

Sovereignty, conservation and island ecological futures

THEMATIC SECTION

Humans and Island
Environments

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Date submitted: 28 February 2018; Date accepted: 7 May 2018

SUMMARY

In this paper, we puzzle the way that sovereignty has been a sketchily present dynamic in conservation discourses. In the case of the world's many island communities whose colonial histories extend into the present in virtually every domain, silences around sovereignty in conservation contexts are particularly notable for the way they suggest the enduring domination of local communities by distant metropolises. Here, we provide a review of several critical issues in Pacific Islands contexts – biosecurity, food security, intellectual and material property rights and protected areas – that highlight the importance of conceptualizing sovereignty beyond the state to better enhance conservation outcomes. The novel approach we take in regard to these problems is to encourage conservation practitioners to more deeply engage with the 'ecological futures' that indigenous and local island communities are weaving in a period of active (re)articulations of sovereignty in conception, legal constitution and everyday engagements with island environments.

Keywords: sovereignty, conservation, biocolonialism, cold spots, imagined futures

INTRODUCTION

In a period of heightened, ever more nuanced evidence of the vulnerabilities, fragilities and instabilities of coupled human-and-natural dynamic systems due to ecological degradation, climate change and other 'hazard drivers' (Kelman 2017), conservation and the management of biodiversity at all scales are wicked problems (Game *et al.* 2014; DeFries & Nagendra 2017; Errington & Gewertz 2018). We note that tractability on these problems will largely depend on the capacity of communities and networks of communities to align their cultural, social and political values and practices with a sustainable vision of what might be called the deep future. Sovereignty, as the constitution of the political foundation and presumption of rights to govern, manage, exploit or conserve nature for all contemporary states and territories, certainly has a claim to be among the most wicked dynamics confronting efforts to govern nature in the present towards an imagined or

desired future. As West (2016) has observed, for conservation practitioners, the active question of who has sovereignty over nature is always in the background of conservation decision-making. At the core of this complex question is: who after all has the right to choose environmental futures?

Profound challenges are visible when the perceived rights of any given sovereign run up against the will of others, as the capacity to enact effective policy or management is limited by the governance boundaries of relevant sovereign states, as the problems confronting conservation governance and management lie outside the boundaries of any sovereign and as the enactment of conservation may itself threaten or endanger the political and territorial rights of particular communities, including indigenous or marginalized peoples (on this last point, see Escobar 1998; Anaya 2001; Wolfe 2006; Disko & Tugendhat 2014). However, the issue of sovereignty for conservation is not merely an issue of fraught territoriality and the enforcement of conservation goals beyond sovereign boundaries (Sassen 2013). Nor is it a community-based problem of adjusting the balance of governance institutions to achieve better management (Berkes 2007; Le Meur *et al.* 2012; Jones *et al.* 2013). Rather, it is a cross-scalar, multi-dimensional cultural and social issue (Sovacool & Brown 2009; Adger *et al.* 2013) that may require a significant sea-change (Shakespeare n.d.; Castree *et al.* 2014) in how the human dimensions of conservation are conceived (Fabinyi *et al.* 2014; Leenhardt *et al.* 2015; Bennett *et al.* 2017a; Mazé *et al.* 2017) and engaged (Pendleton *et al.* 2016; Christie *et al.* 2017; Roth *et al.* 2017). Such a sea-change is more timely than ever now that alternative conceptions of sovereignty and sovereign futures are emerging out of indigenous and local communities across island contexts.

Bellwethers for global politics, islands may be extraordinarily sensitive to the intersectional complexities posed by conservation to sovereignty and by sovereignty to conservation. However, the political philosophy of sovereignty after the 1648 Peace of Westphalia, which, among other things, recognized the equivalence of states' rights of absolute territorial sovereignty regardless of territorial or population size, is not the focus of this work. Lifetimes could be spent debating the meaning of sovereignty (Humphrey 2004; Philpott 2016). Rather, in this article, we draw attention to the concrete, material practices of sovereignty within and between island communities and between communities and their states (Benton 2010).

How sovereignty is expressed, enacted and contested in everyday contexts bears directly on conservation engagements

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with island natures related to the opportunities perceived in insular biogeographies (Whitaker & Fernández-Palacios 2007; Graham *et al.* 2017). We particularly focus on the Pacific Islands where our expertise lies. Because of these islands' complicated colonial histories (Firth 1989; Steinberg 2005; Aguon 2010; Na'puti & Bevacqua 2015) and because local communities in this region are actively pursuing, creating, negotiating and otherwise engaging with sovereignty on the ground in enduring and innovative manners, they exemplify many of the contexts and dynamics confronting conservationists on islands around the world (Baldacchino 2010; Baldacchino & Hepburn 2012; Hepburn 2012).

Sovereignty is frequently framed in terms of political sovereignty: the capacity to control territory and resources without the interference of external forces (Humphrey 2004; Emel *et al.* 2011; Marroni & Asmus 2013). In this paper, like some critical geographers, we suggest that it is imperative for conservationists to think about sovereignty in more than just its spatial-political aspects and the degree to which states are free or not to negotiate the boundaries of and norms governing conservation areas (Agnew 2005; Childs 2016). In this sense, we argue for an understanding of sovereignty to include how it is deployed in the present with regard to imagined futures by indigenous and marginalized peoples whose lands and territories are often encapsulated by nation-states (Simpson 2008, 2010). For example, all of our case studies (see Boxes 1–6) are concrete examples of indigenous ecological futurities (Kuwada 2015; Salesa 2017). Our argument engages with notions of critical race and indigenous studies that have recently articulated that how the future is imagined, planned for and constitutionally developed depends on the different values, commitments, desires rooted in culture, communities and conceptions of sovereignty (Warrior 1992; Barker 2005). At stake is whose forms of territoriality and temporality are recognized as legitimate (Rifkin 2017).

