

Involving People in Conservation: Perceptions from Maine, USA

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Abstract

Environmental conservation groups involve people in diverse ways. These include participatory spaces where people can participate in decision-making and action and engagement processes, where groups communicate, educate, and conduct outreach to build environmental understanding and involve audiences in conservation activities. We explored the perceptions and experiences of conservation practitioners in Maine, USA, to understand their views of participation and engagement. We interviewed 21 practitioners and analysed the qualitative data using an interpretative phenomenological approach grounded in interviewees’ words and experiences. All interviewees recognised the interconnections between people, places, and the non-human world; however, individuals and the groups they work within thought about the role of people in conservation in diverse ways. Views of public stakeholders and rights holders, individual values, Indigenous knowledge, commitments to place and community, and personal experiences all influence who is involved, how people are involved, why people are involved, and what comes of people’s involvement. We conclude by discussing the implications for equitable conservation that seeks to incorporate diverse voices.

**Keywords:** Participation, engagement, stakeholder, qualitative research, equitable conservation

INTRODUCTION

The field of conservation has undergone several shifts (Mace 2014), from expert-driven nature-centered approaches dominant in the late nineteenth century to the early twentieth century (Berle and Means 1993, to more democratic strategies

focused on the interconnectedness of all beings (Lockwood et al. 2006), the latter of which Indigenous<sup>1</sup> societies have embodied all along (Windchief and Cummins 2022). Practitioners and researchers shifted towards civic participation (Beierle and Cayford 2002) and engagement (Reed 2008), as they moved away from traditionally top-down regulatory governance approaches. Individuals and groups recognised the complexity of modern environmental issues and, with it, the need to embrace diverse knowledge systems and address various needs (Lebel et al. 2006; Beierle and Cayford 2002). Yet, despite knowledge of the benefits (Dawson et al. 2021) of bringing community and Indigenous voices into local, national, and international discussions on environmental governance, widespread participatory processes have not been actualised (Johnson et al. 2016). There is now an opportunity

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to more equitably weave diverse worldviews with western conservation science, recognise humans as a part of nature, and expand the goals and values of conservation to include Indigenous sovereignty and governance models (Reid et al. 2006). In this study, we explore the perceptions of conservation and stewardship practitioners to understand their diverse viewpoints on participation and engagement. Specifically, we explored how individual views, values, and experiences shaped 1) who is involved; 2) how people are involved; 3) why people are involved; and 4) what comes of people's involvement.

### Defining participation and engagement

We use the term “involving people” to encompass the diversity of approaches, including participation and engagement, that conservation groups employ to interact with people (Ardoin and Heimlich 2013) (Supplemental Table 1). Participation entails the active involvement of individuals—including representatives of communities, stakeholders, or the public (Gastil 2008)—in decision-making and action (Few et al. 2007). Within the fields of natural resource management and conservation, stakeholder refers to individuals who have various interests related to a place (Reed et al. 2009), or more broadly, anyone who can affect or is affected by decisions of a group (Freeman 1984: 6). There is a lack of clarity and as a result, confusion around the term ‘stakeholder’ as it is differentially interpreted across research and within practice (Bendtsen et al. 2021). At the same time, it is crucial to distinguish between “public stakeholders” and Indigenous communities (or rights holders) (Brooks 2022); therefore, we use the term interested/affected parties when discussing Indigenous and non-native persons. The identification of parties, which considers urgency, power, legitimacy, and inclusion (Mitchell et al. 1997), is required to avoid marginalising groups, denying tribal sovereignty and access to spaces, contributing to bias, and jeopardising long-term support (Reed et al. 2009). Engagement, however, does not necessitate power-sharing or involvement in decision-making but rather focuses on social strategies, including education, communication, and outreach, which can build environmental literacy and encourage sustainable behaviour (Fien et al. 2001; Ardoin and Heimlich 2013). Andriof et al. (2002: 42) define engagement as “trust-based collaborations between individuals and/or social institutions with different objectives that can only be achieved together.” Engagement emphasises the roles of social learning and capacity building, increasing awareness, promoting understanding, and generating dialogue (Monroe et al. 2007).

Conservation groups (e.g., non-profits, government agencies) rely on a mix of government mandates as well as individual interpretations to determine the extent, approach, and goals for public and Indigenous involvement (Rodríguez-Izquierdo 2010; Ardoin and Heimlich 2013; Colvin et al. 2016). For example, participation and engagement can be used to ensure quality decision-making, reduce costs, mitigate conflict, and generate support (Beierle 2002; Reed 2008). Groups also involve people to empower individuals, create shared

understandings, and increase trust, equity, and community capacity (Chase et al. 2004; Lebel et al. 2006; Reed 2008;). In regard to engaging with rights holders, there is often a lack of attention in this preceding literature around weaving Indigenous knowledge and Western science (Johnson et al. 2016). Practices that seek to “bridge” or “weave” diverse ways of knowing represent a collaborative co-production approach that respects the integrity of each knowledge system (Reid et al. 2006). We draw on ideas of various epistemologies, knowledge weaving, and Indigenous perspectives to understand the context for current participatory processes that seek to incorporate diverse ways of knowing.

