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The Tragedy of Liberal Environmentalism

"So There Is Lots of Stuff Going On … But When You Think About It, Very Little Is Going On"

Will the twenty-first century be the century in which nonhumans are recognized for their enterprising nature, for being as indispensable as Walmart? Will it be the century that biodiversity finally takes up its rightful place *inside* the market, where it can unleash billions of capital for "green development"? Given the broader political-economic context, the answer, perhaps intuitively, is yes. Enterprising nature is an approach that fits well with global business as usual.

This book focuses on an era in which the discourse and practices of enterprising nature were proliferating rapidly in global biodiversity politics. And the enterprising continues. For example, in 2012, 39 financial institutions signed the Natural Capital Declaration (NCD). The NCD aims to create a standardized internationally agreed framework to be used by companies and financial institutions to account for and manage natural capital. Signatories include large global financial institutions like Rabobank, Standard Chartered, and National Australia Bank. In October 2015, President Obama directed all federal agencies to incorporate the value of ecosystem services, or "green infrastructure," into their planning and decision-making. New rounds of "conservation finance" conferences are bringing together financiers, project developers and NGOs – such events now take place at the New York city offices of Credit Suisse and involve the world's largest financial institutions, such as JP Morgan and Goldman Sachs. The proliferation of such initiatives,

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involving high-powered geopolitical and financial actors, appears to suggest that enterprising nature is on its way to being mainstreamed in global capitalism.

Yet international professionals, elites, and financiers have been trying to "sell nature to save it" (McAfee 1999) for a long time, and are still trying to figure out what they need to do to turn biological diversity into a legitimate economic actor that can save its own life. Global biodiversity experts struggle to define the unit they want to save through its commodification (chapter 6); proposals for "innovative financial mechanisms" fail to receive intergovernmental assent (chapter 7). Even mundane initiatives in accounting face difficulties, and experts are asked to provide ever simpler forms of ecological knowledge that can be "relevant" and thus capable of being incorporated into firm and government decision-making (chapters 4, 5). Ecological-economic calculative devices do produce new "facts of life," but these do not readily lead to reformatted political-economic relations. The most status quo–affirming and supposedly pragmatic approach to "saving the planet" is not smooth or easy; it is better conceived as Sisyphean.

Enterprising nature exists in an entirely paradoxical situation. It is at once a totalizing mainstream discourse and one that exists on the margins of political-economic life, on the outside of many flows of goods, commodities, and state policies. Over the past few years, studies on "conservation finance" produced by organizations such as The Nature Conservancy, JP Morgan, and Credit Suisse reflect the findings of this book. They declare the coming exponential growth of enterprising natures while reiterating persistent challenges: for-profit, private sector investment in conservation remains very limited, and most financing still comes from conventional, well-established channels of domestic government funding, development assistance, and philanthropy.[1] Once considered the cash-flush messiah for tropical forest conservation, the forest carbon market faces a problem of over-supplied credits and low prices (Global Canopy Project et al. 2014). The global forest carbon market transacted a paltry 216 million dollars in 2012 and 192 million dollars in 2013, amounts similar in size to the sales of a single Walmart store.[2] We may have hit peak carbon market well in advance of reaching anything close to peak oil.

In short, biodiversity markets remain small – marginal even in the world of conservation finance, infinitesimal in the world of capital flows writ large (Dempsey and Suarez 2016). Instead of picturing "liquid biodiversity capital" zooming across the globe in smooth corporate jets guided by slick capitalists, I suggest we imagine enterprising nature as clunky and plodding, something more like a jalopy puttering along with flat tires and occasional backfires (but with a professional pit crew working furiously on a project of constant reassembly).

I don't want to give the impression that nothing is going on – the jalopy is still moving. New financial products are emerging with support from the biggest financial institutions in the world.[3] New manifestations of forest-backed bonds are under discussion. New hybrid institutions are emerging, like NatureVest – a collaboration between The Nature Conservancy and JP Morgan. The conservation finance conference in 2016 held at the offices of Credit Suisse in New York City was filled with participants in much fancier suits, representing truly gargantuan financial firms; these events were much more high powered and professionalized than the 2008–2009 conferences described in chapter 6. Yet the 2016 conference asked a question similar to the ones being asked at events seven years earlier: how can we scale up return-generating biodiversity conservation? The participants still spoke of challenges outlined in chapter 6: deals take forever to close, few investors understand the work firms are doing, there is too little transparency, more professionalization is needed. Much of what is going on is heavily supported by the capital of high-net-worth families and philanthropic and public institutions that are willing to take on more risk than mainstream investors.

