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Essay

The Invasive Register: Witnessing, Attending, and Responding to Vegetal Charisma

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Abstract

Growing academic research and popular interest in critical plant studies have brought vegetality out of the shadows of plant blindness. Yet, plants labeled as invasive continue to receive disproportionately negative attention in non-native contexts due to their detrimental effects on desirable native ecological processes. They have often been antagonized as unfair players in ecological harmony as well as a symptom of human negligence and an uncontrollably changing climate. They are charismatic in the sense that they incite a 'collective turning towards' ecological voice, although they are often misunderstood, as evidenced by misplaced antagonistic responses. The language surrounding many of today's pressing environmental issues tends to estrange us from whom we should be fighting for and with, while ignoring the metastatic drivers of ecological dis-ease. The intention of this paper is to illuminate the characteristics and implications of what I call the 'invasive register'. Invasive species demonstrate a vocal, charismatic, and passive activism, pointing to and flooding ecological wounds through adaptive physiological mechanisms. Their refusal to stand down in the face of conventional management methods demonstrates an insistence on collective responsiveness to that which they attend to and speak for, and with. The invasive register, as argued in this paper, is romantically intertwined with landscape, selflessly ego-centric through the proliferation of biomass, provocative as a facilitator of collective agency, a metabolic invigorator, and an expression of the legibility of landscape.

Keywords: charisma; invasive plants; more-than-human; phenomenology; interspecies communication; weeds; gardens

1. Introduction

I had never intended to specialize in invasive species, or become obsessed with plants for that matter. As an environmental studies student, I was drawn to landscapes. There was not one particular part of a landscape that interested me, but the ecological 'coming togethers' that offered me places and collectives I loved and, therefore, wanted to protect. I am reminded of philosopher Jane Bennett's *Vibrant Matter* [1], which speaks to the power of things, which "[shimmy] back and forth between debris and thing. . .stuff that commanded attention in its own right, as existents in excess of their association with human meanings, habits, or projects" (p. 4). Her exploration of "a political ecology of things" attempts, in part, to provide a non-clinical explanation of the relationship between hoarders and the things they hoard [1,2]. Before I realized plants were speaking to me, I was hoarding them.[1] I had over 200 plants in a 300-square-foot apartment by the time I began a master's program at Schumacher College [4], which propelled me into the world of critical plant studies. I have since amassed my own ecosystem of plants within my home and in my garden, the boundary of which is blurry and fickle.

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My interest in 'collections of things' naturally brought me into relationship with plants, who are stewards and diplomats of ecological co-being and co-becoming. I was first introduced to the concept of co-becoming within an article titled "Goŋ Gurtha: Enacting Response-Abilities as Situated Co-Becoming" by Bawaka Country et al. [5]. Highlighting Australian Aboriginal Yolŋu ontologies of relationality, the authors define responsibility as "an *ability* to pay close and careful attention, as part of more-than-human worlds" and "an imperative to *respond as*, rather than to be responsible to or responsible for, what is seen/learnt/understood/communicated in more-than-human, situated, ethical ways" [5]. I am telling you all of this as a testament to my ontological perspective on vegetal charisma. I do not study plants because of any professional or otherwise lackluster obligation. I was struck by vegetal charisma as a "shimmying back and forth between" individual and ecosystem that speaks in both registers, sometimes simultaneously [1] (p. 4).

I study plants because plants asked me to, in their own vegetal way. Plants spoke to me before my research or any data did, although it is arguable that their voice and my subjective perception of it are valuable data in themselves, an experience similar to Sarah Abbott who writes [6]:

> I believe it was the trees who suggested my doctoral research topic, literally, when together the words and sound "an ethnography of trees" suddenly came into my internal field of awareness as I looked up at a forest of Douglas-fir trees on a walk to campus one morning. This was not my thought: I would never, ever, have considered this idea. (p. 1060)

In her doctoral research, she "integrated self-in-relation statements" as a way of acknowledging her subjectivity [7] (p. 55). Similarly, educational researcher Alan Peshkin [8] "actively [sought] out [his] subjectivity," in order "to be aware of it in process, mindful of its enabling and disabling potential while the data [comes] in, not after the fact" (p. 18). My own acknowledgment of the origins of this text and other personal experiences described throughout mobilizes narrative research as "respect for the relativity and multiplicity of truth" [9], or Donna Haraway's [10] notion of "situated knowledge," that "only partial perspective"—"of views from somewhere" (p. 590)—"promises objective vision" (p. 583). The charisma of the vegetal invasive register, the theory this article narrates, is not simply a quality that I have researched but that I have experienced and witnessed through years of intentional relationship with plants.

Céline Albert, Gloria M. Luque, and Franck Courchamp [11] studied the twenty most charismatic species globally according to public perception, none of which are vegetal. Nevertheless, plants have enticed human action for millennia through colonization, agriculture, and gardening, all of which have contributed to the spread of plant species worldwide. While plants are not at the top of the list, many plants that would be considered charismatic share similar traits to those listed in Albert et al.'s [11] study. Notably, a species' size shapes charismatic perception. For example, the term *charismatic megafauna* represents Blue Whales, Elephants, and Giraffes alongside *charismatic megaflora* of enormous proportions, such as Trees and Kelp, which have often become emblematic of conservation and ecosystem protection schemes [12–14]. Giganteum, in a sense, makes destruction and loss more noticeable. Of note is Richard Powers's Pulitzer Prize-winning novel *The Overstory* [15], which catalyzes the stories of at-risk trees such as the American Chestnut and Coast Redwood, among others. Flowering plants have also attracted preferential interest because of their aesthetic appeal [16], which I have seen at play in my own creative work where blossoms are sought out for my garden and camera lens.

I believe there are a couple of reasons why vegetal charisma has often been overlooked or overshadowed. One is that their charisma is often rendered subordinate to their nature of usefulness. Plants are known for their many uses as food, fuel, material, and medicine. They

often serve as backdrops or adornment. Looking at a forest or roadside can feel like looking at a wall of green. In the wake of "plant blindness," defined by James H. Wandersee and Elisabeth E. Schussler [17] as "(a) the inability to see or notice the plants in one's environment; (b) the inability to recognize the importance of plants in the biosphere and in human affairs; (c) the inability to appreciate the aesthetic and unique biological features of the life forms that belong to the Plant Kingdom; and (d) the misguided anthropocentric ranking of plants as interior to animals and thus, as unworthy of consideration" (p. 82), the presence of fauna is perhaps more novel and differentiable. Seeing a plant daily is nearly a given for most people, and even expected; seeing or noticing fauna is not. Second, what draws a human to a plant is at times less obvious or direct. Most notably, journalist Michael Pollan in *The Botany of Desire* [18] explores the reciprocal relationship between plants and people, encouraged and facilitated, for example, by chemicals in plants that satisfy human desires. Similarly, through vavilovian mimicry, weeds growing among agricultural fields have aligned their form with favored crops to improve their chances of selection, or at least avoid rejection [19].