Existing frameworks for participation and engagement further help us elucidate the aims, methods, and outcomes of the processes described by conservation practitioners in this work. Arnstein's (1969) ladder, which remains at the core of many approaches to participation, defines levels of participation with increasing decision-making power. However, several frameworks move away from a sole focus on power to a focus on complexity and stake (Collins and Ison 2009), co-production, distribution of resources, reciprocal engagement and dialogic forms of collective learning (Rosen and Painter 2019), and justice and access (Blue et al. 2019). As an example, Reed et al.'s (2018) wheel of participation identifies four different forms of involvement encompassing levels of agency and modes of engagement, including: 1) top-down, one-way communication and/or consultation; 2) top-down deliberation and/or co-production; 3) bottom-up, one-way communication and/or consultation; and 4) bottom-up deliberation and/or coproduction (see Supplemental Figure 1). These types of participation may lead to different outcomes based on context (Collins and Ison 2009), power dynamics (Gaventa 2006), and commitment to process (Reed et al. 2018). A more nuanced understanding of participation must also include considerations of how people have been historically and presently excluded from decision-making processes (Senecah 2004). Despite the growing interest and documented benefits of involving people, questions continue to arise around the extent to which different types of involvement actually constitute meaningful inclusion (Few et al. 2007).

### Conservation practitioner perspectives

While research demonstrates the importance of involving people, conservation groups do not always incorporate local actors' values and experiences into decision-making nor engage people in conservation activities (Guibrune et al. 2021). Practitioners may not involve people or limit involvement as a result of fear of conflict and being undermined, perceptions of a lack of public capacity (Senecah 2004), their unique worldviews, or personnel and resource constraints. Therefore, participation is influenced, reinforced, or subverted by processes of affected party identification where certain individuals or groups are left out of decision-making (Colvin et al. 2016). Those that create spaces for

participatory processes often knowingly or unknowingly create restrictions for participation by predefining problems or solutions or excluding groups based on their status within broader governance structures (Gaventa 2006).

Relative to the literature on public perceptions of participation and engagement, the body of knowledge on conservation practitioners' perceptions of involving people in conservation is scarce (Kiik 2018). Research has addressed practitioner perceptions of perceived barriers to participation (Rodríguez-Izquierdo 2010; Dupke et al. 2019), traditional ecological knowledge in decision-making among environmental managers (Brock et al. 2021), and approaches to stakeholder identification among natural resource managers (Colvin et al. 2016). For example, during interviews with officials, Rodríguez-Izquierdo (2010) identified a lack of resources and community skills as barriers to participation in the management of a national park in Peru. Conservation that seeks to uphold diverse values needs to build capacity for involving people by examining the role conservation practitioners play in articulating spaces of participatory decision-making and engagement (Rodríguez-Izquierdo 2010). Therefore, this research explores the perceptions and experiences of practitioners as they discuss involving people in conservation and stewardship. Using an interpretative phenomenological approach, our analysis is grounded in interviewees' words and experiences. For this study, we use the terms conservation and stewardship interchangeably and acknowledge the multiple interpretations of these terms among interviewees.

## METHODS

### Study area

We interviewed conservation and stewardship practitioners in Maine, located in the Northeastern USA. Conservation is a significant component of Maine's strategy to ensure the long-term sustainability of the area's environmental and sociocultural values. There is a long history of land stewardship in Maine, beginning with the traditions of the Wabanaki people and continuously evolving today (Land Conservation Task Force 2019). Maine residents also have deep connections to the environment, which are intimately tied to community identity and economic dependencies on natural resources, including fisheries, forestry, agriculture, and tourism (Butler 2018). Conservation governance in Maine is diverse with an array of objectives and landowners, including federal and state management, private conservation management, nonprofit organisation management of easements/trusts, lands managed by Wabanaki Tribal Nations, and co-management efforts (Land Conservation Task Force 2019). Today's conservation priorities in Maine include maintaining engaging second homeowners, accounting for transitioning industries and a growing tourism industry, adapting to climate change (Land Conservation Task Force 2019), and restoring justice and land rights for Wabanaki Tribal Nations (Venkataraman 2023).

### Data collection and analysis

We conducted an interpretative phenomenological analysis (IPA) to understand how interviewees make sense of their conservation decision-making experiences (Smith et al. 2021). We conducted 21 in-depth semi-structured interviews (Seidman 2006) with conservation and stewardship practitioners in Maine between the Summer of 2021 and Spring of 2022 (Soucy et al. 2023). Questions explored interviewees' approaches to involving people, including who is involved in decision-making, the role of affected parties, and the means by which compromise is reached when competing values exist (Supplemental Table 2). We sought to understand multiple perspectives and ensure interviewees covered a range of organisations and sociodemographic backgrounds. We used a combination of criteria selection, maximum variation, and snowball sampling to select interviewees (Seidman 2006) who have managed or facilitated land management for conservation/stewardship purposes in Maine for at least five years. Specifically, we started by conducting an online search of individuals working in conservation leadership roles in land trusts, large non-profits, and companies, as well as relying on personal knowledge of decision-makers in governmental agencies. We identified individuals who met our criteria while also ensuring a range of backgrounds among interviewees.

