- 1 Title: Queering ecology: (Re)Constructing ecology as a home to better understand the social-
- 2 ecological pressures wildlife face
- 3 Subtitle: (Re)Constructing ecology as a home
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## 7 Abstract

8 Homes are intimate spaces where many bodies come together in space and time to deeply learn

- 9 and understand the many processes that have created one another. Ecology, the study of the
- 10 relationship between organisms and their environment, is based on the study of a home. Yet,
- 11 ecologists are trained in patriarchal, heteronormative, and otherwise Western articulations and
- 12 understandings of nature that prevent access to this ecological home. In this article, I argue that
- 13 through (re)constructing ecology as a home, ecologists can better understand the social and 14 ecological processes that shape an organism. To do this, I dissect conflict with wildlife as a
- 15 concept that reinforces taxonomical hierarchies and prevents humans from making a home with
- 16 wildlife. I then leverage Queer theory to flatten taxonomical hierarchies and create a landscape
- 17 that invites the (re)construction of ecology as a home-making discipline. Lastly, I sit within the
- 18 ecological home to examine urban wildlife and the environmental pressures they are subjected to
- 19 using the urban coyote as an example. This work leverages Queerness to collapse taxonomical
- 20 hierarchies and push traditional ecology towards a boundless relationality with wildlife to more
- 21 holistically understand the various social and ecological pressures that ultimately create their
- 22 phenotype.
- 23 Keywords: queer ecology, multispecies relations, urban ecology, human-wildlife interactions,
- 24 coyote, Canis latrans

## 25 Preface

26 "Yet small bodies and intimate atmospheres often get lost in big atmospheric narratives."

## 27 - Neel Ahuja, Intimate Atmospheres: Queer Theory in a Time of Extinctions

28 Vulnerability materializes as a mosaic terrain and the form it takes, that is its shape and texture, 29 is often a consequence of the surrounding environment. Queer theory has unhinged the walls of 30 the home I have come to know as modern, Western ecology, muddling much of my thought 31 processes and leaving me intellectually naked. The deconstruction of this home has reeled in a 32 storm of anxiousness, stress, pressure, freedom, and liberation. The anxiousness, stress, and 33 pressure was felt throughout reading Queer texts and eventually materialized as dreams. 34 Consistently, I dreamed of an ecological home. This home was different than the one I had 35 previously known. As I entered the structure, it was boundless, rather than rigid and fixed. No 36 walls. No corners. All I could see was a never-ending table filled with species and concepts 37 conversing. These species moved between and through each other - recognizing the 38 interdependence and interconnectedness amongst themselves. Ecology, itself, derives from oikos 39 (house, dwelling place, habitation) and *-logia* (study of), and thus, as ecologists, we are studying 40 a dwelling place. A home. A home where intimate interactions reveal to us the many complex 41 processes that eventually produce an organism and its phenotype. However, the methods and 42 language of traditional ecology based in Western science have fractured this home and 43 rendered this intimate atmosphere inaccessible for many ecologists. The collapse of the 44 ecological home under white supremacy and patriarchy has stifled our understanding of the 45 countless processes that shape an organism. By leaning into and (re)constructing ecology as a 46 boundless, rather than rigid, home, an intimate atmosphere for a multitude of concepts, bodies,

47 and souls to interact at a never-ending table can be created.

## 48 Introduction

49 "Queer thought is, in large part, about casting a picture of arduous modes of relationality that

- 50 persist in the world despite stratifying demarcations and taxonomies of being, classifications that
- are bent on the siloing of particularity and on the denigrating of any expansive idea of the
- 52 common and commonism."

