Analysis of the situated effects of plans

Understanding the usefulness of plans in contested planning situations requires an analysis that goes beyond the debates and reveals concrete outcomes of plans and planning processes that influence or maintain the conflicts. Therefore, our method of analysing is inspired by the approach outlined by Suchman (2007) for understanding the use of technical plans. Although we were not able to follow her ethnographic methodology in the four cases, we could apply the idea of tracing situated effects of plans as the unit of analysis. We have interpreted our materials to unfold what kind of responses emerged to the plans and what happened (or did not happen) when plans were prepared. We have identified, plan by plan, the local experiences, interactions and contradictions that form planning realities and the effects of plans on these. We paid close attention to the elements of the planning situations that were transformed by the plans. In each case, we documented the framings of the conflicts, ways of thinking about the plans and their relation to conflicts, changes in relations between the parties, the nature of the interactive arenas created by the plans, capacities enabled by the plans, and the scope and reach of the transformations. Because we relied on various kinds of materials from interviews to documents and field notes, we were able to keep record of what our informants interpreted as changes, what was documented in the formal processes and what we observed as impacts on the controversies.

The changes brought about by the plans were not always easy to identify because these changes can be discrete, distributed among a range of activities and parties, and delayed. To facilitate our analysis, we asked ourselves what would be different without the plans. We also highlighted aspects that the plans were not able to transform or that the planners considered could not be transformed. This is crucial because plans also influence the planning situation by freezing it.

To generate broader lessons, we brought together our observations from the four plans. This enabled us to identify features that increased or restricted the sensitivity of the plans to their impacts on the contested planning situations.

4 | CASE ANALYSES

4.1 | Grande Sassière nature reserve management plan

Like other large nature reserves located in the northern French Alps (Arpin, 2019), Grande Sassière hosts various activities—tourism, farming, hydroelectricity, fishing, water catching and scientific research—that interfere with one another and with conservation actions. Managed by the Vanoise National Park that was created in 1963 (Mauz, 2003), the reserve was established 10 years later to compensate for the extension of a ski resort to a nearby nature reserve. Most of its land area—covering 2233 ha of typical alpine valley, located at a high elevation—is owned by the community of Tignes (95%), and the remainder by the national electricity company (3.5%) and a local dairy farmer (1.5%) who grazes a herd of 50–60 cows in the reserve. Two conflicts over activities taking place in the reserve have been particularly serious over the last years: one over the water pollution risk posed by the herding cattle and another over scientific research involving the *conservateur* (the manager of the reserve), the farmer and researchers.

The management plan for the reserve is based on official guidelines for nature reserve management plans in France dating from 2006. The guidelines rest on the idea that conflicts should be avoided, thereby encouraging planners to engage with local actors. This perspective was entirely adopted by the Grande Sassière planner who, in an interview, considered the main qualities of a planner to be a good listener, 'not taking things personally, staying calm when people get annoyed'. The plan is primarily seen as a conservation instrument and several of its characteristics downplay conflicts. First, the document does not really enable an external reader to identify any potential or actual tensions as these remain largely unexpressed. Second, all issues are put on the same level by listing problems arising from legal and illegal human activities: vehicle use, fishing, tourism, off-leash dogs, camping, water pollution. Third, some conflicts are considered interpersonal and were discarded as irrelevant. In particular, the conflict with researchers has been interpreted as a human relations problem that the management plan could not tackle, thus disguising the link between the presence of the research team and the creation of the reserve and the interest of the reserve managers in scientific research. Finally, the management plan is used as a frame that closes conflicts, as exemplified by the following interview quote: 'You have a document that was validated by the advisory board on which to lean to tell the actors: You validated this plan so see to it that you respect it.' The plan is thus seen either as neutral in terms of conflicts or as a way of neutralising conflicts.

4.2 | The Hammastunturi wilderness area plan

Similar to Grande Sassière, there are tensions between different land uses in the Hammastunturi wilderness area, especially between the indigenous Sámi and other local users. The issues concerning snowmobile routes and their impact on reindeer herding reflect broader contradictions between traditional and modern land uses, as well as between the needs of the Sámi and other users (Sormunen, 2017). Most of the 185,000 ha wilderness area is owned by the state and managed by Metsähallitus, the Finnish state enterprise responsible for the governance of state land. The area belongs to the Sámi homeland and is part of the reindeer husbandry area. In Finland, wilderness areas were established in 1991 with the purpose of preserving the wilderness character, securing the Sámi culture and nature-based livelihoods and developing multiple uses of nature.

The management plan (Metsähallitus, 2016a) aims to prevent land-use conflicts by setting objectives and guidelines for the area. This is in line with the Metsähallitus principles of protected area management (Metsähallitus, 2016b), stating that participatory planning methods are used to prevent possible conflicts. Increasing cooperation between Metsähallitus and local stakeholders was listed as a means to reach multiple objectives in the updated plan. Overall, broad stakeholder representation was viewed as a positive development among the participants, even though the main function of cooperation was merely to provide knowledge and local viewpoints for Metsähallitus.