As such, sovereignty is found not only in the post-Westphalian constitutions of recognized states, but also in ideologies and sets of practices that subjugated people often deploy in order to control access to their resources and territories. Frequently, these alternative sovereign rights are not recognized by the larger state, or assemblages of states, in which rights are enacted (Grip 2017; Vince 2017). Nevertheless, the processes of contestation over sovereignty have significant implications for the conservation of terrestrial and marine resources, as well as cultural heritage. As Native Hawaiian scholar and activist Goodyear-Ka'ōpua (2013, p. 246) writes, “Sovereignty is not just a political status but a way of living in relation to land and others.” We, of course, recognize that local, indigenous or marginalized peoples are far from homogenous in their composition or their desired outcomes for the future. Everyday practices and persistent desires of local communities including their elites or the educated can potentially subvert shared collective conservation goals (Foale 2001). While we make the call for conservation practitioners to recognize communities' differential claims to sovereignty, this process

must contextually disentangle whose claims are being voiced and whose are being silenced.

In the paper, we explore a number of domains that exemplify tensions in the relationships between conservation and sovereignty, as well as some of the shifting grounds of sovereignty in practice in Pacific Islands contexts where local engagements with conservation or the environment more broadly may be expressions of everyday sovereignties. While sovereign states' environmental policies may bolster conservation goals, they may at times profoundly impact long-standing rights or even the being-in-place of local communities and indigenous peoples (Gregory & Vaccaro 2015), as when conservation and state institutions construe the environment as a ‘domain fit for government’, resulting in new and potentially disruptive subjectivities for peoples in their own home land and sea spaces (Agrawal 2005, p. 58). Conversely, the broadly accepted rights of sovereign states may possibly degrade conservation, as when sovereign claims for energy or national security may open up long-protected lands or marine spaces for new extraction regimes at potential great cost to local natures. Moreover, in that sovereignty is sometimes conceived as not a legal right derived from a pre-existing state but as *lex naturalis*, a natural right whose foundation lies outside the legal system of any particular state or international body, the potential for sovereignty of non-human entities as individuals or species or other geographically recognized entities (rivers, geological formations, particular reefs) ought also be considered. In brief, we argue that the problematic of sovereignty and conservation evident in the fundamental question ‘What are the political rights of others?’ requires attention to a broad conception of sovereign or potentially sovereign ‘others’.

CONSERVATION AND THE PROBLEM OF DEFINING THE MANAGERS

In 1962, the United Nations adopted Resolution 1803 (XVII) on the ‘Permanent Sovereignty over Natural Resources’ declaring that the “right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development.” In this framing, entities in nature are ‘resources’, materialities to be extracted, depleted, transported, commercialized and consumed in order to improve human well-being. However, one can readily observe an inherent ambiguity in the language of the resolution between peoples and nations, as well as in the idea of permanence (Armstrong 2015). While the sovereignty of nations may seem relatively straightforward on paper or in international fora, in the here-and-now of real places and their communities, characterizing a people's sovereignty status is conceptually and practically challenging. Today, as Hintjens and Hodge (2012) note, islands around the globe evidence a striking ‘unruliness’ of sovereignty forms. This is evident in the political constitutions and arrangements of contemporary sovereign and non-sovereign insular states and territories. Island states bear a broad array

of *de facto* and *de juris* relationships to former or present colonial powers resulting in quasi, residual, nested, shared or otherwise complex governance–apportioning arrangements between distant metropolises and local insular governments, communities and environments (Benton 2008). Given this situation, conservationists operating in a particular milieu may not be familiar with or even aware of the historical origins or contemporary interdependencies of the political, cultural and social situations that will be among the primary contexts requiring navigation in the path from imagination to ethical and just implementation of a conservation programme (Bragdon 1992).

Two senses of conservation compete for attention in policy, community and scholarly contexts. Conservation formally defined, *sensu stricto*, highlights efforts to maintain, prevent loss and restore biological diversity (Society for Conservation Biology 2017). This crisp orientation is sometimes muddled by a broader usage, *sensu amplo*, in which conservation is conceived or discussed as any practice seeking to conserve or maintain the status quo of ecologies, including human engagements with and uses of them. Between these two senses, the goals of conservationists and particularly of conservation biologists (population health, species diversity, genetic diversity and ecological system functionality, among others) intersect with what may be rather different discourses, goals and practices of resource management closely hinged on local and regional communities and their histories of engagement with their environments. For conservationists, *sensu stricto*, the perceived goal is not to manage the use of resources, but to ‘protect’ them (see Childs 2016). However, for local communities and their governance, a conservation goal, *sensu amplo*, may be to sustainably maintain ongoing engagements with the local environment and its resources in a manner that promotes the resilience of that environment and the traditional or otherwise community-based values and practices orientated towards imagined or imaginable environmental futures inclusive of how the community envisions its place in the world.