## 53 - José Esteban Muñoz, The Sense of Brown

54 For centuries, humans have sought to understand the complex ecological and evolutionary 55 processes of the world. From investigating why bees waggle upon arrival to hives and the 56 selection processes underpinning the coloration of wildlife, to exploring the myriad 57 environmental pressures that lead to behavioral adaptations in animals. All of these questions 58 have furthered our understanding of what lies beyond the human and the complex entanglement 59 of life with the environment. But have the investigative processes we have come to know as 60 surfire approaches and methods in ecology hindered our understanding of what is beyond the human? When we think in binaries (e.g., pest or non-pest, male or female) or simpler terms (e.g., 61 62 a bold animal) to understand the existence of organisms within our ecosphere, we miss precious 63 moments that reveal to us intimate and prolific processes. Even beyond these eclipsed moments, 64 the current scientific foundation we rest our method on has shaped our current practice to

65 exclude social processes from ecology because of the "objectivity" of science. In Western

science, ecology is unable to be penetrated by the intimate insertion of worldly processes – such

67 as classism, racism, capitalism, patriarchal dominations of nature, etc. It creates a "social world"

- 68 and a "natural world" under different, exclusionary roofs. This is in no doubt due to colonialism 69 and white supremacy which "produce allegedly objective, dispassionate, and male science which
- has traditionally made no room for any subjective, emotionally engaged exploration of the world
- around us." (Freyne 2020, 174). Yet, ecology itself, as a word and discipline that studies the
- relationship between organisms and the environment *demands* we engage with intimacy (Morton
- 73 2010), necessarily means interrogating the social world and its many (oppressive) processes that
- 74 leak into the natural world to subjugate human and non-human animals to harsh ecological
- 75 pressures. When we condemn and dismantle this "objective" ecology, we can examine "the
- <sup>76</sup> spatially and temporally extensive ways that practices are sedimented into and structure the
- 77 world" (Murphy 2013, 2), including societal legacies (e.g., colonialism, the plantation, historical
- redlining) that ultimately shape the social and ecological processes that influence organisms.
- 79 In this essay, I am leveraging Queer to dismantle and disturb "objective" Western ecology,
- 80 which is steeped in white cis-heterosexist articulations of nature and a direct result of who has
- 81 held (and produced) knowledge in these spaces, to (re)construct ecology as a home. Ecology, as
- 82 a disciple and entity, is about examining the relationship between organisms and their
- 83 environment. It is when we revisit the roots of ecology, which is a dwelling place and home, that
- 84 we begin to understand that humans have constructed a rift between themselves and the natural
- 85 world, disallowing our ability to fully understand the myriad social-ecological pressures
- 86 organisms are subjected to. Within this reconstructed home, the binary and rigid thinking of the
- natural world many ecologists cling to begin to dissolve, allowing us to access more of the fluid
  and dynamic reality organisms exist within. In this space, ecologists are able to gain the power to
- visualize the intimate connections and entanglements between the not-so separate social and
- 90 natural worlds.
- 91 In this essay, I argue that there is currently a rift between ecologists and the natural world which
- has stifled our understanding of wildlife and prevented the ecological home from emerging. I
- 93 argue that this rift is due to the societal construction of non-human animals and "conflict" with
- said non-human animals. This construction, both of the non-human animal and conflict, prohibits
  us from making and sharing a home with wildlife. I then lean on Queer theory to (re)construct
- us from making and sharing a home with wildlife. I then lean on Queer theory to (re)construct
   ecology as a home, creating room for intimacy between humans and wildlife and yielding a lens
- 97 to understand the complex entanglement of the social and natural world with respect to wildlife. I
- 98 then sit within this reconstructed home to examine the coyote (*Canis latrans*) as it traverses
- 99 human settlements and the boundaries we place on urban, suburban, and wild as labels for
- 100 conceptual markers.. Throughout this work, I am leveraging Queerness to envision "an array of
- 101 subjectivities, intimacies, beings, and spaces located outside of the heteronormative" (Chen
- 102 2012, 184) and create "an understanding of ecology as naming not the idea of the 'natural world'
- as something set apart from humans but a complex system of interdependency (Luciano and
   Chen 2015, 7). By capitalizing Queer, I am positing Queer as a being that casts shadows of
- 104 Uncertainty around the ways of knowing and feeling, and demands empathy and intimacy to
- uncertainty around the ways of knowing and feeling, and demands empathy and infimacy
- 106 build relationality amongst and beyond the human.

