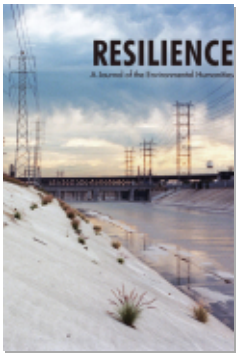
Citizen Humanities: Teaching *Life Overlooked* as Interdisciplinary Ecology



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Teaching *Life Overlooked* as Interdisciplinary Ecology

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> "Literature, as I see it here, is the speaking and messaging of the species with which we share the soil and air and water. This is disturbing. It is intended to disturb."
> —Laurie Ricou, "Disturbance Loving Species"

In the Anthropocene, humans weigh on the earth in a manner that has profound consequences for all species. Despite abundant data underscoring the global scope and accelerating pace of species decline and extinction, many people do not have an informed or affective relationship with most animals (beyond companion animals) or with other species.

To address this problem and to think about sustainability and resilience on an increasingly human-dominated planet, this essay describes a pilot project conducted between 2013 and 2015 that was part of the Humanities for the Environment project funded by the Andrew W. Mellon Foundation. Arizona State University, in partnership with the University of Oregon and York University, Toronto, convened the second of the Humanities for the Environment workshops, Multispecies Relationships in the Anthropocene, in February 2014, to bring together key environmental humanities researchers to formulate and envision a new biocultural ethic. The outcome of this workshop, and the focus of this essay, was a pedagogical project titled *Life Overlooked*, which seeks to raise questions about the consequences of ecological transformation and control of urban and wild animals and plants.

Three courses, with common elements, were taught at the University of Oregon, Arizona State University, and York University. Each course was designed from a common syllabus template, first drafted by Stephanie LeMenager at the University of Oregon and then revised by Cate Sandilands and Joni Adamson for their own specific course needs and student groups.[1] One of the main components in each of these courses was the assignment to each student of the creation of a digital portfolio that would be built on an interactive WordPress digital platform specifically created for the Humanities for the Environment (H*f*E) project. To create this portfolio, each student was asked to conduct interdisciplinary "foraging" designed to collect components from the natural and social sciences, humanities, arts, education, and personal experience. Students would read and write fiction, poetry, and nonfiction; take pictures; make drawings or other artwork; create short performances or films; and then pull these parts together to create a portfolio focused on one "species overlooked," defined by Cate Sandilands in her version of the syllabus as "any being that tends for the most part to fly (or swim or creep or crawl or tendril or flit or ooze or flagellate or sit apparently unmoving) under the radar of everyday human attention," clarifying that "the dynamics of attention and inattention will, of course, be a topic of class conversation, as well as what constitutes a 'life.'"[2]

This foraging methodology had many inspirations. LeMenager was inspired by the ground-truthing practice of investigating, photographing, and recording sites of interest that she had seen and participated in through the Center for Land Use Interpretation and by the social practice art of the Los Angeles Urban Rangers. Sandilands began with her great admiration for Laurie Ricou's work in addition to a commitment to thinking about multispecies biopolitics in deeply particular terms. And Adamson pulled from her experimentation with narrative scholarship—the subgenre of creative, ecocritical nonfiction she employed in her monograph—and her experimentation with face-to-face and online pedagogies. Although their specific paths into *Life Overlooked* vary, all three scholars acknowledge the pedagogical innovations and intellectual boldness of Ricou, an influential founder of the interdisciplinary approach to environmental studies now known as the environmental humanities. For many years, Ricou taught a graduate seminar called Habitat Studies at the University of British Columbia in

the Department of English, which he saw as disturbing conventional English courses by demanding attention to interdependencies rather than interpretations. Ricou's class offers a model for the portfolio design that became integral to *Life Overlooked*, a design that summons a deep ecosocial habitat by focusing intently on a single, overlooked species.

Building on the diverse methodologies noted above, the *Life Overlooked* pedagogical pilot project was designed as a vehicle for students to create a digital public presence for "noncharismatic" beings that represent, expound, narrate, illustrate, question, and problematize each individual species' ecological, cultural, phenomenological, economic, political, and personal significance, while simultaneously reflecting on the ways in which being overlooked is a highly complex phenomenon that does not simply reflect neoliberal, North American, human figurations of life, even as it is inextricably part of these relations.

As a project with modular parts being performed in different places, the project takes the form of applied humanities research, with the goal to empower students to become citizen humanists who might disseminate local ecological knowledge. Citizen humanists would work to build back in, or re-place, the human and cultural dimensions of ecology that complement statistically based or scientifically based maps of nonhuman life. As a pedagogical template, *Life Overlooked* seeks to understand how to teach, write, narrate, and represent stories of overlooked animal and plant species and explore how these stories might be employed to broaden the application of principles of affective attachment, social justice, environmental sustainability, and rights in and among the diverse species inhabiting the biosphere. Each course—in Oregon, Ontario, and Arizona—was created as a pilot exploration into how one might empower student-citizens to act as street humanists with an eye toward the ethical dimensions of scientific discovery and cultural representation of nonhuman species. Each student was given the choice of whether or not they would upload their portfolios to the public H*f*E platform or turn it in as a private project. Each student portfolio of images and text allows visitors to the H*f*E website to consider the multiple worlds and multiple scales in which overlooked species dwell, from the microscopic to the cosmic, from fungi in the soil to the cells that make up the bodies of all carbon-based creatures on Earth.

All H*f*E projects, including *Life Overlooked*, were created in response

to the title of the North American Observatory's West Cluster theme, "Toward a Just and Sustainable Future," inspired by "The Future We Want," the outcome document produced at the 2012 (Rio+20) United Nations Conference on Sustainable Development and signed by all UN member states.[3] This document confirms a broad general agreement that global society should strive for a high quality of life that is equitably shared and sustainable for all species.[4] Our inspiration and our goal in offering these linked, modular courses is to work toward citizen-humanities projects that will contribute to more flexible thinking about how we might achieve the goal of an equitable, shared life for all, meaning for humans and nonhumans.

Each of the following short essays acts as an annotated syllabus and an invitation to click on a live link at the end of each section that will lead you directly to an actual course syllabus created for *Life Overlooked*. Note that professors LeMenager and Adamson designed their courses for undergraduate students, while professor Sandilands's course is a graduate seminar.