The implementation of the 'Akwé: Kon' guidelines (MoE, 2011; Secretariat of the Convention on Biological Diversity, 2004) in planning, targeted for assessing the cultural, social and environmental impacts of land use within the indigenous Sámi homeland, brought up some fundamental tensions concerning the rights and status of the Sámi. The 'Akwé: Kon' process was criticised for placing the Sámi in a better position than other locals, giving the Sámi 'unfair' rights to influence the management plan (Sormunen, 2017). This working group was thus considered as a threat by some stakeholders. Because the Sámi were separated into their own group, resolving local conflicts may be restricted. On the other hand, the process empowered the Sámi and responded to the needs of this marginalised group.

4.3 | The wolf management plan

Following the Bern Convention action plan concept, widely applied to wildlife management, the first wolf management plan (MAF, 2005) introduced a systematic, science-based planning approach to game species management in Finland. The plan also responded to the concerns raised by the EU over the national implementation of the EU Habitats Directive (Council Directive 92/43/EEC) that categorised wolves as strictly protected. At the time of preparing the plan, Finland had been taken to the EU Court of Justice to justify its wolf policy. Our informant supervising the planning process acknowledged the deep tension between the goals of safeguarding a viable wolf population and local hunters who did not speak the 'EU language' and considered lethal management as the only option to control the potential problems caused by the wolves, contrary to the directive.

The document itself (MAF, 2005) presents a consensual image of the measures suggested. Public hearings were used as an instrument to increase the stakeholders' awareness of and support for the scientific principles of wolf management. The hearings did not, however,

manage to police action towards the goals, but wolves were increasingly killed illegally in protest. Consequently, the update (MAF, 2015) was strongly driven by the idea of conflict management and the plan was designed as an intervention into the escalating conflict. While the initial plan was rather a consensus report, the update was more experimental in its search for the problems of and measures for wolf management. Extensive stakeholder hearings explicitly encouraged the exploration of new approaches, measures and ways of thinking about the wolf. The plan succeeded in documenting hundreds of new measures for wolf policy. Some of them required further research and testing, and several experimental projects were launched. These included a hunting quota reform; however, this was (and still is), strongly objected to by some nature conservationists.

According to our informant, the plan created an arena in which to widen the debate about the wolf. Yet, the planners have recognised several limitations with the planning process, and the most recent update (MAF, 2019) aimed at developing structured and regular dialogue between the parties to allow collective learning.

4.4 | Cormorant management plans

The cormorant is a mobile, opportunistic, fish-eating bird that has steadily expanded its European range, frequently coming into conflict with fisheries' interests (Carss & Marzano, 2012). In Finland, too, the conflict stems from cormorant-induced damage and inconvenience experienced by coastal area users (Salmi, 2009). Although categorised as a protected species according to the EU Birds Directive (Council Directive 2009/147/EC), several European Member States have derogated from their protective provisions (Carss & Marzano, 2012). In Finland, the derogation permit system implemented in 2010 by the environmental administration has been at the core of the conflict (Nordberg & Salmi, 2019). Fishers and other stakeholders have felt that opportunities to tackle the problems are too narrow because a significant reduction in the cormorant population is not allowed. Contrasting views exist about the existence and importance of the effects of cormorants on fish stocks and behaviour. These are difficult to prove scientifically and use as a basis for decision-making.

According to the chair of the national working group preparing the cormorant management plan (MoE, 2005), the document is not an actual management plan but rather a state-of-the-art report, summarising knowledge about cormorants, cormorant-induced problems and the institutional framework for management. It gave general recommendations but no detailed plan or schedule for measures. In a minority report for the plan, the fishers' organisation, and the agriculture and forestry producers held that the measures for solving local problems should be taken without any delay. They also demanded actions by the EU to include the cormorant in another annex of the Birds Directive in order to allow hunting the cormorant. Neither of these proposals came true. Some illegal nest destruction has taken place because of frustration, stemming from the experienced lack of legal actions.

In 2015, the national working group reached agreement on recommendations for the institutional setting, research and co-operation in cormorant management. Following the recommendations, a network of regional cormorant cooperation groups was built along the coastal area. These groups held no formal decision-making power, but they aimed to define the most problematic locations within their region and discuss concrete measures to mitigate damages. The Ostrobothnian regional cooperation group is the only one that had compiled an action plan in 2017. The group's chair aimed at a document that all could agree on, but it turned out that the representatives of nature conservation and bird associations would not agree to the proposed measures and consequently wrote minority reports for the document. One of these conservation-oriented groups claimed that the cooperation group should have applied a 'consensus principle' instead of a 'majority principle' that was interpreted to be against the rules set by the Ministry of the Environment.

5 | FEATURES INFLUENCING THE SENSITIVITY OF MANAGEMENT PLANS TO CONFLICTS

The case-based observations about the effects of the plans on the planning situations are summarised in Table 3. Below we draw together these findings by discussing four elements we found to be crucial in supporting uncomfortable planning, and the interactions between these features.

5.1 | A standardised format

The plans we scrutinised were prepared by leaning on models or guidelines developed internationally or nationally. They thus influenced the planning situations by offering a formal, standardised arena for stakeholder representation and exchange. Standardised processes can either be an asset or constraint in conflicts. At best, creating a formal arena for interaction may lead to an extended understanding of the planning situation or inclusion of new perspectives. For example, in Hammastunturi, the views of the Sámi were given a stronger role by following the 'Akwe: Kon' guidelines. There is also a possibility for a broader learning process as these guidelines facilitate a step from an expert-led planning style towards a more adaptive mode, and they are now incorporated into the code of conduct of the responsible planning body. The regional cormorant action plan also extended the contextual understanding of cormorant issues with its substantially wider stakeholder representation compared with the national plan.

