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Urban foraging and the relational ecologies of belonging

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Through a discussion of urban foraging in Seattle, Washington, USA, we examine how people's plant and mushroom harvesting practices in cities are linked to relationships with species, spaces, and ecologies. Bringing a relational approach to political ecology, we discuss the ways that these particular nature–society relationships are formed, legitimated, and mobilized in discursive and material ways in urban ecosystems. Engaging closely with and as foragers, we develop an ethnographically grounded ‘relational ecologies of belonging’ framework to conceptualize and examine three constituent themes: cultural belonging and identity, belonging and place, and belonging and more-than-human agency. Through this case study, we show the complex ways that urban foraging is underpinned by interconnected and multiple notions of identity, place, mobility, and agency for both humans and more-than-human interlocutors. The focus on relational ecologies of belonging illuminates important challenges for environmental management and public space planning in socioecologically diverse areas. Ultimately, these challenges reflect negotiated visions about how we organize ourselves and live together in cosmopolitan spaces such as cities.

Key words: urban foraging, belonging, more-than-human geography, nature–society relations, political ecology.

Introduction

It's an intimate connection. ... You can go out and you can appreciate [urban nature] and say ‘oh my, isn't it pretty,’ ... but when you interact on this level, when it becomes part of your pantry, when it's part of what you eat, now you have a relationship. You're not an outsider observer. It's not this ‘other’

thing. It's part of you and you are part of it. ~
Seattle Forager

On a summer evening, one of the authors attended an advertised urban foraging plant walk at a forested city-managed park in Seattle, Washington. Walking down a path that evening, the group came upon a prolific patch of bracken

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fern (*Pteridium aquilinum*). Our expert-guide Timothy,¹ a botanist and self-described nature lover, recalled his concern upon seeing ‘Asian immigrants’ harvesting bracken in the park. Although bracken fern is abundant and could theoretically be harvested sustainably, Timothy was uncertain that these harvesters knew whether or not it is a threatened plant since they were ‘newcomers’ to this place, and thus might be ignorant of the ecologies and sustainability of harvesting this local species. Bracken is one of the eight native ferns that grow in Seattle, but given its abundance, resilience and distribution throughout the city, has elsewhere been classified as a ‘weed’ (Jacobsen 2012). The fiddleheads and rhizomes of bracken fern are edible with documented use by indigenous communities in the Pacific Northwest (Gunther 1945; Turner 1995) as well as Korean and Japanese diaspora communities in the USA (Anderson et al. 2000). Indeed, multi-generation Japanese American families in our study gathered bracken. The paradox of Timothy’s foraging class, together with his anti-foraging stance—at least toward immigrant harvesting of abundant bracken ferns—tapped into larger questions of belonging in urban nature.

Urban foraging is a vibrant and important practice for many diverse communities. People collect plants and their parts (e.g., leaves, roots, and fruits) as well as lichens and fungi in Seattle to support livelihoods; provide essential foods, medicine, and materials for households; and to create opportunities to connect with nature and maintain social ties (McLain, Hurley, Emery, and Poe 2013; Poe, McLain, Emery, and Hurley 2013). In this article, we focus on diverse relationships with urban plants, fungi, and places through an account of foraging in Seattle to explore the political ecology of urban nature practices, their relational complexities, and how human–nature–place relationships in cities shape

heterogeneous ecologies of belonging. The material presented here is based on two years of ethnographic research carried out in 2010 and 2011. We conducted semi-structured interviews with seventy-six people (fifty-eight foragers and eighteen land managers and conservation leaders, identified through purposive and snowball sampling), triangulated with participant observation and reflection about our own practices as urban foragers.

We begin by building a conceptual framework of ‘relational ecologies of belonging,’ drawing on political ecology and its expanded focus on more-than-human actors and an associated ‘relational turn.’ As currently conceived, political ecology has remained focused on the economics and politics shaping land-use, ecological change, and natural resource management (e.g., Heynen, Kaika, and Swyngadouw 2006; Robbins 2012); here, we argue that the relational turn enables us to rethink complex people–nature relationships as contingent and layered processes, practices, and projects of human and more-than-human inhabitation and belonging in cosmopolitan urban spaces. Next, we present empirical detail from our study to show the ways in which foraging pushes us to think about relational processes of belonging and how this ontological move opens up imaginative, if also radical, possibilities for ways of being with urban nature. We conclude by suggesting that urban foraging might best be understood as a highly contingent, contested, heterogeneous, and rooted cosmopolitan nature practice, which underpins interconnected notions of identity, place, mobility, and agency in the city.

Framing relational ecologies of belonging

Our conceptual framework is guided by political ecology’s sustained focus on the

material, political, and institutional conditions of nature–society geographies, which we argue can be substantively enhanced by recent turns toward the relational or ‘*earthlife* nexus’ (Whatmore 2006: 601, emphasis in original). Our rationale for doing so is two-fold. The first is empirical, in that a relational framework provides a better description of our research results than can be provided by post-structural political ecology alone. As ethnographers, we recognize that having placed ourselves in the ‘thick of things’ (Franklin 2006: 555), we are both constituted by, and active agents in, the constitution of assemblages we describe here as ‘urban foraging.’ Also, as we elaborate below, for many of the foragers we have come to know, plants and fungi are not simply objects or ‘components’ of nature; they are what might be considered ‘friends,’ or active participants in social life (Bingham 2006). In addition, our observations about the contingency and heterogeneity of urban nature practices are resonant with the view that agency (human and otherwise) is an emergent property of material–semiotic assemblages and the diverse space–times that constitute them (Bennett 2010; Thrift 2008).