While the jalopy bounces along, I hold to my conclusion: enterprising nature is a dominant story about how to change the world, but it remains marginal in practice. Conceptually dominant, but substantively marginal. As one investment banker said at the 2009 New York conference about so-called biodiversity markets: "there is lots of stuff going on … but when you think about it, very little is going on."

The Radical Project of Enterprising Nature?

This book traces the rise of a new mantra in conservation: "to make live, one must make economic." But the book also traces this mantra's persistent marginality. People who seem so powerful and influential, individuals like Gretchen Daily and Walter Reid, who reside in prestigious institutions like Stanford, who are invited to address heads of state and to advise major multinational initiatives, are situated simultaneously outside and inside mainstream institutions and political economic power relations. They are not CEOs of major corporations, nor leaders of governments. Rather, they are trying to move those people and those institutions; they are trying to convince governments to adopt full-cost national accounting and to consider time frames beyond the next election cycle. These tasks are hardly easy, even if all the best ecological-economic evidence underscores their benefits.

My research is dogged by the question of how a conservation approach that is so in line with mainstream political-economic logics can be so

difficult to implement, even in a watered-down, pragmatic form. Given that the idea of internalizing externalities is so consistent with orthodox economic thinking, why aren't national governments creating regulatory frameworks to this end? Why is it so hard to build the conditions to realize the green economy, to finally bring biodiversity inside market relations (and maybe even save it)?

The project of making enterprising nature – despite being the most politically palatable approach – faces many challenges. Biological diversity is, as I have shown throughout this book, enormously difficult to domesticate into a quantitative form; it is difficult "to enterprise." Biodiversity – life on earth – is hard even to count, never mind to parse in terms of ecological functions and services that can then be priced or monetized. Finding these connections is a research project in ecology that is at least a half century old, one that seems to move forward while simultaneously opening further unknowns and uncertainties about ecological relationships, especially in the context of a rapidly changing climate.[4]

And even if one accepts "imperfect proxies" or abstractions that simplify all the complexities and render unknowns into probabilities, actually transforming state accounting or firm risk assessment to account for biological diversity remains daunting. Internalizing externalities, it turns out, poses impressive challenges to the status quo. Decisions – say, to build new energy infrastructure to extract fossil fuels (i.e. pipelines, refineries), or the continued destruction of mangroves for shrimp farms – are not likely to be reversed due to new calculative figures about the "full costs" of ocean acidification and mangrove destruction. While economically "stupid" or "irrational" decisions may haunt us in the future, those stupid economic decisions pay in the present.

Earlier in the book I mentioned a revealing study commissioned by The Economics of Ecosystems and Biodiversity project (TEEB). Tallying up the total "unpriced natural capital" (ecological materials and services that businesses currently do not pay for, such as clean water and a stable atmosphere), the study found that none of the globe's biggest businesses would be profitable if it had to pay for those services (Trucost 2013). This fact illustrates a very large and intractable problem: profit and power structures in the global political economy depend deeply on these externalizations, and efforts to alter externalizations mean confronting these formidable forces. Enterprising nature must still fight battles with the axes of power and profit in the worlds of agribusiness, oil and gas, and extractives (to name some of many), and the governments that are tied to the resource rents from them. Convincing decision-makers to internalize the full cost of goods and services produced and provided by nature is like trying to get a Goldman Sachs executive to give up his obscenely high bonus – in short, incredibly difficult. What this suggests

is that attempts to create enterprising nature, as the most economistic, business-as-usual approach to solving the sixth extinction, are in part foiled by economic self-interest and by contemporary concentrations of wealth and political power.

