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The Effects of Institutions on Perceptions of Legitimacy in the Great Bear Rainforest, British Columbia

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Abstract

Collaborative planning in natural resource management involves a number of non-state actors and different institutions to make decisions that fall under the realm of governance. However, legitimacy, a quality considered necessary in successful governance, has not been thoroughly investigated empirically. This research examines the perceived importance of three different dimensions of legitimacy—representativeness, meaningfulness, and effectiveness—by actors in the Great Bear Rainforest (GBR) decision-making process and the perceived roles of three institutions—shadow networks, bridging organizations, and boundary objects—in relation to the legitimacy of the GBR plan. Based on semi-structured interviews ($n=17$), this research examines the perspectives of those involved or otherwise affected by the GBR decision-making process on perceived legitimacy in this context. The results illustrate the importance of representing the different participants' interests and values in the final outcome, trustworthy relationships to build accountability and ensure commitments, strategically using representation to ensure a fair and meaningful decision-making process, and using small groups of capable negotiators to ensure that different values and interests are included at the different levels of decision-making. By analyzing the roles of shadow networks, bridging organizations, and boundary objects, these observations highlight the importance of not just representation, but meaningful engagement, of actors in negotiating processes.

Keywords: Bridging organizations; boundary objects; shadow networks; legitimacy; Great Bear Rainforest.

Introduction

Over the past two decades, conservation initiatives have been scaled in size in both terrestrial and marine conservation (Zimmerer et al. 2004, Rodary 2016), in part due to goals set by the Convention on Biological Diversity (Jenkins and Joppa 2009). With these larger areas as targets for conservation, collaborative planning across levels and scales of governance becomes more necessary. Conservation at this level often has a systems or landscape focus and can often span poligeographical boundaries (Cohen 2012). This expansion in management presents further challenges to natural resource governance, which has already faced a crisis of legitimacy due to issues such as public mistrust, ineffective management, and lack of public participation (Wondolleck and Yaffee 2000, Berkes 2010, Hogg 2012). There has been a shift in natural resource governance over the past 20-30 years towards collaborative planning to address these developments (Lockwood et al. 2010, Wondolleck and Yaffee 2000). This often involves non-state actors in the decision-making process, and thus this shift also raises questions around the perceptions of legitimacy (Graham et al. 2003, Lebel et al. 2006, Lemos and Agrawal 2006).

For natural resource governance to be considered legitimate, it must be representative of the public's interests and congruent with their beliefs, it must be meaningful or the result of genuine deliberation between all parties, and it must be effective at addressing problems and achieving its goals to demonstrate the collaboration and its outcomes work. Though Weber defines power as legitimate if the people believe it to be so (Weber 1956, as cited in Beetham 1991), Beetham disagrees and defines power as legitimate if it can be justified by the public's beliefs or, in other words, is congruent with the public's beliefs (Beetham 1991). The deliberative democracy literature (Benhabib 1996, Dryzek 2001, Parkinson 2003, Robinson and Berkes 2011), highlights

that legitimacy goes beyond merely having all relevant parties represented at a decision-making table; there must also be a process of genuine deliberation between them. In other words, negotiations must be meaningful or the result of genuine and fair deliberation between parties. Furthermore, despite whether a decision-making process is representative or meaningful, it cannot be considered legitimate if it is not effective. These central dimensions are reflected in three types of legitimacy described by Schmidt (2013) and shown in Figure 1: input legitimacy (representativeness); throughput legitimacy (meaningfulness); and output legitimacy (effectiveness). These types of legitimacy and their relationship to one another has become increasingly important in natural resource management and governance in Canada.

<insert Figure 1 here>

As Figure 1 shows, the different types of legitimacy are interrelated and exist within a feedback loop. For instance, if the public evaluates the government and its policies as less effective, congruence between the authority and the public may begin to decrease, a predicament that many existing modes of government are currently facing (Connelly, 2006). This erosion in output legitimacy may lead to the public can redirecting their consent through the electoral processes or mobilization/public participation in the political sphere (Beetham, 1991). Were the system in place be unresponsive to such actions, it may also decrease input legitimacy, another factor that has been documented in the erosion of legitimacy in current government systems (Scharpf, 2009). Throughput legitimacy echoes the ideas of deliberative democracy scholars (e.g. Benhabib, 1996; Dryzek, 2001) in that two key factors in determining legitimacy are the quality of the deliberations and who is able to participate in those deliberations.