Second, political ecology has a long history of illuminating how the production of, and appeals to, a universal ‘first nature’ is entangled with and reifies social difference and hierarchy. This has typically entailed development of cultural critiques that seek to denaturalize common-sense, ‘incontestable’ categories of nature (Castree and Braun 1998; Fairhead and Leach 1996). As valuable as these critiques have been, there is a risk in their telling that materiality is once again drained of its ‘liveliness,’ becoming little more than a substrate for human affairs (Hinchliffe 2003). Taking seriously the presence and relations of all kinds of humans and more-than-human others and their multiple ‘styles

of inhabitation’ (Hinchliffe 2003: 208) opens up imaginative possibilities for alternative politics grounded in an ethical caring of and for ‘significant otherness’ (Haraway, qtd. in Bingham 2006: 486). As political ecologists, these possibilities are resonant with our central concerns with ‘uneven materialities’ (Castree 2003: 180)—issues about which the relational (more-than-human) literature might more fully engage (Castree 2003; Cresswell 2012; Panelli 2010; Rocheleau and Roth 2007).

Political ecology

Critical questions regarding the flows of power, identity politics, and uneven access to natural resource have been sustained topics of research by political ecologists. Political ecologists attend to how relationships with nature and place are circumscribed by capitalism, governance, and attending micro-politics (Peet and Watts 1996; Rocheleau, Thomas-Slayter, and Wangari 1996; Swyngedouw and Heynen 2003). Through their political–economic analyses of human–environment relationships, political ecologists pay close attention to the role of power in shaping natural resource use and management, for example by asking questions such as: how are decisions made about which and whose nature practices are legal and legitimate; and how are these decisions accommodated through law, access, and restoration practices? Important veins of inquiry include the intersection of changing property regimes and myriad forms of enclosure (McCarthy 2005; Robbins and Luginbuhl 2005); the ways particular forms of knowledge are privileged over others (Agrawal 1995; Robbins 2012); the processes and contradictions of environmental governance (Heynen, Kaika, and

Swyngadouw 2006; Igoe and Brockington 2007); the persistence of subsistence and other non-capitalist activities within the spaces of advanced capitalism (Emery and Pierce 2005; Gibson-Graham 2008); the formal and informal efforts by marginalized groups to be included in the way nature is understood, managed, and accessed (Byrne and Wolch 2009; Heynen, Kaika, and Swyngadouw 2006; Robbins 2012); the assertions of rights to livelihoods and moral economies of place (Edelman 2005; Scott 1976); and the ways that forest extraction as a practice may or may not be accommodated within the social-political dynamics of emerging urban landscapes (Grabatin, Hurley, and Halfacre 2011; Hurley et al. 2014).

Nevertheless, political ecology has too often focused on structural modes and dynamics: institutional and property regimes, markets and commodification, and conservation policies (Dempsey 2010; Robbins 2012; yet see Barua (2013); Eskridge and Alderman (2010); Shaw et al. (2010); and Staddon (2009) as exceptions). In doing so, human actors and their management and use of, and interactions with species are too often viewed in a unidirectional manner (Bennett 2010; Robbins 2012). Moreover, the contingencies and negotiations between people and their more-than-human interlocutors, and the meaning-making and place-making engagements of these relations are often overlooked.

Urban nature provides ripe spaces for interrogating relational political ecologies. As cosmopolitan spaces, cities are neither placeless nor bounded; rather they are at once local and extra-local spaces created through shared networks of a multiplicity of place-based practices (Escobar 2001; Gandy 2012; Hinchliffe and Whatmore 2006), what might be considered ‘rooted cosmopolitanisms’ (Appiah 2005; Cohen 1992). Despite this

multiplicity, twenty-first century urban nature is most commonly valued and managed from a particular and dominant societal view of nature: that is, among others, for its ‘ecosystem services’ role in regulating air, carbon, and water (McPherson et al. 1997), and providing recreational opportunities and improved mental health (Hull 1992; Kaplan 1995). Rarely is urban nature recognized for its provision of materials, foods, and medicines for people, notwithstanding that its persistence and emergence in cities form the basis of diverse knowledges and ways of relating with urban nature (Hurley et al. 2014; McLain, Hurley, Emery, and Poe 2013; Poe, McLain, Emery, and Hurley 2013). Nor are particularly mobile species (e.g., invasive and introduced species) generally recognized as enabling particular forms of affective and intimate engagements between humans and more-than-human others in the city (Barua 2013).

More-than-human geographies

Cultural identities, connections to place, and environmental practices are embedded in people’s everyday relationships with nature, urban, or otherwise. As exemplified by the opening quote with which this essay begins, our work with (and as) urban foragers is resonant with recent literature on more-than-human geographies emphasizing distributed agency, or ‘assemblages’ and the co-constitution of human and more-than-human selves. The standpoint that humans ‘exist primordially not as subjects manipulating objects in the external “real” physical world, but as beings in, alongside and toward the world’ (Pickles, quoted in Demeritt 2002: 772), together with the recognition that ‘we are all just different collections of the same stuff’

(Gibson-Graham 2011: 3), sensitizes us to the ways that ‘self’ and ‘other’ are mutable enactments and entanglements with thought, matter, and energy (Bennett 2010; Clark 2002; Rose 2008; Whatmore 2006). It is through our relations with human and more-than-human others that we are co-constituted (Bennett 2010; Latour 2004, 2005). Such a relational stance enables a perspectival shift from one focused on the interactions between a transcendent nature and immanent cultures (Latour 1993) to an understanding of *inhabitation*, or the recognition that humans live in, not on, a ‘lively earth’ (Whatmore 2006: 603; see also Hinchliffe 2003; Ingold 2000; Mee and Wright 2009).