This paper focuses specifically on an overlooked manifestation of vegetal charisma: the invasive register. Invasive plants are widely distributed and widely disliked. They are cited as a primary threat to planetary biodiversity and a degrading presence in native ecosystems [20–22]. In highly populated urban and suburban areas, they are largely unavoidable. Whether to a gardener or a passerby, they are often the plants that are noticed most readily, alongside flowers and trees. For example, Kudzu's uncontrollable proliferation has become an integral part of Southern United States culture. According to a cultural study of Kudzu in the southern United States by Derek H. Alderman and Donna G'Segner Alderman [23], the plant seems to swallow forests, buildings, and abandoned fields, creating places where plans for the construction of low-income housing are halted after a park is unearthed under a sea of Kudzu, where dead bodies are hidden, and where the houseless find safety and solace. They are a plant that poet James Dickey [24] calls "green, mindless, unkillable ghosts" (as quoted in [23], p. 54). As this example demonstrates, the invasive vegetal register is often loud, provocative, and insistent.

The idea of the invasive register comes from an understanding that ecology is conversational and dialogic. Plants are communicative through several means, including form, posture, and volatile organic compounds [25–28]. A plant's emergence in a particular place tells us as much about themself as the environment they emerge from [29]. *They are landscapes becoming legible by becoming vegetal*. Speaking of the multi-species nature of cities, anthropologists Thom van Dooren and Deborah Bird Rose [30] point out that "places are co-constituted in processes of overlapping and entangled 'storying' in which different participants may have very different ideas about where we have come from and where we are going" (p. 2). In short, "no place is produced by a singular vision of how it is or might be" [30] (p. 2). Vegetality is only one experience and dialect of landscape.

To witness the way invasive species inhabit a landscape is to witness an embodied responsivity to that which landscape poses to them. In the words of phenomenologist Craig Holdrege, plants "can bring to expression characteristics of the environment in the way [they] grow" [29]. Positing invasive expression as an ecological register implies perceptibility by the human and more-than-human. The perceptibility of more-than-human expression and voice does not imply that our assumptions or extrapolations based on our perceptions are without fault. Fault arises when human consciousness begins to voice rather than listen to the other. Adopting phenomenological terms, the human consciousness is an undeniable and non-negotiable participant in the emergence of phenomena such as the invasive register [31]. That said, while we cannot escape the way human consciousness participates in this emergence, human consciousness is not the author of more-than-human

expression. Emulating anthropologist Christina Callicott's [32] exploration of the relationship between Western Amazonian shamans and *icaros*, musically embodied properties of plant healing,

> . . .the engagement of human subjectivity and cultural parameters does not privilege human agency over that of the plants, nor does it relegate the product of their interaction to the sphere of the human imagination. To the contrary, what we are seeing is a process whereby the non-human material world manifests itself in human cultural forms, in a way that grants full agency to both parties. Seen in this way, the icaros become a flowering of the symbiosis between plant and human. (p. 40)

In this paper, I undertake an exercise in listening to and representing the more-than-human on their own terms with an emphasis on the place of invasive plants within the burgeoning field of critical plant studies. In an article on "Seeing, Feeling, and Hearing the World" as Aboriginal Australians, Indigenous scholars Kankawa Nagarra Knight and Anne Poelina with co-author Sandra Wooltorton [33] write,

> We. . .recognise that the ways we see, feel, and hear the world [are] associated with how we relate to and respond to our places. If we see the ground we walk on and the places we live in as animate, responsive, and relational, we are highly likely to care for Country with love, gentleness of spirit and fullness of heart. We are able to hear and participate in the music, the soundscape of our places—to honour and celebrate the lyrics of life. (p. 2)

Many Western worldviews intentionally or unintentionally privilege the voice of the human, both in terms of what is heard and how one responds. Listening in the context of this paper attempts to align with the reality of landscape, which includes the human but is not exclusive to the human [34]. Of the Badger, a mammal morally conceptualized as a villain similar to invasive plants, independent scholar Isabella Clarke [35] writes, "Badgers are in the land with the same intensity and same force as the land is within them" (p. 66). So are plants. Plants are material articulations of landscape [36] and are "inseparable from their environments—environments that are carved by themselves to a great extent" [37] (p. 451). Environmental author Eileen Crist [34] argues that "we have no idea what kind of power may reside in a human being who listens and is allied with landscape" (p. 8). The same can be said about research that "listens and is allied with landscape." The above quote is foregrounded by what Crist [34] describes as an "[estrangement] from Native ways," which can in part, and only in part, be remedied by "responding to landscape's invitation to listen" to "the language of living landscape" (p. 8). To "have no idea" is an invitation to learn and explore the possibilities together. It is worth learning from plants and the power they hold in their allyship with and responsivity to landscape, characteristics that both invasive and non-invasive species undoubtedly embody.

The concept of nativeness can be as damaging as the concept of invasiveness. Labels like 'nativeness' render non-nativeness as undesirable and undeserving of attention rooted in respect [34,38]. For example, "when some landscapes are tagged as 'special' and placed under the auspices of protection [. . .] all other landscapes are thereby rendered more banal and legitimately up for grabs" [34] (p. 6). Similarly, Jennifer Foster and Anders L. Sandberg [38] explain:

> Constructing native species as more "natural" engages a particular set of values that situates humans as arbiters of authenticity and ignores some of the complexities inherent in ecosystem change. The ambiguities surrounding invasive species may perhaps have been neglected or glossed over in the haste to sound the alarm

> of a crisis. There are significant reasons to pause and consider the many lenses through which invasives may be considered. (p. 180)

This article intends to be one of those lenses. Humans appreciate landscapes that express anthropocentric intention—whether it is present or not—usually through the embodiment of orderliness, which, as landscape architect Joan Iverson Nassauer [39] points out, "seldom enhances the ecological function of the landscape" (p. 162). Mainstream protocols for dealing with invasive species neglect to engage practices of collaboration or, at the very least, listening, and instead focus on extermination. But, applying Ann Sayre Wiseman's ideas on dreams and nightmares to invasives, gardener, teacher, and author Akshay Ahuja [40] writes, "The nightmare monsters cannot be killed. To kill something, Wiseman says, is just another way of ignoring it."