It is important to study the perceptions of legitimacy of natural resource governance because it can measure the success of governance, it can determine what aspects ought to be changed for higher success, and it can be used as a measure to predict whether proposed governance will be successful or not. Wolf (2002) states that legitimacy, not democracy, is the primary normative guideline for governance. It is particularly important in decentralized forms of governance to establish legitimacy when decision-makers are often representatives of particular interest groups rather than the public (Connelly et al. 2006, Ansell and Gash 2007). For example, a prominent global natural resource management program, the UN Reducing Emissions from Deforestation and Forest Degradation (REDD, later REDD+) has struggled in the implementation stages due to issues of legitimacy—there was a lack of community participation, and it is a problem the program still faces (Korhonen-Kurki et al. 2012). In a study of forest planning in British Columbia, Mascarenhas and Scarce (2004) also demonstrated questionable legitimacy in decentralized forms of governance, such as network governance, and further showed that legitimacy (undesigned by type) is essential to collaborative decision-making and warrants more empirical exploration.

Ecosystem-based management (EBM) approaches, which have garnered much recent attention in natural resource governance, also emphasize a number of aspects that affect legitimacy (Arkema et al. 2006, Long et al. 2015). The Great Bear Rainforest (GBR) provides a particularly illustrative case. Encompassing 6.4 million hectares of temperate rainforest in coastal British Columbia (BC), it is one of the largest, mostly untouched tracts of temperate rainforest in the world. The area it encompasses begins at its southern tip at Sonora Island and goes up to the Cambria Range, from the western shore of Haida Gwaii to the Coast Mountains on its eastern

border. As of February 2016, 85% of the GBR is off limits to logging with the remaining 15% managed under EBM principles. Collaboration that ultimately led to a new decision-making process and this outcome began in 1997. This came shortly after the ‘War in the Woods’ protest of the early 90s around protecting old growth rainforest in Clayoquot Sound and general discontent around forest management in British Columbia (Berman and Young 2011). Beginning in 2000, collaborative decision-making, particularly between the forest industry, environmental non-government organizations (ENGOS), the provincial government and local First Nations, began with the aims to secure two main goals in the GBR: ecological integrity and human wellbeing (Page 2014). As a new model for decision-making regarding large-scale conservation, many hope to apply it in other areas of the world (McGee et al. 2010, Low and Shaw 2011). However, it is unclear how differences in this model compared to previous decision-making will affect its long-term legitimacy and ultimate success in achieving its goals.

Using Scott’s (2008, p. 48) definition of institutions as, “social structure[s] that have attained a high degree of resilience [and are] composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life”, this paper investigates the ways in which collaborative planning affects perceptions of legitimacy by focusing on three institutions that were common to collaborative planning in the context of the GBR: shadow networks; bridging organizations; and boundary objects. By encompassing both formal institutions (e.g. government planning tables) and informal institutions that are less tangible (e.g. cultural norms and values) (Pelling *et al.*, 2008), the three identified institutions are investigated in order to explore how collaboration influences legitimacy at different points of the planning process. Notably, these institutions can interact

with legitimacy in how they affect representation, the decision-making process, or the final outcome.

Shadow networks are informal networks in tension with the legitimate system that allow people to explore innovative and alternative solutions (Gunderson et al. 1995, Folke et al. 2005, Olsson et al. 2006). As these networks are not necessarily representative, they are most in tension with the input legitimacy realm, but can be instrumental in bringing together solutions and thus interact a lot within the realm of throughput legitimacy and somewhat in output legitimacy. They are theorized to be most beneficial when acknowledged, but allowed to have a life of their own in parallel to the legitimate system (Pelling 2008). The literature theorizes that shadow networks can act as precursors to bridging organizations (Olsson et al. 2006), defined as institutions that bring together different organizations under a single umbrella actor (Berkes 2009). They consolidate both representation and knowledge, and so they span the realms of input legitimacy and throughput legitimacy. Boundary objects are the outcomes of negotiations and act as central points for knowledge integration and coordination (Crona and Parker 2012). They can facilitate negotiations, and so affect throughput legitimacy, but as they are also the outcomes, they have a large effect on output legitimacy.