## 107 Constructed Conflict

108 Ecological theory has long examined the complexity of human-wildlife interactions. For

109 instance, scholars have spent years examining the myriad social factors – such as perceptions,

110 attitudes, past experiences, gender, socioeconomic status, and beliefs - that determines what a

111 person perceives as conflict (i.e., a negative human-wildlife interaction) (Dickman 2010;

112 Soulsbury and White 2015; Frank 2016). Recently, Harris and colleagues (2023) have

113 highlighted that human-wildlife interactions are not static, i.e., these interactions cannot

114 necessarily be binned into coexistence and conflict as these terms are incredibly flimsy. And

although Frank (2016) discussed human-wildlife interactions along a continuum between conflict

and coexistence, Harris et al. (2023) extended this by noting coexistence is not necessarily devoid of conflict (i.e., human tolerance of what is deemed a "negative" action from a non-

human animal) and that a life cycle of interactions occurs between humans and wildlife that is

119 highly dynamic, such that lasting coexistence may rarely occur.

120 Human-wildlife interactions, generally, can be positive (e.g., ecotourism, local birdwatching),

121 negative (e.g., livestock or pets lost to predation, vehicle mortalities), or neutral (e.g., humans

122 and squirrels co-existing in park). Negative human-wildlife interactions are typically

123 characterized as human-wildlife conflict, in which humans, infrastructure, or interests are

negatively affected by wildlife (Soulsbury and White 2015; Bhatia et al. 2019). Negative

125 interactions with wildlife can be considered a major issue (König et al. 2020; Lozano et al. 2020;

126 Treves and Santiago-Avila 2020), with many studies exploring how to minimize negative

human-wildlife interactions via management interventions (e.g., Young, Hammill, and Breck
2019; Boycott et al. 2021; Estien et al. 2022). Human-wildlife conflict is especially prevalent in

129 urban spaces due to a high concentration of humans and land-use changes (König et al. 2020)

130 and has even lead to evolutionary consequences on wildlife inhabiting these spaces (Schell et al.

131 2021). There is no doubt that interspecies interactions can be complex (Pooley, Bhatia, and

132 Vasava 2021), but I ask: is it *actually* conflict? Conflict, broken down into "together" (con-) and

133 "to strike" (-flict), is defined by Merriam-webster in several ways. Noun: (1) competitive or

opposing action of incompatibles: antagonistic state or action (as of divergent ideas, interests, or

persons); (2) mental struggle resulting from incompatible or opposing needs, drives, wishes, or external or internal demands; and (3) the opposition of persons or forces that gives rise to the

dramatic action in a drama or fiction. Verb: (1): to be different, opposed, or contradictory: to fail

to be in agreement or accord; and (2) *archaic*: to contend in warfare. Hence, to say there is

human-wildlife conflict is to say we as humans are "different, opposed, or contradictory" to

140 wildlife. It's to say that wildlife are "antagonistic" and have "incompatible needs, drives, wishes,

141 or demands". Rhetoric as such can often pre-determine how we perceive or interact with animals

142 that have been seen as "aggressive" and "dangerous" due to myriad "negative" interactions with

humans. But are these negative interactions actually conflict and is the use of conflict pre-

144 determining how we perceive wildlife and assess our interactions with them?

145 Peterson et al. (2010) began this conversation by reviewing what has been categorized as

146 "conflict" in the literature. Peterson and colleagues discuss how non-material entities—

147 memories, values, beliefs—are core characteristics of who humans are and influencing our very

148 being, including what we feel is "conflict". Of the 422 scientific papers reviewed by Peterson et

al., only one instance human-wildlife conflict was found, where magpies (*Gymnorhina tibicen*)

150 attacked humans (Warne and Jones 2003). The remaining papers found documented instances of