This is the tragic story of enterprising nature. As supposedly pragmatic and neoliberal as it is, as much as it reflects social norms, purporting to smoothly lead the way into the known future where economy and environment can co-exist in perfect harmony, it is still in many ways too radical and too challenging to the status quo to become mainstream. Attempts to enterprise nature are simultaneously paradigmatic of neoliberal environmentalism *and* threatening to the foundational characteristics of contemporary capitalist social relations. They are threatening in that they pose challenges to what socialist ecofeminist Maria Mies (1986, 1998) calls the "iceberg of capitalist accumulation," wherein profit-making sits not only on the visible exploitation of wage labor (above the water line) but also upon layers of exploitation under the water line, including the unpaid work of nature (see also Fraser 2014). Jason Moore (2015) terms all this unpriced work "cheap nature" and, like Mies, argues that this cheapness is a "fundamental condition of capitalist accumulation" (Moore 2015, 2). Analyzing Mies's and Moore's arguments in relation to this study alters the way we understand the invisibility of biodiversity in economic processes. Biodiversity loss is not simply an unfortunate side effect that can be fixed through accounting or market-making; rather, such loss might be thought of as critical to the functioning and stability of capitalism as we know it. Enterprising nature exists as both a hegemonic approach to nature *and* one destined to continue in the form of briefly illuminating "fireflies," to use the words of one financial executive from the 2009 New York conference: that is, short, quick bursts of light in the dark night.

This arrested development of a pragmatic, neoliberal-aligned environmentalism does not mean that these "fireflies" are inconsequential or entirely benign, and these effects need to be studied carefully in situ. All development projects have winners and losers, social divisions created or deepened along fault lines of race, class, geography, and gender. In situ, enterprising nature produces new dispossessions (e.g. Cavanagh and Benjaminsen 2014) and results in hybrid flows of state and private capital (e.g. McAfee and Shapiro 2010). Enterprising nature can also, with enormous political effort on behalf of rural social movements, affirm the value and necessity of *campesino* environmental stewardship (Shapiro-Garza 2013). This complex and crucial on-the-ground research shows that the social effects of enterprising nature are not wholly predictable or consistent, but are indisputably real for many different people.

What I am saying here is not incompatible with the findings of these studies, but my focus on the global circuits of power and knowledge illuminates other corners of contemporary biodiversity politics. In this book, I argue that the story of enterprising nature illustrates the tragedy of liberal environmentalism almost 25 years after the Rio Earth Summit. Liberal environmentalism encompasses the classic compromise and pragmatic stance of sustainable development, an approach that aims to make environmental concerns compatible with economic growth within predominantly capitalist markets and states, a compatibility to be achieved via heavy doses of science and technology (Bernstein 2002). But liberal environmentalism runs deeper than this. It is an approach premised on an idea of a smooth space of politics, one where all the different players can find common ground through dialogue or, even better, through the purportedly neutral signifiers of numbers and money – liberation by calculation. It aims, as much as possible, to avoid dirty, asymmetrical, bloody politics; it lives in a world that James Ferguson aptly terms an "anti-politics." Despite its marginality, the enterprising nature story is a powerful salve, a kind of chicken soup for the environmentalist soul. It is a story that manages, moderates, and mediates the problem of the fraying web of life with its message of ever-increasing rational decisions, its story of ever-improving governance and progress at the hands of the right ecological-economic facts.

As with the rise of bioprospecting and biodiversity in the late 1980s, however, we remain in a kind of liberal environmental "waiting room."[5] The destination is known, demonstrated by the illustration on the cover of this book. We are en route to the coming bioeconomy or, perhaps, to a coming global bio-political-economy where all social, economic, and natural values can be accounted for within a single analytical system, aligning global socioecological needs, national interests, and economic growth. Yet arrival is always just out of reach, just past the next problem, just over the next epistemological or policy hump. Rather than wait or keep reaching, it is time to change the strategy and open up space for more political narratives, for other end points and strategies.

Finding a New Pragmatic Politics

At the start of the book, I charted what many saw as the failures of conservation. People don't care about nature for nature's sake, I heard over and over. Conservation is too focused on ecosystems as if they didn't include humans, others said. These are legitimate concerns. Many in the field of biodiversity conservation have turned toward enterprising nature as a singularly pragmatic approach – as our only hope on a planet

filled with disconnected people who can only understand dollars and cents. From the vantage point of this book, however, enterprising nature doesn't seem overly pragmatic, at least not in its current form. I don't suggest we flee into theory or experimentation, though. Rather, a new sensible and even practical politics is not only possible, it already exists.