Two questions are addressed here: How do involved actors view the roles of different bridging organizations, shadow networks, and boundary objects in the Great Bear Rainforest? In what ways were these institutions perceived as enhancing or eroding the legitimacy of the GBR process?

Methods

Data collection and analysis

A case study methodology was used to address the research objectives and questions (Creswell 2013). This paper draws on 17 in-depth, semi-structured interviews with participants from groups detailed in Table 1. Interviews were conducted in person between January and March 2017 and lasted between 20 and 80 minutes, with the majority lasting between 30 minutes and 1 hour. Six interviews were conducted over Skype or phone for those interviewees that were unable to meet in person. Purposeful sampling was used to identify respondents from different stakeholder groups (ENGO or industry representatives), First Nation groups (Coastal First Nations or Nanawakolas Council representatives), and the BC provincial government with detailed knowledge of and/or experience with the GBR negotiations (Creswell 2013).

<insert Table 1 here>

Interview topics included issues relating to representativeness, meaningful deliberation, effectiveness, and agreement/disagreement between participants or those involved and those not. These *a priori* topics related to legitimacy (representativeness, meaningfulness, and effectiveness) were identified through a literature review and informed the core design of the interview schedule (Table 2). Interviews were audio-recorded, transcribed verbatim and uploaded into NVivo. Data analysis involved line-by-line coding and systematically searching for themes relating to legitimacy and institutions as described in the introduction (Saldana 2013). In the tradition of grounded theory, emergent ideas and issues raised by the interviewees themselves were also pursued (Charmaz 2006). From this process, four central analytical themes were developed for analysis. Respondent validation (member checking) was used as the central

verification strategy (Maxwell 2013). Confidentiality of respondents is preserved by indicating interviewee number and actor group (e.g 12, ENGO) in reporting illustrative quotes in the results below. The first author conducted the interviews and analysis.

<insert Table 2 here>

Case study background

The GBR case was selected because it exemplifies the trend in governance from a state-driven governance regime to one characterized by both state and non-state actors working collaboratively across multiple scales. Between 1997 and 2000, the provincial government was in the process of forming and completing a Land and Resource Management Plan (LRMP) for the GBR area called the Central Coast Land and Resource Management Plan (CCLRMP) during the time that informal talks were occurring between the forest industry companies under the Coast Forest Conservation Initiative (CFCI) and ENGOs under Rainforest Solutions Project (RSP). An LRMP table is a government-directed collaborative forum for creating plans by which to manage an area or resource. The talks between CFCI and RSP were formalized in early 2000 as a bridging organization called the Joint Solutions Project (JSP). Though stakeholders represented at the LRMP table encompass environmental, resource industry, and community interests, results of surveys of LRMP participants show that only slightly more than half of the participants are satisfied with the results even though almost all agreed to plans by consensus (Frame et al. 2004). ENGOs refused to participate in the CCLRMP unless there was a ban on logging during the talks. Similarly, First Nations in the GBR refused to participate in any capacity other than observational as to not condone the forum since it did not recognize their right to the lands and categorized them merely as stakeholders. Both the provincial government

and First Nations were unhappy at being left out of the JSP talks, but quickly became centrally involved. Some First Nations formed the Coastal First Nations (CFN), originally known as the Turning Point Initiative, in the spring of 2000, which, in conjunction with the Nanwakolas Council, began to represent the interests of approximately 26 First Nations (this number fluctuated throughout the negotiations, in talks with the JSP, as well as the RSP and CFCI separately). On May 29, 2000, the JSP began talks with the First Nations and working with the provincial government's LRMP process. On April 4, 2001, the JSP, CFN, and BC provincial government released the Great Bear Interim Agreement announcing the collaborative decision-making process the ENGOs, forest industry, provincial government, and First Nations would pursue to create a new system of management in the GBR (Page 2014).