In the space between conservation in the strictest sense and more diverse, localized conceptions of protecting, restoring or enhancing biological diversity and the environmental stability necessary for diversity to thrive, there is ample room to observe the ambiguities and tensions in UN Resolution 1803 (XVII). Who counts as the ‘people’ who have rights over environments and natural resources in any particular area within a nation (Box 1)?

We locate the issue of sovereignty in the dynamic politics of the relationships between the past, present and choices about environmental futures. Regardless of whether local or indigenous groups have histories of conservation of their resources (Smith & Wishnie 2000; Dove 2006), the fact of any community’s entangled histories with its environment(s) should bring into clear view the potential for conflict and significant disagreement between conservationists, institutions and conservation policy and governance and local rights to use, manage, maintain, extract

Box 1 Culture, sovereignty and conservation conflicts on Rapa Nui.

The sometimes fraught question of whom among intersecting groups involved in a particular conservation are empowered to legitimately speak for or actively choose an environmental or ecological future for the ‘people and nation’ is evident in the insular and colonial context of Rapa Nui. As Bennett and Dearden (2014) observe, histories of dispossession and the parkification of culture are not uncommon in places with significant terrestrial and marine conservation potentials. On Rapa Nui, a history of dispossession, displacement, protest and imprisonment and the use of national parks and ecotourist development to govern persons, lands and cultural practices has warranted suspicion and conflict around recent conservation agendas, goals and implementation (Young 2016). In a review of political developments on Rapa Nui in 2016–2017, Young writes that “Rapa Nui indigenous politics were principally political ecological in scope; they involved struggles to control cultural and material resources and ancestral territory,” including the Rapa Nui National Park (Parque Nacional Rapa Nui) as a “battle to resist state and transnational forces seeking to develop the ocean surrounding the island into a marine park” (Young 2018, p. 195). As Aburto and Gaymer (2018) note, Rapa Nui persons, the Chilean state and various international agents maintain strikingly different and possibly incompatible approaches to social–ecological systems, resulting in numerous conflicts and local non-compliance with conservation agendas, including fisheries regulations around marine protected areas.

and consume local resources that may or may not alter, disrupt or damage biological diversity across scales (Idrissou *et al.* 2013; Rohe *et al.* 2017). This is made particularly problematic when communities are fractured by divisions that fail to articulate a collective goal of an ecological future that aligns with Western conservation ideals (Aswani *et al.* 2017). The recognition of these tensions poses several critical questions. What rights do different kinds of stakeholders have to manage nature(s) in an age of conservation? Do local communities have rights to demand that their ecological expertise (Gavin *et al.* 2015; Sterling *et al.* 2017) or traditional practices of resource management or governance (Aswani *et al.* 2018) be respected and incorporated into conservation planning by the states that claim them or by the international organizations that sometimes claim to speak for them? What rights do external agencies have to govern natures whose local configurations of use and engagement may be rooted in deep time? When the local community is indigenous or autochthonous are or ought those rights to be configured or understood differently? At the same time, when local

cultural practices are aligned with over-exploitation and the degradation of nature, such as through local peoples' incorporation into leviathan-like capital projects (Rutherford 2012; Kirsch 2014), conservationists from afar who would constrain local agency may be confronted with an ethical quandary that deserves close scrutiny. When in conflict, should local people's articulated desires or biodiversity be supported?

BIOSECURITY AND HOW STATES IMAGINE THEIR NATURES

Many paths lead into the chiasmus of sovereignty and conservation. However, we suggest that the right of states to govern the permeability of their borders (Wilson & Hastings 2012) is the most foundational dimension of sovereignty bearing on conservation (Vitousek 1988). When state agents and agencies enact policies to manage the importation of bioagents or to prevent or seek to prevent introductions, they engage the dynamic of conservation in the practice of everyday sovereignty.

Anderson (1987) observed that how states imagine their communities plays a crucial role in their governance practices (Scott 1998). We note that states also bear comparable imaginations of their natures. Nature is a critical feature of a state's imagination in its perception, conception, valuation of and policy or management stance towards the species and ecologies within its borders when states determine what bioagents enter a territory or are to be removed from or managed within a territory. Governance of the membrane of the state frequently includes species and ecologies as part of its imagined community running from the micro (protocols for the governance of soil transfer and accompanying microbes as when asked at the airport whether one has hiked or visited a farm overseas) to the meso (as when arriving planes or cargo are subject to insecticidal protocols) to the macro (rules, regulations, policies and laws governing faunal or floral transfers). More broadly, how state, supra-state or extra-state agencies produce and implement indicators of ecological, environmental or biological baselines or statuses through supported research and how they generate policy around them is at the heart of how states imagine and prepare to respond to nature over time. The right of states to police conservation values and practices at the border and to articulate a new and assertive form of sovereignty display is a potent example of everyday sovereignty (Box 2). The governance of biosecurity controls notably varies from state to state and may be in significant contrast to the individual agency of community members and outsiders who have their own interests or stakes in the transfer of bioagents. For instance, in the early 2000s, one of us (AM) was once asked to transport breadfruit seedlings of a particular varietal between Mangareva in French Polynesia (a French Pays d'Outre Mer) and Pitcairn (a UK Crown Colony governed by a High Commissioner based in New Zealand), expressing a multi-decade standing promise between these two genealogically and historically related

Box 2 Palau enacts a passport-stamped 'eco-pledge' for all international arrivals.