In particular, long-term frameworks for cooperative management have been identified as an important resource for conflict management (Dale, 2018). Among our cases, the wolf management plan, with three rounds of planning during a 14-year period, demonstrates the value of engaging stakeholders in long-standing discussions, enabling social learning. Yet, we also observed the recurrent planning process becoming a customary channel for conflict speech, with a tendency to maintain stagnant positions. Therefore, planning must attend to the

TABLE 3 Situated effects of the studied management plans

	Aspects transformed	Aspects not transformed
Grande Sassière Nature Reserve	**The planners' enriched understanding** of the reserve as a complex socio-ecosystem: more accurate view of the various activities and how they interact with both one another and conservation. **Enlarged participation** due to the formalised process which allowed a broad group of the reserve's users to express the difficulties they encounter in the reserve due to its regulations or competing activities.	**The planners' perspective on conflicts**: Downplaying and not differentiating between the controversial aspects of planning issues. **Hierarchy of activities**: No debate about which activities are compatible with conservation goals and under which conditions.
Hammastunturi Wilderness Area	**Guaranteed access and broadened representation** of stakeholders in the planning process. Learning about local values, traditional knowledge about land use, and threats to the area increased. **The status of the marginalised Sámi improved locally** due to a specific arena for dialogue. **New tensions** between Sámi and other land users emerged.	**The relations between local groups** did not improve; only the legitimacy of Metsähallitus actions improved. There was a limited stakeholder learning process; stakeholders still represent their official view and do not engage in finding common solutions. **The legal status or land rights of the Sámi** did not improve. No influence on the forestry profit objectives that are set for Metsähallitus by the Finnish government and affect the overall objectives for the use of state lands.
Wolf management	**A new arena for dialogue** broadened discussion on management measures. Stakeholders' concerns and suggestions were widely incorporated. **An experimental wildlife management culture** allowed multiprofessional, multilevel and cross-sectoral collaborations; a wider scope of thinking about what is possible; and new interpretations of regulations. This lead to several modifications in wolf policy (e.g., wolf-territory–based approaches, a hunting quota experiment). **The value of dialogue is recognised by stakeholders** and there are initiatives for continuous dialogue. **A more procedural approach to planning** was adopted with an intensified pace and structured dialogue methods.	**The power struggle** still exists. Conflict is seen as useful in order to meet personal or interest group goals; there is little willingness to resolve wolf-related problems. Learning gained in dialogue between stakeholders is not recognised by wider groups. **Power imbalances** remained intact: the tight frame for actions due to strict EU regulation and the state of the wolf population do not allow the distribution of power. Nature conservationists are kept in the margins. The scope of stakeholders has not widened.
Cormorant management	**Awareness of the conflict increased** among the participants of the national planning process. Cormorant issues were incorporated into higher-level political agendas. **A wider interactive arena** between interest groups was provided by the regional plan, extending opportunities for presenting stakeholder views, knowledge and needs for concrete management actions. **Decreased frustration** due to forums allowing coastal communities to 'let off steam'	**Polarisation** continued. **No concrete policy changes** nor a significant effect on the decisions made by the environmental authorities. **The power imbalance** remains intact; a scientific orientation prevails, including the (false) image of being able to solve the conflict by improving the level of scientific knowledge. No legal or moral obligation to implement the management plans.

ways in which its format shapes interaction among the planning communities.

The format of plans, guided by national guidelines, also constrained the usefulness of plans in the Grande Sassière. Although the planners valued the capacity of the planning process to open their eyes to a complex reality and valued the opportunities to learn from the stakeholders, the rationality of avoiding conflicts, stemming from the guidelines for planning, prevented them from dealing with conflicts in a reflexive manner. The plan was used as a means of closing conflicts—for example, when reminding the actors about their commitments—and it did not help to address the most serious issues. In the cormorant case, the biological and technical framing of the national management plan, typical for wildlife management plans (Petersson et al., 2012b), led to the neglect of social and economic impacts. On the other hand, the regional action plan can be seen as part of a larger regional movement mobilising political pressure for national-level actors and challenging existing power relations. For example, handing the plan over to the Minister of the Environment opened a window for face-to-face discussions with the minister in charge of the cormorant policy.

5.2 | Experimental character

Despite its initial instrumental orientation being similar to the national cormorant plan, the persistent conflict has gradually changed how the

Finnish game administration views the role of the wolf management plan. The 2015 update was explicitly aimed at bringing into discussion a wide variety of wolf-related social and economic problems and measures that could potentially be applied in tackling them. The plan itself evolved from a report depicting management measures as an experimental tool to try out, together with stakeholders, whether some of the initiatives—for example, territory-based action groups and the renewed hunting quota system—could transform the situation.

The experimented actions offer an arena for increased collaboration and learning across stakeholders, sectors and levels of management. Therefore, the view about a management plan as a platform for testing approaches and measures holds some potential for conflict transformation. Yet, the experimental approach to wolf management has not resolved the conflict but the battle over wolf hunting continues. Genuine reflection on the lessons learned from the hunting experiment has been prevented because wolf hunting has become a tool for winning political support for some parties. This implies that the conflict over wolves serves as a proxy for unfulfilled social, cultural and psychological needs which cannot be addressed by wolf management measures (see also Madden & McQuinn, 2014).