We explored the similarities and the differences between each participant as it related to involving people before making general claims about the "shared experiences" (Smith et al. 2021). We inductively coded each individual participant based on their words and experiences, iteratively moving between the individual and the whole (Smith et al. 2021). We recorded and transcribed interviews verbatim (Gibbs 2018) and analysed data in an NVivo database (Jackson and Bazeley 2019) through open and pattern coding, queries, and data displays to understand the relationships between codes and themes. We ensured methodological integrity in this study by keeping a reflective journal (Lincoln and Guba 1985), remaining reflective of the researchers' roles (Gibbs 2018), engaging in de-briefing (Lincoln and Guba, 1985), and seeking in-depth understanding through prolonged engagement (Smith et al. 2021). This study was approved by the Institutional Review Board (IRB) for research on human subjects.

## RESULTS

The interviewees held a range of positions in a diversity of groups (Table 1). Participant roles included executive directors, conservation directors, coordinators, managers, chief executive officers (CEO), among others. We interviewed 10 males and 11 females. Participants had at least 10 years of experience working in conservation, with up to 40+ years of experience (median of 23 years of experience). Participants also represented groups from across the state, such that we interviewed interviewees from southern, coastal, central, western, and northern Maine across a rural, suburban, and urban spectrum. Below, we elaborate on the following key questions surrounding practitioner views regarding 1) who

Table 1

*Participant pseudonyms. All interviewees' names have been changed to protect their identities and their group/organisation*

Pseudonym	Group Type	Pseudonym	Group Type
Sidney	Land trust	Reese	Land trust
Larkin	Land trust	Quinn	Private
Emerson	Land trust	Bailey	Non-profit
Morgan	Government	Max	Private
Dana	Government	Taylor	Private
Riley	Non-profit	Morgan	Non-profit
Jordan	Non-profit	Drew	Government
Parker	Non-profit	Alex	Tribal
Sam	Land trust	Skicin	Tribal
Marin	Government	Casey	Tribal
Ray	Government		

Note: Tribal refers to a diverse group of individuals who identified as Indigenous, while also representing various interests (e.g., Tribal government, non-profits, and other institutions)

is involved; 2) how people are involved; 3) why people are involved; and 4) what comes of people's involvement.

### Who is involved in conservation and stewardship?

Interview interviewees describe different types of people they engage with and involve in participatory processes, depending on their perceptions of involving people and the perceived value of participation and engagement. The majority of interviewees describe who they term 'users' or 'user groups' first and foremost in the participation process. As described by the interviewees, users can include guides, business owners, hunters, anglers, snowmobilers, trail users, Indigenous communities, and more. Participants describe these groups as having different interests in the management of land. For example, Ray discusses a working committee approach:

We take individuals that would represent various interest groups... So get folks from around the state, different geographic locations, and also different ties to the land and interactions with wildlife to first start to ask them questions about what their interests were over this particular wildlife (Ray, government employee, in-person, 2021).

For Ray, the decision-making power remains with the agency; however, the perceptions and experiences of user groups inform management.

Conservation groups involve user groups to participate in decision-making processes prior to the public and/or community members. For example, Emerson describes their participatory process for strategic planning:

We interview key stakeholders in the community; we bring together board members, our committee members, our staff into a retreat setting... We did a survey [to elicit] input from our members. We got input from the community about what they thought was important for our work. And that helps inform how we set goals and objectives (Emerson, manager for a non-profit, virtual, 2021).

Different avenues exist for participation and engagement with the land trust depending on their status as either a

'stakeholder'—or someone with a vested interest—or a member of the public. In drawing a line between user groups, community members, and the public, a couple of interviewees acknowledge the issue of narrowly defining who has a vested interest. For a couple of interviewees, the members of the public have a wider standing in participatory spaces. Bailey describes the public participation processes for a community forest, "And then we also make all the meetings public... people pop in all the time... it's an open door, really, and it's been that way the whole time (Bailey, manager for a non-profit, virtual, 2021)." However, this is not the majority of interviewees. Therefore, despite efforts to create inclusive, participatory spaces, not all voices hold an equal standing as perceived by those with decision-making power.

Jordan describes the exclusion of groups within the conservation community and how people can be easily missed in participatory processes when user groups are predefined:

People have this tendency to sort of think about various user groups in terms of easily identifiable buckets, and a lot of times people and user groups fall through the cracks in those approaches because they don't subscribe to membership in a specific group so they never show up on a stakeholder list (Jordan, manager for a non-profit, in-person, 2021).

Here, Jordan identifies the problem with affected party identification as it can easily miss individuals, while engagement strategies do not always account for cultural contexts (e.g., colonialism) and, therefore, can be exclusive. For example, he describes how approaches to invite people into current conservation efforts are doing so on lands that Indigenous peoples were forcefully removed from. This quote by Jordan also highlights the importance of capacity and training required to conduct participatory processes by understanding who has relationships to a place.

When discussing who is involved in decision-making, interviewees reflect on the importance of understanding diverse local interests and goals. For example, Alex, working with Indigenous communities, discusses the importance of participation and collaborations that seek meaningful relationships and trust building:

Engaging with the person. Not having the land trust person narrowly defining what Indigenous knowledge is and enforcing that, but allowing the relationship to build and move forward in the way that's authentic as a person to person, not necessarily as a resource manager to a harvester (Alex, community liaison, virtual, 2022).