Between scarcity and abundance

As someone reared on Western environmentalism's constant talk of limits, of constraint rather than opportunities for flourishing, I was at first caught off guard by Anishinaabe writer Leanne Simpson's words. Outlining the Anishinaabeg concept of *mino bimaadiziwin*, she writes: "The purpose of life is this continuous rebirth, it's to promote more life. In Anishinaabeg society, our economic systems, our education systems, our systems of governance, and our political systems were designed with that basic tenet at their core." A key consideration for her nation is "how much you can give up to promote more life." This idea is strikingly dissimilar to the narratives in environmental policy and science that talk about rationing, optimizing, and managing scarce resources. To even speak of abundant ontologies feels almost risky for people (such as me) who have long feared environmental overexploitation and its cliff edge of catastrophe; we might be concerned about a return to a false cornucopianism. But Simpson is not saying that there are no biophysical limits; rather, she is pointing to actually existing ontologies and socio-ecological epistemologies rooted in visions and practices of proliferating life.

Writer James MacKinnon shares with Simpson the aim of abundance and liveliness in socioecological relations. His book *The Once and Future World* begins with stories of lost abundance, of jungles emptied by bush meat hunters, the fading of British tree sparrows, the vanishing of the Chinese river dolphin, Caribbean reefs that host at least two tonnes *less* fish per hectare than in the seventeenth century. Reflecting on a 1902 sketch of a fisherman spearing a rock cod from a boat in the Fraser River near Vancouver, BC, MacKinnon writes that such a feat would require "a sea so jim-jammed with life that it beggars belief" (MacKinnon 2010). "Our natural world," he says, "is a fraction of what it was before the mass culls and oil spills of the human era." MacKinnon describes our current Earth as a "10% world," by which he means that we inhabit a planet that has only 10% of the natural variety and abundance it once did. For MacKinnon, this is not a call for "some romantic return to a pre-human Eden." Rather he posits that "a story of loss is not always and only a lament; it can also be a measure of possibility. What once was may be again." MacKinnon is not talking about more parks

and protected areas, or wilderness, but rather setting his vision higher, writing of an "Age of Restoration" and an "Age of Integration," within which "human beings can learn to live not only alongside but also among more species, in more abundance, than we ever have before." This aim is not nostalgia motivated by "wilderness lost," but forward-looking hopefulness, guided by a desire for lively abundance and co-habitation, a desire to inhabit rich socioecological worlds.

What Simpson and MacKinnon present are the sketches of what we might strive for in biodiversity conservation: an end goal that is rooted in abundance, not in rationing or optimization. This is a different narrative than that of "nature as Walmart," and one that requires imagination beyond cap and trade, or economic-ecological modeling of "trade-offs." An argument that starts from a desire for abundance in nonhuman life forms – a desire for more kinds of bodies, in greater numbers – and for abundant and diverse ways of living between humans and nonhumans is like heresy in the rationing, austerity-focused discourse that swirls around us. It's heresy to some fundamental narratives of scarcity in economics, biology, and environmentalism (Haraway 1991).

I believe that many of the trustees I describe in this study would agree with Simpson and MacKinnon. Many, I think, would agree wholeheartedly with their vision, although perhaps simultaneously noting that it is "pie in the sky" thinking, idealistic and unrealistic. Meanwhile, though, I have argued that the "will to enterprise" seems unrealistic and untenable; enterprising nature exists on an ever-receding horizon. This is what we learn from 25 years of promissory visions to bring diverse life forms inside market and economistic calculations; this is what we learn from attempts to create the conditions for nature to pay its own way. While trustees in the circuits of my study may cry that "we have tried the intrinsic value approach, and failed," I would respond that we had the wrong target in the first place; we brought together the wrong ideas, the wrong actors, and perhaps the circuits of power and knowledge must be otherwise.

Troublers of liberal environmentalism: Towards biodiversity justice

Rosemary Collard, Juanita Sundberg, and I take up MacKinnon in conversation with decolonization movements like Idle No More and social movements like Via Campesina in our "Abundant Futures Manifesto" (2014). We argue that while conservation should not be organized around the colonial myth of Edenic natures past, it must necessarily continue to look to the past. Conservation must examine histories not only to see what could be in terms of nonhuman abundance

but also to understand how we arrived at where we are today, in a world of social inequities and ecological impoverishment. Twenty-first century international conservation needs to reckon not simply with "poverty reduction," but with the ongoing ruination wrought by colonialism and capitalism, by structures and processes that erase distinct ways of living and being. It needs to move away from notions of universal, unilateral value determined from above, whether from colonial administrations or models from afar. We are certainly not the first to make this point. And we don't have to look very far to find people and organizations that are already enacting such a politics. Global biodiversity politics has many troublers of the smooth space of liberal environmentalism.