5.3 | Tools to empower peripheral voices

The power effects created or asymmetries maintained by plans can sustain struggles over planning issues. Because environmental management plans typically emphasise scientific knowledge (Petersson et al., 2012a), knowledge about the contextual and real-life consequences of conservation measures remain largely invisible. The hegemony of generalisable scientific knowledge clearly limited the possibilities to deliberate on cormorant problems. The obvious power imbalance between scientific research and other land uses also decreased the management plans' usefulness in conflict mitigation in Grande Sassière.

In areas where the wolf conflict has prevailed for a long time, nature conservationists have refused to join the territory action groups, one of the measures suggested by stakeholders. They fear becoming 'hostages' of the participatory process dominated by hunting interests and lending legitimacy to outcomes they are not ready to accept. Engaging in unbalanced dialogue may not be a tempting option for actors who feel that confronting hegemonic power relations is a more useful strategy to fight injustice (Young, 2001).

Compared with the other cases, the benefit of the Hammastunturi 'Akwé: Kon' pilot was that it generated possibilities for a marginalised social group to be heard and recognised within a legitimate and recognised arena. Yet, the empowerment of one group was also challenged and new tensions emerged because of the shifting emphasis on Sámi issues. The 'Akwé: Kon' process deliberately shared more power with a group that would have remained in the margins had the planning addressed all needs as equal (see also Bollens, 2005). However, the status and rights of the Sámi are an underlying source of many conflicts in the Sámi homeland area. They are issues influencing planning that cannot be resolved by local management plans only. Rather, they would need to be addressed by broader reconciliation processes.

There is also an overall tendency of plans to create asymmetry between involved participants and outsiders. This tendency may be accelerated by planning processes often offering forums for old collaborations (Valve et al., 2013). This limits mutual learning to the directly involved participants, potentially causing a lack of external legitimacy (see Emerson & Nabatchi, 2015). Those who are personally involved may learn to trust each other, but trust does not necessarily diffuse among broader interest groups and may dissipate when participants in the process leave and are replaced. In wolf management, the legitimacy and effectiveness of the plan is undermined by the internal divides and power struggles within stakeholder organisations.

5.4 | Responsiveness to the planning issues and concerns

Plans can incorporate various stakeholder viewpoints without necessarily increasing their capacities to reflect on them. The tendency to downplay conflicts or some legitimate concerns reduces the plan's capacity to foster such reflection. In Grande Sassière, the needs of the nearby ski resort, which draws most of its water from the water catchment located at the entrance of the nature reserve, were not called into question; Sámi rights have been systematically sidelined in land-use planning; and in the cormorant case, the conservationists, as well as most of the authorities and researchers, tend to understate cormorant-induced problems. If one of the polarised groups is not eager for change and the present power position serves their interests, management plans easily lose their capacity to convey any change to the situation as they do not recognise alternatives to the current situation and are insensitive to the circumstances and outcomes maintaining the conflict.

In the cormorant case, the tendency to maintain the status quo is implicitly connected with the requirements for ever more scientific evidence before any action can be taken. The plans seem to have little, if any, effect on the decisions made by the environmental authorities who see their position as fulfilling the norms set by the EU Birds Directive. When comparing the Finnish cormorant policy with other EU countries, it seems obvious that the authorities hold power through their interpretations regarding the actions and do not consider that they have a legal or moral obligation to implement the management plans. At worse, management plans can thus be reduced to a token gesture with little relevance to the issues that are debated.

6 | CONCLUSIONS

Our findings suggest that if management plans neglect asymmetries that prevent critical voices from being acknowledged, they are not likely to function as resources in conservation conflicts. We only analysed four plans, but because they were created in different fields and by very different actors, and they all were leaning on broadly

recognised principles and guidelines, there are reasons to believe that this is a broader concern. Because management plans always intervene in relations between stakeholders, defining and limiting the issues and agendas relevant to the conflicts, they should openly deal with the power imbalances and allow reflection on them. This is rarely done in planning documents which present a consensual image of the planning outcomes. An exception among our cases was the cormorant management case which included minority reports, making the uneven possibilities to present planning problems visible. Yet, the planning process itself was not able to seek new connections and patterns by recognising these legitimate, yet undermined, perspectives.

Planning theorists have proposed that the inevitable agonism in planning should be seen in terms of its potential to transform society (Mouffe, 2005; Rancière, 1995; Young, 2001). From this angle, conflicts are seen as resources that provide another angle to the planning issues, help confront hegemonic political projects and undermine injustices—or even in creating innovation (Gualini, 2015). While these ideas have raised the need to better attend to the discordant voices, they have remained rather abstract, discussing the role of conflict in democracy. In turn, the more practically oriented collaborative governance and consensus-building approaches have addressed underlying power asymmetries as a challenge for successful negotiation (Ansell & Gash, 2008; Ran & Qi, 2018). The social studies of technology approach (Suchman, 2007) enabled us to deepen the understanding of conflicts in planning by focusing attention on the situated effects of plans. Identification of such effects draws attention to the elements that make management plans more useful and less 'feral' in concrete planning situations. Understanding how plans maintain or modify power relations within a planning situation, and with what outcomes, is thus a concrete step towards conflict-sensitive planning.