Having implemented one of the world's first shark sanctuaries in 2009, having developed a national network of marine protected areas with extensive coverage over nearshore areas with a value framework based on traditional Palauan marine governance practice of catch restrictions called *bul* and, in 2015, having ratified one of the world's largest marine sanctuary protected areas covering approximately 80% of the nation's marine territory, Palau has been a leading actor innovating Pacific Island nations' conservation as, in the words of Palauan president Tommy Remengesau, "large-ocean-states." In December 2017, Palau exerted its authority over immigration controls to require all international arrivals entering the country to sign a pledge stamped, dated and authorized in the arrivals' passports. The pledge reads, "Children of Palau, I take this pledge as your guest, to preserve and protect your beautiful and unique island home. I vow to tread lightly, act kindly, and explore mindfully. I shall not take what is not given. I shall not harm what does not harm me. The only footprints I shall leave are those that will wash away." Only time will tell whether this pledge is only a paper tiger (shark). When visitors fail to "tread lightly," will they be prosecuted with reference to their pledge? However, the act of pledging brings into visibility how the Palauan state imagines its nature, including values and policies that might otherwise be profoundly out of view, such as Palau's Biosecurity Act RPPL-9-58, signed into law by President Tommy Remengesau in February 2016.

communities. Biosecurity protocols at the time emplaced to prevent the introduction from French Polynesia of the glassy-winged sharpshooter, *Homalodisca vitripennis*, or other tagalongs, meant that the seedlings needed to be disposed of in the sea instead of transferred to the community prior to our being allowed to land on Pitcairn, despite the fact that plant transfers between Mangareva and Pitcairn have been ongoing across the entire human habitation of these islands and throughout the European colonial period (Mawyer 2016). As an issue of sovereignty, biosecurity draws into view the passage of time and the ways in which particular values about the anthropogenic landscape and its desired and non-desired species are imagined by states, communities and other actors and are conserved with an eye towards the future ecologies that their presence over time would produce. In addition, it also draws into view the question of agency. Who controls the movement of species on and off the land, the authorization of species import and removal and the management of the restoration of ecologies is clearly bundled up with the rights of communities to choose imagined and desired futures.

Finally, we note that it is not only states who assertively engage in imagining and choosing ecological futures. Islands across Oceania, and globally, have long served as laboratories for agrobusiness and agrochemical companies. The perceived rights of corporations or capital institutions point to the ongoing crisis of biosecurity and sovereignty in the way that national or international law creates a context in which the rights of islands' local or indigenous peoples to conserve island natures are dismissed or subsumed in a new 'era of biocolonialism' (Kanehe 2015).

FOOD SOVEREIGNTIES

Traditional food systems provide resilience within larger food production systems (Bourke & Harwood 2009), and growing traditional varieties can be potent and effective mechanisms for *in situ* biodiversity conservation (Glamann *et al.* 2017). Issues surrounding food sovereignty thus highlight concerns about the abilities of indigenous and marginalized island communities to maintain local food systems and practices in the face of corporate domination of agricultural systems (Pimbert 2009; Spann 2018). Via Campesina, an international movement formed in 1993 by a number of small-scale farmers and peasants, released the Declaration of Nyéléni in 2007 in which they state: “[Food sovereignty] puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations” (Patel 2009, p. 666). Linkages between food sovereignty and local environmental knowledge are fundamental to Via Campesina's perspective. Supporting food sovereignty thereby bolsters the conservation of the diversity of local cultivars, varieties and landraces of the various crops and wild products that form peoples' food systems and that furthermore foster the genetic and biological diversity that food systems will need globally in an era of climate change (Whitman 2011).

Altieri and Toledo (2011, p. 588) define food sovereignty as “the right of people to produce, distribute and consume healthy food in and near their territory in an ecologically sustainable manner.” As they argue, food sovereignty allows for other forms of sovereignty as well, notably technological and energy sovereignty in which small-scale food producers and procurers are “able to produce without external inputs” and “to have access to sufficient energy . . . without sacrificing food crops” (Altieri & Toledo 2011, p. 607). In this framework, food sovereignty is ‘multifunctional’ (Perfecto *et al.* 2009), in that many small-scale, sustainable food systems provide multiple ecosystem services beyond just providing food. They mimic natural systems by protecting soil and water, serving as carbon sinks and harbouring biodiversity.

As noted, food sovereignty struggles arose over conflicts between small-scale peasant farmers and large-scale agri-food companies, primarily in Latin America and Asia (Wittman 2011). In the context of island and associated marine regions, food sovereignty becomes increasingly complex in that it

Box 3 Food sovereignty in Hawaii.

Food sovereignty is fundamentally about the right to produce, share and consume food that is grown or harvested sustainably. Food activists in Hawai'i have recently started using the concept of *aloha 'āina* in contemporary struggles against the genetically modified (GMO) seed industry on the island of Molokai (Gupta 2015). *Aloha 'āina* is commonly translated as ‘love of the land’, but has been used over time in struggles against colonial dispossessions of Native Hawaiian lands, protests over military bombing on Kaho'olawe, as an indigenous term for food sovereignty and as a rallying cry in anti-GMO protests. As Gupta (2015, p. 532) discusses for Hawai'i, sovereignty “has become less about asking for rights to be granted by the state . . . and more about 'āina-based projects to restore individual and community responsibilities to be economically self-sufficient . . . through the restoration and re-integration of *kalo* [taro] into local diets.” *Aloha 'āina* thus encapsulates the concept of food sovereignty, but also refers to the active responsibility (*kuleana*) that Hawaiians have to take care of the land, reefs, forest and creeks that reciprocally take care of them (Kame'eiehiwa 1992; Goodyear-Ka'ōpua 2015). Food sovereignty as such serves to articulate desires for an ecological future freed from corporate food systems and unsustainable uses of terrestrial and aquatic resources.

involves not only terrestrial food sources, but marine ones as well (Box 3).