Take, for example, the International Collective in Support of Fishworkers (ICSF), an organization based in India that works closely with the World Forum on Fisher People and other local fisherpeoples throughout the world. Over email and in negotiations, Chandrika Sharma from the collective would remind scientists, bureaucrats, and other NGOs that local fisherpeople must not bear the brunt of policies to conserve marine biodiversity. Chandrika was willing to engage in conversations and dialogue with others on how to solve these problems, on how to place the lives and knowledge of fisherpeople within policies seeking to address marine habitat loss and species extinctions. Her position was not anti-biodiversity or anti-wild, but she insisted that experts and bureaucrats account for their god's eye view and confront the political-economic realities that lead to the decline of marine biodiversity, particularly industrial fisheries. Chandrika died suddenly in 2014; she was aboard the Malaysian Airlines plane that went missing. Still, ICSF remains one of many troublers of the god's eye view in global biodiversity politics, questioning the location from which conservable natures are defined and demanding that these knowledges and institutions be accountable for their real and potential effects.

There are also what we might call the troublers of austerity: people, groups, and even countries questioning the ever-present story of scarce monetary resources. Malaysian-based Third World Network (TWN), for example, is an organization that continuously calls attention to the fact that the responsibilities for global environmental problems are highly lopsided. Around global biodiversity meetings and negotiations, the ever-fierce, whip-smart, and funny Chee Yoke Ling from TWN continues to bring histories of uneven development and unequal terms of trade into biodiversity negotiations, into multilateral conversations all over the world. Troublers of austerity, at their best, go beyond demands for monetary resources in the form of aid, focusing also on the need for political responses, for changes to the very make-up of global capitalism. Chee Yoke Ling states that "profound economic transformations" are

necessary, meaning significant reforms to "global trade, investment and financial rules and architecture" that can remove the "structural obstacles to sustainable development."[6]

While attempts to enterprise nature focus on making existing powerful people and institutions see biological diversity, there are movements and organizations who focus on creating political power. Those who we might call "troublers of scarce power" refuse to believe that power exists only in elite containers; they defy expectations by exploding out of what appears to be a marginal position. This kind of bursting out can be achieved through strategic thinking and huge doses of diligent organizing and solidarity building. Sometimes these initiatives succeed in big ways, as I saw in Curitiba when hundreds of farmers and landless people, working with NGOs and governments, achieved a ban on terminator technologies.[7] I have seen this power-generating force at international negotiations in subtler ways, too, such as when people made short interventions in negotiations by speaking plainly about the effect of biofuel subsidies in Europe and their impact on rainforests and communities, when they playfully awarded the world's worst biodiversity offenders in the hallways, and when they called out in side events my home government, Canada, for unsustainable logging and for the lack of respect for Indigenous rights and title. Each of these moments disrupted the smooth space of liberal environmentalism, they created little zinging jolts of political power, they made people uncomfortable, and they changed the terms of the conversation.

The question, then, is how to ignite a bigger explosion with a chance of slowing biodiversity loss. I don't pretend to have any clear cut or singular answer, but it does seem that there are no shortcuts to deal with biodiversity loss. To say that there are no shortcuts does not mean that there is no role for ecological economics, or valuation, or even natural capital accounting. A price tag on a particular ecosystem service, one that can bring government revenue, could be a powerful tool for a community fighting yet another development on their lands and territories, and seeking alternatives. More sophisticated ecological-economic models might lead to public investments in "green infrastructure." What I mean by no shortcuts is that one cannot avoid battles that need to be fought to insist governments take the long-term vision, to stop bad developments because they do not benefit anyone but private firms or distant countries and consumers. And if we are going to fight battles, it seems to me we should not aim for the most watered down, pragmatic form of conservation, but rather set our sights high.

Alliance and solidarity building among many different kinds of people and institutions is one crucial strategy. One question I ask myself is, could the global circuits of biodiversity power and knowledge become *stranger*?