Invasive vegetals are plants with a story to tell, and I wanted to hear their story, not the stories of antagonism and dysfunction that readily germinate invasive ecology discourse [41–44]. This paper employs a narrative approach to research to witness and attend to stories told at the individual level. There is a rich library of literature exploring the cultural and political ecologies of invasive plants, the landscapes they invade, and the lives they are implicated in. Many of these texts are referenced throughout this article and serve as the ontological backbone for theorizing the invasive register. Nevertheless, while their diversity and abundance invite such bird's-eye-view analysis, it is worth paying attention to the stories these plants tell as and to both individuals and cultural collectives. Their ability to infiltrate and affect individuals *at* large scales makes invasive plants charismatic. This paper combines narrative experiential reflection with critical analysis of invasive discourse and allows each to converse rather than allotting them their own sections.

It is also worth noting that the languaging used throughout this paper reflects who I know plants to be—animate and agential—in order to avoid the distillation and desensitization of data through textualization. By way of illustration, to say that a plant speaks to me is phenomenologically grounded in my experience of ecology—that which I and plants both participate in—as inherently conversational and dialogic. Biosemiotics, for example, is one way to speak to this phenomenon. Phenomenology, on the other hand, summons a different kind of languaging from me that speaks most directly to my encounter with the vegetal. Such languaging methodologizes metaphor as a means of generating cross-cultural, mutual understanding. Speaking to the use of metaphor in scholarly writing, novelist and translator Sissel Lie [45] writes, "New images and comparisons create new rooms in our understanding [. . .] images can also be the starting point of a productive new language" (p. 116). Similarly, the "sedimentation" of conventional languaging "[habituates] logic" [46] (p. 180) and fossilizes philosophical and theoretical bodies [47]. In the spirit of diversifying vegetal narratives, I honor sentient and animate languaging as a way to explore new conceptual ground within invasive ecology discourse.

The word 'register' in the context of the vegetal invasive register is used in a musical sense to express "a series of tones of the same quality produced in the same vibratory manner" [48] (p. 49). Registers differ in timbre and pitch, unifying tones of similar quality. For one human voice, only one register can be expressed at a given time, but each register is a unique expression of that human's voice and the collective of human voices. In linguistic terms, linguist Christian Matthiessen [49] defines 'registers' as the "functional varieties of a language operating in different contexts of use" (p. 2). Similarly, linguist Michael Halliday [50] describes 'register' as "the clustering of semantic features according to situation type" (as quoted in [51], p. 190). All of these definitions describe a range of contextual expressions that differ situationally but are unified by origins. Translating this concept to vegetal terms, invasivity is a register of plant embodiment that, when conjured, does not obscure vegetality but embodies certain qualities of vegetal expression.

The vegetal invasive register is in no way separable from vegetality as collective expression; it amplifies characteristics that already exist in the vegetal, which become more noticeable, or, subsequently, assumedly aggressive by manner of prominence and persistence. Invasive vegetals, in particular, demonstrate a charisma that is often mistaken for antagonism. My position in this paper is that the charisma of invasive plants is romantic, selflessly ego-centric, provocative, metabolic, and potentially legible if we can remain open to their signification. Each of these qualities, essential to my conceptualization of the invasive register, will be explored in detail later in this article.

2. Charisma and Voice

In "Nonhuman Charisma," environmental geographer Jamie Lorimer [52] outlines three facets of nonhuman charisma: "*ecological*, *aesthetic*, and *corporeal* charisma" (p. 916). He explains that "the human body puts in place a range of filtering mechanisms that disproportionately endow certain species with ecological charisma" [52] (p. 916). Detectability is, in a sense, a requisite to endowed charisma. In the case of invasive plants, their charisma falls within the three categories listed above. Lorimer [52] defines *ecological charisma* as an organism that is easily identifiable, differentiated, and intersects with the human lifeworld. Invasive plants are unavoidable in a physical and sensory context. They get in the way, become eyesores in domestically disturbed and frequented areas, and often contribute to seasonal allergies through high pollen output [53,54].

Aesthetic charisma has everything to do with appearances. The aesthetic charisma invasive plants project is largely feral. Lorimer [52] cites psychologist James Hillman's [55] exploration of insects and how they provoke "frightening fantasies" through multiplicity and monstrosity, two characteristics shared with invasive plants. Quoting Deleuze and Guattari [56], "organisms that swarm in packs threaten the modern understanding of the bounded subject" as well as individual human exceptionalism [52] (p. 920). Invasive plants are monstrous not as individuals but as communities. They embody a collective feral charisma, whose ethic of "respect for the other and for its complexity, autonomy, and wildness" has yet to be extended to them [52] (p. 920). Lastly, *corporeal charisma* "refers to the affections and emotions engendered by different organisms in their practical interactions with humans over varying time periods [52] (p. 921). The two evocations Lorimer [52] explores are what I have also witnessed as a plant humanities scholar. The first is "interspecies epiphanies," which are moments of attachment, enchantment, and concern that encounters with such species and their contexts facilitate [52] (pp. 921–922). The second is "jouissance," which Lorimer [52] defines as "pleasure experienced in the presence of meaning" (p. 922).

Why a species is charismatic matters as much as what its charisma fosters. Albert et al. [11] highlight the importance of charismatic fauna, writing, "Charismatic animals could be co-actors of their own conservation, since they have the capacity, whether intentionally or not, to affect conservation outcomes" (p. 3). Invasive plants can both encourage participation in conservation schemes and engage in conservation themselves. As political ecologists Lucía Argüelles and Hug March [57] explain, "Human-plants scholarship has pointed out that some of 'the most embodied garden encounters come between humans and plants they are trying to get rid of, the plants that will not behave themselves'" (p. 54). When plants are recognized and labeled as invasive, they are hard to ignore. Through their presence, ecological dis-ease is noticed, though often misplaced or misheard. Anger and resentment toward their presence can spur care for certain local ecologies before novel ecologies can become established. The perception of invasive plants marks the first stages of a multispecies, collective turning toward ecological need.

On the other hand, invasive plants are doing their own conservation work. In ecological terms, conservation preserves not stasis but "a dynamic, resilient world" [58] (p. 475) whose resilience lies in responsivity [59–61]. Jones et al. [59] urge that conservation should not resist a landscape's ability to change: "Within protected areas, there is an urgent need to rethink what we are protecting: the current landscape conditions or the landscape dynamics that generate those conditions" (p. 409). Many invasive plants are early- to mid-successional species [21,62]. Acupuncturist and herbalist Timothy Lee Scott [62] offers "successional change" as an alternative to "invasion" (p. 17). He writes, "Nature does not wish to expose the soil. . . The incredible ability of pioneering species to cover wounded landscapes in such prolific numbers makes them easily misunderstood as invasive intruders" [62] (p. 19). Many invasive plants share characteristics with other non-invasive pioneering species, such as "high rates of photosynthesis, respiration, and resource uptake," "more efficient use of available sunlight," and abundant seeds and reproductive opportunities [21] (p. 77). These are the plants that, through intense metabolic participation in disturbed landscapes, are preparing the landscape for late successional plants who require higher levels of ecological stability. As permaculturist Tao Orion [21] points out, "like the pioneer species, [invasive plants] are also reorganizing resources made available by disturbance," or a lack thereof, as evident in fire-suppressed forests (p. 80).