151 human-wildlife conflict such as property or agricultural damage by wildlife, and human-human 152 conflict pertaining to management decisions about (problematic) wildlife. This review illustrates, 153 and emphasizes, the importance of language use, as the phrase "conflict" is textured and has 154 immense consequences for promoting coexistence between human and nonhuman animals (and the ecosphere as a whole) (Peterson et al. 2010). Extending Peterson's argument—which hinged 155 156 on material concepts, that most "conflict" reported is simply miscategorized, and that the phrase 157 human-wildlife conflict is counterproductive to coexistence by dividing human and nature—I 158 argue that broadly, conflict, in the way we have currently come to generally understand it with 159 non-human animals, is not only a construct that bolsters the divide between humans and non-160 human animals, but, the concept of human-wildlife conflict creates an unbalanced power 161 dynamic that muddles solutions that best integrate human and non-human ecologies so multiple 162 species can thrive. For example, a quick and immediate solution to beavers (*Castor*) – a habitat 163 engineer that has downstream impacts on habitat biodiversity (e.g., Hood and Larson 2014; Law, 164 McLean, and Willby 2016) – causing flooding in forested or peri-urban areas may be to simply 165 remove the individual(s), either by lethal removal or translocation, or install a fence to exclude 166 beavers from certain areas. However, if a species is translocated from an area, depending on the 167 removal distance, that individual could simply return. If the individual does not return or has 168 been lethally removed, the space and resources used by the individual remains opens, allowing 169 another individual to move into the territory. As for fences, research has highlighted that fences 170 have complex effects on the ecology of a landscape (McInturff et al. 2020), and also that fences 171 do not always exclude individuals, regardless of fence maintenance (Wilkinson et al. 2021). 172 Thus, both "solutions" are relatively obsolete, but by centering the human in response to "conflict", we lose the ability to interrogate strategies for managing landscapes that work best for 173 174 humans and non-human animals. Notably, for beavers, actions such as deploying "pond 175 leveling" devices can be placed near or in their dams to keep them from flooding a nearby area, 176 creating a cost-effective, ecology-conscious approach that reduces flooding while not relying on 177 extermination of the beaver, or other disruptions to its ecology (Hood, Manaloor, and Dzioba 2018; Hood, McIntosh, and Hvenegaard 2021). However, as noted by Hood and colleague 178 179 (2018), flow devices are not a popular approach to beaver management (employed by 5% of 180 municipalities in Alberta, CA), unlike trapping and shooting (employed by 74% of municipalities 181 in Alberta, CA).

182 Western societies have generally constructed non-human animals as beings with no "rights" or 183 agency. They are seen as beings that respond to external stimuli, whether it be anthropogenic or 184 natural, but do not fully understand the world. For example, urban wildlife can often be 185 perceived as ecological accidents. They are seen as animals that must have been struggling in 186 their natural habitat and have accidently wandered into urban spaces, where they have now found 187 resources to consume. They are animals that belong in a "natural" habitat. The creation of urban 188 spaces (i.e., cities) as something solely to be human and distant/separate from nature further 189 upholds this notion that wildlife do not belong in these spaces and must be in cities by accident. 190 Rather than seeing cities as trans-species spaces where urban wildlife participates in social life 191 (Hubbard and Brooks 2021), cities are often fictitiously constructed as human spaces where 192 wildlife invade and forcibly make their own home. This militarization of urban wildlife, as 193 animals that invade or colonize spaces, rather than beings that move through borderless lands, 194 further invites the potential for conflict. It is no wonder society finds conflict with wildlife in 195 human-dominated landscapes, especially in cities – a concrete jungle that was built only for 196 human animals in mind. This division and demarcation from nature that humans have built with

197 cities pushes humans to further construct urban wildlife, specifically wildlife that refuse to exist

198 in cities as humans deem appropriate, as pests, vermin, and nuisance beings. These terms for

- 199 urban wildlife further construct these animals as beings to be controlled and dominated, and
- since conflict invites scenarios where there is a winner and loser or a dominator and a
- submissive, humans find themselves continually constructing conflict with many urban species
- to reassert their dominance over non-human animals. Conflict with non-human animals is easy to have when cities are seen as incompatible with the animal -a being constructed with no rights or
- have when cities are seen as incompatible with the animal a being constructed with no rights or agency – and the animal is seen as something to dominate or control under the Western society.