<insert Figure 2 here>

This initial collaboration went through many phases, most notably the commitment in 2006 to new protected areas, legislative changes to establish conservancies, and creating an EBM framework. The agreements in 2006 were followed by additional commitments in 2009 to EBM and 50% protection of the land base from logging. The 2007 Conservation Financing Agreement also secured \$120 million to establish the Coast Opportunities Fund (COF) for capacity-building in the region and transitioning the economy to a conservation-based one in an agreement predicated on the 2006 announcement. Nearly twenty years after action to protect the Great Bear Rainforest started, the Great Bear Rainforest final agreement was reached on February 1, 2016 and the Great Bear Rainforest Act was introduced on March 1, 2016. The final agreement secured high levels of old growth forest protection (70% of range of natural variation), protects 85% of forests in the GBR, and leaves the remaining 15% open to logging under the restrictions

of the EBM plan. The GBR was a novel collaborative process that received both local and global attention (Price et al. 2008, Page 2014) and is reflective of recent trends in natural resource management and governance. EBM was key as a management plan within this process as stakeholder representatives, First Nations, and the provincial government agreed from the beginning, or when JSP was formally founded, that they would pursue an EBM approach for forest management in the GBR (Joint Solutions Project 2001).

Results and Discussion

The empirical evidence from the interviews is organized and presented below according to four central themes identified through the data analysis. These themes shed light on how representativeness, meaningfulness, and effectiveness, as central dimensions of legitimacy, help us better understand the GBR decision-making process, if and how interviewees identified these dimensions as important, and how they perceived the different institutions this study focuses on as enhancing or weakening these dimensions and, thus, the legitimacy of the agreement at large. The four emergent themes are enumerated and discussed below, and supported by excerpts from participant interviews.

1. Boundary objects acted as points of convergence and contributed to throughput and output legitimacy: Boundary objects such as the EBM plan reflect diverse interests and values and, in so doing, contributed to perceptions of the GBR process and outcomes as legitimate.

The ecosystem-based management plan was an important boundary object because it included the two goals of ecological integrity and human wellbeing.

241 So, the bedrock principle was that we're trying to achieve, concurrently achieve to the
242 greatest degree possible, low ecological risk and high degrees of human wellbeing,
243 and recognizing that sometimes the concurrent piece meant that you wouldn't actually
244 be able to get both. [17, Others]

245
246 While the management plan addressed these two goals through different strategies, they were
247 seen as inseparable and inherently related.

248
249 In the [EBM] Handbook, there's actually this term called 'first amongst equals'. To me,
250 this was revolutionary. First Amongst Equals is the acknowledgment although
251 sustainable communities require a healthy ecosystem (therefore the health of the
252 ecosystem is 'first'), it is equally important that locally communities have confidence that
253 their needs and aspirations can be met. Otherwise, conservation will not be durable. [10,
254 ENGOs]

255
256 Since the ecosystem-based management plan was reflective of the different representatives'
257 interests, they could commit to the outcome and see it through. Similarly, the conservation
258 financing made available by the COF, another boundary object in the GBR, helped keep
259 representatives, particularly from ENGO and First Nations groups, involved throughout the
260 negotiation process and ensure that the human wellbeing goals could be met. Despite the
261 different interests of the participating decision-makers, the balance of the different goals
262 integrated into the final EBM plan for the GBR helped build support for it.

263 Well, this is what I love about ecosystem-based management. If you try and take any
264 one piece of it out, then everybody disagrees with it. Or most people disagree with it,
265 right? [12, ENGOs]

266
267 While participation may treat different knowledge, interests, and values as mere inputs to be
268 picked and chosen from, deliberation can integrate them and transform them. Robinson and
269 Berkes (2011) comment that as such, deliberation makes learning inherent to participating in the
270 process. Mansbridge et al. (2010) says the outcome of this deliberation, a boundary object, that
271 then truly meets their interests would also gain involved parties' allegiance.

272
273 *2. Building trust in formal and informal spaces is fundamental for legitimacy:* Frank, trustworthy
274 relationships between representatives, whether professional or personal, were vital to creating
275 and maintaining throughput legitimacy. Perceptions of output legitimacy were coloured with
276 concern over the possibility that these relationships would not be passed down over time.