The example of food sovereignty demonstrates that who holds this right to determine environmental futures is not merely a question of political right, but is also a question about the right and practical agency to determine the very subsistence practices that sustain island-based communities. Building on Kabutaulaka (2015) and others' work in the Solomon Islands, Spann (2018) describes the emergence of ‘Alter-Native’ political practices in the recent formation of the Bushmen Farming Network (BFN), an organization formed as a counter to large-scale agricultural development schemes and dependence upon foreign-grown rice. The BFN are revitalizing customary practices of smallholder agriculture and reintroducing traditional varieties of yam and taro. However, who has sovereignty over the plants, animals and genes of island ecosystems is also a point of contestation.

INTELLECTUAL AND MATERIAL PROPERTY

The twin forces of resource exploitation and resource conservation highlight in significant ways struggles over sovereignty in relation to intellectual and material property in and of island environments (Mascia & Claus 2009). The right to determine the present and future extraction, use, value

Box 4 Bioethics and the Convention on Biological Diversity (CBD) in Hagahai.

A concept of sovereignty that extends beyond territoriality also examines rights to claims over ideas, resources and people. The well-known case of attempted biodiversity patenting in Papua New Guinea among the Hagahai people (Taubes 1995) is exemplary of the question of who has the right to control the seeds and genomes of endangered or extinct species in a world in which species loss is, for the moment at least, only expected to continue at a depressing rate. In this case, the National Institutes of Health in the USA sought a patent for the cell line of a Hagahai individual (who collectively had a benign variant of the human T-cell leukaemia virus), leading to claims in the media of people no longer owning their own DNA and accusations against the US government of “bio-colonialism” by non-governmental organizations (Taubes 1995, p. 1112). While the patent was initially granted in 1995 but then subsequently dropped (Pullman & Arbour 2012), the international uproar over the attempt to patent human genetic material illustrates the fraught tensions between sovereignty and intellectual and material property.

and profit of natural resources and the risks to biodiversity in the face of extraction and exploitation make visible the power of states to determine futures for local and indigenous communities as well for floral, faunal and microbial species alike. We note that literatures around bioprospecting and biopiracy point to the dynamics of actors in the world and to particular ways in which the authority of states and corporations is imagined, configured, enacted and contested (Box 4).

One way of conceptualizing resource exploitation is the extension of the rights of a state or corporation over the material property of a community and its entangled environments. Such actions often pose significant challenges to conservation and local sovereignty. For example, in the case of Papua New Guinea (PNG), 97% of the land base is controlled (‘owned’) by customary social groups. Under national law, resource extraction must compensate these groups through royalty payments, occupation fees and other means. Mining (Bainton 2010; Golub 2014; Kirsch 2014; Jacka 2015), logging (Shearman *et al.* 2009; Filer & Wood 2012) and petroleum extraction (Gilberthorpe & Banks 2012) are radically altering social–ecological systems across the country. Filer and Wood (2012), however, describe a system known as a lease–leaseback scheme in which customary landowner groups first lease their land to the state, who then leases it to a corporate entity for up to 99 years for agro–forestry (logging followed by oil palm plantations) purposes. As is also the case with mineral and petroleum development, such processes

degrade the environment in manifold ways, effectively negating the sovereignty of the landowners and their descendants over their land. Looking elsewhere in the Pacific, the cases of Banaba and Nauru, which have been utterly devastated by phosphate mining, are particularly visible examples of the tensions of sovereignty, resource extraction and rights to choose environmental futures (Teaiwa 2015).

These issues become even more visible when we move from terrestrial to marine material property. Recently, the Canadian mining company, Nautilus Minerals, has been granted licences to extract minerals from polymetallic nodules found 4000–6000 m deep on the seafloor around PNG, Tonga and the Solomon Islands. This, of course, raises several pertinent questions: who owns nodules or rights over other aspects of environment or ecology in the ‘holes’ between internationally negotiated sovereign limits (Rochette *et al.* 2014; Hannigan 2015) in both surface and sub-surface waters, including the deep sea (Lynch 2011)? Who has the right to put the deep-sea biodiversity at risk through untested extraction technologies (Barbier *et al.* 2014)? This is especially pertinent given the expansive and integral political imaginaries of many of Oceania’s indigenous peoples who, as D’Arcy (2006, pp. 36–42) notes, have often conceived, experienced and engaged with the ocean as a significant space rather than as a watery desert or *mare nullius*. Understanding such high seas or deep marine spaces as beyond sovereign limits may be highly dependent on perspective.