By drawing on this relational perspective, our concept ‘relational ecologies of belonging’ advances political ecology by examining the interactive and networked aspects of the ways that relationships between people, place, and more-than-human nature are formed, legitimated, and mobilized in discursive and material ways. Tending to the flows of material life, not as fixed or finished products, but as *processes of becoming* through relationships with the material world reframes agency as not simply the capacity for individual, willful action, but rather as the capacity for ‘response/ability’ (Albright, qtd. in Thrift 2008: 265): the ability to affect and be affected by others. In this vein, agency is an emergent property of heterogeneous assemblages comprised of multiple entities, spaces, and times (Bennett, 2010, Thrift 2008). Assemblages themselves are likewise processes created and maintained through their enactment. From this perspective, urban nature areas are not just static institutional spaces with land managers merely enacting planting, restoration, and ideologically rooted conservation practices. Rather they are always places in the making, where the identities, histories,

struggles, and hopes of human and more-than-human converge.

Emphasis on relational nature points to the need for more complex understandings of *how humans inhabit the world*, not just those whose livelihoods are dependent upon nature, but also forms of everyday life that reveal complex emotional attachments (Braun 2002; Head and Atchison 2009). Emphasis on relational nature may enliven ‘our understandings of the bases of social meanings, uneven power relations and alternative politics’ (Panelli 2010: 84). Thus, it is imperative that we examine not only the existence of assemblages, but also their obduracy, persistence, and justness (Cresswell 2012: 103). In short, which assemblages come to ‘matter’, how, and why?

In the remainder of this article, we further articulate a ‘relational ecologies of belonging’ approach to political ecology comprised of three constituent analytical and empirical themes: *cultural belonging and identity*; *belonging and place*; and *belonging and more-than-human agency*. By following the trail of heterogeneous associations and assemblages collectively described under the rubric of ‘urban foraging,’ we apply this framework to an original empirical case study in Seattle. These additions enable us to rethink complex people–nature relationships as layered and contingent processes, practices, and projects of inhabitation and belonging in cosmopolitan urban spaces.

Foraging as a relational ecology of belonging in Seattle

Foraging, fishing, and hunting constitute active cultural and economic nature practices that have persisted in Seattle and the surrounding region for millennia

(Klinge 2007, Thrush, 2007). People who forage in Seattle are socioeconomically diverse, including life-long residents (both indigenous Coast Salish and non-indigenous persons) and more recently arrived domestic and foreign-born residents. All of our study participants forage for personal uses, for example gathering plants and mushrooms for food, medicine, and craft materials. People also gather plants and mushrooms for non-material reasons, including familial or cultural practices, recreation, spiritual practices, and to connect with nature. Only a few forage professionally (e.g., as herbalists, basketweavers, and chefs). Urban foragers often have very sophisticated local ecological knowledge, including species identification skills and the association of desired species with specific ecological communities; observation and knowledge of subtle inter- and intra-annual seasonal changes; and how these temporal variations alter species composition, distribution, and abundance. Knowledge sharing of a range of topics from ecological change to harvesting and processing techniques is an important aspect of urban foraging, and being able to practice in the field with experienced mentors is essential to preserving this knowledge.

Seattle's mild climate favors the growth of a large diversity of plants and fungi available to urban gatherers. People gather over 450 species across a range of micro-habitats and landscapes in the city: from edges of streets and sidewalks, lawns and schoolyards, shorelines, plant containers, and orchards to forests and the so-called 'natural area' parks. The ecological conditions shaping the availability of foraging species and spaces are linked to environmental and social histories. For example, land-use practices and massive environmental engineering projects that have taken place within the city over the past 160

years—dredging, leveling, logging, agriculture, industrial development, and landscaping—have altered local ecologies observed in Seattle habitats (Klinge 2007; Sanders 2010). In addition, many species of interest to foragers have migrated and settled in Seattle—facilitated by opportunistic engagements with people, for example through the exploits of human migration and trade activities.

Despite the bioculturally diverse conditions supporting foraging in Seattle, institutional regulations, land-use policies, and urban greenspace management practices often specify which plants can go where, who may engage with them, and how (McLain, Hurley, Emery, and Poe 2013). 'Species status' is a central concept, one drawn from the concerns of conservation science, guiding urban green space management. The concept has given rise to a robust and rather expansive network comprised of humans, technologies, and ideologies dedicated to the removal of 'alien invasives' as well as reintroduction and maintenance of particular suites of 'native species' (Green Seattle Partnership 2012; Ramsay et al. 2004). In addition to influencing species assemblages, urban managers also influence how people interact with plants and mushrooms in the city. For example, when city horticulturalists plant non-fruiting cultivars, picking fruits and nuts from city trees such as cherry, plum, and ginkgo is clearly not intended and moreover, is rendered impossible. Furthermore, urban managers normalize certain nature practices through Seattle's municipal code, which prohibits the removal of plants and plant parts from city parks without authorization. Yet, city park officials and volunteer restoration groups go to considerable effort and expense to remove Himalayan blackberry and other forageable species (e.g., knotweed, holly, garlic mustard),

altering the use potential of existing urban spaces and creating an inherent management contradiction to the blanket prohibition against removing plants.