Teaching with *Life Overlooked*: Three Voices

Stephanie LeMenager

Joni Adamson, Cate Sandilands, and I share the pleasure of teaching with *Life Overlooked*, a multimedia project whose methods and conceptual frames emanate from new media formats, print culture, and the practice of fieldwork by amateurs that has come to be known as "citizen science." *Life Overlooked* was born as a collaboration among scholars and digital humanities practitioners, who played a role in creating the project's fundamental design and its implicit theoretical claims. As *Life Overlooked* developed, we learned that collaboration is both strategic and wild, in the sense that all creativity feels accidental and yet is constrained, and enabled, by explicit goals. Not everything that was thought or designed for *Life Overlooked* got into the final version of it, and yet none of the thinking and designing that contributed to it can be seen as irrelevant. The Mellon-sponsored Humanities for the Environment workshops hosted by Arizona State University in 2013–15 were experiments in a new humanities practice—essays into a kind of transdisciplinary work in which there can be no virtuoso performance,

no closure, no entirely finished, and thereby intellectually dead, work. The reasons that professors Adamson and Sandilands and I offer for wanting to teach with *Life Overlooked* are diverse, as is the intellectual genealogy of the project for each of us. We have agreed to present deconstructed syllabi for our versions of *Life Overlooked* and, in turn, to outline the pedagogical and intellectual rationales for using what has become one of the first EcoDH (ecological digital humanities) projects designed explicitly for classroom use. Our collective—and by necessity individual—goal in this short essay is to speak to why *Life Overlooked* has been good for us to teach with and, we hope, why you too might wish to incorporate it into your classroom practice.

For my part, the *Life Overlooked* project came to me before the syllabi I have designed to support it, and its pedagogical energies grew from two sources, both relevant to what I call situated pedagogy. When I joined the research team for the H*f*E West Cluster of the North American Observatory, I was up to my neck in administering a complicated, time-consuming, and ultimately rather wondrous collaboration with two members of the performance art collective the Los Angeles Urban Rangers; with colleagues at the University of California, including, especially, Professor Janet Walker; and with my University of California undergraduate students. That project, titled "i (heart) h2o," utilized the University of California, Santa Barbara, campus as a kind of laboratory in which undergraduates could begin to appreciate their relationship to campus water systems—systems vulnerable on many levels in a region tending toward drought, on a campus whose material footprint literally presses onto a stressed watershed emptying to the sea. The designers of "i (heart) h2o" were the artists Sara Daleiden and Therese Kelly, and one of the primary applications that they created for students and their professors was a deck of electronic cards that could be loaded onto smartphones and functioned as a prototype app. These cards directed students, through verbal riddles and charismatic images, to water sites on campus—sites of everyday traffic that were also, as it happened, cleverly disguised rain gardens, or areas of severe coastal erosion, or engineered bioswale marshland. The point was to make students experience and therefore better understand what Professor Walker aptly called the "vertical systems" that underlie the view corridors and the habitually used—thus largely unseen—campus.[5]

In profound ways that cannot be discussed in my contribution to this

essay, the impetus for the "i (heart) h2o" project came from the Center for Land Use Interpretation (CLUI). CLUI has exerted a strong influence within my own work. Their long-term project has been to aestheticize and thus make known systems—often hybrids of ecological and built design such as municipal water systems—that tend to be understood so habitually as to be overlooked.

From this background, I conceived the very first version of *Life Overlooked*, a rough sketch that became, through others' contributions over time, a distinct and rich collaborative project to which no single scholar can claim ownership and which, I'd add, is still open to elaboration and innovation as an open-source intellectual venture. The sketch that I came up with, in one of the generative brainstorming projects that characterized the new humanities lab practice fostered by H*f*E, consisted of the project name *Life Overlooked* and the concept of a tool of some kind that would work within students' normative practice to defamiliarize their environment and, as a result, help them to know it better. With input from Joni Adamson and others, including Ron Broglio and María Cruz-Torres, we began to put together a set of possible criteria for the overlooked that our design would elicit—would they be species, human-animal relationships, forms of labor invested in ecological systems that always exceed the capital-driven concept of resource? María, Ron, and H*f*E participant Alison Hawthorne Deming had strong commitments to thinking about humans' working relationships with "critters," and two projects came out of our early discussions, one of which is described by María and Ron in this volume.

As for *Life Overlooked*, it took on intellectual and ethical weight in a second brainstorming workshop, where, again, the niceties of project design jostled with intellectual and theoretical investments in a strong pedagogical experiment to open humanities students to questions of ecology and biology, in addition to historical values of place. Coders and tool designers were involved in some of these sessions, and for me the limits of design that they emphasized affected which kinds of intellectual questions I felt the project could answer and ask. At this later stage of the project, *Life Overlooked* gained considerable intellectual heft and pedagogical potential through Joni Adamson's and Cate Sandilands's work in multispecies ethnography and biopolitics from critical animal and plant studies, and from the site-specific

practice of habitat studies that Laurie Ricou innovated in a brilliant gesture of combining the humanities' investments in narrative and ethics with fieldwork. I'll leave Joni and Cate to explain these crucial theoretical and practitioner frameworks in more detail, adding only that I am grateful for them.

Fresh out of the brainstorming that marked our second *Life Overlooked* workshop in February 2014 and filled with excitement about the diverse naturecultures that *Life Overlooked* might lead students toward uncovering, as their own practice became a site of theory—I fell into beta testing *Life Overlooked* as a teaching tool in Spring 2014 at the University of Oregon. At this point, the H*f*E digital design hadn't been finalized; and keeping to my own sense that design precedes or at least exists in dialectic with the project's intellectual goals, I created my class syllabus around two design principles—one from the second workshop, explicitly from Cate Sandilands, and the other borne out of what I'll call the fortuity of desperation. Professor Sandilands offered the design principle of the portfolio in our second workshop, describing a mode of curating an archive about an overlooked species in such a way as to give it presence. A student's species portfolio could include glosses from natural history, from Indigenous cosmology and science, from literature and popular media. A larger goal for all of us was to break out of the emphasis within popular environmental rhetorics on so-called charismatic megafauna and to guide students toward the historical and ecological values, as well as media presence, that accrue to or emanate from uncharismatic life (i.e., to make life overlooked into valued life, represented life, *bios* rather than *zoe*).

Armed with the portfolio as my design template, I then asked myself what I wanted students to read, to think with, as they put together their portfolios of overlooked species. Here the syllabi that I created—for I ended up beta testing the project twice—borrowed from work in critical animal studies both by my two coauthors and by Stacy Alaimo, Donna Haraway, and Carey Wolfe. First, I wanted my students to understand nonhuman life as always already in relationship with the human animal, as fundamentally part of the social practice of being human. This intellectual leap requires us to expand our notions of being human to social actors not conventionally understood as either human *or* social in settler-colonialist epistemologies. To make this leap, I took my cue from my coauthors (Joni Adamson's work in multispecies ethnography

and Indigenous scientific literacies and Cate Sandilands's work in the biopolitical and postcolonial dimensions of the lives and fates of plants) and from the work of well-known anthropological theorists like Eduardo Viveiros de Castro, who elaborates on Amazonian Amerindian cosmologies, and Anna Tsing, whose wonderful EcoDH project *Matsutake Worlds Live* is itself an archive of multispecies relationship. Who would I have my undergraduate students read on this deep relationality, if you will? I settled on Haraway, primarily, with theory in practice offered by the 1996 French collaborative film *Microcosmos* directed by Claude Nuridsany and Marie Pérennou.[6]