While at one point it might have seemed strange for biologist Gretchen Daily to converse with eminent economist Partha Dasgupta (see chapter 4), and for them to publish articles together, today the ecologist-economist alliance needs to break into new territory. Perhaps Daily could begin to converse with the ever-inspiring Tewolde Egziabher, the tireless Ethiopian advocate for farmers' rights and agricultural diversity who works at the international, national, and local level to create the conditions necessary to both create and sustain biological diversity. For Tewolde (this is what everyone calls him at Convention on Biological Diversity negotiations), these conditions mean refusing capitalist processes of enclosure over land, waters, and living things, including patents on life (Egziabher 2002). What if ecosystem service scientists spent time, not trying to get their heads around neoclassical economics, but engaging with critical scholars such as Donna Haraway or David Harvey to see what reciprocal learning might occur and what new ideas might be generated about ecosystems and power relations, about scientific discourse and history? An alliance that pays attention to such structures of power and profit, as well as to detailed and rigorous ecosystem science, might, for example, put the powerful InVEST model to work in undermining the ongoing pilfering of the planet, a pilfering that lines the pockets of elites (elites that fund programs like the Natural Capital Project). InVEST could very well be a powerful tool to garner political will and citizen awareness as part of an array of tactics to illustrate how elites and corporations continue to dominate the world's ecosystem services, possibly in collaboration with an organization such as Third World Network. Such alliances could help us understand what we need to do to move toward a justice-oriented and reparative full-cost accounting. Perhaps.

Institutionally, the circuits of power and knowledge might involve strange alliances between big international conservation organizations and social movements. Such circuits would counterbalance (or, ideally displace) the growth of partnerships between conservation organizations and the world's biggest multinational corporations. Green NGOs would focus more on collaboration with the world's largest social movements, including, for example, Via Campesina (the world's largest peasant movement) or climate justice movements. The circuits would have Pavan Sukhdev (now the head of the Green Economy Initiative) attending not (or not only) the World Economic Forum (where the world's elites gather), but (also) the World Social Forum, where the world's social movements gather. And what about if – rather than partnering with the world's largest soya or palm oil companies – conservation NGOs worked to develop a campaign of divestment akin to the one taking place around fossil fuels? Such a campaign would start from a place of principled strength, drawing attention to the way large financial and corporate

actors, in entangled dances with many governments, have locked us into patterns of biodiversity loss.

Are these alignments, circuits, and new campaigns possible? Yes, although of course they are not easy to imagine. They certainly would require a level of openness by experts and troublers alike. But if one looks at the mathematical and political gymnastics involved in making nature enterprising, such alignments have more potential than we might think. What I am saying is similar to what political ecologist and critical development scholar Arturo Escobar (1998) called for over 20 years ago, writing just after the formation of the Convention on Biological Diversity:

> One would hope nevertheless that in the spaces of encounter and debate provided by the biodiversity network there could be found ways for academics, scientists, NGOs and intellectuals to reflect seriously on, and support, the alternative frameworks that, with a greater or lesser degree of explicitness and sophistication, Third World social movements are crafting (76).

One can look to the climate justice movement for inspiration and leadership, as a growing international solidarity movement that situates a global environmental problem within contexts of racialized, gendered, geographical, and economic injustices. Biodiversity justice is climate justice's conjoined twin, a movement of scientists, activists, academics, farmers, Indigenous people, urban people, and rural people who demand dramatic redistributions of wealth and power in the service of abundant socioecological futures. Growing such a movement will not be perfect, or easy, but it can start from a place of political and ethical might, in justice, rather than liberal compromise. Justice may even be the wrong term, as I was reminded by Brazilian colleague in a Skype discussion when I used the term. Justice, for her, was simply *too human* a concept. An abundant future must continue to wrestle with how other-than-humans can have wild lives, where they too can live as "uncolonized others" (Plumwood 1993).

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Such an understanding of biodiversity loss – deeply rooted in colonialism, in geography, in power, in class, in race, in gender dynamics – does not lead to simple answers. But I argue that we should not ignore or seek to circumvent difficult questions. There is no shortcut to the messy politics needed to deal with the problem of the monoculturing of life on earth; there is no easy way to confront questions about the human place in nature on a planet of deeply etched asymmetries. I sense there is much appetite and possibility for a "will to abundance" in the circuits of global

biodiversity politics. In my travels across and inside the circuits of these politics, I see that enterprising nature is an open, tenuous, and marginal project. There are many points of intervention and lines of struggle, and along those lines there are nodes where it seems possible to change direction, to carve out new lines, or, even better, to join existing ones that are not only more ethical and just, but are also going in a direction that seems more likely to succeed in manifesting abundant futures.