Park managers are nevertheless beginning to normalize certain types of plant interactions that include recognition of human uses, albeit *historic* ones. This shift can be seen in recent efforts by a few city-appointed forest stewards to integrate indigenous ‘ethnobotany’² in their education programs: teaching about the historical plant practices of Coast Salish people. One specific example can be found at Seward Park, where volunteers are attempting to restore a Garry Oak camas prairie ecosystem. These prairies are bio-cultural habitats historically maintained through fire use and other indigenous land management practices, including harvesting for their culturally important species (Boyd 1999). However, despite the celebration of ethnobotany and indigenous land management, fire use and plant gathering are outlawed. Instead, ethnobotany is held as a symbol of pre-contact nature heritage divorced from contemporary nature practice.

Prohibitions against gathering, hunting, and camping in Seattle’s parks and public spaces, and the criminalization of disorderly people engaging in these acts, are not new (Herbert and Beckett 2010; Klinge 2007), but neither are they immutable. Shifts are beginning to emerge that allow public spaces to serve as sites where people might legitimately forage, gather, garden, glean, and graze livestock (see McLain, Poe, Hurley, and Lecompte-Mastenbrook 2012), together with other planned and unplanned activities in those sites, creating what Gandy (2012) refers to as ‘heterotopic alliances.’ For example, through its nature programs, Seattle Parks Department recently started running programs to harvest and use invasive plants. Two featured programs in this vein include an ‘edible invasive ice cream

social,’ a community event intended to decimate blackberries while producing a family-oriented edible by-product, and a winter holiday wreath making party using invasive holly and other woodland greens. These recent changes suggest that managers acting in their official capacities³ are beginning to consider urban foraging as a possible approach to achieve multiple outcomes: to produce desired species assemblages (e.g., through consuming non-native plants) in particular places (i.e. parks); to enlist new restoration volunteers; and to reorient views on the diverse social benefits of urban nature.

Cultural belonging and identity

Picking berries, fishing, and nature-based activities were described as culturally rooted sets of family traditions important to those who grew up in the Pacific Northwest and Seattle area. One forager, a European American basket-maker and food wildcrafter in her early fifties, reflected on the importance of foraging in her family’s traditions: ‘I grew up in the Northwest ... fishing ... oyster harvesting ... berry harvesting was always a big one. It was really instilled upon me when I was very young that the earth takes care of our needs.’ Culturally specific plant and mushroom practices produced a sense of belonging in ways that were frequently mobilized and enacted through cultural difference and identity. Differentiated foraging practices and species preferences reflected social and historical contingencies that privileged certain relationships between people, plants, and mushrooms in the city. For example: salal, salmonberries, and nettles were enjoying revitalized importance to Coast Salish indigenous communities; chestnuts, watercress, and plantain were important

to Korean, Japanese, Hmong, Vietnamese, and Cambodian gatherers; mountain ash berries, plums, and various mushrooms were important to many eastern European foragers; and amaranth and aromatic healing herbs were important for Latino households. Study participants who identified as part of the urban American Indian community lamented the lack of access to culturally important plants such as native berries and wetland tubers, despite their presence in Seattle.

The connections between foraging and cultural belonging were also made by foragers who self-identified as newcomers or immigrants. For example, one Russian forager described harvesting mushrooms in the city as ‘a piece of our culture’; it is normal, she explained:

I was born not far from Moscow, in an urban area in a small town. We go pick our mushrooms every weekend when it’s sunny. We try to make preserves out of them, like pickle them and store them for the winter. In the winter we enjoy them, we remember the times, how we went and picked them up.

Despite continuing a practice of foraging in her new home in the Seattle area, she also described giving up other foraging practices as a way to assimilate to life in urban America: ‘if I see something which I know can be used for medicine, I do not pick it up here . . . when I’m back in Russia, I’m more leaning towards traditional curing of illnesses. Whereas here, I just go to the doctor and take medicine.’ Another person, a park stewardship manager, also described giving up foraging practices from his homeland of war-torn Vietnam in order to assimilate to a John Muir-inspired wilderness ethic: to protect native plants and to preserve open space for wildlife and beauty. For him, removing berries and leaves from public forest parks was a selfish act threatening part of what he felt was good about

America: preserved forests in the city marked for him a contrast to the militarized and defoliated life he left behind.

Connections between culturally rooted urban nature practices and belonging (or adopting new practices in order to belong) are hardly predictable or essential. Nor are they unique to the transnational immigrant experience. Bringing to Seattle their foraging traditions from cultures of origin was a shared experience of other multi-generational Americans who had transplanted from other regions in the USA. For example, one forager who is Alaska Native and currently homeless described gathering wild berries along a trail in the city. He ate some himself and gave away the rest because of his inability to store food. In some ways, foraging was a continuation of nature practices that helped create a sense of home for domestic migrants, as in the following instance of a participant who grew up in rural Appalachian Ohio: ‘it’s actually traditional for people to gather plants . . . I did so in Ohio and I just continue to do that here.’

Culturally specific harvesting practices, including specific species targeted, were noted and judged by some foragers. Some views of other peoples’ practices were antagonistic and racialized examples of ‘othering’ (Anderson 2002; Said 1978), which served to privilege (often white, environmentalist) nature practices, as exemplified by the case of bracken fern foraging in the opening vignette. Not only were concerns raised about recent immigrants’ potential ignorance about sustainable harvesting techniques and practices, but also at other times, concerns were expressed about the uncertainty of translocated identification skills regarding edible and toxic species. For example, one white forager—a self-described ‘Seattle-area native’—shared an interaction with another mushroom forager:

I've actually had to argue with people about edibility. The one fellow, ... I could tell he has Russian background, ... I said 'well there aren't any [edibles] here.' ... He says 'well there's some good ones over there. They are really good.' And I looked over and I started laughing. I thought he was pulling my leg. I said, 'no no, those aren't' ... He says, 'no really, those are edible.' ... It turns out it was the *Paxillus involutus* which is the poison pax. I said 'those are not edible.' He said, 'well maybe not here, but in Poland and Russia they are.' I said 'you need to read the internet, there's poisonings there too. This is a cumulative effect,' he said 'I've been fine, I've eaten them all my life.' I said 'that's right, because it's a cumulative toxin, and you haven't reached your threshold. You need to look this up.' He just thought I was out to lunch.