Vegetal invasiveness is contextual, and so are the myriad ways such species participate in the ecologies they invade. An invasive plant's metabolic participation in landscape is intense, at times like powerful wildfires that leave behind extended successional timelines. This article does not argue for the elimination of antagonistic discourse, the neglect of invasive plant management, or the idealization of invasive presences. Instead, this article seeks to illuminate the diversity of narratives that facilitate the consideration of overlooked, ignored, or silenced conceptualizations of invasive plants and how we should respond to them. For example, "arrested succession" is a concerning result of vegetal invasion. Thrippleton et al. [63] define "arrested succession" as "an ecosystem permanently halted in an early successional, typically non-forested state. . .suggested to result from intense competition by understory vegetation, high browsing pressure and additional disturbances" (p. 1120). Thrippelton et al. [63] point out that studies regarding invasive plants and succession tend to be short-term, with most field-based studies lasting only a decade. These short timescales, relative to vegetal temporality, obscure the reality of successional timelines. They respond by simulating arrested succession models over 1000 years, reporting that 2.2% of "the simulations had delays lasting [more than] 200 years," with typical succession timelines of disturbed forests returning to more than 10% canopy cover occurring within 100 years [63] (p. 1126). Just as invasive plants are non-invasive in certain habitats, their destruction can be more or less than baseline expectations.

Invasivity is a reality humans have constructed through ecological observation. Without ignoring invasive plants, and perhaps even paying more attention to them, interventions should more directly respond to the ecological realities of landscapes that foster invasion, requiring intimate understanding as to what their presence is indicative of. Certain ecological scenarios require more intervention. I hope this article encourages not dismissal of, or even admiration for, invasive plants but an acknowledgment that realities are multifaceted. Analysis of the invasive register illuminates facets that have remained invisible or particularly quiet in mainstream invasive ecology discourse.

Most people cannot readily notice a vegetal invasion without knowing who or what to look for. I have traveled through Europe and Central and South America, and in these landscapes foreign to me, few to none of my vegetal encounters and perceptions involved any differentiation between invasive and native because I was unaware of where the lines were drawn, if at all. Monocultures of natives are indistinguishable from monocultures of

invasives when those modifiers are obscured by the perceiver's own alienness. In writing the story of invasiveness, we writers, researchers, and humans have the opportunity to listen to, transcribe, and write other stories. The invasive register is perceptible in the same way that wetness is the embodied perceptibility of a presence that makes one damp. I cannot claim to know what wetness feels like to a Salmon, nor can I claim to know what the invasive Princess Tree feels like to the forests that line my neighborhood. Nonetheless, the invasive register of the Princess Tree in my hometown and the wetness of water are the entrails of a presence that can be noticed and traced back to a source.

Invasive situational imperceptibility is derived from its origin as an imperial construct [20,34]. This is true both in the sense that colonialism has acted as a global vehicle for plants [64] and, in the words of Crist [34], "The colonialist gloss sees anthropocentrically tinted constructs, such as timber, fisheries, game, rangelands, pests, invasives, livestock and the like. Such factitious constructs serve to guarantee that landscapes and their inhabitants can be used, discounted, converted, managed and annihilated without accountability" (p. 5). Discourse regarding the natural world is full of dualities and boundaries—animate/inanimate, natural/cultural, native/nonnative—that reflect the normative perspective of the West, not the reality of the more-than-human [65]. Colonization is reflected both in certain narratives regarding vegetal migrations and in how vegetal migrants are labeled and treated [3,66,67]. For example, plantation slavery, exotic plant trade, and settler colonialism "created a market for the movement of plants" and people "away from their natural habitats" [3] (p. 5), the migration of which germinates narratives of invasiveness and nonbelongingness. Furthermore, the colonial domination of discourse and scholarship regarding plant knowledge ignores knowledge systems from, for example, Indigenous communities and ecosystems [3]. The labels of 'native' and 'nonnative' are also often "ecologically arbitrary" [68], "temporally associated with colonial timelines" [69] (p. 1444) [69,70].

As many writers claim, the label "invasive" or "weedy" has cultural affinities, not biological ones [38,70,71]. While a plant's biological and ecological characteristics and affinities may lead to invasiveness, this possibility remains dormant without a suitable landscape. A landscape's vulnerability to invasion can also change over time. Invaders and the invaded are not bound by geography but by each other; hence, invasiveness is relational. Applying actor-network theory to invasive networks, environmental scholar Paul Robbins [71] writes,

> Agency does not belong to individuals, organisms, or even species but instead is an emergent property, where the 'capacity' of an object is imbued only by its position in a network of heterogeneous elements, a group of human and nonhuman allies. The cohesion of this group is itself the result of the way each of its components is modified and transformed in its alignment with the network, a process that actor-network theorists describe as 'translation.' (p. 153)

Ecosystems are like living dynamic collages where the landscape does not change the individual; rather, the context and constitution of the landscape—one's relationships—transform individual expression. We become "caught up or trapped in. . .relationships" [72] (p. 806).

Jewelweed, for example, common throughout the Eastern United States, is not considered invasive but does receive privileged titles like "native, aggressive spreader" and "enthusiastic grower" [73]. Moreover, they are considered a viable competitor against common weeds. The obvious ecological benefit of their proliferation circumvents antagonism. A plant embodies their purpose and grows with a vitality that flourishes until it cannot, and yet many modern cultures treat them as something that must fit in with human ideals and morality to be accepted. The assumption is that their strengths have yet to be realized, or,

worse, that their weaknesses make them a nuisance, something to be tolerated but neither accepted nor accommodated.