A couple of interviewees reflected that participatory processes are, therefore, complicated by stereotypes that may persist among practitioners regarding who should have a say. While some discuss a user group approach where certain individuals represent broader interests, others cautiously consider the individual as a person rather than what their interest or identity says about who they are. This latter approach, interviewees describe, requires deep, meaningful conversations over long time to develop an understanding of individual needs and perspectives.

User groups, the public, and community members can all be involved in decision-making through diverse means; however, different emphasis is placed on specific individuals and groups for participation and engagement approaches. While interviewees perceive these processes as robust and open, a couple of interviewees note the issues of spaces that narrowly define those with a vested interest and those that segment user groups, which can lead to stereotyping or even individuals ‘falling through the cracks’. Specifically, stereotyping can lead to assumptions surrounding an individual’s values and needs, which in turn, can limit creative problem-solving that accounts for all interests. As Alex noted, preconceived ideas of an individual based on the group they represent can also limit how Indigenous knowledge is understood.

### How do practitioners involve people in conservation and stewardship?

Interviewees describe different forms of participation (Supplemental Table 3); the diverse forms of engagement do not necessarily relate to the values placed on participation, nor do they fall along a spectrum or hierarchy. While two interviewees described a process of public meetings, the timing of public involvement in decision-making can differ, which can lead to different outcomes. For example, Bailey discusses the involvement of the community before any management decision was made regarding their acquired conservation land, announcing a meeting open to all in the newspaper:

Because we just asked people and met them where they were at, and gave them an opportunity in, and I mean it’s much harder, you know what I mean [laughs]. I mean that first meeting with 85 people, we just got it was just like just grenades just lobbed at me and [others]...So it’s not fun, you know it’s not easy, but it certainly made the process feel whole, where we weren’t just tapping people on the shoulder and saying what do you think of this it was like, no, no, what do you really think of this. Everyone and whoever wanted to participate did (Bailey, manager for a non-profit, virtual, 2021).

The public meeting process sought to involve people from the beginning and seek out people’s honest opinions. Bailey’s process contrasts with a public meeting approach described by Morgan where he describes how meetings are open to the public:

The scoring part is all public so the public can come and hear a board member’s comments, or concerns, and respond to them. So it is, from my perspective, very open and you know, those kind of values get aired and questions answered, and in the end there’s consensus (Morgan, government employee, in-person, 2021)."

A consensus approach differs from one that seeks to build dialogue, as described by Bailey. Additionally, Morgan describes bringing groups and the public into decision-making spaces after information and decisions have already been made, such that participation may not be perceived to result in any challenges or conflicts. This form of participation can

be described as a top-down validity check. Therefore, the different methods of participation and engagement can be seen as different tools that can be applied in various situations to involve people in conservation while attempting diverse aims. These tools are adaptable to different contexts such that different methods may have different goals, outcomes, and implications. In addition, these different tools and their outcomes are also related to specific expectations around participation. For example, surveys were often employed when the expectation was to receive general feedback to inform future decision-making, while public meetings were organised with the expectation of an open forum for comment and questioning.

### Why do conservation and stewardship groups involve people?

Participants describe a range of reasons why they may involve people in conservation, including several instrumental and normative goals. Involving people can help a conservation group address the values they are interested in conserving, whether ecological, sociocultural, or economic.

#### *Groups involve people in advancing ecological goals*

Participants describe involving people as a means to address their group’s ecological goals primarily through engagement processes that lead to goal attainment, cost-effectiveness, and public buy-in. Participants recognise the importance of working with people by bringing conservation into communities, increasing access to places, and informing users via education. A primary strategy discussed by over half of the interviewees is fostering connections between people and the non-human world. Through allowing opportunities for access, interviewees seek to connect people with places. Dana, a government employee, describes the key role that the public plays in ensuring conservation: “So I think people are in droves across the country are kind of connecting and reconnecting with the outdoors... We’ve been able to effectively communicate with the legislators about the importance of the outdoors.” Public access is critical for fostering a conservation mindset, which translates to increasing public support via voting and donations (see also engagement section of Supplemental Table 3). Riley describes how their non-profit has evolved in their approach to conservation:

Much more of a focus on people being part of the system, rather than to be excluded from the places that we’re protecting so I certainly have seen an exclusion of people 30 years ago...now way more of an understanding ...the role that people play in conserving our planet and why it matters so much that people care (Riley, manager for a non-profit, virtual, 2021).

Riley speaks about a paradigm shift that recognises that people need to be part of conservation.

In addition, interviewees describe programming approaches that seek to educate the public either in person or via media. For example, Parker explains:

We have tables set up at the entrance to some of the busiest beaches... we have games...and little brochures... just to help [people] learn more about the needs of these birds and how they can they can have fun on the beach, as long as they let the birds do their thing too (Parker, manager for a non-profit, virtual, 2021).

Through interactive educational materials, Parker informs and educates the public to ensure positive conservation outcomes to support their non-profit's mission.

While interviewees note that involving people in conservation is critical to conserving wildlife and ecosystems, they also describe strategies for excluding people. They describe how conserving sociocultural values (e.g., access) can be at odds with ecological values, as recreational use can harm ecosystems. About half of the interviewees view people as, in part, also the cause of environmental challenges. For example, Larkin says, "ATVs [All-terrain vehicles] really like to bomb along and sometimes create mud holes and all that... We'll just have to work harder at making it real difficult [for ATVs] to get on [the trails] (Larkin, manager for a non-profit, virtual, 2021)." He expresses how ATVs can "make a mess" out of their non-profit's forest. Therefore, bringing people into outdoor spaces is a perceived challenge for ecological conservation, and rather than a solution as described above, people are considered a problem for the environment. As a result, groups can strategically include and exclude people as a means to advance ecological goals. A couple of the interviewees, including Sidney, Larkin, and Parker, exemplify the dichotomies of inclusion and exclusion of people in conservation that can exist simultaneously.