205 In urban spaces specifically, human-wildlife conflict typically stem from wildlife "misbehaving" 206 and interfering with capital, property, and aesthetics. In these cases, the use of conflict often 207 invites militaristic actions against the animal that is the deemed the perpetrator rather than the 208 oppressive system that underpins the negative interaction with wildlife. Conflict, here, reinforces 209 the taxonomical hierarchy and pushes wildlife into a social category that (dis)allows them 210 existence on human-dominated landscapes and access to resources. For example, New York City 211 has declared a war against rats. Although the conflict with rats can be argued as just, due to 212 potential human exposure to zoonotic diseases, conflict here constructs rat issues as human-213 wildlife obscures, inherently overlooking the capitalistic system that continues to values capital over people. Rather than interrogate the oppressive and violent system that as created poor 214 215 housing conditions and other environmental conditions that has created favorable habitats for 216 rats, leading to dense rat populations and human exposure to zoonotic disease, the city is 217 spending millions of dollars on the extermination of rats. Thus, conflict, as a structure and 218 process, often ignores the societal processes that degrade environments and push (marginalized) 219 humans to have negative interactions with wildlife. I argue that on a large-scale, the use of 220 conflict prevents an interrogation of a system that asks to have negative interactions with wildlife

- due to notions of, for example, aesthetics, property, and capital. Simultaneously, the usage of
- human-wildlife conflict inadvertently maps conscious antagonism onto wildlife, constructing a
- villainous and dark figure that eclipses who the animal is and invites violence towards wildlife.

# 224 Getting Dirty with Wildlife to (Re)Construct the Ecological Home

225 To fully deteriorate this myth of conflict between human and non-human animals, we must

- dissolve the human and non-human boundary and surgically remove human exceptionalism such
- that "boundaries between human and nonhuman melt" (Jones 2002, 93), recognizing that "nature
- 228 cannot be posited as other than or prior to humans" (Luciano and Chen 2015, 185). It is once we
- dissolve this boundary between human and non-human beings that we can begin creating a
- 230 foundation to (re)construct ecology as a home and repair the connections between humans and
- 231 non-human animals.
- 232 If we as a ecologists rupture the concept of individualism and human exceptionalism, as
- suggested in *Staying with the Trouble Making Kin in the Chthulucene* (Haraway 2016, 30), what
- 234 can be produced? To rupture and appropriately dismantle human exceptionalism, ecologists must
- 235 flatten the imagined and constructed hierarchical taxonomic ladder, which places humans at the
- top and "lesser" beings towards the bottom. Moving in this direction necessarily means we, as
- ecologist, must get dirty with wildlife: "Getting dirty means we become fully human by
- 238 remembering and embodying our trans-human animalness. This requires a decolonization
- process, because we must question and shed the conditioned beliefs that say we are more

240 intelligent than, different from, or better than our animal nature and other natural beings (i.e.,

241 human exceptionalism)." (Nelson 2017, 255).

242 Instead of being viewed as an individual with autonomy, decision-making abilities, and other

traits we place on a pedestal and have been socialized to understand as synonymous with

244 "human", wildlife are reduced to "just an animal". It's this constructed and infantilized "animal" 245 that warrants different societal perceptions and understandings of it when it appears on a human

that warrants different societal perceptions and understandings of it when it appears on a human landscape depending on the positionality of the human observing it. For instance, if the human

- observing the animal views nature as an entity that should be removed from humans, then any
- 248 move that animal makes may become "conflict". On the other end, a human may see
- endearment, resentment, or lack of excitement for an animal simply based on its biology and
- 250 positionality within human society (e.g., a pigeon or rat compared to a falcon or puma). What
- contributes to the transposition and maintenance of these dynamic feelings towards the non-
- human animal? A brief glimpse reveals that any being existing on a landscape where racialized tension continues to stem from colonial roots is incredibly porous, sliding up and down the
- animacy hierarchy (see Mel Chen's *Animacies*).