Many invasive plant species were brought to non-native lands because of their charisma, understood as "the 'attractiveness,' 'appeal,' or 'beauty' of a given species" [74] (p. 345), and even their utility. These plants once satisfied aesthetic and utile functions, yet there are new implications to their modes of presencing and relating. Synanthropes, for instance, are "wild species that live near people and benefit from a close relationship with people and their artificially created habitats" [72] (p. 801). Some synanthropes become catalysts in feral ecologies encouraged by human infrastructure but proliferate beyond the cultural confines and expectations humanity dictates [75]. As archaeologist Marijke van der Veen [72] points out, "plants," and I would add ecosystems, "often have something we desire" (p. 809). Humans and plants—humans and weeds in particular—are companion species [76]. The idea of a companion species has a heartwarming connotation, as does symbiosis. Nevertheless, both words exist on a spectrum that includes relationships that feel 'at odds,' such as the perceived relationship between invasive plants and the landscapes they invade. Moreover, protagonistic and antagonistic relationships on the spectrums of companionship and symbiosis have an ecological point. This point is illustrated concisely by cosmologist Brian Swimme and environmental studies scholar Mary Evelyn Tucker [77] in an exploration of predator-prey relationships: "As Charles Darwin realized in the nineteenth century, what is astonishing is that the elegance of the hawk depends upon the lizard. And the elegance of the lizard depends upon the hawk. Their qualitatively different attributes arise in tandem" (p. 68). Reflecting on Haraway's [78] notion of "entities whose very being is forged in the contact zones of fleshy practices of eating together" (p. 18), plant humanities scholar John Ryan [79] writes, "A vegetal companion does not necessarily behave well, look pretty, feel good, and taste delicious; it, nonetheless, is interdigitated materially and existentially with us in contact zones, accompanying and uplifting us" (p. 70). Contact zones "generate mutual ecologies and coproduced niches" [80] (p. 546). In other words, in contact zones, species respond to each other in harmony, which includes both consonance and dissonance.

In many contexts, invasive plants are considered *strange*. Ecology and poetry scholar Mac Fenwick [64] defines the concept of 'strange' as "external or foreign without implying distance or separation" (p. 10). He specifically discusses the strangeness Christopher Columbus encountered during his conquests, imposing his own strangeness in the form of nonnative species on landscapes unfamiliar to him. Within the world of invasive scholarship, there is much discussion on plants as migrants by proxy of human desire and intention [71,81–83]. The Columbian Exchange, for example, marked "the global process of [both] cultural *and* ecological exchange" [64] (p. 11). Colonizers transported plants from around the world for personal consumption and to proliferate in plantations throughout the Americas [64]. In the words of Fenwick [64], "The result of introducing so many invasive species was the complete transformation of the ecologies through which Columbus had first walked" (p. 14). Plants became involuntary migrants because they were desired. Conversely, human migrants themselves at times seek to maintain a sense of propinquity by creating gardens and landscapes composed of familiar species. For example, in their research on the gardens of Greek and Vietnamese migrants in Australia, Sonia Graham and John Connell [84] found that many gardens mix the appreciation of Australian novelty with touchpoints of cultural familiarity and significance. Human migrants change landscapes, as do human natives. The agency facilitated by self-exploration and grounding in foreign places may extend to migrant plants as well.

3. Theory of the Invasive Register

3.1. Romantic

Many invasive plants are considered garden escapees. Their form of gardening, however, is seen as unruly and lacking strict demarcations. They remind us of the true substrate of gardens, ferality, without which there could be no garden. A garden could be defined, in the words of Natasha Myers [85], as "a specific form of carefully curated nature within enclosures where individuals intentionally 'stage and restage their relationships with nature'" (as quoted in [86], p. 2). What do more-than-human gardeners prioritize? What rules are they following?

Gardens are first and foremost places of disturbance. Invasive species, as purveyors of disturbance, find themselves in close proximity to humanity. For this reason, they are regarded as prolific, encroaching threats, and direct antagonists to the ecologies we curate, depend upon, and participate in. Geographer William Doolittle [87] points out that the forerunners of gardens were dump heaps near homes, or "well-fertilized microenvironments" where "discarded plant remains" were inadvertently gardened by compost and unintentional irrigation (p. 392). I have witnessed the inadvertent garden arise from compost piles, where I accidentally grew tropical Philodendron Paraiso Verde and Alocasia Black Velvet in my Asheville, North Carolina yard from discarded cuttings. To me, these plantings were an accident. To the plant—whose reproductive process at times depends on the expected but chance encounter with pollinators, the elements, digestive tracts, and carelessness—the ability of these places of cultivation to become was not an accident.

Bankovska and Lukasik [86] argue that plants, in their own power and energy, "often perform their own 'gardening' work beyond and alongside the human" (p. 13). Lands can manage themselves. Nevertheless, the way lands self-manage without human intervention looks different from when human stewardship is involved [88]. It is not simply a lack of human ecological awareness that metaphorically and culturally pins these plants against humanity; it is sheer incompatibility that shows how human systems are conceptually set apart from the rest. Invasive species inhabit contact zones, and their presence there reveals something about them, our ecology, and ourselves. Invasive species witness ecological fragmentation [71]. In the words of author Richard Mabey [70], "Weeds may have an ecological point. . .many of them may be holding the bruised parts of the planet from falling apart" (pp. 13, 21).

While reading Deirdre Lynch's [89] "'Young Ladies are Delicate Plants': Jane Austen and Greenhouse Romanticism," I could not help but feel that many invasive plants are living their own version of a vegetal greenhouse romanticism. Lynch [89] explores Austen's writing as a testament to a period of botanical vernacularization accelerated by the increased greenhouse cultivation of exotic plants. She coined the term "greenhouse romanticism" to "highlight romantic-period culture's favorite scientific instrument for both apprehending and augmenting nature's plurality" [89] (p. 692). Greenhouses made gardening less about composition and more about collection, where orderliness and immunity to seasonal factors created a kind of arrhythmia, allowing the rapid growth and display of plants not suited to European environments. Accelerating climate change is creating a greenhouse effect for many invasive plants, as pockets of habitat once deemed unsuitable for cultivation expand and spread [90]. Invasive plants are living their own "greenhouse romanticism," poeticizing climate disturbance, which allows them to integrate into ecosystems that have become uninhabitable to 'the native gardener.' I am reminded again of Ryan's [79] "multispecies accounts of *gardening in hard times*" (p. 26). Critical plant studies should take an interest in the species who make use of landscapes in decline.

Lynch [89] borrows the term "protected worlds of nurture" from Isobel Armstrong's historical account of London's conservatories to describe the vegetal microcosms of green-

houses (p. 692). While we might not see the microcosms of invasive proliferation as "protected worlds of nurture," the invasive register testifies to an ecological nurturing where messiness precedes healing. As a case in point, many invasive species provide large amounts of biomass to often depleted landscapes, as apparent in Tree of Heaven's arboreality, reaching heights over 20 m, or in cascading, never-ending Kudzu vines [62,91].