Notes

1 See, for example, Conservation Finance Alliance (2014), Huwyler and Tobin (2014), Madsen et al. (2011), NatureVest and EKO Asset Management Partners (2014), Parker et al. (2012).

2 Since completing this book, I have undertaken research on the size, scope, and character of "for-profit conservation capital," capital that aims to achieve both conservation and accumulation returns for investors. Despite exploding rhetoric around environmental markets over the last two decades, my collaborator Daniel Suarez and I find that the capital flowing into market-based conservation remains small, illiquid, geographically constrained, and typically seeks little to no profit. It is underperforming as both a site of accumulation and as a conservation financing strategy (see Dempsey and Suarez 2016).

3 For example, Althelia Ecosphere is a €105 million closed-end fund launched in 2011 and due to mature in 2021. It invests in agroforestry and sustainable land use and claims that its returns are market rate. Investors are mostly quasi-public institutions like the European Investment Bank, the Dutch development bank FMO, FinnFund in Finland, and the Church of Sweden, as well as the David and Lucile Packard Foundation. In addition to these investors, in 2015 the Fund and Credit Suisse issued "Nature Conservation Notes," debt instruments that generated €15 million of finance from non-institutional investors. Althelia's latest investment is a €7 million commitment toward protecting 570 000 hectares of natural forest in Peru. The project site includes national park reserves, and the investment will restore a 4000 hectare degraded buffer zone around these parks. The plan is to eventually produce "deforestation free" cocoa that will create jobs for local farmers and generate four million tonnes of certified carbon emission reductions. While financial returns are meant to be market rate, Althelia is backed by a USAID guarantee that halves the financial risk associated with the projects, a classic example of the collectivization of private sector risk.

4 How much does the materiality and the liveliness of living things and ecosystems explain the challenges economists and ecologists face in rendering biological diversity enterprising? This is a question that several people have asked me. Is the ultimate source of failure rooted in the unruliness of life on earth? There is no doubt in my mind that the unpredictability and uncertainties of living systems – human and nonhuman, always entangled – present

challenges for the hopes and dreams to enterprise nature. Not all "things" are as amenable to being staged as market, economic, or calculable objects – as one reviewer of this book nicely phrased. Through this book I identify moments when biological diversity scuppers instrumental reason, when, for example, financiers struggle to understand the financial risks of biodiversity loss. But biodiversity itself is also a material-semiotic object, forged out of the living, breathing array of lives on the planet and the scientific, political, cultural, and economic apparatuses of the West (see chapter 2). Any disruptions to the grand schemes of instrumental reason cannot be understood as achieved through the unruly nature of nature itself, outside of co-produced histories. Just as one would not want to understand socioecological relations as the result of inherent human characteristics like greed, it is dangerous to understand this process as the result of the natural characteristics of nonhuman natures. Further, as Callon (1998) argues, every market transaction is riddled with uncertainties, uncertainties parceled away in order to make exchange possible. Just because equivalence is difficult to achieve in relation to ecosystems (i.e. to decide that one ecosystem here can be compensated by an ecosystem over there), or that ecologists remain uncertain about which species are necessary for ecosystem functioning, does not mean that social agreement on these issues cannot be reached. As one academic legal scholar explained to me in an interview, establishing biodiversity-oriented trading schemes means that "you've got to be willing to accept some pretty ugly trade-offs" because it is clear that we are not "trading apples for apples." If we want to have market-based biodiversity policies like offsets, he went onto say, "we're basically going to accept imperfect proxies." The question is whether or not those proxies are deemed socially acceptable – a point nicely made by Morgan Robertson (2012).

5 Dipesh Chakrabarty (2007) uses the term "waiting room" to describe the historicist narrative of colonialism that suggested that non-Western peoples and nations were "not yet" ready to enter self-rule, they were "not yet" civilized enough. Chakrabarty argues that Western historicist narratives are teleological and universal – that they are based on an idea that we are all heading to essentially the same place, the same liberal democratic society, but some (Europeans, especially) get there before others do.

6 See http://www.un-ngls.org/IMG/pdf/Roundtable_4_Third_World_Network_25_September.pdf (last accessed March 13, 2016).

7 This is discussed in the preface of this book.