Here, the discussion between two foragers about the edibility of mushrooms was strongly marked by observed cultural differences, including different notions of what constitutes acceptable risk, but also displayed an assertion of 'expert knowledge' to show how knowledge travels geographically and politically (Foucault 1980).

The possibility that traveling food customs—those associated with specific species sought—might produce different physiological effects for people of diverse national and ethnic origins also entered other conversations. For example, another person described an encounter that highlighted her notion of 'cultural edibility' and suggested that mobility might confer culturally adaptive knowledge, through for example unique methods of cooking and processing, that would make some species worth harvesting for one group and not another:

I talked to these mushroom harvesters ... I can't remember if they were Vietnamese or Laotian. ... They had this bucket full of all different mixed

mushrooms piled in there with dirt and everything – I think I was picking candy cap, a kind of *Lactarius* mushroom. And I just walked up to them and asked them what they had ... and they had all sort of stories for me about how their uncle ate some bad mushroom and dropped dead and then here they had a couple of mushrooms that are what I consider *not edible*—not necessarily *kill you* poisonous, but probably make you sick. Although, that said, there's cultural edibility to mushrooms. So, what Americans consider not edible, Eastern Europeans consider delicious and they eat them, but they have preparation processes that make them more edible. ... The cultural edibility thing is really interesting to me because, as a mushroom identifier for the [Mycological Society] we're expected to tell people that spicy *Lactarius* are not edible, and then you come across an Eastern European [forager] in the woods and they have their basket full, and they're going home to pickle them and eat them. And then you find them in the Russian store, you know, just processed in a different way ... It seems like a folk thing to me, you know? I think that if we were to take a spicy *Lactarius* and just take it home, stir fry it, and eat it, we probably would get sick. But, then there's these cultures that have been eating these their whole life and generations and obviously don't have ill effect.

Racial and ethnic representations of distinct nature practices were asserted by other participants as well. For example, in contradiction to our experiences foraging alongside African American foragers in Seattle (see also Hurley and Halfacre 2011), a colleague working on African American racial identity and social construction of place insisted, 'Black folks don't forage.' On a different occasion, a European American forager who leads a community gleaning project shared similar observations of the complex racial and ethnic relationships of foraging: 'it's

[white hippies] who are really leading the whole gleaning thing.’ He went on to describe Ethiopian church-goers as ecstatic to receive his donation of plums gathered from the urban orchards planted by Italian families in the early twentieth century.

These examples push us to think about the ways in which the connections between culturally specific plant and mushroom practices and belonging are formed, mobilized, enacted, and disrupted. They also draw our attention to these connections as they relate to sense of place and place-making in the city.

Belonging and place

People are attuned to, and orient themselves to their environments in different ways due to their previous bodily training in which the environment itself is a meaningful source of information (Ingold 2000). Ethnoecologists tend to valorize local, long-term inhabitation as a necessary condition for acquiring meaningful ecological knowledge of particular places (Berkes 2008; Hunn 1999); similarly, the importance gained through mobilizing local, place-based identities has featured prominently in the work of political ecologists examining the cultural and spatial politics of resource and livelihood struggles (Castree 2004; Li 2000; Ribot and Peluso 2003). In contrast, human mobility is cast as a kind of ‘placelessness,’ and thus as a form of loss and *displacement*. Yet, we found that foraging is a set of skills and knowledge possessed by both longtime Seattle residents and newcomers and the questions of duration in a place, indigeneity, and mobility sometimes presented contradictory effects. Many foragers spoke of how through foraging they had created a deeper, more intimate knowledge of the city with layered meanings built up over

time, something we ourselves also experienced. Active relating, moving, and engaging (not simply being) with plants, mushrooms, and spaces in the city were therefore essential processes through which foragers came to belong.

Foragers who were new to Seattle described ways that foraging—and their relationships with particular species—functioned to root them to a new place while bridging their connections to former homes and ways of life. Newly arrived foragers would recognize species from their homelands that have transplanted in Seattle. For instance, one forager who emigrated to the USA from Russia recognized and placed a high value on the berries of the European mountain ash, a species that is considered a pest by urban ecologists in Seattle. Her knowledge extended from recognition and identification of this culturally important plant to how to process and use the berries.

By no means new to Seattle, another forager who had only recently discovered the wild food abundance in the city expressed how the activity of foraging deepened his knowledge and connection to the place: ‘I feel a lot more connected to this area. I’ve lived here more than ten years. After getting to know some of these plants, it changed how I thought about this place.’ Through the imbrications of affect, habit, and practice, people developed attachments to particular places and the more-than-human others that co-inhabit them (see also Casey 1996; Duff 2010).