My second intellectual goal for the class was that my undergraduates should have some idea of what the discourse and practice of rights has been regarding animals, human and nonhuman, in order to give the act of making their portfolios ethical direction. To dedicate time to curating an archive about a noncharismatic species (i.e., a life overlooked) is to implicitly assign it an inherent value—in other words, dignity—which is the (admittedly humanist) notion that subtends most discourses of rights. For rights-based teachings in animal-plant studies, I consulted animal studies theorist and longtime environmentalist Professor Stacy Alaimo—and note here how the collaborative web begun through H*f*E keeps extending or blooming.[7] From Alaimo's suggestion, I came away with accessible readings for my students, including the beautiful and insistent arguments on behalf of "animal people" by Joy Williams.[8] I also gathered well-known arguments about animal versus human rights from Tom Regan, Peter Singer, and Martha Nussbaum, to which I added theory in practice exemplified through the documentary films *Blackfish* and *Project Nim*.[9] Finally, I wanted my students to understand the portfolio project as, to an extent, a contemporary version of engaging in natural history. My choice of natural history as the third intellectual area from which to develop practice comes from essentially two aspects of natural history: (1) Its practice has been open to amateur scientists like my students and myself, and (2) its practice is largely innocent of the two-cultures divide between the humanities and the sciences. For a brief background in the practices of natural history, I assign readings by Henry David Thoreau and E. O. Wilson and a volume from the beautifully produced Reaktion Animals series—in my last class, the volume *Bee*, by Claire Preston.[10]

You now have my syllabus, unbound. But a word or two still needs to

be said about how *Life Overlooked* was realized as a multimedia project in my classroom. When I taught *Life Overlooked*, it hadn't yet been developed as a digital interface for H*f*E. Like a digital humanities practitioner without the assistance of a significant grant—and in my case, also without the ability to code—I had to get scrappy and make desperation work for me. With my undergraduates acting as digital-media consultants (again, the collaborative web widens), I looked to low-hanging social media formats, such as Facebook and Pinterest, and to readily available DIY website templates, like Weebly, to house and to shape my students' field encounters.

The students knew that they were involved in an international effort to create a curatorial experience of *Life Overlooked*. They were excited to be beta testing a project that would be developed further at York University and Arizona State University, and they, like me, wanted to test out the different digital tools that might best express the ethical and activist dimensions of this project. One undergraduate student, Trevor Bruffey, asked for the class's permission to create his portfolio as a Facebook site for an overlooked species, the lingcod.[11] The fish became the signatory author of the site and its own ironic and witty archivist, using the Facebook personal Timeline feature to post articles, short films, images, and witty asides to fellow lingcod and their ecosystem neighbors. (Oddly, a trafficker in sea cucumbers showed up on Bruffy's site at one point, looking for markets and failing to understand that the site was essentially a reanimation of Facebook as conceptual art). Another student, Rebekah Polacek, chose Pinterest to create a brilliant visual and associative-clustering archive about moss, exploiting the capacities of Pinterest to offer virtual galleries on explicit subtopics such as "Moss Historicism" and "Affiliated Life Forms."[12] Other students made use of Weebly or Blogspot to present portfolios both limited and enabled by the structuring principles of the site host. Miranda Grocki's Weebly site on the chequered lily offers a brilliant example.[13] My own wish for *Life Overlooked* is that it continues to flourish in both the highly accessibly and populist (if also corporate-sponsored) media ecology that my students used to test the project and in the beautiful, streamlined site designed by Patricia Ferrante at Arizona State University. Intellectual vitality flourishes within a rich landscape of design options, as Indigenous and postcolonial theorists of digital humanities so aptly remind us.

The syllabus for Professor LeMenager's course can be found at http://hfe-observatories.org/wp-content/uploads/2015/12/LeMenager_Life_overlooked_Syllabus.pdf.

Cate Sandilands

For me, it started with yellow sand verbena.

In 2009 the biennial conference of the Association for the Study of Literature and Environment was held at the University of Victoria, British Columbia—not only my hometown but also within a few kilometers of the house in which I grew up. During the ASLE meetings, the editorial board of the Wilfrid Laurier University Press Environmental Humanities Series convened a meeting at a café just down the hill from UVIC. After the meeting, Laurie Ricou, a member of the editorial board, insisted that we all walk the five minutes down to Cadboro Bay to look at a particular plant he had found there: yellow (or coastal) sand verbena (*Abronia latifolia*), which was growing in a small mat in the sand between the playground and the driftwood-studded beach. I had played in that playground throughout both my childhood and my daughter's. I had sat at that precise spot many times to watch the waves. But I had been facing the wrong way: I had never before noticed the round, low-growing clusters of bright-yellow flowers.

Laurie was pleased to have awakened my interest in this little botanical treasure. For years after, he sent me any snippets of information he came across about the plant (there isn't much, as it's not exactly a newsmaker species). I was also inspired to do my own research, and I sent Laurie numerous photos of the succulent patches of sand verbena that I now actively looked for in my beach travels. I learned that the plant only grows in open, sandy areas at sea level in very specific places on the West Coast (California to British Columbia). I learned that its sweet roots are edible and that it was possibly a source of food (although definitely not a major one) for the Checkonien family group, whose large village and longhouse, *Chee-al-thuc*, were located by the beach at what was called Sungayka (which means "snow patches" in Lkwungen). After about eight thousand years there, the villagers were moved from Sungayka, or Cadboro Bay, to what is now the Victoria Inner Harbour in the mid-nineteenth century as part of the Douglas Treaties that, of course, Douglas failed to honor. The people are now

part of the self-governed Songhees First Nation, which is a member of both the Te'mexw Treaty Association and the Naut'sa Mawt Tribal Council; I doubt there is any sand verbena on the New Songhees Reserve, as its location does not offer the right habitat. Indeed, I learned that the species has been virtually extirpated from Southern Vancouver Island because that habitat—open, sheltered, beachy waterfronts—is prime real estate for increasingly wealthy suburbanites and because stabilization programs for public beaches are not verbena friendly. I also learned that the particular waterfront zone in which the plant grows is technically called the backshore and is, in British Columbia, not necessarily protected by federal or provincial legislation (as are the nearshore and foreshore). I learned that *A. latifolia* on the Salish Sea form the *only* habitat for the extremely endangered sand verbena moth (*Copablepharon fuscum*), which relies on the plant at all stages of its life cycle: adult moths feed on the nectar of the flowers and lay their eggs there, and the larvae feed on both the leaves and the flowers when they hatch. I learned that the species does not tolerate regular water, which means that as sea levels rise, sand verbena will be one of the first casualties. And I learned (from Laurie, of course) that there is such a thing as yellow sand verbena poetry, such as an eponymous poem by Sandra McPherson and another mention of it in "A Wolf in the Choir," by Richard Arnold: "Our Sociology was dropping to hands and knees / On beaches to watch the yellow sand-verbena / Fling its fragrance of sex to pollinators."[14]