277
278 Participants in this decision-making process that were interviewed recounted the extensive
279 amount of time spent together, both in negotiations and in social settings. Through these
280 interactions, they built both working and personal relationships with one another. They created
281 higher accountability with one another and through the trust of their relationship, also trusted the
282 other representatives' commitment to the outcome. Ansell and Gash (2007) consider trust-
283 building to be the first step in the collaborative process of collaborative governance, and they
284 link it to creating a commitment to the process.

285 I think the trust comes partly from, you know, the development of the personal
286 relationships over a period of time. Organizational relationships are important.
287 Maintaining commitments and obligations, holding each other accountable to
288 maintain those things. [9, BC Gov]
289

290 This trust and respect built up over time further helped participants take a more interest-based
291 approach to negotiations, as opposed to maintaining positional stances. This served to create
292 space for more meaningful negotiations.

293
294 But at the end of the day, it was trust and respect, and trying to understand the other
295 person's perspective and the other group's perspective, and then take that and then, 'What
296 is it that we can do to make this work?' [7, Industry]
297

298 Shadow networks were an important first step in forming relationships. They allowed
299 environmental and industry representatives to come together and explore the potential for
300 negotiation in a 'low-stakes' manner.

301 You know, those guys, you know, I had relationships with that would allow us, for when
302 we got to very tough parts, to have the very frank conversations and the conversations
303 that were aimed at trying to find, you know, solutions and answers to the specific issues.
304 [2, Industry]
305

306 This supports Olsson *et al.*'s (2006) assertion that shadow networks can be important precursors
307 to bridging organizations. Bridging organizations in the GBR gave representatives the
308 opportunity to work together more closely and build the foundation of trust and respect needed to
309 move forward. Maintaining these relationships is then an important aspect when moving forward
310 into the implementation stage.

311 So, we just need to ensure in moving forward that the transmission of knowledge
312 takes place and so [do] the relationship[s], because at the end of the day, this has been
313 all about relationships. [13, ENGOs]
314

315 A number of interviewees that asserted the centrality of relationships to the GBR negotiations
316 coming together also considered maintaining those relationships as necessary for future success.
317 Just as transmitting knowledge to the new representatives picking up the mantle to implement the
318 EBM plan is important for institutional memory, passing on those relationships is important to
319 maintaining the commitments to implementation.

320 But it really is about all the relationships and there's a lot of concern now about that,
321 because a lot of the staff who have done the work are retiring, so there's not going to be
322 that kind of institutional memory moving forward. [16, BC Gov]
323

324 *3. The importance of representation is widely recognized and used strategically by different*
325 *actors:* Actors, including those that are and are not involved in the decision-making process,
326 recognize that certain groups (i.e. ENGOs and First Nations) must be included within a decision-
327 making process for that process and its outcomes to be perceived as legitimate. Different actors

use this knowledge to achieve different ends, such as gaining a more powerful role in negotiations or demanding a decision-making role.

After some environmental groups waged a successful international marketing campaign against the BC forest industry over the GBR, it would be a noted oversight if natural resource management planning did not include them, and the forest industry knew that. Similarly, as First Nations won important Supreme Court cases regarding the consultation process (i.e. *Delgamuukw v. British Columbia* 1997 and *Haida Nation v. British Columbia (Minister of Forests)* 2004), it would also have been an oversight for the BC government to continue to treat them as mere stakeholders in this planning process. As environmental groups and First Nations were aware of their positions, they were able to leverage them for more power and a more level field for negotiations.

So, there's, like I said, there's formal power and then there's informal power, and legitimacy is something that, it's sort of in between those two. It's a perception by others that one group or another, or an individual or another, actually has to be involved in a set of decisions or- right? So, it's an acknowledgement. [9, BC Gov]

While it is important to be perceived and acknowledged as needing to be involved in a decision-making process, it is also important that such recognition then translates into meaningful participation in the decision-making process as well. The 'illusion of inclusion' can be detrimental to meaningful negotiations, but environmentalists used their position to avoid 'green-washing' the negotiations, and First Nations through the Coastal First Nations and the Nanawakolas Council bridging organizations utilized their leverage to become equal decision-makers with the BC government in government-to-government tables.