Not only did foraging play a role in place-making, but it created particular urban spatial knowledges and shaped concepts of nature. For example, one person explained: ‘[Hunting and gathering has] been a way of getting to know the city and identifying the city in that way. ... In my mind, the mental picture of Seattle is mapped out by places where I gather

food.’ The cognitive maps of foraging in the city applied equally to places where fruit trees, berries, and other important beings have been lost to urban development or land use change. In this way, foraging not only helped people inhabit Seattle more deeply, but it also in some cases left memory landscapes of loss where places were distinguished by the cherished species no longer found there: such as the case of Plum Tree Park, where the plum trees were removed to deter drug-use and loitering; and the numerous locations throughout Seattle with indigenous Lushootseed plant names, recognizing their unique historical ecologies: for example, *cHálqWadee* (‘blackcap raspberries on the side’) currently known as Bitter Lake; and *QWulástab* (‘serviceberry’), a place named for the fruit-bearing shrub that once grew abundantly near current day Ballard (Thrush 2007). Foraging landscapes—developed through spending time and building memories with specific species in particular locations—constituted part of the diverse space–time assemblages experienced in the city.

Foraging also created a sense of ‘wilderness’ and sanctuary for those who sought ways to recreate a certain experience of nature in a highly built environment. As one forager who moved to Seattle from Alaska commented:

I love the urban environment I live in and I have this strong belief that [wilderness] can happen here too... It is worthy, as worthy of our love and appreciation as wilderness ‘out there’ because this once was the same.

Foraging thus blurred the boundaries of urban/wilderness for many people.

Other boundary-blurring instances of place-making emerged through the iconic practice of Himalayan blackberry harvesting and associated concepts of native/alien invasive species.

Despite the plant’s questionable origins, it is now linked to this place: ‘The invasive blackberries, they’re delicious. I eat them all the time and to me they’re sort of part of the *character of Seattle*. I can go in August and eat blackberries to my heart’s content’ [authors’ emphasis]. Blackberry picking was depicted as a charismatic way to connect with Seattle as a place and to be a good citizen:

[Foraging] is an accepted part of your life here—what you’re supposed to do. At least this is the impression that I’ve gotten, especially with blackberries. You’re supposed to get rid of them. You’re supposed to gather them and you’re supposed to not let them grow. And that’s part of your job as a citizen in this community is to not let this thing contain you. And you’re not supposed to let this go to waste.

Harvesting and eating blackberries in this way, then, can be seen as long-standing, acceptable practices shaping urban ecologies and demonstrating belonging. Individual and collective action is called into being by the presence of this unruly species in the wild, ruderal, and hybrid ecologies of urban spaces (Gandy 2012; McLain, Hurley, Emery, and Poe 2013).

Belonging and more-than-human agency

People maintain complex relationships with plants and fungi and these relationships factor not only into the cultural practices and place-based engagements of humans in Seattle, but they also factor into the agency of other-than-human species and how particular species are conceived, attended to, or removed by people. Seattle foragers indicated that plants and mushrooms drew them in, bringing foragers closer to the ecologies of their neighborhoods;

and these more-than-human beings were in turn embraced within the social and communicative worlds of foragers. Listening to plants and mushrooms was a common practice: to assess the being's desire and purpose; to seek signs of whether it wanted to be harvested; and to determine sustainable limits.

These other beings of course play a role in relational ecologies through acts of engaging affection, attracting attention, moving people, and changing ecosystem dynamics (Hitchings 2003; Power 2005; Staddon 2009). Foragers observed the agency and mobility of more-than-human entities; for instance, one mushroom forager described how fungal spores would follow his footsteps and appear in places where he had never found them before. Another forager described a mutual recognition between herself and plants. She described a rosehip saying 'Look at me!' at times when she needed vitamin C: 'It's kind of like a body visceral reaction to the plant. Like you see the plant and it triggers something in you. I think when you know that about the plant, it reminds you to go look for it.' She linked this mutual recognition and the ability to communicate with plants to human evolution:

The reason that we're here on this planet now is because our ancestors have survived drought and famine and floods and all kinds of challenging things, and so we have an intuitive knowledge of how to do things if we allow ourselves to tap into it. ... It has such a deep time element and it's a connection to your ancestors and to your ancestry in a very profound way. And I'll even go so far as to saying that it's a data connection, where the plant and the tree starts to actually communicate with you.

Foragers developed individual relationships with specific plants; they described listening to these beings in order to learn how best to receive their gifts. The relational acts of giving,

receiving, and interacting between foragers and more-than-human others produced a sense of belonging in place regardless of any given species' origins.

Attitudes toward the value of particular species are highly contingent (Ginn 2008; Isern 2007; Trigger, Mulcock, Gaynor, and Toussaint 2008) and concepts such as 'species status' are entangled with questions of human and more-than-human belonging (Head and Atchison 2009). The problematic binary of native/invasive species and its resonance with ideas about nation and purity have been discussed at great length elsewhere (Comaroff and Comaroff 2001; Eskridge and Alderman 2010; Head and Muir 2004; Hinchliffe, Kearnes, and Whatmore 2003; Longhurst 2006; Warren 2007). We take up the topic here not to retrace these arguments, but rather to discuss what the policing of these boundaries accomplishes in cities and how the embodied and inhabited relationships between foragers and urban nature highlight the ambiguities in views about which species belong and whose values matter. Comments about native/invasive status often provoked passionate and varied feelings among Seattle foragers. For some, a non-native 'weedy' plant's ability to proliferate gave permission to harvest intensively, perhaps as a sort of stewardship act, or 'invasivory',⁴ to help control the species. To illustrate, one forager explains:

Non-native/invasive species we harvest in HUGE quantities [laughter]. That's kind of our stewardship piece of it you know. There's Japanese knotweed and we love that in the spring and we'll make pies out of it and put it in bread and use it like a rhubarb substitute ... We'll go in and harvest that with care to not distribute it beyond where it's growing right there. ... St. John'swort, there's another one on the list of 'bad plants'. I say that jokingly because I don't really believe there's any bad plants. ... I feel that we are doing our

stewardship part by harvesting lots of those kinds of things.