Engagement strategies appear to be dominant when interviewees seek to advance ecological goals. Through education, outreach, and informing, interviewees primarily discuss how involving people in conservation can benefit ecological goals and serve instrumental objectives; however, people can also benefit in the process. By increasing access to places, for example, groups also support social goals. Nonetheless, public well-being is a secondary purpose when groups primarily employ engagement strategies for instrumental purposes.

### ***Groups involve people to incorporate local knowledge and uphold diverse values***

Conservation groups involve people, particularly through participatory processes, to achieve normative outcomes that make space for diverse values within decision-making. Those interviewees who describe normative goals of participation and engagement are the minority of practitioners whom we interviewed. Interviewees and/or the groups they work with who highly value participatory processes seek opportunities that allow people to actively participate in decision-making in ways that their voices are seen as valid. For example, Drew describes the importance of participatory processes in expanding what is known about a place by asking individuals about their interests and knowledge. He describes the importance of social tolerance, or social carrying capacity,

as it relates to people's perceptions of species such as Wild Turkey *Meleagris gallopavo* or White-tailed deer *Odocoileus virginianus*:

And so one of the challenges that we have as an agency is to make sure that that population level stays below the biological carrying capacity so that we don't tip the social carrying capacity. ...So we want people to still appreciate and enjoy wildlife and not think of it as kind of an obstacle or a nuisance (Drew, government employee, in-person, 2021).

As a government employee, Drew views himself and other government employees as responsible to the citizens of Maine. The employees' experience with various contentious wildlife issues and management informs their approach to understanding public values early in the decision-making process to ensure support, buy-in, and equitable decision-making. Skicin, who works with Indigenous communities, similarly describes their role in repositioning their work to meet the needs of community: "So my goal in all my work is to kind of be in the listening spaces, where I can understand where the needs of people are and then how to reposition the work for that (Skicin, community liaison, virtual, 2022)." For Drew and Skicin, part of their work involves flexibility and responsiveness in adapting to different perspectives.

Jordan describes a process of participation that seeks to integrate diverse public values into management focused more so on relationship building, and reflects on their own experiences growing up in the place they currently work; they say:

There's a real fear of, a visceral fear of losing access to those place...in my 33 years of life [my hometown's] been sold three times, and at every one of those junctures there's no guarantee we have access...So in whatever little way that I can contribute to that long-term stability...that's what I wanted to do (Jordan, manager for a non-profit, in-person, 2021).

Jordan describes how, growing up, their community was often left out of decision-making. Therefore, he remains committed to authentically involving people by incorporating local knowledge, experiences, and values into the management of the land trust forest. Participants who integrate participatory processes into decision-making have strong values about the importance of voice and standing for affected parties. Reese says, "That's very much what we do and I believe in that, that the people who are most impacted by conservation action should have a seat at the table, and be able to participate (Reese, manager for a land trust, virtual, 2021)." For Reese and Bailey, addressing community goals by creating spaces for participation is a critical part of the work. Reese's experience working in a similar setting as a guide has also informed his approach to involving various people in decision-making.

Marin, a government employee, similarly describes his experience of working with Indigenous elders and the ways that experience has shaped his current approach to involving people:

And so I got to spend time listening to Dene Elders talk about living out on the land, talk about their knowledge of

their land...where I work now that gets me really excited is to be able to bring, include, incorporate, and privilege that knowledge and the those rights (Marin, government employee, virtual, 2021).

Marin addresses a normative objective of participation that seeks to empower individuals and build capacity within communities. When a participant has experience as a community member within their place of work—for example Jordan, Reese, Bailey, and Marin—there is a recognised need and importance for weaving diverse perspectives into management decisions. “Listening spaces”, as coined by Skicin, move away from just one-way flows of information and education via engagement processes, but open collaborative spaces for dialogue. The high-value interviewees place on understanding community needs supported in their actions to conduct robust participatory processes that work with communities and people to integrate those views into decision-making. When participation is highly valued among interviewees, decisions also appear to reflect a diversity of values conserved.

### **What comes of involving people in conservation and stewardship?**

Participants have different values and approaches for incorporating and weaving knowledge and experiences into decision-making. While groups may share a similar process for participation (e.g., public meetings), one group may be more willing to share decision-making power with those external to the group as compared to another. It is therefore important to consider the combination of approaches to engagement and participation, including methods, goals, timing, and selection of interviewees. Together, these facets of the participatory and engagement process lead to unique outcomes.

For example, when practitioners express doubts about participation as a valid form of knowledge, people may not have the power to influence decisions:

Usually we will reserve, we'll say this is all input, it's necessarily gonna happen, sometimes [input] is impractical and other times it is in direct opposition to like, the intent of the acquisition which may have been to protect something that will be destroyed by doing what people want to do (Sidney, manager for a land trust, in-person, 2021).