PROTECTED AREAS

Islands are critical sites for conservation given their intensive histories of resource exploitation, urban development and transition towards massive monocultural agricultural projects, coupled with high rates of species endemism and their significant roles as sites of major extinction events (Vitousek 1988; Steadman 1995). Of the nearly 900 plant and animal global species of extinctions since 1600 CE, almost 60% have occurred on islands (Whitaker & Fernández-Palacios 2007, p. 293, Table 11.2). Humans are, of course, major contributors to the decline of species on islands, but also can play critical guardianship roles in fostering biodiversity and protecting customary lands from exogenous forces (Hviding 1996). There are, as such, no simple relationships between humans and their impacts on island ecosystems. The analysis of such impacts will always remain contextual and dependent upon the interactions of changing cultural and natural dynamics (Bennett *et al.* 2015), the influence of larger-scale political economic factors (Katsanevakis *et al.* 2015), governance regimes (Borrini-Feyerabend *et al.* 2013) and the resilience of island biodiversity itself. Moreover, there is no simple formula between the creation of a protected area and the loss/maintenance of sovereignty, although this relationship may often involve displacement and conflict and, consequently, an erosion of sovereignty in both the present and in its potential futurity (West 2006, 2016) (Box 5).

Box 5 The proposed Kaijende Highlands Conservation Area.

There is perhaps no more fraught issue in sovereignty and conservation than the tension over the demarcation of protected areas. In 2005 in the interior highlands of Papua New Guinea, Conservation International (CI) conducted a rapid biodiversity assessment in a remote area near the Porgera Gold Mine, the long-term field site of one of the authors. Over a 22-day period, the team documented 643 species of flora and fauna and discovered 16 species of plants and eight species of frogs new to science (Richards 2007). Given the outstanding biodiversity of the region, CI proposed to the Papua New Guinea state the need to create the Kaijende Highlands Conservation Area. When I (JKJ) learned of the proposed designation, I contacted various relevant parties, pointing out the fact that the region in question was called Kaijende by ethnolinguistic groups not indigenous to the area. The local inhabitants that use the area for hunting (and ritual purposes in the past) refer to it as *Asienda*, not *Kaijende*, and if they expected local support for the conservation project, they should at least name it the *Asienda Highlands Conservation Area*. While, to date, no conservation area has been demarcated, this example highlights the ways that just the seemingly straightforward process of naming a protected area can challenge local sovereignty to customarily used lands. And as numerous studies have shown (see West *et al.* 2006), this remains a very complex issue globally.

Few contexts draw sovereignty and conservation into mutual visibility as clearly as the exhilarating, fraught, contested and negotiated establishment and, sometimes, disestablishment of protected areas including national parks. Each of the dimensions (scale, degree and kind of protections and access limitations, among others) has the potential to intersect with local and sometimes indigenous sovereignties. While terrestrial protected areas are an important feature of insular conservation efforts, by total area, coastal protected areas (CPAs) and marine protected areas (MPAs) have in the last decade become the most visible features of insular conservation efforts (Edgar *et al.* 2007), with striking intersections over questions of the relative role and agency of communities, states and supra-state actors to determine the constitution and governance of the protected area (Leenhardt *et al.* 2013; Gjerde 2016). While marine spaces have a deep legal history (Feenstra 2009; Lowe 2009), MPAs evidence something like an alphabet soup of acronyms corresponding to different national and international protection frameworks and legal and governance regimes (Toonen *et al.* 2013; Bennett *et al.* 2017b; Lewis *et al.* 2017). CPAs, small-scale marine protected areas (SSMPAs), large-scale marine protected areas (LSMPAs) and high and deep sea protected areas (HDSMPAs)

demonstrate distinct political entanglements across scales (Agardy *et al.* 2003; Agardy 2005; De Santo *et al.* 2011; Gruby & Campbell 2013), revealing different and sometimes colliding or conflicting views of sovereignty at sea.

Coastal zones, including mangrove-dominated foreshores, lagoon spaces, extensive seagrass plains, nearshore reefs and other environments, are particularly entangled multi-dimensionally with human communities and are among the most intensely vulnerable areas to multi-driver impacts (Ballinger 2015). Importantly, they demonstrate the fuzzy character of borders with respect to issues of governance and management, just as they pose challenges to ecological modelling and management (Jentoft *et al.* 2007). Because of the ecological and social complexity of coastal areas, they are exemplary of the ways in which a top-down approach to CPA/MPA governance may miss the mark (Nunn *et al.* 2014). While communities may not be able to solve all their own conservation and management problems (Sulu *et al.* 2015), failure to address local conceptions and rights in conservation and marine management planning can and has led to significant conflicts (for instance, see Capitini *et al.* 2004; Clifton & Majors 2012; Stevenson & Tissot 2013), as well as missed opportunities (Richmond & Kotowitz 2015). However, a certain dynamism regarding governance models (Gray 2010) has emerged since Johannes' (1978) transformative attention to the exceptional depth of community knowledge/practice around marine resources, and significant progress has been made in incorporating indigenous or traditional management practices (Spalding *et al.* 2013; Bambridge 2015; Jupiter *et al.* 2017). While designation of protected land and marine spaces may always encounter challenges around the competing visions of different actors who perceive a stake in the conservation and who may have conflicting visions of sovereignty over the situation, including such places as the Galapagos, which does not have a history of indigenous settlement (Jones 2013), most Pacific Islands peoples and insular contexts the world over evidence an enormous and heterogeneous range of beliefs about the foundation of community rights to govern contemporary environments and choose environmental futures. Significant work remains to be done in order to align conservation regimes (Dudley 2008) with the political values, goals and everyday sovereignties of local communities and to ensure that island peoples are included in decision-making processes surrounding protection status.