From this conceptual note we can derive practical implications and suggestions on how to apply the principle of uncomfortable planning, proposed by Ramirez and Ravetz (2011), in conservation planning. The core of this principle is the attentiveness to the uncomfortable knowledge that conflicts can bring up. Such knowledge may include different understandings of the problems or knowledge about the circumstances and impacts of management measures that may pose problems to some groups. The mechanisms preventing such collective learning about and responsiveness to uncomfortable knowledge can be subtle. Downplaying contradicting views about what is relevant may not always be deliberate. Nevertheless, it forms a source of feral futures, impairing rather than improving the situation. If possibly relevant interests and options are neglected, planning ends up being too optimistic about the situation and attempts to close controversies too early.

The risk of quick fixes to and precipitated closure of conflicts has also been identified within conflict management literature. Tolerance of new perspectives or other people's concerns does not come naturally and must be facilitated (Kaner, 2007). Because international and national guidelines for management plans play a role in how plans are made, these guidelines should be developed to include instructions and principles that enable planners to attend to the local experiences and interpretations of the plan. Dealing with opposing views and perspectives thoroughly in planning also requires sufficient resources; time pressure and lack of resources easily leads to management plans to be considered as ends in themselves rather than a way of dealing with conflicts.

To enhance the capacities of planners to reconsider the planning situation and allow for new perspectives and concerns to emerge through plans, we also propose extending the professional capacity of environmental planners. Compared with spatial and urban planning, environmental and conservation planning is rarely done by planners who have a professional background in planning—they often have natural scientific training. Therefore, they are usually less equipped to reflect on their practice and its outcomes, and let uncomfortable knowledge enter the plans. Sensitivity to or the ability to reflect on the power effects of plans and their impact on controversies does not come naturally—it requires practice. Developing the skills to anticipate the plans' effects on the planning situation would enable environmental planners to adapt the format of the plans, adjust the inclusiveness of planning arenas and to make planning more open-ended and responsive, according to the specificities of the planning situation.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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REFERENCES

Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, *18*, 543–571.

Armitage, D., Berkes, F., Dale, A., Kocho-Schellenberg, E., & Patton, E. (2011). Co-management and the co-production of knowledge: Learning to adapt in Canada's Arctic. *Global Environmental Change*, *21*, 995–1004. https://doi.org/10.1016/j.gloenvcha.2011.04.006

Arpin, I. (2019). The rise of planning in nature conservation and the practitioners' approach to conflicts. The inspiring case of the northern French Alps nature reserves. *Journal for Nature Conservation*, *48*, 54–60. https://doi.org/10.1016/j.jnc.2019.01.009

Berkes, F. (2009). Evolution of co-management: Role of knowledge generation, bridging organizations and social learning. *Journal of Environmental Management*, *90*, 1692–1702. https://doi.org/10.1016/j.jenvman.2008.12.001

Bisi, J., & Kurki, S. (2005). *Susipuhetta Suomessa. Maakunnalliset ja kansalliset odotukset ja tavoitteet susikannan hoidossa. [the wolf discourse in Finland. Provincial and national expectations and objectives for the management of the Finnish wolf population]. Publications 3, Maaseudun tutkimus ja koulutuskeskus*. Helsingin yliopisto. Available at. https://helda.helsinki.fi/handle/10138/17732

Blackstock, K. L., Waylen, K. A., Dunglinson, J., & Marshall, K. M. (2012). Linking process to outcomes — Internal and external criteria for a stakeholder involvement in River Basin management planning. *Ecological Economics*, *77*, 113–122.

Bollens, S. A. (2005). Urban planning and intergroup conflict. Confronting a fractured public interest. In B. Stiftel & V. Watson (Eds.), *Dialogues in urban and regional planning 1* (pp. 209–246). Routledge.

Boucquey, N., Fairbanks, L., St. Martin, K., Campbell, L. M., & McCay, B. (2016). The ontological politics of marine spatial planning: Assembling the ocean and shaping the capacities of 'community' and 'environment'. *Geoforum*, *75*, 1–11. https://doi.org/10.1016/j.geoforum.2016.06.014

Carss, D., & Marzano, M. (2012). Introduction and background to Intercafe's social, cultural and legal perspectives. In M. Marzano & D. Carss (Eds.), *Essential social, cultural and legal perspectives on cormorant-fisheries conflicts* (pp. 9–19). Intercafe-project COST Action 635 Final Report IV. Available at. http://nora.nerc.ac.uk/id/eprint/505238/

Castree, N. (2008a). Neoliberalising nature: The logics of deregulation and reregulation. *Environment and Planning A*, *40*, 131–152. https://doi.org/10.1068/a3999

Castree, N. (2008b). Neoliberalising nature: Processes, effects, and evaluations. *Environment and Planning A*, *40*, 153–173. https://doi.org/10.1068/a39100

Dale, A. P. (2018). From conflict to collaboration: Can better governance systems facilitate the sustainable development of the northern pastoral industry, community and landscapes. *The Rangeland Journal*, *40*(4), 331–340. https://doi.org/10.1071/RJ18010

Eklund, J., & Cabeza, M. (2016). Quality of governance and effectiveness of protected areas: Crucial concepts for conservation planning. *Annals of the New York Academy of Sciences*, *1399*(1), 27–41. https://doi.org/10.1111/nyas.13284

Emerson, K., & Nabatchi, T. (2015). *Collaborative governance regimes*. Georgetown University Press.