I had stumbled into a yellow sand verbena world, and that world connects settler-colonial displacement to plant sex (the flowers are hermaphroditic, in case you're interested) to neighborhood gentrification to transboundary conservation politics, in ways that are at once deeply local and irretrievably global. Of course, that's part of what Laurie intended. This desire was at the pedagogical heart of an ecocritical course that he taught for many years at the University of British Columbia entitled Habitat Studies, in which students were each randomly assigned a local (not necessarily native) species and instructed to pursue that species "into anthropology and ethnography, folk music, theatre, economic, geographical and political history, film and visual arts. But surely, and most essentially, into the sciences: into botany and zoology, lichenology and entomology, especially into ecology."[15] For Laurie, this kind of ecocritical practice is essential to disturb calcified

forms of literary study that are overly invested in particular texts identified as literature; foraging widely for one species and its habitat creates an ecologically inclined knowledge of the world that places another species (i.e., not humans) at the center of the universe. As Laurie notes, this practice of searching for and listening to a multiplicity of voices of and on that species is also a way of cultivating what Don McKay has called poetic attention, in which we begin to practice a form of nature writing, with the voices of the species and relationships about which we are writing folded in.[16] Indeed, this practice also guides Laurie's wonderful book *Salal: Listening for the Northwest Understory*, in which salal (*Gaultheria shallon*) animates a conversation about the Pacific Northwest that centers on the ways salal's specific capacities and proclivities incite and shape a range of human practices that are key to this place and beyond, from ongoing Indigenous food uses to native-plant landscaping to the global florist trade and, of course, to literary representations (there is are definitely more salal than there is sand verbena poetry).[17]

Until 2016, every year since I redesigned my graduate course Culture and Environment to focus on introducing students to the burgeoning fields of multispecies biopolitics and new materialism, I used *Salal*—alongside Julie Cruikshank's brilliant *Do Glaciers Listen?* and Jonathan Burt's fantastic *Rat*, another volume from the same Reaktion Animals series that Stephanie mentions—to conclude the course.[18] After wading through a term's worth of pretty densely theoretical works by Agamben, Haraway, Latour, Marder, Cohen, Bennett, and others, designed to place the more-than-human world of animals, plants, stones, and things at the center of political and ethical inquiry in the environmental humanities and ecocultural studies, students are not only relieved by the deep empirical and historical specificity (and beautiful writing) of all three of these books, but they are also fascinated by the ways in which these three authors offer very different methodologies for the practice of multiagential research. Although each of these texts produces what I call a biopolitical constellation of knowledges around its particular subject, each also does so in a very different way. Reading them together highlights questions of *how* different disciplines, discourses, industries, networks, and cultures include interactions with, for example, loved or hated rodents, unpredictable ice forms, and ubiquitous woody shrubs. This, in turn, allows students to be more reflective about the complex

power relations in which all multispecies knowledge production takes place. These deeply political and ethical considerations are very much the point of the course; simply recognizing the complex agency of a plant, for example, only tells us part of the story of that plant's implications in ecological, economic, and cultural unfoldings.

Of course, reading these texts together also makes very apparent the fact that all these more-than-human others are overlooked in some way or another. Although rats, for example, periodically come into very sharp focus as objects of disgust, extermination, fancy, and biomedical commodification, the fact that they are able, literally and figuratively, to withdraw into obscurity has been crucial to their phenomenal success as a companion species to human beings. Although glaciers are obviously very different from rats, they also enter into and withdraw from different, culturally specific human attentions in particular places and times; they can become a part of the landscape until their actions propel them to the center of anthropocentric attention as barriers to be crossed, beings to be pleased, surging forces to be feared, or shrinking presences to stand as metonyms of climate change. And salal is simultaneously everywhere and nowhere ("understory" in many senses of the word)—for example, as a global commodity in the floral trade whose primary industrial use is as a dark, negative backdrop to bright, showy blooms. In Toronto, where I teach my course, salal does not grow, so most of my students' primary interaction with the plant is as an element in floral arrangements; they know they *must* have seen salal but have no recollection of having done so. "Overlooked," then, is a complex relationship. It is clearly important for students to consider noncharismatic species as part of a larger practice of ecological understanding and respect—to give them presence, as Stephanie writes, and, as Joni also indicates, to highlight a multiplicity of species, knowledges, and relationships in the face of neoliberal capitalist fetishization of only certain forms of being, primarily as commodities. But it is not the case that all kinds of close attention are in the other species' (or individuals') immediate interests, requiring that we acknowledge the fact that the *Life Overlooked* project is not neatly separable from the biopolitical relations in which it intervenes.

Given that the second part of the course had already been designed around rats, glaciers, and salal—and fueled with brilliant inspiration from Joni, Stephanie, and others at the 2014 workshop—it was a simple

pleasure to include the *Life Overlooked* project in the 2014 revision of Culture and Environment. Students produced a web portfolio as their final assignment for the course, modeled on these three different models of constellation. But because one of the key inquiries informing the first part of the course had concerned what counts as a life, to whom, in what relationships, and in what contexts (the distinction between *bios* and *zöe* was introduced with Agamben in the second week of class),[19] students' choices of *what kind of life* to focus on were often gloriously unconventional. For example, Aadita Chaudhury took on dust bunnies as a way of questioning how life is understood in the first place.

> Dust bunnies are essentially assemblages of living matter, or at least biological matter that through certain manifestation take on a life of their own. The key components of dust bunnies include, household dust, airborne particles, human hair and skin cells (and perhaps that of household pets), and lastly, they are often known to house dust mite, that feed off of the biological detritus contained in the assemblage. Thus, not only are dust bunnies "living" in a way that suits most human definitions, they embody an ecosystem of their own.[20]

Andrew Zealley, whose doctoral research focuses on HIV/AIDS politics, portrayed the virus in a disembodied first person, as a way of problematizing the new politics of AIDS in a post-PrEP universe, thereby demanding a focus on the HIV-human *relationship* as a life form.