3.2. Selflessly Ego-Centric

Invasive species embody monoculture in an unconventional way. Their monocultures are hard to miss as they accumulate biomass and space often 'in the way' and seemingly at the expense of others. An example ever present in my surroundings is Japanese Knotweed, who congregate in stands of Bamboo-like stems that have surpassed my height and shade me from the sun on afternoon walks along the river. Is there a point, such as in the case of prolific invasive species, where there becomes an excess of self? An excess of self is a fundamental perceived characteristic of invasive plants who are believed to lack self-imposed boundaries. Nevertheless, these kinds of monocultures are a demonstration of repetitive, validating projections of self onto a landscape, the kind that is encouraged by the very landscape from which they emerge.

Permaculturist and herbalist Timothy Lee Scott [62] describes how Japanese Knotweed is "nearly exclusively a female plant" (p. 223) outside of their native range. Perhaps Japanese Knotweed exudes feminism because of, and in spite of, her femaleness. Sex and gender are not synonymous. Still, there are times when sex and gender align on an individual and personal level, where embodiment and presence are in dialogue with each other. For the invasive vegetal, embodiment and presence are in dialogue with landscape and are thus responsive to and reflective of what landscape poses to them. For example, in a paper on the Water Lily, a plant in times and places invasive, Prudence Gibson and Monica Gagliano [92] reimagine this plant as feminist: "connective and communicative" (p. 126) "in a world where agency is multiple [and] communal" (p. 125). The prescription of fertility and 'goddessness' to Water Lily's symbolism has highlighted their feminine qualities while opting out of understanding their ecological nature [92], hence a plant's ability to exude feminism because of and in spite of their femaleness. Both Japanese Knotweed and Water Lily "thrive in communities" and "reproduce asexually" [92] (p. 129). They also both, in their ecological responsivity and "through attentive fidelity, [. . .] become the betrothed of what or whom [they] follow" [marder, through vegetal being] (p. 224). "Plants find ways to be ambulant" and to mobilize nutrients and soil [92] (p. 131). The authors write, "There is a desire among plants to survive, to flourish. Like the concept of becoming woman, this could be considered a desire to communicate and contribute to the lives of our neighbors, as much as ourselves" [92] (p. 141). In landscapes in need of care and biodiversity, the soil must first become vegetal to become soil again and support a broader ecological community.

Revisiting the idea of self-imposed boundaries, there is a human expectation that life participates with courtesy for other life. Invasive plants like Japanese Knotweed are seen as intruders who lack proper etiquette when moving through public spaces. But from an ecological standpoint, when a door is left open, or a landscape is left barren or in need, proper etiquette is to make life happen with the ingredients available, in the hope of life continuing in many different forms. Invasive plants are an ecology's perpetuations of becoming.

Often, for the human, the presence of an invasive species signifies the absence of an expected or desired presence. But it is not the plant species themselves that signify an absence of native plants, but their context; the invasiveness of the vegetal register exists within a context of announcing an 'absence of' through a presence. The presence of invasives as a form of terrestrial, embodied speech, "creates a distance which allows for an

absence or, as it were, for a 'not'" [93] (p. 7). Moreover, the vegetal register, invasive and otherwise, is not expressed by any one individual but by communities and landscapes. The invasive register cannot exist without a collective. In other words, plant communities *and* the landscapes they invade express the invasive register collectively. The landscape spoke first, and the invasive plants continue the conversation.

Semiotician Jesper Hoffmeyer [93], speaking to biosemiotics, describes how bodies remember and then forget by healing. In the case of the Moon, he explains, the scars left by meteor storms, signified by craters, will never have a chance to heal and, therefore, will never have a chance to remember or forget [93]. Seemingly excessive biomass is a defining characteristic of invasive species, which aids ecological healing and soil renewal through bodily decay, emblematic of Hildegard's *viriditas*: "the vegetal power of creation" [94]. Ecologist Pete Yeo likens this vegetal accumulation to a scab: the "proliferation phase to skin healing and a mounded patch of skin" [95]. Ripping bodies out of soil and sending them somewhere else sends pieces of their already degraded environment with them, because their bodies are a product of what was available in that place.

In delineating the idea of the invasive register, I am not suggesting that no interventions are needed regarding invasive plant management. Nevertheless, perhaps we should replace our demand for the eradication of non-belonging with the question, "Why are you here and how can we help?" Or, moreover, what do landscapes remember through the proliferation of vegetal embodiment, and what does it remind us of? The presence of invasive species indicates wounds that have not yet been forgotten. Bodies, including landscapes, need to heal wounds to forget them and, more importantly, to incorporate the reality of the present into the future [93].

3.3. Provocative

When I say invasive plant species are provocative, I do not mean that they are poking us with a stick. Although, at times, this is the experience of encounter. Many plants—and many invasive plants in particular—come with thorns, persistent vines, and pollen that agitate us physically, and for many, these agitations have become a hallmark of their character within human-centric narratives [53,96]. Nevertheless, when I say invasive plants are provocative, I mean that they ask something of us. I cannot speak for all humans and all invasives about what they ask of and for, but I can speak to the experience of being asked. Invasive plants beckon us, or, in the words of Louis Althusser [97], they interpellate us. For Althusser [97], interpellation is like hailing: a process in which an individual is transformed into a subject when they recognize themselves as the one being called out to by ideology, a policeman, or a friend knocking on the door. The relationship between the summoner and the summoned offers the summoned a natural identity to cling to or reject. The implications of an invasive plant's beckoning are contextual and interpretable. At the very least, turning toward their presence situates the human as someone who notices and cares about who inhabits their space. Or, at the very least, their presence beckons a turning toward parts of landscape that were previously ignored, unnoticed, or misunderstood. They hail by nature of enormity but also by literally stopping humans in their tracks. Their presence, which tends to get in the way, requires action, even if that action is voluntarily and intentionally turning away or turning a blind eye.

As the embodiment of an ecological answer, invasive vegetals also pose follow-up questions or invitations for responsivity. Invasive vegetals are charismatic in the sense that they incite a 'collective turning towards.' My garden, with which I have my most embodied and eye-level experiences with vegetal invasiveness, taught me what this feels like while sitting with Poison Ivy and an impending storm. During this event, I experienced

the garden, which included myself, collectively shift priority until the storm passed [4]. Invasive vegetals are events like storms. They are hard to ignore. And they entice us to act.