Sidney, a land trust manager, describes that even when participatory structures are in place, decision-making power rests with the group. Rather than influence decisions, interviewees use the word ‘inform’ to describe the role of participation, denoting the role of participation as advisement as opposed to giving agency or power to the public or rights holders. The scope of participation is predefined based on the conservation organisation’s mission, or in this case, the intent of the acquisition. Limiting the scope of participation or engagement limits the ways other forms of knowledge, beyond that of the conservation organisation, inform decision-making.

Alex describes the process of participation from an Indigenous perspective as they have worked with non-native

conservation groups. Alex talks about conservation groups that discuss ‘incorporating Indigenous knowledge or priorities’ into decision-making, “What that means is that they should have a relationship with harvesters and work to ensure native harvesting is happening. What can happen is they think that they can sort of extract Indigenous knowledge from native people, and incorporate that.” Alex goes on to say, “There’s a hierarchy in that system...So the way [scientists] treat sometimes local or Indigenous knowledge is with a little disdain.” Extracting knowledge and incorporating it into predefined systems of conservation undermines people’s voice and Indigenous governance. While Indigenous interviewees discuss the need for greater balance in different ways of knowing and the dominant use of Western epistemologies and knowledge systems, non-Indigenous interviewees discuss the challenges of ‘incorporating’ Wabanaki perspectives and traditional ecological knowledge into decision-making. For example, Riley describes how their non-profit thinks about Indigenous knowledge:

We have this strategy for Indigenous peoples engagement that has four pillars and one of those pillars is figuring out how to incorporate traditional ecological knowledge ...I think we were, we don’t even quite see how it, what it looks like yet, but we’re asking, what we’re open to trying to figure out what that might look like (Riley, manager for a non-profit, virtual, 2021)

As a non-native person working for a non-profit, Riley wants to bring in Indigenous knowledge; however, there is still a gap in thinking and practice in regard to how to weave another way of knowing nature with Western science. Skicin describes their optimism for a more balanced conservation system where Indigenous peoples are “in positions where they can have a voice in management.” Skicin expresses hope in the changes underway:

People again they recognise this history of appropriating lands and they want to learn, they want to engage with people...they’re doing the things that other people aren’t doing, they’re showing up, they’re building relationships, and they keep showing up (Skicin, community liaison, virtual, 2022).

However, as evidenced by the diversity of perspectives among interviewees, gaps in understanding persist, which is acknowledged by both Indigenous and non-native interviewees.

The degree to which local and Indigenous processes of knowing is viewed as a valid form of knowledge informs the extent to which people influence decision-making. There is an evolution occurring among interviewees as they describe a new concerted effort to include people in conservation. This transition, however, can be slow. Sam illustrates the evolution in thinking, or paradigm shift, occurring in real-time as they discuss conservation commissions,

I’m thrilled that we now have conservation commission’s (pauses), but that’s not necessarily data, (pauses), but it is, it is in a way, because those people translate what’s important there, they’re living in those towns, they have a better sense of their local history of what’s important

to them, and so I feel really lucky we have a few of them (Sam, manager for a land trust, virtual, 2021).

Here, Sam first identifies local knowledge as non-data but then realises mid-sentence that it is, in fact, a valid form of information that can meaningfully inform local land trust conservation.

A variety of factors inform outcomes of involving people or the value placed on participatory processes and engagement. Even when practitioners describe similar approaches and goals for participation, outcomes vary as a result of the personal and organisational values that inform what becomes of those local perspectives. What derives from involving people is therefore a function of a variety of factors, including those at the organisational level (e.g., organisation type, size, scale, mission), the experiences and perspectives of those individuals working within organisations that become embedded within an organisation, as well as contextual considerations of power, organisational history, participatory and engagement design, feasibility, timing, and finances. While there is no ‘one-size-fits all’ approach, deliberate planning and forethought are critical to matching the specific method of involving people with the overall goal and expectations. For example, interviewees identified the importance of inclusive participation as a goal; however, the specific strategy may not lead to normative outcomes in practice. Understanding that different tools may or may not be appropriate in any given context helps move away from perceptions of inclusive, participatory processes as a ‘check-the-box’ to one that better matches context, goals, and desired outcomes.

## DISCUSSION

Our results reveal varied perspectives around who should be involved, how they should be involved, why they should be involved, and what arises from their involvement. A mix of strategies and philosophies persist among Maine conservation and stewardship practitioners such that participation and engagement are intertwined with perceptions of knowledge and stake, personal experiences, and values. Participants adopted engagement strategies, typically with members of the general public, and participatory methods, with a smaller subset of individuals to ensure decisions are perceived as legitimate, salient, and credible (Cash and Belloy 2020). Normative goals of empowering individuals and building capacity (Few et al. 2007) were less often discussed; however, interviewees described methods of involving people that enhanced varied sociocultural goals. Participants regarded incorporating local values into the management of a place as a means to ensure that their work reflects the ideas of the community. Participants with prior experience in local communities or those who have worked with diverse groups—who recognise what it feels like to have their experiences and knowledge disregarded in decision-making—are primarily the ones who aim for normative goals.