So, we created legitimacy by virtue of being there, but what we did with our legitimacy was consciously very disruptive. We said, 'We're not willing to just be

here and be your green person who you get to greenwash everything with. We're unwilling to do that. You don't get to use our legitimacy that way. Not unless we get something from it.' [12, ENGOS]

ENGOS and First Nations were able to leverage their position to gain a seat in the decision-making tables. They then went further by self-determining their participation in the process instead of having their participation be used to greenwash a solution that did not meet their interests.

As Few et al. (2007) note, participatory processes are often adopted for rhetoric and supporting an 'illusion of inclusion'. They note that this approach has been criticized in the literature and furthermore that many authors have shown that if such empty inclusion becomes embedded in a process, so too do the pre-existing power relations. They further state this illusion of inclusion detracts from the legitimacy not only of the process and the outcome, but could also affect the legitimacy of future collaborative efforts as participants remember past disappointments.

4. Throughput legitimacy was increased with small working groups: Negotiations and decision-making were perceived as more productive and meaningful when limited to a small group of capable people. Despite not all parties being represented at these tables, small groups did the bulk of negotiations leading to the final outcomes as part of a tiered decision-making process.

At these different levels of decision-making, it was small groups of people representing organizations, nations, or governments that were negotiating. It was important to be able to meet in smaller groups, because the larger negotiation table would often degenerate into positional stances that prevented discussions from progressing.

379 I would say that one of the things that really struck me was that when you got into
380 bigger rooms with more people around the table, it became the theater. Right? And
381 so, there's lots of posturing, lots of more positional stuff that happens there. [2,
382 Industry]
383

384 These people were considered capable negotiators and acted as what Williams (2002) refers to as
385 boundary spanners. They were skilled in communications and were empathetic; this helped them
386 form relationships with one another (echoing Theme 2) and they had the capacity and
387 commitment to persevere during the more challenging negotiations. Even though there were less
388 people at the table, as a consequence of the bridging organizations, the representation of interests
389 and values was not diminished.

390 And it was in the little boardroom, in the one-on-ones, in the smaller conversations
391 with the people that you could work with, that kind of got us to yes. [2, Industry]
392

393 Bridging organizations were important to this theme, as they took different nations,
394 organizations, interests, and values and presented them as united fronts with more capacity to
395 negotiate. These organizations would meet separately away from the larger negotiation table to
396 work out the differences more specific to them, and they would then return to the larger
397 negotiation table with recommendations based on their discussions.

398 So, we were sort of constantly going away, having a separate conversation, figuring
399 out the next bit, and then coming back and feeding it back into the process. So, we
400 would go away, figure it out, come back, feed it into the process. [12, ENGOs]
401

402 However, it should be noted that the 26 First Nations that agreed to the GBR do not represent all
403 of the First Nations on the BC coast. The unaligned First Nations that were not a part of the two
404 bridging organizations (CFN and Nanawakolas Council), although they are to be consulted in
405 accordance with the law, were not given similar capacity to engage in negotiations and were not
406 represented in these agreements to the same extent.

Elaborated on more in consensus-building and collaboration literature (Susskind et al. 1999) than in the literature on legitimacy, small groups of capable people were seen as instrumental to throughput legitimacy. This also builds on the literature of the capable agent, or a representative who has the capacity and ability to negotiate. As Huxham (1996) describes, collaborative inertia can result from a lack of progress or slow-moving negotiations. This highlights the importance of the capacity of those involved in the negotiations: they must have the funding to continue to participate as well as the endurance to continue in their role. In their research on factors that influence successful collaboration, Mattessich and Monsey (1992) also cite sufficient funds as well as the ability of members to compromise, among others, as important to collaboration.

Conclusion

Institutions, be they formal or informal, are foundational to collaboration, especially in the context of natural resource governance, where a multitude of actors, nations, values, and desired outcomes converge in a process of complex land use decisions at multiple scales. Legitimacy, in all of its forms, is vital to this process. It helps build trust and respect into relationships, encourages meaningful and productive decision-making processes, and facilitates the requirement for different interests to be represented both at the table and in the outcomes. Continuing to learn how institutions, such as those studied in this paper, affect the legitimacy of collaboration can strengthen the understanding of what makes different forms of governance successful or not. Furthermore, understanding the different types of legitimacy and how they bolster or detract from a governance process can further reveal what determines governance success.