255 We can dig into this by examining the domestic dog, for example, who can become very

256 (in)human. Domestic dogs are porous in their image and, because of their positionality to

257 humans, can reap the benefits and consequences of the arbitrary and troubled hierarchy humans

- 258 have constructed. On the one hand, some dogs are demonized and ostracized with
- anthropocentric personalities such as "aggressive" sticking to them because of their proximity to

Black and Brown communities and thus, seen as "below" other dogs (similar to how Black and

- Brown individuals and other marginalized groups (Disabled folks, Trans folks, etc.) have been
- seen as "subspecies" to humans/humanness) while other dogs hold higher statute as classy, safer dogs because of their prevalence in white communities, and can often become familial and above
- other non-human animals and even other humans (Weaver 2021). Chen notes that the language
- we use around nonhuman animals situates and isolates them lower on this conceptual taxonomic
- 266 hierarchy—hence the phrase "treated me like a dog". This fixed taxonomical hierarchy stems

from the colonial gaze – which suppresses and hides entities deemed invaluable in a submerged

world.

269 In Extractivism, Gómez-Barris prys open the submerge world and reveals a complex and

270 interactive space teeming with perspectives. By entering this submerged world and moving

beyond the Western scientific perspective, we can interact with the world in a new fashion.

- 272 Going into what Gómez-Barris deems the "fish-eye" allows us to connect deeper to the
- environment and be enveloped by what extractivism (i.e., the colonial gaze) dismisses and moves
- beyond (Gómez-Barris 2017, 94-100). Moving into and employing this submerged perspective
- allows us to get dirty with wildlife and reconstruct ecology as a home where intimate interactions

are seen and heard. In this submerged perspective, "protecting nature means protecting

277 ourselves" (Anderson and Samudzi 2018, 33). It's in this intimate space where we are able to

- 278 feel the emotions and pain of wildlife when they are subjected to violent acts, such as polluted
- 279 landscapes. Getting dirty allows us to attend to the unseen, or even dismissed, interactions

280 between wildlife and the landscape they operate on and are engulfed in.

With an understanding of the porous nature of animals and the perspective that ignores a vibrant network of intimate connections, we can begin rearranging this constructed landscape. What

283 would it look like to rearrange a hierarchy that is rooted in oppression and acts as a barrier for 284 human-nonhuman connections? Instead of a vertical, capitalistic hierarchy that assigns values to 285 bodies, with entities such as insects on the bottom and human at the top, what if we flatten it? 286 When we flatten this ladder, instead of levels, we get create doors with two-pronged intimacy into a home. First, this two-pronged intimacy allows us to enter spaces that were considered 287 288 "disparate" before and fully engage with the life behind the door. Behind this door, hierarchical 289 barriers are dissolved – allowing us to see that wildlife are not detached from the human world 290 but incredibly entangled with our systems. We are able to better engage with our research 291 subjects and understand who they are and what their experience is on their respective landscape, 292 no matter the ecosystem. Although ecological theory already recognizes the complex interactions 293 between humans and ecosystems (Collins et al. 2000; Ramalho and Hobbs 2012; Des Roches et 294 al. 2021; Schell et al. 2020), in this flattened space, we can better identify the environmental 295 processes that entangle and latch onto our research subjects. For instance, a standard ecological 296 approach recognizes that urban wildlife have various behavioral responses to both social and 297 ecological pressures. Here, social and environmental factors such as urban heat, societal wealth, 298 pollution, transportation infrastructure, and human population density can impact community-299 level processes (e.g., biodiversity; Leong, Dunn, and Trautwin 2018; Chamberlain et al. 2019) 300 and feedback onto individuals (Saaristo et al. 2018; Des Roches et al. 2021), shaping an 301 organism's behavior and physiology (Ouyang et al. 2018). Yet, these approaches still fail to 302 consider or recognize how systems of oppression and extraction construct different niches for 303 urban wildlife, both social and ecological. Although current ecological thought considers the 304 ecological portion, examining what parts of cities are ecological hospitable for wildlife (i.e., has 305 the resources to sustain a population) or where wildlife currently occur in cities, ecological 306 theory has yet to critically examine why portions of cities are more socially acceptable than 307 others for certain wildlife (e.g., where are perceptions and attitudes of this organism tolerable). 308 Using these doors will reveal to ecologists that urban wildlife can slip into the racial and 309 capitalistic hierarchies of humans, ultimately shaping the existence of wildlife in urban 310 landscapes. For instance, urban wildlife interfering with capital interests and aesthetics can 311 become pests and are deemed "disposable", similar to marginalized human bodies (e.g., 312 homeless populations). Simultaneously, wildlife associated with particular human groups 313 become entangled in ethno-racial as well as economic conflict and hierarchies, leading to 314 unfavorable or violent views towards particular animals.