> I am the object of minute governmental and industrial management, and an economic superstar. I am multilingual and able to communicate with all humans, regardless of tongue. I have delivered millions to the knowledge of mortality. I am invincible.
>
> I inhabit the body of the human who made this video. My overlookedness recently prompted him to make an oversight in his daily dosage, resulting in mis-medication and a subsequent blip in his bloodwork numbers. Lazy human. He should know better.[21]

And Max Meyer tried to *cultivate* microbiota from his own body, weaving together a narrative of his various unsuccessful attempts with a powerful photographic series of partial portraits entitled *Micropolis* (maps overlain on skin) and also with important ethical questions about hygiene, infection, and interactions between the immune system and the

environment. His experiments revealed how very difficult it is to "get to know our microbiota" and also how "a more measured, informed microbial epistemology" would have a profound impact on how we perceive and live in our individual bodies: as communities rather than as atomized individuals of a single species.[22]

Students who chose to focus on species, more conventionally defined, were likewise both wonderfully creative and theoretically and politically probing, especially concerning the ethics and politics of interaction with cosmopolitan plants and animals in the Greater Toronto Area (which was only the geographical requirement of the assignment, designed to be interpreted broadly). Several students chose to develop portfolios about animals and plants considered to be pests—squirrels, coyotes, pigeons, stinging nettle—with the idea of wresting these creatures from their rather-monolithic abjection and restoring to them a more complex sense of cultural presence. Dylan McMahon and Ben Kapron's extensive, collaboratively produced pigeon portfolio, for example, directly considered the ways in which pigeons, as pests, are subjects of routine biopolitical intervention but, like rats (with whom they are frequently compared), are also prized as workers (especially in military campaigns, individual pigeons having won the Victoria Cross), as sport animals, as food, and as symbols of lost abundance and human rapacity (passenger pigeons).[23] Similarly, Colleen Bain's coyote portfolio included thoughtful considerations of the politics of urban wildlife encounters but overwhelmingly demonstrated the richness of human-coyote relationships through extensive research on their species and social lives (which confound culling as a management technique); their multiple involvements in Indigenous oral and literary traditions, in popular culture (not just Wile E.), and in visual art; and also their especially overlooked (and ubiquitous) presence in some Canadian cities as fur trim on parkas.[24]

Some portfolios were very personal, demonstrating students' prior passionate relationships to the creatures in question. Nathan Rowan's meditation on mules and hinnies was also a memoir of a life spent not overlooking them.[25] Others involved deep political commitments, such as Tracy Timmins's excellent inquiry into the ways in which slaughterhouses, especially in urban environments, are massive, institutionalized exercises in overlooking (indeed, the meat industry relies heavily on obscurity).[26] Despite the technical difficulties and frustrations that

Joni and Stephanie have both mentioned (one student gave up and submitted her work as a pdf instead), the project's support for multiple forms of representation enabled several students to include outstanding works of sound and visual art alongside more conventional scholarly and creative writing. In addition to the projects mentioned above, these included Kelly O'Brien's exquisitely lyrical film about milkweed and Carmen Umana's stunning *Cyborg*, an Atlantic salmon sculpture representing the species' current reliance on human technology for survival.[27] (Please, please look at the website!)

Although the populist desires of *Life Overlooked* have not had sufficient time to fruit (they would also require many more iterations in many more locations), I think there is no question that the project was a pedagogical success for my class. I will most certainly repeat it in some form in upcoming courses, and I am very grateful to Joni, Stephanie, and other members of the project for allowing my participation in the test run.

The syllabus for Professor Sandilands's course can be found at http://hfe-observatories.org/wp-content/uploads/2015/12/Sandilands_Life_Overlooked_Syllabus.pdf.

Joni Adamson

My version of the *Life Overlooked* pedagogical project emerged from my experiences teaching a course that I began developing in 1998, Environmental Creative Nonfiction. Part rhetorical and literary analysis and part creative writing workshop, this course, I would venture to say, is likely one of the first ecocritical courses in the world to have been offered in all pedagogical modes and a number of digital formats—face-to-face, hybrid, and fully online. In the late 1990s, when it was taught face-to-face, I followed the advice of Henry David Thoreau's "Walking" and took my classes down to the San Pedro River in Southeast Arizona with their nature-writing journals, to sit beside one of the last north-flowing, undammed rivers flowing from Mexico across the border into the US. Since we were studying and learning in the Sonoran Desert of North America, we read widely, starting always from Henry David Thoreau's "Walking" and then, usually with a desert focus, ranging through travel narrative, memoir, and nonfiction. I have assigned

works that include Alvar Nuñez Cabeza de Vaca's *Castaways*, Pat Mora's *Nepantla*, Patricia Preciado Martin's *Songs My Mother Sang to Me*, and Gary Paul Nabhan's *Gathering the Desert*, with its beautiful illustrations of desert plants by Paul Mirocha.[28]

We would discuss the virtues of peripatetic observation of the natural world, as described by Thoreau, as we also considered how writing requires creative gathering and then arranging and nurturing, just as Thoreau did with the beans in his garden or the O'odham peoples that Nabhan writes about have done for thousands of years with corn, squash, cactus fruits, and amaranth. This means that we focused broadly not only on walking as a metaphor for writing but on the ways that nature involves, not stasis, but the processes of movement, migration, and mobility. For thousands of years, humans, animals, seeds, foods, and plants have walked, escaped, or been shipwrecked, carried, blown, or sown into new places around the globe. We examined the intersections of these themes in relation to race, class, gender, time, space, scale, and social and environmental justice movements, as they would feature in each of our readings and in our own creative writings about place.

For example, we would read about conquistador-turned-healer Cabeza de Vaca, who traveled in the region at the end of the sixteenth century. In his travel narrative, readers see how his first language, Spanish, fails him when he sees the shape and experiences the tactile and nutritional qualities of prickly pear growing in the deserts of North America for the first time. He had been wandering cold and naked, having fallen on rather hard times after a shipwreck; and now, dependent on the peoples who knew the foods of North America best, he survived on this oddly shaped thorny "apple-like" fruit that contributed to his survival over the course of nine years before he traveled though the Sonoran Desert on his way to Mexico City and then back to Spain. His narrative literally intersects in important ways with the more contemporary nonfiction of Preciado Martin, who writes about the construction of a superhighway through Tucson in the late 1980s that leads to the removal of historic barrios and the end of a *milpa* (Spanish for "garden") system dependent on river water that began disappearing in Arizona in the 1950s as it sunk into aquifers being pumped down to serve the new swamp coolers that were making settler colonial life in the Sonoran Desert possible for nonindigenous newcomers. These

readings ask students to consider both the wild and the urban as they think and write about their own relationships to place.

Later, when I began using electronic software and teaching hybrid (i.e., partly online) versions of the course, I transformed the nature writer's journal into "field notes" that students filed on a software platform we called the "webboard." This program allowed us to share and workshop our writing inside and outside class. Today, I teach versions of this course face-to-face or fully online, depending on the semester. When I became the lead for the H*f*E website development team in the summer of 2014, I was guided by my past experiences teaching in digital environments as I began making decisions about how we would set up WordPress web pages for the *Life Overlooked* project, which would house student portfolios.