PROTECTIONS OF SOVEREIGN NATURE

The establishment of Westphalian sovereignty over islands has often led to the degradation of insular natures both for their land- and seascapes and for the gaps and holes produced by internationally recognized legal agreements governing the extent and limits of colonial or post-colonial sovereignty. When sovereignty-internal or sovereignty-external gaps exist, state and corporate agents have a dependable history of seeking to exploit them for gain. And, when destruction or

Box 6 Rivers, ancestors and legal persons in Aotearoa/New Zealand.

As Marama Muru-Lanning (2016) observes, different Māori Iwi have maintained a range of profound, tangible and intangible and fundamentally inalienable relationships with rivers and other natural entities within their land- or seascapes, despite the long history of British colonization, including the military conflicts and traumas of the 19th century Land Wars, across the 20th century and into the distinct contemporary political moment in which the Waitangi Tribunal's work has reconfigured relationships between the Crown, the New Zealand State and Māori communities. Muru-Lanning (2009) notes that some of nature's entities are, for specific Iwi, impartible ancestors, key figures in the genealogy of individuals and communities. In 2017, and in advance of recognition of a comparable status for the Ganges, legislation declared, by act of Parliament, the Whanganui River as Te Awa Tupua, "an indivisible and living whole, incorporating all its physical and meta-physical elements." The minister for the treaty of Waitangi negotiations, Chris Finlayson, observed of the new status that, "Te Awa Tupua will have its own legal identity with all the corresponding rights, duties and liabilities of a legal person."

degrading exploitation occurs, it can make visible tensions in conservation policy and practice between sovereignty over nature and the sovereignty of nature as conceived by locally emplaced communities or, increasingly, by Western legal thinkers asking how nature might protect itself in the face of human cupidity. In this sense, one might ask about the sovereignty of nature. Does 'nature' in the sense of the other-than-human world deserve its own recognition of political rights or even of sovereignty (Smith 2011)? We note that issues of sovereignty once limited to the human domain are increasingly visible in political and legal conceptions bearing on the non-human domain. For instance, the articulated implementation of MPA status in part founded on notions of the sacred as in the Cook Islands' *Marae Moana* (Durbin 2018) or the establishment of legal personhood and various rights and protections for natural entities such as the Whanganui River in Aotearoa/New Zealand, which became a legal person by act of Parliament in March 2017 (Box 6), point towards significant shifts in the constitution, articulation and implementation of conservation goals to include alternative conceptions of the entities understood to have the capacity to bear rights.

Although the centrality of futurity and of ecological futurity has been key in each example of sovereignty-conservation intersection in this article, we suggest that questions over the sovereignty of nature – and articulations of the potential of non-human entities to bear personhood rights in the case of the

Whanagnui in relation to particular Iwi as kin – particularly clarify the importance of thinking carefully about temporal horizons for both conservation and sovereignty. Rights are always, in a sense, about relationships between beings in the present with respect to potential futures, including future well-being.

In an era of anthropocentric and borderless impacts on the planet, the degradation of nature can be seen as an attack on the future of species and ecologies and on the sovereignty of peoples over local environments and resources. Writing of endangered and extinct insular avifauna, Van Dooren (2014) points to a species as more than a genetic population, an ecological role or a unique morphology, but as an integral and complex whole, an assemblage of 'flight ways', and suggests that we reflect upon the rights of species to traverse time as parallel to the rights of communities, cultures and states. Such moves in language towards nature(s) as sacred, personable or possessing self-sovereignty and inalienable rights are more than philosophical or poetic in that they point to the potential for new alignments between conservationists and local and indigenous communities around new political strategies founded in alternative sovereignties.

BEYOND SOVEREIGNTY

Conservation and sovereignty on islands are both motivated by: the presence of readily perceived borders, boundaries and frontiers, including coastal margins, reef formations and subsea topographies; sovereign island states' uses of relevant international law, conventions and agreements around island natures to muscularly assert the relevance or potency of their voices in global affairs, such as via exclusive economic zones (Dahl 2017); non-sovereign or semi-sovereign island states whose past or present colonial histories have led to claims of political hegemony and authority over nature, resources and human communities in territories imagined as politically homogeneous under historical or contemporary colonial regimes; and enduring, often odious perceptions of many insular peoples and cultures as primitive, close to nature and out of time, hence manageable as part of nature's milieu rather than as agents whose sovereign partnership could and should be deferred to in the enactment of governance over terrestrial or marine biodiversity and functional ecological conservation.

The kinds of interwoven issues here are perhaps nowhere more apparent than in the impacts of climate change and sea-level rise on local land managers and their sovereignty (Burkett 2011; Lazrus 2012; Crate & Nuttall 2016). The role of humans as agents of climate change (IPCC 2013) foreshadows the social and political dimensions that will shape climate change discussions in the future, as well as the technological and environmental mitigations that will have to be undertaken. Low-lying islands and littoral ecosystems will be especially vulnerable to the climatic changes (e.g., increasing intensity and number of tropical storms and king tides) and rising sea

levels expected throughout the 21st century. While islanders have always been voyagers (Hau'ofa 1994), these kinds of impacts due to anthropogenic climate change reshape the kinds of migration that islanders will be forced to undergo and the social, cultural and political futures of these communities (Farbotko & Lazrus 2012). As Lazrus (2012, p. 293) argues, "Projections about the effects of climate change . . . raise unprecedented questions about the relationship of citizenship and territorial sovereignty," and the loss of these rights "poses a secondary disaster of equal or greater scope than the physical impacts of climate change."