The stories that readily germinate invasive ecology discourse encourage removal and elimination methods that look a lot like picking a scab over and over and over again. Those stories at times feel invasive in the same way humans conceptualize the vegetal invasive to be. They are suffocating and dominating. They come from a place of concern, but oftentimes compromise care for urgency. But is the story of vegetal invasivity, as humans tell it, the ecological reality of those plants and the landscapes they inhabit? Narrative reflection is a way to inhabit the decentralization of humans within vegetal and ecologically-centric perspectives, derived from "paying attention to the unthought known of the vegetal soul" [98]. In narrative reflection, the human is not removed from the story, but is neither author nor main character. Examples of narrative reflection integrated into scholarly inquiry include Lorraine Shannon's [98] exploration of human-plant relationship through Apples, environmental humanities scholar Catronia Sandiland's [99] inquiry into the intimate biopolitics of Mulberries and humans in Southern Ontario, and Annette Arlander's [100,101] research writing to and talking with Pine.

I believe that even the most antagonistic narratives surrounding invasive vegetals understand that we are witnessing something. But rather than witnessing a plant's agency and free will to act immorally, we are witnessing the agency of an ecology to become something else: to change. Invasive vegetals and their ecologies perhaps accept and embody change and impermanence better than humans do. Ecologies, the ones we are a part of and the ones we are not, embody change when we are unwilling. And I do not think that ecology, as a mode of being rather than a choice, makes its agency any less potent. They reflect and respond to their relationships in ways only they can and move forward with the purpose such reflection and response incites with persistence and resilience. An expression of the invasive register is collective agency whereby ecology has the agency to pose open-ended questions and beings of many kinds and varieties have the embodiment to respond. Collectivity lies in the majority required for the invasive register to project, which includes those in decline, those side-stepping, and those proliferating. Agency lies in becoming the only thing that could be amid all of the possibilities. Agency also lies in the possibility of becoming more or less of oneself in response to changing ecological conditions.

3.4. Metabolic

Landscapes and their inhabitants invite us to participate and be a part of, an invitation we actively respond to, though not always in the most collaborative or attentive way. Ecological design scholar Joan Iverson Nassauer [39] explores the way humans associate 'good' nature with intention, particularly marks of human intention such as those found in farms and gardens. She calls these "cues to care," which she defines as "cues that indicate human intention," which can be used as a cultural and vernacular tool to encourage more wildness and unruliness in inhabited landscapes [39] (p. 167). She writes,

> In settled landscapes, urban or countryside, people expect to see the look of human intention. Where people intend indigenous plant communities or habitats to exist as gardens or preserves, and where the landscape communicates this intention by the way it looks, people are likely to understand that is 'nature' and find it aesthetically pleasing. [39] (p. 162)

Intentional landscaping is as eye-catching as ruderal unruliness. Eye-catching is not synonymous with desirability. Both aesthetically pleasing and unruly landscapes draw attention to themselves and at times cause one to act, through admiration or, at other times, with pruners, herbicides, and mowers. The lack of intention is as loud as an orderly landscape. One could argue that a lack of intention is louder than an orderly landscape

because it invites us to act. We want to fix it, to turn it into a version of flourishing that aligns with the aesthetic characteristics of 'healthy.'

Invasive species are metabolic; they display characteristics needed to facilitate requisite metabolic stages for succession [21]. At the very least, their presence ensures that the Earth will be metabolized. A crucial reality of invasive metabolic nature is the transformation of self into other. In metabolizing Earth, they not only metabolize Earth into themselves, but the Earth metabolizes them into more Earth. The metabolic action enacted by the invasive species is not guided by greed but by exchange. Invasive species are a demonstration of tending abundance. They invite a feast where none exists. They are species who are willing and able to metabolize depleted landscapes that others cannot. Philosopher Michael Marder [36] writes that plants "materialize the Earth and the sky" and with climate change, habitat loss, and environmental degradation, we are literally losing the materialization of our Earth and sky. Fundamental to reality is permeability and edibility, which ecologically manifests, in part, through metabolic pathways [102]. Their materialization of Earth and sky, in the words of Marder [36], emerges from expedited processes of decay and the utilization of decay for growth. Invasive species embody the fundamental reality that we live on a planet that gives of itself in feast. The Earth is left to die when no one shows up to the party.

For example, Kudzu, the aforementioned 'uncontrollable proliferator of the southern United States,' offers an incredible amount of biomass to depleted landscapes. They weave their body over abandoned farmland, plantations, and petroleum trails [62]. They turn landscapes and ecosystems into vines and flowers that smell like Grape jam, which is jarring, but requires consumption that swallows. In their deciduousness and perenniality, they participate in the rebuilding of soil and microbial biomass. Ryan [79] writes, "vegetal proliferation relies on the logic of excess. Growth is the ecstasy of life overfull with itself and, out of this brimming plenitude, going outside itself" (p. 67).

The perceived dirity of invasive presence is, in its own way, a "cue to care" [39] (p. 167). Dirty is a now obsolete English word for direness or terribleness. Dirity, as presented by invasive plants, is often a misinterpretation or mistranslation. Invasive plants are first and foremost perceived as a problem but are starting to be seen as a solution to some [21,62,103]. Their vigor responds to ecological lag and overconsumption. Ecological lag is a lack of disturbance when landscapes lack encouragement from abundance. Ecological overconsumption also creates lag: when landscapes overeat, they become depleted, and metabolic processes eventually lack the ingredients needed to perpetuate. Landscapes need to become food again, and invasive plants both eat and are eaten by them.

Permaculturalist Tao Orion [21] points out how the intentional stewardship of Indigenous peoples is reflected in the composition of species and ecosystems we consider native. Much of our approach to invasive species focuses on removal and eradication. Attention focuses on what is unwanted rather than on supporting and championing the species and ecosystems we want to see. The human psyche, even subconsciously, recognizes our desire for intention when we see an invaded landscape [39]. We want to make use of it, to see ourselves and our intention in it. Invaded landscapes appear to us as the antithesis of human intention, which is ironic, given that many invasive plants were brought here by human intent and desire.

3.5. Legible

Plants, even when not considered invasive, are talkative. A plant's talkativeness is independent of whether humans notice and participate in the conversations [104–107]. When we do notice, sometimes it is a particular plant or part of a plant that draws our attention, like flowers. Other times, it's the landscape whose voice we hear. The ecological weaving

of multiple bodies present in a place is at times more audible and legible to the human perspective [1]. In ecology, multiple voices in unison are often louder than a singular voice. Beings are predisposed to notice—and participate in—relationship. In the case of plants in particular, people notice them more often as a collective rather than as individuals [83]. These collectives give them purpose—"forests, food, commodities, vegetation communities, habitat, biodiversity and, more recently, carbon storage devices" [83] (p. 2)—which express something at times different than the expression of the individual. Relationships stand out to us. So whether we know how to listen or understand what they are saying, ecosystems speak to us.