Eurosite (2004). Eurosite management planning toolkit. Complementary guidance. A handbook for practitioners. Available at: http://web.bf.uni-lj.si/students/vnd/knjiznica/Skoberne_literatura/gradiva/zavarovana_obmocja/mp_guidance_jul04.pdf.

Ferraro, P. J., & Hanauer, M. M. (2015). Through what mechanisms do protected areas affect environmental and social outcomes? *Philosophical Transactions of the Royal Society B*, *370*, 20140267. https://doi.org/10.1098/rstb.2014.0267

Flyvbjerg, B. (2001). *Making social science matter. Why social inquiry fails and how it can succeed again*. Cambridge University Press.

Forester, J. (2009). *Dealing with differences: Dramas of mediating public disputes*. Oxford University Press.

Gualini, E. (2015). *Planning and conflict: Critical perspectives on contentious urban developments*. Routledge.

Hird, M. J. (2017). Waste, environmental politics and dis/engaged publics. *Theory, Culture and Society*, *34*(2–3), 187–209. https://doi.org/10.1177/0263276414565717

Igoe, J., & Brockington, D. (2007). Neoliberal conservation: A brief introduction. *Conservation and Society*, *5*, 432–449.

Inayatullah, S. (1990). Deconstructing and reconstructing the future. Predictive, cultural, and critical epistemologies. *Futures*, *22*(2), 115–141. https://doi.org/10.1016/0016-3287(90)90077-U

Innes, J. (2004). Consensus building – Clarifications for critics. *Planning Theory*, *3*(1), 5–20. https://doi.org/10.1177/1473095204042315

Juntunen, S., & Stolt, E. (2013). *Akwé: Kon -ohjeiden soveltaminen Hammastunturin erämaa-alueen hoito- ja käyttösuunnitelmassa*. Metsähallitus.

Kaner, S. (2007). *Facilitator's guide to participatory decision-making*. John Wiley & Sons.

Kangasoja, J. K. (2013). Trading zone as a sensitizing concept in planning research. In A. Balducci & R. Mäntysalo (Eds.), *Urban Planning as a Trading Zone* (pp. 179–187). Springer.

Kooiman, J. (2003). *Governing as governance*. SAGE Publications.

Kurath, M., Marskamp, M., Paulos, J., & Ruegg, J. (Eds.). (2018). *Relational planning: Tracing artefacts, agency and practices*. Palgrave Macmillan.

Lederach, J. P. (2014). *The little book of conflict transformation*. Good Books.

Legacy, C., Metzger, J., Steele, W., & Gualini, E. (2019). Beyond the post-political: Exploring the relational and situated dynamics of consensus and conflict in planning. *Planning Theory*, *18*(3), 273–281. https://doi.org/10.1177/1473095219845628

Leong, K. M., Decker, D. J., Lauber, T. B., Raik, D. B., & Siemer, W. F. (2009). Overcoming jurisdictional boundaries through stakeholder engagement and collaborative governance: Lessons learned from white-tailed deer management in the U.S. In K. Andersson, E. Eklund, M. Lehtola, & P. Salmi (Eds.), *Beyond the rural-urban divide: Cross-continental perspectives on the differentiated countryside and its regulation* (pp. 221–247). Bingley.

Linnell, J., Salvatori, V., & Boitani, L. (2008). Guidelines for population level management plans for large carnivores in Europe. A Large Carnivore Initiative for Europe report prepared for the European Commission (contract 070501/2005/424162/MAR/B2).

Lippert, I., Krause, F., & Hartmann, N. K. (2015). Environmental management as situated practice. *Geoforum*, *66*, 107–114. https://doi.org/10.1016/j.geoforum.2015.09.006

Lockwood, M. (2010). Good governance for terrestrial protected areas: A framework, principles and performance outcomes. *Journal of Environmental Management*, *91*(3), 754–766. https://doi.org/10.1016/j.jenvman.2009.10.005

Madden, F., & McQuinn, B. (2014). Conservation's blind spot: The case for conflict transformation in wildlife conservation. *Biological Conservation*, *178*, 97–106. https://doi.org/10.1016/j.biocon.2014.07.015

Madsen, J., Williams, J. H., Johnson, F. A., Tombre, I. M., Dereliev, S., & Kuijken, E. (2017). Implementation of the first adaptive management plan for a European migratory waterbird population: The case of the Svalbard pink-footed goose Anser brachyrhynchus. *Ambio*, *46*, 275–289. https://doi.org/10.1007/s13280-016-0888-0

MAF, Ministry of Agriculture and Forestry (2005). *Suomen susikannan hoitosuunnitelma. Maa- ja metsätalousministeriö 11/2005*. Maa- ja metsätalousministeriö. Available at: https://mmm.fi/documents/1410837/1720364/Suomen_susikannan_hoitosuunnitelmat.pdf/cf2138e7-6a9b-4955-9b93-d719c734590f

MAF, Ministry of Agriculture and Forestry (2015). Suomen susikannan hoitosuunnitelma. Available at: https://mmm.fi/documents/1410837/1720364/Suomen_susikannan_hoitosuunnitelmat.pdf/cf2138e7-6a9b-4955-9b93-d719c734590f.

MAF, Ministry of Agriculture and Forestry (2019). *Management plan for the wolf population in Finland* Publications of the Ministry of Agriculture and Forestry 2019:26 Available at: http://urn.fi/URN:ISBN:978-952-366-016-8.