My Environmental Creative Nonfiction course, revised for *Life Overlooked*, was taught in the fall of 2014. My small-scale urban "laboratory" would be the Arizona State University campus, in Tempe, Arizona, which sits very close to the now dry bed of the once-wide Salt River and the thousand-year-old "urban footprint" of a once-thriving pueblo city of the O'odham people that Nabhan writes about so compellingly in *Gathering the Desert*. The Tempe campus has been designated a national arboretum, and its landscaping boasts diverse collections of plants—some of which are indigenous to the Sonoran Desert, though most are introduced from somewhere else—including citrus, olive, pecan, sapote, apple, peach, quince, sweet bay, and many other harvestable trees and shrubs that are used, proudly, in sustainable campus cuisine. My syllabus would include peripatetic walks around our campus laboratory, pointing out Arizona State University's sustainability "points of pride" that include underground cooling systems, shade structures that create microclimates for humans and nonhumans, and solar arrays on most roofs. Along the way, we would also observe birds, feral cats, and bugs. We would spend time writing, drawing, and mapping in our nature writer's journals in preparation for writing the creative essay for the digital portfolio.

Flyers distributed in advance announced the course as part of the H*f*E international project. Most students who signed up already knew they would be contributing to the construction of a website that would include both the *Life Overlooked* and *Living with Critters* projects (see Ron Broglio and María Cruz-Torres's essay in this volume). Once the

class started, students were highly inspired by the vividly illustrated stories produced in Professor LeMenager's beta-tested course. They found Trevor Bruffy's lingcod page (described above) and Jennifer Scott's Life Overlooked: Ants (http://antsoverlooked.weebly.com) highly motivational. I worked with H*f*E web designer Patricia Ferrante to hone the digital features of the course site so that students would be working separately from the live H*f*E website. This gave students privacy to work and revise and the H*f*E team and instructor the ability to grade and approve outcomes (such as copyright issues for images) before student pages went live. To accommodate both the digitally knowledgeable WordPress students and those who had never used digital or blogging tools before, the brilliant Patty designed two different template formats for students, one a bit easier to use than the other, as well as a digital instruction sheet for students to follow.[29] The instructions offered students a range of digital tools from the very simple (e.g., uploading images and text, tagging, geolocation) to the more complex (e.g., buttons, tiles, embedding videos). Luckily, my class included two students who were very experienced with WordPress and more than generous with their time helping others. Also, as students became more comfortable with WordPress, groups of them began to meet outside class and help each other learn new tricks of the trade. Like one student in Cate Sandilands's class, not all were comfortable in the digital world, and one student chose not to build a portfolio on the H*f*E website. Patty and I hoped one offering of the class would give us the opportunity to work all the bugs out of the course site by the time that Cate Sandilands began using it later in the fall. That didn't happen. New bugs inevitably appeared (perhaps appropriate for a "life overlooked" project?). As I have learned since a major recent hack disabled the site for two weeks and left us with broken links and disturbed codes, maintenance concerns will continue to be an issue as long as the website remains live.

My Creative Environmental Nonfiction syllabus lent itself easily to the template syllabus, inspired by Cate Sandilands's previous use and adaptation of Laurie Ricou's "foraging methodologies" in her own courses at York University and written by Stephanie LeMenager at the University of Oregon for use in the pilot. For my version of the course, I adapted the template to Gary Nabhan's *Gathering the Desert* methodologies and Eduardo Vivieros de Castro's elaboration of Indigenous philosophies about plants and animals considered "persons." Sto-

ries about "persons" become an imaginative force for thinking about how the earth was formed through a series of relations, often predatory and violent, through geologic and biospheric time, and how these insights might assist humans in adapting to a rapidly changing world.[30] "Persons" were recently the subject of a 2015 conference organized by Vivieros de Castro—Os Mil Nomes de Gaia / The Thousand Names of Gaia. At this gathering, Donna Haraway lectured virtually (Skyping in) on the ways anthropomorphic or sentient "persons" name "collected things" that give presence to an entangled myriad of temporalities and spatialities, or "entities-in-assemblages—including more-than-human, other-than-human, inhuman."[31] With these methodologies and philosophies in mind, my students and I looked around our campus to discover how overlooked species could be named collected things and understood as entangled in a myriad of assemblages that might be seen if we knew how to look.

The goal I set for my course would be to identify humanities skills that might enrich how we understand citizen science; these might include understanding how to apply principles of social justice, science, and concepts of rights of community and community of rights in and among the diverse species inhabiting the biosphere.[32] Since we would be creating these possibilities in a digital environment, I asked my students to explore websites focusing on citizen science and community activism. They discovered the Biodiversity Group and learned their website was already entangled in important ways with the concepts we were piloting and the digital environment we were building.[33] Completely independently from our project, the Biodiversity Group began creating what I (following Priscilla Wald) might call the kind of zeitgeist that surrounds an idea whose time is now or an idea so powerful that it may emerge independently in several places at once, much as Donna Haraway learned that her idea of a Capitalocene (a word she hoped would capture the effects of everything changing bioculturally, biotechnically, biopolitically, and historically, or perhaps a word that might work better than "Anthropocene") was an idea that had already emerged in more than one place independently (Andreas Malm had used it first).[34] Similarly, the Biodiversity Group's Facebook page—launched in 2012 to network citizens, scientists, and photographers interested in citizen science on behalf of the world's snakes, lizards, and

amphibians—had long been publishing amazing images emblazoned with the motto Focusing on Life Overlooked.[35]

With the work of the Biodiversity Group in mind, we began thinking about how we might become citizen humanists, operating in everyday urban environments. We would seek to create a citizen humanities that would complement and expand the work of citizen scientists. My goal with readings and assignments was to invite students to ask questions such as "Why have bestiaries—compendiums of animal lore and knowledge—which were common in medieval times, been all but lost?"[36] "Why have older understandings of the natural richness of biodiversity, which can be found in oral and written forms in every culture but especially in many Indigenous cultures, been largely dismissed or forgotten?" and "How might citizen humanists bring these recorded cultural memories back into the scientific record to tell richer, fuller stories about species that are smaller than the human hand or commonly overlooked?" For insights into how these questions might be answered, we read, for the reasons explained above, about movement, migration, and mobility, beginning with Thoreau and Cabeza de Vaca. These readings allowed me to encourage students to explore their relationships with human and nonhuman others through observant walking and sitting on campus and by thinking about how language, and even single words, shapes what we see and don't see and how we experience a nonfamiliar species (like Cabeza de Vaca's "prickly apple"). We also read nature writer Lyanda Lynn Haupt's *The Urban Bestiary*, to rethink human relationships to everyday urban places and "backyard species"; journalist Elizabeth Kolbert's *The Sixth Extinction*, to learn more about scientific discourses surrounding accelerating environmental change and extinction rates; and Gary Nabhan's *Gathering the Desert* together with Donna Haraway's essay "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin" about collected things.[37] Students were required, at midterm, to rhetorically analyze the message or messages of one of these texts and also to consider the writer's craft in order to think about how these texts might inform the student's writing and artistry in their own narratives. Several of the students ended up including evocative quotes from their rhetorical analysis of these texts in the creative nonfiction they wrote to frame their digital portfolios.