Speaking to how garden centers and nurseries incite more conversations amongst strangers than supermarkets, human geographer scholar Russell Hitchings [108] writes, "Clearly these organisms can have interesting effects on the conversations that are able to occur around them and these effects are therefore worthy of investigation" (p. 367). Landscapes—inhabiting them, witnessing them, and imagining them—talk to us and encourage conversation. Perhaps a requisite of community is conversation: the ability to communicate with and amongst each other. Communication tied to conversation implies the ability to listen and, in some sense, understand. Hitchings [108] examines how "through the lens of landscape (Cosgrove and Daniels 1988) [geographers] examined past gardens and unearthed issues associated with class (Cosgrove 1985), gender (Morris 1994) and imperialism (Preston 1999)" (p. 365). The vegetal register is a different kind of loud in disturbed ecosystems such as gardens. Scars, fossils, and remnants of 'moments before' make disturbances and periods in between legible.

Hitchings [108] warns of digging too deeply for meaning, as an example in reference to elaborating the experience of Algerian women weaving as an act of cosmology versus a technical task, writing, "Talking of the loom in terms of deeper meanings can make it seem interesting and academics seem insightful. Yet, when there are often more pressing problems faced by those who must actively intervene in the world, we also need to examine how these problems are overcome" (p. 366). Hitchings [108] may or may not view this article as digging too deep for meaning. I agree there is a time and a place for poeticizing theory. Nevertheless, I would argue that emphasis on frugality and tradition risks alienating the stories of those in relationship to the problems or victims they want to remedy. These are stories that ask us to pay attention to what others know. And they are important models for 'living with,' and help present data that is soluble by the human experience.

Lastly, Hitchings [108] advises being "cautious of the weight" over-theorizing imposes on our subjects and audiences and warns of "petrifying that which we seek to study (Cresswell 2002)" (p. 365). But I wonder, does a loom feel that their participation in an "act of cosmology" is heavy? Do invasive plants feel their role in succession is heavy? A balance must be struck. Charismatic species embody a certain amount of heaviness because of their uniqueness and the dirity of their circumstances. Heaviness can mobilize, but it can also debilitate. Perhaps a source of debilitating heaviness is forgetting who the story is about. The story of the invasive plight feels heavy until we realize it is not entirely ours. We are affected by that story, but we have our own story, and it is the only story we are required to enact. Witnessing a story does not make it our responsibility to perfect or perform. Perhaps, in witnessing the story, we learn of places where our threads overlap, and we can participate in and support the invasive story *as humans*.

4. Conclusions

Revisiting Jane Bennett's [1] objects which "[shimmer] back and forth between," there is a charisma presented by the invasive plant which is not imperceptible but is not directed at humanity, in the same way that the facetedness of a crystal, which facilitates specular

reflection, means one must be positioned correctly, as must the crystal, to see light reflected off of it (p. 4). Invasive charisma is ecological, and intends to capture relationality and responsivity in embodiment. The invasive register is multifaceted, some aspects of which are difficult to discern or invisible due to our vantage point. Multifacetedness and the shimmeriness it affords are not a metaphor, because, as someone who aims to know and present invasive plants on their own terms, I have learned that experiencing the invasive register is to experience multifacetedness within vegetal presencing. In phenomenological terms, the vegetal register presences multifacetedness in response to observation. Invasive plants' charisma is shimmery, as their many facets create shimmers, presencing at different times and from different vantage points. The invasive register itself has many registers that express the various facets of invasivity, such as the invasivity expressed by Kudzu who swallows forests, and False Strawberry who covers lawns but only stands at the height of a shoe. Plant voice, whether invasive or otherwise, is the ecological manifestation of a plant's conversationality, like the "visual conversation" between birds and flowers that humans "eavesdrop" on [109].

Within charisma—the human definition—systems attract one another. Attraction includes repulsion insofar as repulsion is a means of thick, sticky encounter which demands attention. Something must infiltrate me for me to be repulsed by it. Similarly, symbiotic attraction exists as a spectrum of relationships. Not every facet of the vegetal register is for humans. Some characteristics of invasive plants are attractive to the more-than-human but go unnoticed by us humans because of our vantage point. For example, when I say the vegetal register is romantic, most of us might not feel romanced by invasive vegetals, but perhaps landscapes do. It is possible that an invasive plant's relationship to place and landscape is romantic, in the same way that it is possible the relationship between Orchids and Wasps is not one of swindling but shared pleasure [28]. It is also possible that invasive plants are indicative of dis-ease within landscape, which does not require romanticization for action.

A question we have failed to ask invasive vegetals is, "Who governs you?" Much like Althusser's "interpellation," invasive plants beckon as much as they are beckoned. In realizing how the landscape hails them, their charisma is realized. And they respond by offering charisma back. In a sense, more-than-human charisma is invigorating. Through monstrosity and grandiosity, they invigorate care and connection by demanding attention, a requisite to care and connection. In the same sense, invasive plants invigorate ecology: they provide disturbance where it is lacking, reinvigorate local fauna with edible biomass and forageable shelter, and churn soil with roots and leaf litter [110].

Mainstream invasive discourse has antagonized invasive plants and their agency. Invasive plants are agential not in morality but in responsivity; their embodiments give them the ability to perceive and respond in an embodied way. They respond in ways that reflect their local ecologies but are not replicable by non-vegetal beings. In music theory, a register is "a series of tones of the same quality produced in the same vibratory manner" [48] (p. 49). One can perceive and approach these tones, just as the vegetal register's multifacetedness is tangibly perceptible and conceptually graspable. Invasive charisma can be known and analyzed. It has a form we can respond to.

The invasive register is romantic in that it is beckoned by and integrates into ecosystems that have become uninhabitable to 'the native gardener.' The invasive register is selflessly ego-centric in that it participates in ecological healing through proliferation of biomass. It is provocative in that it facilitates the collective ecological agency to become something different. It is metabolic in that it invigorates processes of consumption, decay, and composting in depleted landscapes. And lastly, it is legible in that their presence means something for and about the landscapes they inhabit.

The invasive register, including my particular perception of it, is not enough to respond to them and the ecosystems we love with care. Many cultures, both human and more-than-human, have their own conversations with the vegetal register that must collude to witness, attend, and respond to as many facets as needed to make responsible, respectful, and considerate decisions regarding our wild and green spaces. As researchers, artists, writers, and humans, data approaches us in different ways. And we are not approached by all. But to those who are beckoned by invasive plants, argue with them if you must, but first and foremost listen.

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Note

[1] Throughout this article, I refer to plants and more-than-human others as they/he/she rather than "it" with capitalized names as a way of acknowledging, in the words of Prudence Gibson and Catriona Sandilands, "their ontological multiplicity" [3] (p. 18).

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