Some species conferred specific benefits, thought by some foragers as properties that gave these species, irrespective of species status, a valued purpose for being in place, particularly in anthropogenic places with disturbances to soil composition and function, impacts to multi-species habitats, and attendant changes in microclimates. Alder and blackberry, for instance, may contribute to soil building, and thus the effort to eradicate them was not only thought to be misguided, but worse, may be leading to intensified pollution:

Sometimes people say things about alder because they say it's a 'weed tree', but it actually helps to fix nitrogen in the soil, so you'll see alders growing in a place where there was nothing, everything was eradicated. Alder is our earth healing plant... and blackberry actually is very much an earth healing plant. Look at where it grows. It's growing in places that really need attention, and the blackberry will hold soil in place. ... And one of the things that happens is plants will come in and they'll grow really strongly in order to have a function on the land. And we can work with that... but to say that they're invasive and destroying the ecosystem and then use chemicals to kill them, it's really kind of this humanness: 'we have control.'

Biophysical qualities among some natives—both aesthetic and chemical—call contradictory management practices into action. Many native species—e.g., alder above, or nettles, which are regularly mowed down to suppress this plant's stinging nuisance—are considered problems by parks managers and some visitors because of their 'weedy' or pain-provoking tendencies. Ironically, some species listed as native plants were considered problematic owing to their departure from aesthetic

intentions, revealing instability of accepted views of plant status and plant purpose. A volunteer at the Japanese garden in the public arboretum articulated this problem:

We would have to distinguish what was an *intentional* plant rather than what was an unintentional plant. We specifically planted these ferns. I think they were called the maidenhair ferns as opposed to the sword ferns, which are a native species, right? And that's when I learned about salal, because salal grows everywhere. It's very profuse. Any of the little [native sword] fern sprouts, those have to go to because they all destroy the aesthetic of the garden, which is a very, very formal Japanese garden. ... Primarily it was ornamental plants though, ... all the native species, they weren't supposed to be in there.

These examples suggest that plants might be managed for a wider set of intentional purposes rather than their status as native/alien. People's understandings of the purpose, desire, and history of different plants and mushrooms enabled them to position their foraging practices in temporal, spatial, and moral horizons that extended far beyond twenty-first century Seattle and challenged accepted notions of good ecological practice.

Asserting a moral right to a foraging relationship with urban nature, one forager detailed her quiet rebellion as part of a higher law or moral economy (Edelman 2005; Scott 1976):

These are live active beings that are around us and you are denying my opportunity to engage with them? You're trying to segregate me from them? That's not about health, that's not about wellness, that's about power. That's about who is in control. Well there are some people that are really politically active and vocal, and I'm the kind like, 'oh, you say I can't do this, oh ok great,' and then I'm going to

turn around and very quietly go about doing what I want to do. Having my awareness. I am going to be cultivating those aspects of life that I believe are important for healing in our communities, for healing in our bodies, for healing in the earth. If someone thinks that plant prohibitions promote that, then I think that's really sad for them and I pray for their healing. But that's not going to stop me from doing my dharma.

In this case of the aforementioned participant, as in others we interviewed, foraging was more than just a form of harvesting and consumption. The practice became a moral and political act constituting and constituted by a relational understanding of belonging in nature, a sentiment captured by a mushroom harvester:

We are in our environment and we are animals. We forage just like other animals do. And it's about knowing what's around and enjoying the bounty of your environment. It's a simple pleasure, but it's also kind of a political stance. A political and environmental stance. Know your place and your connection in a web of life that has a lot to give you.

In this way, urban foraging produced novel modes of contestations in normative people–plant relationships. Foraging also evoked a higher sense of purpose attributed to the ways we inhabit and relate to the socioecological conditions of urban nature, and was for many a state of belonging: ‘that’s probably mostly where I feel I belong: to the earth and to the cosmos. That’s the only way in which I am spiritual. I just prefer to consider it a state of belonging.’

Conclusion: living together in the city

People, plants, fungi, and the places they co-inhabit are the co-productions of particular

histories, practices, and struggles. Our concept ‘relational ecologies of belonging,’ examined through the practice of urban foraging, is concerned with the ways relationships with urban nature are formed, legitimated, and mobilized in discursive and material ways. Determining who and what belongs in a specific place is not a reflection of essential nature, but rather arises from the interplay of human and more-than-human agencies with sociocultural, political, and ecological contingencies.

In this study, urban plant and mushroom foraging not only helped people establish connections to place, but they also reinforced differences between people who related with nature and places distinctly. In the heterogeneous spaces of cities, these relational differences bumped up against knowledge/power networks of indigenous, settler, and other immigrant geographies in peculiar ways. Indeed, foraging had an effect of unsettling commonly held cultural, spatial, ecological, and policy boundaries. At the same time, discursive employment of ‘cultural difference’ often served to mask uneven power relations: here, stories about ‘outsiders’, ‘others’, ‘natives’, and ‘aliens’ helped to mark and reproduce rootedness and naturalize exclusionary boundaries. To examine how these constituent cultural nature practices endure and what this endurance tells us about ecologies of belonging is to acknowledge the historically layered, heterogeneous, and mobile relationships between people, place, and nature. In this way, urban foraging might best be understood as bioculturally diverse and rooted cosmopolitan nature practice.

We bring the insights of relational geography to bear on political ecology in order to push political ecology toward an expanded analysis of place and belonging that accounts for the relational and extra-institutional qualities of human–nature interactions.