Second, while this two-pronged intimacy allows us for us to see new perspectives by more 315 316 intimately engaging with our research subjects and seeing how they function in their ecosystem, 317 this two-pronged intimacy allows for us to erects respectable boundaries between two or more 318 entities. These respectable boundaries allows for us to note and celebrate the differences between 319 the researcher and the research(ed). By recognizing and upholding these differences, we can 320 "love, befriend, and care for another" by "respect[ing] the independent aspect of their being 321 (Freyne 2006, 77)" (Freyne 2020, 178). These differences, whether biological or social, can 322 ultimately be what links the researcher and research subject against a structure that 323 simultaneously subjects them to violence. And in this simultaneous multi-species struggle 324 against neocolonialism and extractive capitalism, both researcher and research subject briefly 325 overlap, spatially and temporally, in an intimate fashion to become one. By being overlaid, both 326 (or more) bodies occupying the space are fluid, and the interactions become more intimate, 327 allowing a subject to become fully known. It's behind this door that we prevent pushing apart 328 and devaluing bodies and begin to realize that we, as ecologists, do not hold all the knowledge.

329 Here, our research subject becomes our research partner revealing what it wants to share about

the vast adaptations they are equipped with in response to vast social and ecological pressures.

331 Traditional ecological approaches are built on Western understandings of nature, which do not 332 recognize wildlife as beings with agency and inevitably reproduce troubled and oppressive 333 hierarchies. Upon identifying this, we can begin to recognize that these approaches are "an 334 imagined system, not an actual, self-regulating one" (Chen 2012, 89) and do not allow for an 335 expansive view of wildlife. Through Queering our approach to ecology, we are able to get dirty 336 and become entangled with wildlife, producing "empathy and kinship" (Nelson 2017, 232). 337 Getting dirty with wildlife allows us to have intimate interactions with non-human animals and 338 access understandings of how these animals navigate their environments. It's through approach 339 that we are able to flatten taxonomical hierarchies, weave new, personal connections with nature, 340 and access ecological knowledge that would otherwise be missed due to the static observations

341 of nature traditional ecology asks for.

342 When we begin to work in this flattened landscape, human exceptionalism and bounded

343 individualism fall to the side and a new intimate landscape teeming with complex emotions and

relationality is freed. In this landscape, organisms and processes are observed and felt differently.

345 For example, even a prominent ecological concept like co-evolution, an idea primarily discussed

in the context of predator-prey/host-parasite interactions, can be transformed into an intimate
 interaction that occurs between abiotic and biotic beings: "As plant sex spawned new generations

of plants, it also made new fire. As plant life mobilised, evolved and radiated, so fire migrated,

349 proliferated and diversified. As plants made the living world more hospitable to flame, so too did

350 wildfire select for species or communities that tolerated, even depended upon, flame." (Clark and

Yusoff 2018, 12). Similarly, photosynthesis transforms from a process of acquiring and
 processing energy into "celestial fertility" that burns "like a cool green fire" (Clark and Yusoff

2018, 11), and spiders move beyond animals that create webs to capture prey and sustain

themselves; instead, they make "attachments and detachments; they make cuts and knots; they

355 make a difference; they weave paths and consequences but not determinisms; they are both open

knotted in some ways and not others." (Haraway 2016, 31). On this flattened landscape, we can

begin to reconstruct and erect the ecological home, where interactions between human and non-

human beings can be seen, felt, and sensed differently. It is then within the ecological home, that we are able to sit at the table with organisms and fully see them. We are able to hold our research

360 organisms to feel their richness and texture. We are able to slowly move around the edges and

361 note characteristics we overlooked before. It's through this intimate process within the ecological

362 home that ecologists can begin to better understand the myriad social and ecological pressures

363 that impact them.