### People as a problem and a solution: engagement as a ‘fix’

Participants described people as both a problem and a solution to conservation. When people are viewed as harmful to ecological

conservation, engagement approaches can connect people to the natural world. The literature on human-nature connections similarly argues the importance of connecting people with nature to encourage stewardship behaviours (van Heel et al. 2024). In doing so, people develop a conservation ethic that turns them into a critical solution for ecological conservation efforts. Participants describe engagement in ways similar to Arnstein’s description of ‘therapy,’ a form of non-participation where the aim is to educate people in order to achieve public support, behaviour change, and a conservation mindset. Conservation practitioners have previously identified education as a means of conservation support in a large-scale study (Ardoin and Heimlich 2013). Presenting information is also akin to Arnstein’s (1969) description of informing, which typically involves one-way flows of information as interviewees send newsletters, emails, post signage, etc. The dichotomy that persists among practitioners—people as both a problem and a solution—illuminates the ways that a paradigm shift that seeks to include people in conservation rather than exclude them has not been fully realised. The value of local knowledge for informed decision-making is gradually being celebrated among practitioners, albeit slowly.

### Limits of stakeholder identification

A couple of interviewees recognised the challenges of involving people. The first issue is how identification of affected parties can lead to marginalising certain individuals and groups. Participants create processes for participation and engagement that predetermine user groups (or who is involved) that they perceive as having the most claim and power related to conservation management—whether a political, economic, or cultural claim to a place. Some of these groups include trail users/recreationists, hunters, anglers, Indigenous communities, business owners, and abutting landowners. Our results broadly support previous literature where stakeholder participation is the focus, rather than public participation (Reed et al. 2018). Only one non-native participant described how individuals can “fall through the cracks” during identification processes. Similarly, the ‘user group’ approach was often described such that each group was a homogenous unit represented by several key individuals. Previous research has indicated that by treating groups as homogeneous, there is the potential to overlook differences in perspectives and interests (Turnhout et al. 2010). Therefore, whether it is knowingly or unknowingly, those who create participatory processes create restrictions on participation by limiting who has a say.

The status of individuals as those with a vested interest, as part of a user group, or as a member of the local public or community also opens up different avenues for participation, similar to previous findings of conservation managers (Colvin et al. 2016). As a result, when groups are viewed as vehicles for participation, specific interests and norms of involving people are amplified at the expense of others (Colvin et al. 2016). Those individuals described as members of the public primarily participate in a more limited capacity or at a later stage in

the decision-making process, as compared to those identified as having a vested interest. A couple of study interviewees opened up participation to the public in an accessible way by widely advertising public meetings and having multiple channels of communication and participation, though this occurred primarily on a small scale. It is important to note that while practitioners described purposefully excluding people in conservation spaces, the unintentional exclusion of people can also occur when making design choices around participation. For example, advertising public meetings in the newspaper or social media may not reach all audiences who do not have access to these forms of communication. Similar to previous research (Colvin et al. 2016; Dupke et al. 2019), natural resource managers' views on and definitions of affected parties—which differed across interviewees—as well as their strategies and goals for involving people, can therefore shape and limit engagement and participation of individuals and groups.

### Perceptions of knowledge

A second challenge of involving people relates to the lack of recognition of issues of power, history, and colonialism within participatory spaces, especially in regard to bridging Western science and Indigenous ways of knowing. Involving rights holders is distinct from public involvement. To equate Indigenous peoples with non-native parties would undermine Tribal sovereignty, and goals to authentically weave diverse ways of knowing and co-producing knowledge (Brooks 2022). When describing participation and engagement with affected parties, interviewees often did not make the distinction between public stakeholders and rights holders and the unique processes for engaging different groups. Though a couple of non-native interviewees recognised that Indigenous ways of knowing are important to bring into decision-making, and they do seek out those partnerships and collaborations, Indigenous interviewees described how conservation efforts that privilege Western science could neglect Indigenous interests, needs, and ways of knowing (Eichler and Baumeister 2018). Frameworks in non-native conservation groups for 'incorporating' Indigenous knowledge ignore the fundamentally different epistemologies of Western and Indigenous knowledge (Nikolakis and Hotte 2022). A pluralistic approach to conservation has to engage with diverse worldviews and place these worldviews on 'equal footing' to Western ideas of conservation or those that have historically dominated conservation discourses (Bartlett et al. 2012; Johnson et al. 2016). Therefore, while participatory spaces can be 'open to everyone,' attention to different ways of knowing, Tribal sovereignty, capacity building for coproduction, and inclusive facilitation are necessary to ensure participation is, in practice, equitable. In particular, embracing epistemic diversity by accounting for different needs, interests, and ways of knowing (Ludwig et al. 2023).

Differences in ways of knowing can lead to conflict and mistrust. Yet, the literature (Nikolakis and Hotte 2021), supported by several interviewees, highlights the potential for

a cooperative space that shifts power dynamics by balancing different worldviews. These processes, as interviewees highlight, need to be founded on reciprocity, trust, dialogue, and flexibility (Houde 2007; van Maurik Mtuk et al. 2023). It may be critical for conservation groups to actively create spaces for introspection and reflection to challenge their underlying assumptions regarding colonial hierarchies (Whyte 2016). It may take time to create equitable spaces of decision-making and engagement, which was recognised by several interviewees who developed long-term partnerships and spaces of participation.