Marzano, M., Carss, D. N., & Cheyne, I. (2013). Managing European cormorant-fisheries conflicts: problems, practicalities and policy. *Fisheries Management and Ecology*, *20*(5), 401–413. https://doi.org/10.1111/fme.12025

Mauz, I. (2003). Histoire et mémoires du parc national de la Vanoise. *1921–1971: La construction*. Grenoble, Revue de Géographie Alpine.

Metsähallitus (1996). Hammastunturin erämaan hoito- ja käyttösuunnitelma. *Metsähallituksen luonnonsuojelujulkaisuja* 32. Available at: https://julkaisut.metsa.fi/julkaisut/show/92.

Metsähallitus (2016a). Hammastunturin erämaa-alueen hoito- ja käyttösuunnitelma. *Metsähallituksen luonnonsuojelujulkaisuja C* 142. Available at: https://julkaisut.metsa.fi/assets/pdf/lp/Csarja/c142.pdf.

Metsähallitus (2016b). Principles of protected area management in Finland. *Metsähallituksen luonnonsuojelujulkaisuja B* 217. Available at: https://julkaisut.metsa.fi/julkaisut/show/2005.

Middleton, J., & Thomas, L. (2003). *Guidelines for management planning of protected areas*. IUCN. Available at. https://www.iucn.org/content/guidelines-management-planning-protected-areas-0

MoE, Ministry of the Environment. (2005). *Merimetson kannanhoitosuunnitelma. Ympäristöministeriön moniste 161*. Ympäristöministeriö.

MoE, Ministry of the Environment. (2011). *Akwé: Kon -ohjeet. Ympäristöhallinnon ohjeita I*. Ympäristöministeriö.

MoE, Ministry of the Environment (2016). Merimetsotyöryhmän raportti 6.4.2016. Available at: https://www.ymparisto.fi/fi-FI/Luonto/Lajit/Lajien_seuranta/Merimetsoseuranta/Merimetsotyoryhman_raportti_642016(38762).

Mouffe, C. (2005). *On the political*. Routledge.

Nordberg, K., & Salmi, P. (2019). Addressing the gap between participatory ideals and the reality of environmental management: The case of the cormorant population in Finland. *Environmental Policy and Governance*, *29*(4), 251–261. https://doi.org/10.1002/eet.1850

Olvera-Garcia, J., & Neil, S. (2019). Examining how collaborative governance facilitates the implementation of natural resource planning policies: A water planning policy case from the great barrier reef. *Environmental Policy and Governance*, *30*(3), 115–127. https://doi.org/10.1002/eet.1875

Owens, S. (2000). 'Engaging the Public': Information and Deliberation in Environmental Policy. *Environment and Planning A: Economy and Space*, *32*(7), 1141–1148. https://doi.org/10.1068/a3330

Parés, M., Brugué, Q., Espluga, J., Miralles, J., & Ballester, A. (2015). The strengths and weaknesses of deliberation on River Basin management planning: Analysing the water framework directive implementation in Catalonia (Spain). *Environmental Policy and Governance*, *25*(2), 97–110. https://doi.org/10.1002/eet.1662

Petersson, E., Salmi, P., & Parz-Gollner, R. (2012a). Wildlife management plans: Concepts and diversity. In M. Marzano & D. Carss (Eds.), *Essential social, cultural and legal perspectives on cormorant-fisheries conflicts* (pp. 45–57). Intercafe-project COST Action 635 Final Report IV. Available at. http://nora.nerc.ac.uk/id/eprint/505238/

Petersson, E., Salmi, P., & Parz-Gollner, R. (2012b). The incorporation of scientific contributions and other stakeholders' views into management plans: an analysis for 'conflict' species. In M. Marzano & D. Carss (Eds.), *Essential social, cultural and legal perspectives on cormorant-fisheries conflicts* (pp. 58–84). Intercafe-project COST Action 635 Final Report IV. Available at. http://nora.nerc.ac.uk/id/eprint/505238/

Pohja-Mykrä, M., & Kurki, S. (2013). *Suupetopolitiikka kriisissä – Salakaadot ja yhteisön tuki. [Large carnivore poaching and strong community support to it challenges the legitimacy of current population management]. Reports 98, Ruralia Institute*. University of Helsinki. Available at. https://helda.helsinki.fi/bitstream/handle/10138/228154/Raportteja98.pdf?sequence=1

Pohjanmaan ja Keski-Pohjanmaan alueellinen merimetsoyhteistyöryhmä (2017) Pohjanmaan rannikkoalueen merimetson toimenpidesuunnitelma. *Raportteja 60. Etelä-Pohjanmaan ELY-keskus*. Available at: http://www.doria.fi/bitstream/handle/10024/146312/Raportteja_60_2017.pdf?sequence=5&isAllowed=y.

Ramirez, R., & Ravetz, J. (2011). Feral futures: Zen and aesthetics. *Futures*, *43*(4), 478–487. https://doi.org/10.1016/j.futures.2010.12.005

Ran, B., & Qi, H. (2018). The entangled twins: Power and Trust in Collaborative Governance. *Administration and Society*, *51*(4), 607–636. https://doi.org/10.1177/0095399718801000

Rancière, J. (1995). *La mésentente. Politique et philosophie*. Galilée.