430

431 The Great Bear Rainforest is increasingly being proposed as a model to base other large-scale
432 conservation projects on. As such, this exploration of legitimacy has direct implications for both
433 the future of the GBR and other natural resource projects following a similar model of
434 collaboration. This research indicates that throughput legitimacy has a large impact on the
435 overall perceived legitimacy of such an endeavor and, consequently, it is important to pay
436 explicit attention to the process of decision-making. This research further supports the notions
437 that shadow networks are most beneficial when they are acknowledged, but allowed to continue
438 in tension with the legitimate system and that boundary objects can help to enable and secure
439 commitments from relevant parties provided they work as points of collaboration that represent
440 varying interests fairly. Monitoring the long-term outcomes of the GBR can reveal more about
441 how this collaborative process endures over time and how such a process is able or not able to
442 maintain perceptions of legitimacy. Research into the general public's perception of the GBR
443 would complement this work and further reveal how this different representation of interests in
444 decision-making parallels the public's interests.

445

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599 **Tables:**

600 Table 1: Number of interviews by affiliation.

Interview group	Number of interviews (<i>n</i> =17)
Industry	5
ENGOS	4
BC Provincial Government	2
First Nations (involved)	2
Others (involved)	3
Others, First Nations (not involved)	1

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602 Table 2: Concepts and their descriptive categories as derived from the literature

Concepts	Categories	Literature source
Input legitimacy	Citizen representation	Scharpf, Schmidt, Doberstein
[Participation-oriented]	Legality	Beetham
	Congruence	Beetham
	System legitimacy	Schmidt
	Civil society representation	Schmidt
	Collective identity/political will	Schmidt
Throughput legitimacy	Intermediation	Schmidt
[Process-oriented]	Participation	Schmidt, Doberstein
	Access to DM	Schmidt
	Accountability	Schmidt
	Transparency	Schmidt
	Degree of influence	Schmidt
	Negotiation of knowledge	Schmidt, Doberstein
Output legitimacy	Human wellbeing	CIT, Scharpf, Schmidt
[Performance-oriented]	Ecological integrity	CIT, Scharpf, Schmidt
	Build identity	Schmidt
	Reflects diversity of values	Schmidt
Bridging Organizations	Trust-building	Berkes
	Collaboration	Crona and Parker, Hahn
	Knowledge co-production	Crona and Parker
	Cross-scale	Crona and Parker, Berkes
	Agency	Westley and Vredenburg
	Equitable representation	Berkes, Hahn
Shadow Networks	Flexibility	Olsson
	Innovative solutions	Olsson, Folke, Gunderson, Pelling
	Not accountable	Hahn, Pelling
	Not transparent	Hahn, High, Pelling
	Social learning	Pelling
	Source of inequality	High, Pelling
Boundary objects	Shared knowledge	Cash
	Knowledge integration	Cash
	Collaboration output	Star and Griesemer, Crona and Parker
	Acknowledges divergent values/beliefs	Cash, Star and Griesemer
	Fair	Cash

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Figures:

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Figure 1: Types of legitimacy, their measures for legitimacy, and their relationship to one another, adapted from Schmidt (2013).

Figure 2: A map of the Great Bear Rainforest protection levels as of the March 2009 (left) and February 2016 (right) agreements (*source*: Greenpeace, Sierra Club BC, Forest Ethics).

613	Acronyms:	
614		
615	CFCI	Coast Forest Conservation Initiative
616	CFN	Coastal First Nations
617	COF	Coast Opportunities Fund
618	CORE	Commission on Resources and Environment
619	EBM	Ecosystem-based management
620	ENGO	Environmental non-governmental organization
621	G2G	Government-to-government
622	GBR	Great Bear Rainforest
623	JSP	Joint Solutions Project
624	NGO	Non-governmental organization
625	NMG	New modes of governance
626	NRG	Natural resource governance
627	NRM	Natural resource management
628	RSP	Rainforest Solutions Project
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