Some interviewees also struggled with participation in particular as they perceived it as having the capacity to undermine or be in opposition to ecological conservation. Previous research has similarly discovered this perception among conservation practitioners (Rodríguez-Izquierdo 2010; Dupke et al. 2019), where practitioners can even perceive community members as lacking skills and knowledge for involvement in decision-making and having selfish interests that thwart ecological conservation efforts. When practitioners perceive participation as counterproductive to nature conservation, engagement and participation can be limited such that the scope of negotiations is predetermined. Goodwin (1998) similarly notes how it is common among conservation practitioners to use instrumental approaches to participation that grant weak decision-making power. Goodwin (1998) writes that this approach may "ultimately be self-defeating in achieving legitimacy" as the role of participation should instead focus on the process where objectives and actions are not settled in advance. Our results show that the timing of participation varies among conservation groups, and approaches can limit the scope of negotiation by bringing interviewees into the process after decisions have already been made.

### Building on participation and engagement typologies

Our results also underscore the importance of not equating participatory and engagement methods with outcomes in regard to the ability of people to inform or influence decisions (Reed et al. 2018). Rather, a variety of approaches exist that are conducted for various motivations and purposes based on practitioner and conservation group values and experiences. Participants discussed several methods of participation, which relate to those previously identified in the literature (e.g., referenda, public hearings, surveys, negotiated rulemaking, and focus groups) (Rowe and Frewer 2000). The typology of participation, as identified in our study, is close to that of Reed et al.'s (2018) characterisation. Practitioners often described top-down, one-way communication and consultation as well as top-down deliberation. For example, the conservation group primarily holds decision-making power, but stakeholders are involved in various ways via receiving information, serving as consultants to inform decision-making, or engaging in deliberation and discussion to reach a compromise. Native interviewees engaged in bottom-up

deliberation and co-production processes where they created bridges and partnerships between Indigenous communities and conservation groups to open up decision-making. The language used by interviewees helps to illustrate the various commitments and motivations for the different approaches and the diverse outcomes. For example, when interviewees described involving people using the phrases ‘help them understand’ and ‘educate them,’ this coincides with top-down processes, primarily engagement, that are limited in power-sharing. While ‘sharing power,’ ‘bringing everyone together,’ and ‘privileging Indigenous knowledge’ illustrate views on more deliberation, discussion, and co-production processes. When interviewees use a top-down approach, they sometimes may not even be aware of how they are limiting the scope of negotiations as they can describe the process as robust; however, the process appears to be more of a validity ‘check the box’ exercise versus a shared space of decision-making.

Practitioners’ perspectives play a significant role in determining what comes of involvement. There is currently a lack of recognition of the role that individuals operating within a group play in participation frameworks. Further complexity is required in typologies to help elucidate underlying practitioner and conservation group motivation by, for example, incorporating elements of Mitchell et al.’s (1997) stakeholder saliency model into Reed et al.’s (2018) wheel of participation. In addition, further work is needed to understand if and how greater inclusion may or may not lead to influence within conservation decision-making. Our results suggest that conservation practitioners are attuned to some issues and criteria for involving people (Rowe and Frewer 2000), particularly transparency, ownership of outcomes, distributive dimensions of outcomes, and accountability. However, interviewees’ silence in regard to accounting for capacity building, access, power, and political and cultural context points to a missing opportunity for conservation participation and engagement. Further work can also examine perceptions of participation and engagement among individuals external to conservation groups. Issues of perception of standing and voice may influence how people interact with decision-making in participatory spaces and seek to be engaged with conservation groups. Finally, another avenue for research is to explore further and consider the impacts, conversations, and discussions that practitioners engage in outside the formal spaces for participation and engagement.

## CONCLUSION

The diversity of participant perspectives in regard to the value of involving people suggests that the paradigm shift occurring within the conservation community is still a work in progress. A variety of factors influence how and why interviewees involve people, including 1) personal (e.g., experiences, values and motivations); 2) organisational (scale, size, type, scope, values, and mission); and 3) contextual (e.g., feasibility and resources) factors. Our results help to move us towards a more complex

understanding of the role of participation and power to explore the extent to which involving people actually results in greater inclusion. Consequently, we begin to illuminate the degree to which people can have a real voice. Within conservation and stewardship spaces, the public participation and engagement dialogue should begin to move towards addressing larger barriers, such as underlying values, views on the legitimacy of knowledge, and frameworks for bringing together diverse voices.

**Supplementary material:** [rb.gy/cawdqn](https://rb.gy/cawdqn)

## Author contributions statement

Conception or design of the work: S.D.U.-S., P.R.-B., A.S. Data collection: A.S. Data analysis: A.S., S.D.U.-S. Drafting of the manuscript: A.S. Critical manuscript revision: S.D.U.-S., P.R.-B., K.E., J.J., A.S. Final approval of the version to be published: A.S.

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## Declaration of competing/conflicting interests

The authors declare no competing interests in the conduct of this research.

## Research ethics approval

This research was approved by the Institutional Review Board.

## Data availability

All relevant data is included in the manuscript.

## NOTES

1. We capitalise Indigenous out of respect for identifying groups of political and historical communities. Indigenous is distinct from indigenous (with a lowercase “i”), which refers broadly to peoples who have a long history in a specific region. We are following the style guidelines of Sapiens (read more at <https://www.sapiens.org/language/capitalize-indigenous/>).

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