The portfolio project required division into two major assignments: (a) writing the creative nonfiction essay and (b) constructing the digital portfolio web page. Students begin pulling the elements of their essay together by piecing together entries from their nature-writing journal and from the short written assignments outlined below and then transform these separate elements into a first draft and then a polished creative essay that is the central organizing element of each web page. The portfolio assignment is divided into *five* separate elements that each have different due dates: (1) a scientific description of the chosen species, derived from initial research in the biological sciences and framed as a narrative; (2) a personal reflection on the species, which might include sketches, photos or videos, maps, drawings, anecdotes; (3) an annotated bibliography (or bestiary) of the literary works, art, poetry, or films in which the species appears; (4) a collection of copyright-free images of the species; and (5) an oral report on and showing of the finished portfolio or web page during the last week of class.

In completing these assignments for the *Life Overlooked* website, my students tested how humanists can intervene digitally and narratively in the way the general public approaches their understandings of cactus wrens and prickly pears that are indigenous to the Sonoran Desert or nonindigenous species that have migrated, accidently or purposefully, to the region. These include geckos, grackles, starlings, and feral cats. For example, one student, Emily Doan, learned that the common lizard she saw every day, a gecko, actually originated in Pakistan. How did it get to Arizona? Her project, called "Luck of the Gecko," explores that question.[38] Another student, Patrick Dennis, not only learned the lore and science of the prickly pear, as a food and a plant; he also learned that the plant has now traveled around the world to become a cherished "local food" in places like Penghu, Taiwan. In "Prickly Pear: Enemy and Ally," he writes that a parasitic insect that lives on the prickly pear, the cochineal, literally filled the coffers of monarchies during colonization after it was discovered that the insect's crushed body contained a red color so bright that kings declared that only royalty could wear clothing made with the dye.[39] Like Anna Tsing's Matsutake mushrooms, whole economic and botanical systems emerged around this cactus so common in Arizona that almost no one sees its entanglements in long histories of multispecies relationship, much of which have brought us to this moment in time (the Capitalocene? the Anthropocene?), when

hundreds of years of settler colonialism and competition over goods like a colorful dye have entangled us in complicated systems and hierarchies that often have disastrous and uneven consequences for both humans and nonhumans. It is this that my students' web pages seek to explore, map, and bring into view.

The syllabus for Professor Adamson's course can be found at http://hfe-observatories.org/wp-content/uploads/2015/12/Adamson_Life_Overlooked_Syllabus.pdf.

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Stephanie LeMenager is the Barbara and Carlisle Moore Distinguished Professor in English and American Literature and professor of Environmental Studies at the University of Oregon. She is one of the cofounders of *Resilience: A Journal of the Environmental Humanities* and is the author of *Living Oil: Petroleum Culture in the American Century* (Oxford: Oxford University Press, 2014) and *Manifest and Other Destinies: Territorial Fictions of the Nineteenth-Century United States* (Lincoln: University of Nebraska Press, 2004), as well as numerous scholarly essays and book chapters.

Catriona (Cate) Sandilands is a professor in the Faculty of Environmental Studies at York University. She is a 2016 Pierre Elliott Trudeau Foundation Fellow, a former Canada Research Chair in sustainability and culture, and a past president of ASLE (Association for the Study of Literature and Environment) and ALECC (Association for Literature, Environment and Culture in Canada). She has published extensively in the environmental humanities, including works on queer and feminist ecologies, environmental literatures and politics, new materialist and multispecies thought, park and

protected-area histories, and plant studies. Her current projects include a queer ecocritical reading of the life and work of Jane Rule, a community storytelling anthology on climate change, and a book of literary nonfiction about urban plants.

NOTES

The epigraph comes from Laurie Ricou, "Disturbance-Loving Species: Habitat Studies, Ecocritical Pedagogy, and Canadian Literature," in *Critical Collaborations: Indigeneity, Diaspora, and Ecology in Canadian Literary Studies*, edited by Smaro Kamboureli and Christl Verduyn, 161–74 (Waterloo: Wilfrid Laurier University Press, 2014), 161.

1. The following three syllabi were developed alongside the *Life Overlooked* website as part of the overarching H*f*E project (http://hfe-observatories.org/projects/life-overlooked/): Stephanie LeMenager, "ENG 469/569, Thinking about Animals," (course syllabus, University of Oregon, Spring 2014), https://hfe-observatories.org/wp-content/uploads/2015/12/LeMenager_Life_overlooked_Syllabus.pdf; Catriona Sandilands, "ENVS 6149/CMCT 6120, Culture and Environment: Animal, Vegetable, Mineral," (course syllabus, York University, Fall 2014), http://hfe-observatories.org/wp-content/uploads/2015/12/Sandilands_Life_Overlooked_Syllabus.pdf; Joni Adamson, "English 378, Environmental Creative Nonfiction: Writing Life Overlooked," (course syllabus, Arizona State University, Fall 2014), https://hfe-observatories.org/wp-content/uploads/2015/12/Adamson_Life_Overlooked_Syllabus.pdf.

2. Sandilands, "ENVS 6149/CMCT 6120." Costanza et al. 2014, 284.

3. See United Nations, "The Future We Want—Outcome Document," Sustainable Development Knowledge Platform, UN Department of Development and Social Affairs, 2012, https://sustainabledevelopment.un.org/futurewewant.html. In the first iteration (1.0) of the H*f*E website, there were three regional clusters, Northeast, South and West. The website is now in its third iteration (3.0), and all clusters have been consolidated more simply within the North American Observatory, with each project found at its own unique link.

4. Robert Costanza, Ida Kubiszewski, Enrico Giovannini, Hunter Lovins, Jacqueline McGlade, Kate E. Pickett, Kristín Vala Ragnarsdóttir, Debra Roberts, Roberto De Vogli, and Richard Wilkinson, "Development: Time to Leave GDP Behind," *Nature* 505, no. 7483 (2014): 283–85, 284.

5. Sara Daleiden and Therese Kelly, "I (heart) h20: How's Your Water Relationship?," Carsey-Wolf Center, accessed October 16, 2015, http://www.carseywolf.ucsb.edu/emi/criticalissues/mar1 (site discontinued).

6. For just one among multiple examples of Haraway's career-long engagement with multispecies relationships, see Donna J. Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2007). See also Claude Nuridsany and Marie Pérennou, *Microcosmos: Le people de l'herbe* (Paris: France 2 Cinema, 1996).

7. It should be noted here that Alaimo is critical of many of the liberal and anthropocentric biases in Anglo American animal-rights discourse. For a recent compendium of Alaimo's work regarding the interrelations of human and nonhuman lives, see Stacy Alaimo, *Exposed: Environmental Politics and Pleasures in Posthuman Times* (Minneapolis: University of Min-

nesota Press, 2016). Stephanie LeMenager's syllabus can be found at http://hfe-observatories.org/wp-content/uploads/2015/12/LeMenager_Life_overlooked_Syllabus.pdf.