Ratamäki, O. (2008). Finland's wolf policy and new governance. *The Journal of Environment and Development*, *17*(3), 316–339. https://doi.org/10.1177/1070496508320251

Ratamäki, O. (2009). *Yhteiskunnallinen kestävyys ja hallinta suomalaisessa susipolitiikassa. [Societal sustainability and governance in Finland's wolf policy]. Yhteiskuntatieteellisiä julkaisuja 94*. University of Joensuu. Available at. http://urn.fi/URN:ISBN:978-952-219-232-5

Ratamäki, O. (2013). From ecological concerns toward solving societal problems? A case study of the development of Finland's wolf policy. *International Journal of Information Systems and Social Change*, *4*(2), 42–58. https://doi.org/10.4018/jissc.2013040103

Ratamäki, O. (2015). Elements, orders, and modes of governance in the development of Finnish wolf policy. In M. Merviö (Ed.), *Handbook of research on managing the public sphere* (pp. 38–61). IGI Global. https://doi.org/10.4018/978-1-4666-8553-6.ch002

Ratamäki, O. (2022). *Luonnonvaraoikeudelliset konfliktit ja legitimiteetti. Koettu, tulkittu ja päätelty hyväksymisenarvoisuus. [Natural resources conflicts and legitimacy. Experienced, interpreted and concluded acceptability.] Publications of the University of Eastern Finland, dissertation in social sciences and business studies 267*. University of Eastern Finland. Available at. http://urn.fi/URN:ISBN:978-952-61-4477-1

Redpath, S. M., Gutiérrez, R. J., Wood, K. A., Sidaway, R., & Young, J. C. (2015). An introduction to conservation conflicts. In S. M. Redpath, R. J. Gutiérrez, K. A. Wood, R. Sidaway, & J. C. Young (Eds.), *Conflicts in conservation: Navigating towards solutions* (pp. 3–15). Cambridge University Press.

Redpath, S. M., Young, J., Evely, A., Adams, W. M., Sutherland, W. J., Whitehouse, A., Amar, A., Lambert, R. A., Linnell, J. D. C., Watt, A., & Gutiérrez, R. J. (2013). Understanding and managing conservation conflicts. *Trends in Ecology & Evolution*, *28*, 100–109. https://doi.org/10.1016/j.tree.2012.08.021

Reed, M. S. (2008). Stakeholder participation for environmental management: A literature review. *Biological Conservation*, *141*(10), 2417–2431. https://doi.org/10.1016/j.biocon.2008.07.014

Saarikoski, H., Åkerman, M., & Primmer, E. (2012). The challenge of governance in regional forest planning: An analysis of participatory forest program processes in Finland. *Society and Natural Resources*, *25*, 667–682. https://doi.org/10.1080/08941920.2011.630061

Salmi, P. (2009). Rural resource use and environmentalisation: Governance challenges in Finnish coastal fisheries. *Finnish Journal of Rural Research and Policy*, *17*, 47–59.

Scarlett, L. (2013). Collaborative adaptive management: Challenges and opportunities. *Ecology and Society*, *18*(3), 26. https://doi.org/10.5751/ES-05762-180326

Secretariat of the Convention on Biological Diversity. (2004). *Akwé: Kon voluntary guidelines for the conduct of cultural, environmental and social impact assessment regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities. CBD guidelines series*. Secretariat of the Convention on Biological Diversity.

Sormunen, J. (2017). *Yhteishallintaa Hammastunturilla? Akwé: Kon -ohjeiden vaikutus Hammastunturin erämaa-alueen hallintaan*. [Master's thesis, University of Turku, Turku].

Suchman, L. (2007). *Human-machine reconfigurations. Plans and situated actions*. Cambridge University Press.

Suškevičs, M. (2019). Legitimate planning processes or informed decisions? Exploring public officials' rationales for participation in regional green infrastructure planning in Estonia. *Environmental Policy and Governance*, *29*(2), 132–143. https://doi.org/10.1002/eet.1836

Turnhout, E., Metze, T., Wyborn, C., Klenk, N., & Louder, E. (2019). The politics of co-production: Participation, power, and transformation. *Current Opinion in Environmental Sustainability*, *42*, 15–21.

Valve, H., Åkerman, M., & Kaljonen, M. (2013). 'You only start filling in the boxes': Natural resource management and the politics of plan-ability. *Environment and Planning A*, *45*, 2084–2099. https://doi.org/10.1068/a45219

Wondolleck, J. (1985). The importance of process in resolving environmental disputes. *Environmental Impact Assessment Review*, *5*(4), 341–356. https://doi.org/10.1016/0195-9255(85)90028-9

Wondolleck, J. M., & Yaffee, S. L. (2000). *Making Collaboration Work: Lessons from Innovation in Natural Resource Management*. Washington, DC: Island Press.

Young, I. M. (2001). Activist challenges to deliberative democracy. *Political Theory*, *29*(5), 670–690.

Young, J. C., Jordan, A., Searle, K. R., Butler, A., Chapman, D. S., Simmons, P., & Watt, A. D. (2013). Does stakeholder involvement really benefit biodiversity conservation? *Biological Conservation*, *158*, 359–370. https://doi.org/10.1016/j.biocon.2012.08.018

Zandvoort, M., van der Vlist, M. J., & van den Brink, A. (2018). Handling uncertainty through adaptiveness in planning approaches: Comparing adaptive delta management and the water diplomacy framework. *Journal of Environmental Policy & Planning*, *20*(2), 183–197. https://doi.org/10.1080/1523908X.2017.1347035

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