One of the striking dynamics confronting the current state of insular environments, ecologies and the species diversity and health that depend upon them is the way in which contemporary states of nature have tracked the historical seizure of island peoples' sovereignty and lands. The degradation of sovereignty for pre-colonial island states has, in part, played out as an attack on nature in addition to or beyond the historical trauma of colonization for many island peoples. As we noted above in the section on protected areas, the monetization and exploitation of terrestrial and marine resources of many islands reflect intense anthropogenic changes to landscapes and species distributions, biodiversity loss and ecological disruption in the wake of colonialism, from the sandalwood and whaling eras of the 19th century, for instance, to the logging, mining and purse-seining of the 21st century. As a boundary condition for this point, we note that the use of Pacific Islands by the British, Australians, Americans and French for purposes of nuclear weapons testing, chemical weapons disposal, missile targeting and massive degradation and pollution and through general militarization of insular land and sea spaces was only possible because of the degradation and seizure of indigenous and local sovereignty by colonial powers.

Ultimately, sovereignty and conservation are both fundamentally about the control of unruly, wickedly complex systems with human and natural dimensions. It may be worth asking whether the dreams of conservationists and of administrations enacting the sovereignty of states are more alike than not in their imagined desire for the governance of situations that have entropic tendencies. In the socio-political realm, a loss of control might result in regime change or the redistribution of power in society, and in the biosphere in environmental degradation and disruption, loss of ecological function, integrity or interconnection and diminished species diversity, range or population health. We note with concern that few sovereign states and few conservation projects, or the international fora in which they aggregate, have yet achieved more than initial success in coordinating with one another, despite the epochal stakes of maintaining or preserving coupled human–natural systems into an imagined future receding far beyond the temporal horizon of current generations – as reflected, for instance, in the literature around the commons (Ostrom 1990; 1999; McCay 2002; Dietz *et al.* 2003; Hardin 2009; Ostrom 2014). Attempts to exert governance over human or natural systems

may parallel one another in their diverse 'fictions' of control (Bonilla 2015).

At the same time, we are not convinced that the situation is without hope. On the one hand, numerous local, marginalized and indigenous communities on islands around the globe are enacting what Simpson (2014, p. 11) terms "nested sovereignties" in which diverse "political orders prevail within and apart" from the sovereign impositions of national states often founded on settler colonialism. As evidenced across islands in the Pacific and beyond (Lyons & Tengan 2015), significant movements to supersede the limited conception of political rights in the logics of Westphalian sovereignty (Knoll 2002) and to incorporate alternative conceptions (Feldman & Ticktin 2010) of the foundation of rights have emerged and are available in order to serve to organize the governance and management of biological and cultural diversity rooted in the past, lived in the present and orientated imaginatively towards the future (Hau'ofa 1998; D'Arcy 2001; Jolly 2007). At the same time, some small-island developing states are being reconceived as vast, potent large ocean island states (Puna 2012; Rubis & Nakashima 2014) using conservation of marine spaces and their resources as a lever for assertional claims on the regional and global stage. The result is contributing to what Prinsen and Blaise (2017) are calling a highly flexible, reactive strategy of 'Islandian Sovereignty' as, perhaps, a form of resistance to what Bennett (2015) calls 'ocean grabbing' reminiscent of existing observations about the potentials for 'banditry' by global actors in an era of rampant globalization (Berkes *et al.* 2006).

In composing this piece, we sought to call into view some of the tensions, frictions, wicked problematics and potentialities at the conservation–sovereignty intersection. We note that sovereignty is something like a 'cold spot' in conservation discourses and practices in order to frame the opportunity for scholars and conservation practitioners to join local communities in thinking beyond their own visions of sovereignty (international agreements, declarations, Westphalian-rooted sovereign rights) to envision other kinds of rights/responsibilities towards nature, its conservation and the constitution of ethical and durable relations in and with human communities. We are not convinced that the 'solution' to the wicked problems of biodiversity loss, ecological fragmentation and environmental degradation will likely emerge from the magisterial *auctoritas* and *imperium* of nation-states. The maximization of success for conservation efforts in Pacific Islands, islands globally and our continental neighbours will rest on the careful attention and imaginative cultivation of other kinds of conservation futures for biodiversity (conservation *sensu stricto*) and for the conservation of long-term coupled human–nature relationships (conservation *sensu amplo*) carefully tuned to the political–social–cultural–natural linkages of indigenous and other locally expert communities (see Pascua *et al.* 2017).

In closing, we suggest that conservation offers opportunities to realize sovereignty as well as challenges to sovereignty in respect to resource rights, access to land- or seascapes

and the development or implementation of policy or management strategies. At issue is the need to complement attention to local and traditional expert ecological knowledge and the incorporation of that knowledge in the planning and enactment of the governance of resources, including conservation schemes with inclusive attention to the past, present and imagined political futures of communities living with vulnerable and valued natures.

ACKNOWLEDGEMENTS

We are grateful to Nicholas Polunin for suggesting the timeliness of this review and to three anonymous reviewers for insightful and incisive comments. Thanks are also due to Mary Queitzsch for sharing her knowledge of US and International case law bearing on the rights of sovereign states over nature.

FINANCIAL SUPPORT

None.

CONFLICT OF INTEREST

None.

ETHICAL STANDARDS

None.

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