8. Joy Williams, "The Animal People," in *Ill Nature: Rants and Reflections on Humanity and Other Animals* (2001; repr., New York: Lyons Press, 2016) 123–54.

9. See Tom Regan, "The Rights of Humans and Other Animals," in *The Animals Reader*, ed. Linda Kalof and Amy Fitzgerald (Oxford: Berg, 2007), 23–30; Peter Singer, "Animal Liberation or Animal Rights?," in *The Animals Reader*, ed. Linda Kalof and Amy Fitzgerald (Oxford: Berg, 2007), 14–23; Martha Nussbaum, "The Moral Status of Animals," in *The Animals Reader*, ed. Linda Kalof and Amy Fitzgerald (Oxford: Berg, 2007), 30–37. See also Gabriela Cowperthwaite, *Blackfish* (Atlanta, GA: CNN, 2013); James Marsh, *Project Nim* (London: BCC Films, 2011).

10. See Henry David Thoreau, "Brute Neighbors," in *Walden, Civil Disobedience, and Other Writings*, ed. William Rossi (New York: W. W. Norton, 2008), 76–80; E. O. Wilson, "Bernhardsdorp," in *Biophilia* (Cambridge: Harvard University Press, 1984), 3–23; Claire Preston, *Bee* (London: Reaktion Books, 2006).

11. Trevor Bruffey's lingcod Facebook page can be found at "A Majestic Lingcod," https://www.facebook.com/amajesticlingcod/?fref=ts.

12. Rebekah Polacek's moss Pinterest page can be found at https://www.pinterest.com/rebekahpolacek/.

13. Miranda Grocki's chequered lily Weebly site can be found at *Chequered and Chocolate Lillies* (blog), http://chequeredlilies.weebly.com.

14. Richard Arnold, "A Wolf in the Choir," *Trumpeter* 18, no. 1 (2002), ll. 18–20.

15. Ricou, "Disturbance-Loving Species," 163. See also Laurie Ricou, "Out of the Field Guide: Teaching Habitat Studies," in *The Bioregional Imagination: Literature, Ecology, and Place*, ed. Tom Lynch, Cheryll Glotfelty, and Karla Armbruster (Athens: University of Georgia Press, 2012), 347–64.

16. Don McKay, *Vis à Vis: Field Notes on Poetry and Wilderness* (Wolfville, NS: Gaspereau, 2001).

17. Laurie Ricou, *Salal: Listening for the Northwest Understory* (Edmonton, AB: NeWest, 2007).

18. See Julie Cruikshank, *Do Glaciers Listen? Local Knowledge, Colonial Encounters, and Social Imagination* (Vancouver: University of British Columbia Press, 2005); Jonathan Burt, *Rat* (London: Reaktion Books, 2006).

19. See Giorgio Agamben, *The Open: Man and Animal* (Stanford: Stanford University Press, 2004).

20. Aadita Chaudhury, "Dust Bunnies," *Life Overlooked*, November 23, 2014, https://hfe-observatories.org/project/dust-bunnies/.

21. Andrew Zealley, "I Am Just a Trace: A Haunting in a Daily Dosage," *Life Overlooked*, December 6, 2014, https://hfe-observatories.org/project/life-overlooked-human-immunodeficiency-virus/.

22. Max Meyer, "Human Microbiota," *Life Overlooked*, December 17, 2014, https://hfe-observatories.org/project/human-microbiota/.

23. See Benkapron [Ben Kapron and Dylan McMahon], "Pigeons," *Life Overlooked*, December 1, 2014, https://hfe-observatories.org/project/pigeons-2/.

24. See Colleen Bain, "Urban Coyotes Overlooked," *Life Overlooked*, December 11, 2014, https://hfe-observatories.org/project/coyotes/.

25. See Laralis [N. T. Rowan], "Thinking with Mules and Hinnies as Life Overlooked," *Life Overlooked*, December 3, 2014, https://hfe-observatories.org/project/streaming-fifty-shades-darker-2017-english-subtitle/.

26. See Ttimmins [Tracy Timmins], "Seeing and Being Seen," *Life Overlooked*, December 11, 2014, https://hfe-observatories.org/project/seeing-and-being-seeing/.

27. See Kellyob [Kelly O'Brien], "Milkweed," *Life Overlooked*, December 21, 2014, https://hfe-observatories.org/project/milkweed/; Carmen Umana, "Atlantic Salmon (Salmo salar)," *Life Overlooked*, November 25, 2014, https://hfe-observatories.org/project/atlantic-salmon/.

28. Alvar Nuñez Cabeza de Vaca, *Castaways*, ed. Enrique Pupo-Walker, trans. Frances M. López-Morillas (1555; Oakland: University of California Press, 1993); Pat Mora, *Nepantla: Essays from the Land in the Middle* (Albuquerque: University of New Mexico Press, 1993); Patricia Preciado Martin, *Songs My Mother Sang to Me: An Oral History of Mexican American Women* (Tucson: University of Arizona Press, 1992); Gary Paul Nabhan, *Gathering the Desert*, illustrated by Paul Mirocha (Tucson: University of Arizona Press, 1985).

29. Patricia Ferrante's WordPress page on the H*f*E site, "User Instructions," can be found at http://hfe-observatories.org/wp-content/themes/Avada-Child-Theme/documentation/index.html.

30. See Joni Adamson, "Source of Life: *Avatar*, Amazonia, and an Ecology of Selves," in *Material Ecocriticism*, ed. Serenella Iovino and Serpil Opperman (Bloomington: University of Indiana Press, 2014), 253–68, 260–61; Eduardo Viveiros de Castro, "Cosmological Deixis and Amerindian Perspectivism," *Journal of the Royal Anthropological Institute* 4, no. 3 (1998): 469–88, 469.

31. Donna Haraway, "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin." *Environmental Humanities* 6 (2015): 159–65, 160.

32. See Adamson, "Source of Life."

33. For more on the Biodiversity Group, see their website at http://biodiversitygroup.org.

34. Haraway, "Anthropocene, Capitalocene, Plantationocene, Chthulucene," 160, 163n6.

35. The Biodiversity Group's Facebook page is located at https://www.facebook.com/TheBiodiversityGroup.

36. For more on bestiaries, see Lyanda Lynn Haupt, *The Urban Bestiary: Encountering the Everyday Wild* (New York: Little, Brown, 2013), 5.

37. Haupt, *Urban Bestiary*, 8; Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (New York: Henry Holt, 2014).

38. See Emily Doan, "Luck of the Gecko," *Life Overlooked*, September 24, 2014, http://hfe-observatories.org/project/mediterranean-house-gecko-draft/.

39. See Patrick Dennis, "Prickly Pear: Enemy and Ally," *Life Overlooked*, September 10, 2014, http://hfe-observatories.org/project/prickly-pear-destroyer-of-worlds/.