These relational political ecologies extend beyond the political-economies and micro-politics of environmental change, governance, and conservation practice already well developed in both the urban and rural political ecology literatures to include a greater focus on the relationships and networks between people and the more-than-human actors also inhabiting places. While environmental governance and institutional regimes of mobility and territory often preconfigure ecological relationships, in this article we also highlight the ways that other more-than-human actors assert agency in multi-species assemblages without losing sight of the sociopolitical, historical, and ecological contexts of this broader view of human–nature inhabitation.

We came to see foraging as a communicative project not only between different groups of people, but also between people and more-than-human nature. Taking this approach allows us to at once examine persistent conceptual and material bifurcations—e.g., human versus nature, native versus invasive, urban versus wilderness—while also looking at power dynamics that enable culturally heterogeneous nature practices underpinning belonging.

People and other beings in urban nature are now constantly on the move, but this mobility does not preclude a deep sense of attachment to place, with layered meanings, rooted in local forms of urban spatial and ecological knowledge. Attitudes toward the value of particular species, where they belong, and which cultural practices fit where, are highly contingent, contradictory, and mutable. When taken together, these inhabiting practices, processes, and projects of people’s everyday and cosmopolitan relationships with urban nature constitute a set of relational ecologies of belonging. Relational ecologies of belonging underpin interconnected notions of iden-

tity, place, mobility, and agency. Ultimately, these relationships reflect negotiated visions about how we organize ourselves and live together.

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Notes

1. We use a pseudonym to protect the identity of the actual person. Any resemblance to a particular person should not be assumed.
2. Here we bracket ‘ethnobotany’ to highlight its more commonly understood connotation as a marker of cultural difference. We consider our work to be part of a larger project that shifts the realm of ethnobotany—and ethnoecology more broadly—to denote the socio-cultural, political, and economic aspects of *all* people–nature relations (see Fuentes 2010).
3. In their personal lives, we note that many individuals interviewed as ‘managers’ in our study also engaged in some level of foraging, suggesting both contradictions in the boundaries between ‘manager’ and ‘forager,’ but also in the stability of the manager’s views toward what types of activities belong or not.
4. ‘Invasivory’ is a novel term that recently emerged online in activist eco-food communities and refers to the intentional intensified consumption of unwanted species.

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Abstract translations

Cueillette en milieu urbaine et écologies relationnelles d'appartenance

A travers une discussion sur cueillette en milieu urbaine à Seattle, Washington, USA, nous examinons les manières dont les pratiques de récoltes de plantes et de champignons dans les villes sont liées aux relations entretenues avec les espèces, les espaces et les écologies. En apportant une approche relationnelle à l'écologie politique, nous discutons

des manières dont ces relations particulières entre la nature et la société se forment, se légitiment et se mobilisent de façons discursive et matérielle dans les écosystèmes urbains. En nous impliquant de près avec les glaneurs, et en tant que glaneurs, nous élaborons un cadre «d'écologies relationnelles d'appartenance» sur une base ethnographique afin de conceptualiser et d'examiner trois composantes: l'identité et l'appartenance culturelles, l'appartenance et le lieu, et l'appartenance et les facteurs extrahumains. A travers cet étude de cas d'étude, nous montrons les façons complexes dont la cueillette en milieu urbaine est à la base de notions étroitement liées et multiples d'identité, de lieu, de mobilité et d'interventions à la fois pour les humains et les interlocuteurs extrahumains. En attirant l'attention sur les écologies relationnelles d'appartenance, nous relevons les défis importants de la gestion environnementale et de l'urbanisme de l'espace public dans différents domaines socio-écologiques. En fin de compte, ces défis reflètent les visions négociées des manières dont nous nous organisons et vivons ensemble dans des espaces cosmopolites tels que les grandes villes.

Mots-clefs: cueillette en milieu urbaine, appartenance, géographie extrahumaine, géographies de nature-société, écologie politique.

La recolecta de productos no maderables en zonas urbanas y las ecologías relacionales de pertenencia

A través de un análisis de la recolecta de productos no maderables en Seattle, Washington, EEUU, se

examina cómo las prácticas de recolección de plantas y hongos en las ciudades están vinculadas a relaciones con especies, espacios y ecologías. Proporcionando un enfoque relacional a la ecología política, se discuten las formas particulares en que estas relaciones entre naturaleza y sociedad se forman, legitiman, y movilizan en formas discursivas y materiales en ecosistemas urbanos. Entablando una relación estrecha con y como recolectores, se desarrolla un marco etnográficamente fundado de 'ecologías relacionales de pertenencia' para conceptualizar y examinar tres temas constitutivos: la pertenencia cultural y la identidad, la pertenencia y comunidad, y la pertenencia y las actividades desarrolladas por más que solo entidades humanas. A través de este estudio, se muestran las formas complejas que constituyen la base de la recolecta urbana de productos forestales a través de interconectadas y múltiples nociones de identidad, comunidad, movilidad, y agencia para interlocutores humanos y más allá de lo humano. El enfoque en ecologías relacionales de pertenencia pone de manifiesto importantes desafíos para la gestión del medio ambiente y la planificación del espacio público en diversas áreas socio-ecológicas. En última instancia, estos desafíos reflejan discutidos puntos de vista sobre cómo nos organizamos y vivimos juntos en espacios cosmopolitas como las ciudades.

Palabras claves: recolecta de productos no maderables en zonas urbanas, pertenencia, geografía humana y más allá de lo humano, geografías de naturaleza y sociedad, ecología política.