# 364 The Queer Concrete Canid

365 Coyotes are beings that persist in spaces they aren't wanted in and are often demonized even

though they are beautiful and meek. Coyotes are often viewed as "antagonistic", "problematic",

367 and derogatorily "complex". Yet, through all adversity—the defamation and subsequent

368 (environmental) violence that has come with human expansion—coyotes persist in urban spaces,

369 much like marginalized humans. In this section, I'll sit within the ecological home to examine

the urban coyote as a Queer ecological being navigating a charged landscape and the associated

371 social-ecological pressures.

The covote is one of many appendages of Nature. The covote in particular, similar to Nature at 372 373 large, exudes vitality and refuses to fit in the arbitrary boxes we affix to it. In this way, covotes 374 are a model of resistance against the rigidness of Western society and ideologies. The covote 375 sees the world differently than us and moves through space and time as a Queer ecological being. 376 Here, I leverage Neel Ahuja's definition of Queer/Queering, as the covote "emerges by tracing 377 an affective materiality that interrupts anthropocentric body logics and space-time continuums 378 rather than a sovereign stance of negation in relation to Law..." (Ahuja 2015, 372). By simply 379 existing and persisting, the coyote dismembers all anthropocentric logic on wildlife survival and 380 how wildlife should (and can) exist in cities. The coyote intimately exists in tandem with asphalt 381 and soil. Between the rough, gritty, chilled, and overbearing grey and the plush, firm, wet, and 382 boundless brown. All of it is home to the coyote. In this way, I would say that the coyote is 383 incredibly intimate with concrete, more than humans may ever be. The coyote, similar to the 384 Black identity (see Anderson and Samudzi 2018, 21), is inextricably linked with the land. It 385 paces and traverses streets as it has traversed time and moved through different embodiments. 386 On one end, the covote moves through many Indigenous stories as a parental figure, savior, or 387 creator, to name a few (Baldy 2015). On the other end, the coyote erupts in the Anthropocene as 388 an embattled and resilient carnivore that polarizes the Americas. Observing the coyote as this 389 still, yet transient, deviant body bursting with potential and possibilities instills an unmatched 390 wave of peace and power. It's an overwhelming feeling that drowns you and provides air 391 simultaneously.

392 Coyotes have emerged as an exciting potential case of ecosystem sentinels – species that provide

information about an ecosystem (Zacharias and Roff 2001) – sentinels in cities. The coyote is

394 set to expand its range across the Americas (Hody and Kays 2018), and their intimacy with 395 (toxic) landscapes will be greater than we will understand. With this range expansion, the images

396 of the coyote will continually collide and be rebuilt to articulate *who* the coyote is both

- 397 materially and cosmically in modernity, "generating friction and leakage" between these
- identities (Luciano and Chen 2015, 186). As these conversations of who the covote is continually
- 399 surface, the covote is often seen as a *danger*, *out-of-place*, and *not belonging*. For example, in
- 400 Denver, Colorado, themes of anger, accusation, violence, and crime in response to the covote are
- 401 incredibly prevalent (Draheim et al. 2021). Similarly in Los Angles, California, people have
- 402 organized a group entitled "Evict Coyotes" who "are not here to discuss both sides. The only
- 403 side we discuss is how to get our government to do their job and start Evicting Coyotes". This
- 404 rhetoric around *who* and *what* belongs *where* and use of phrases, such as "they don't belong 405 here" and "we don't want to coexist with them, we want them gone", mirror feelings directed
- 406 towards marginalized humans who are viewed as an "other"
- 406 towards marginalized humans who are viewed as an "other".
- 407 Despite these negative attitudes, coyotes, like many other urban animals, have increased their
  408 tolerance of people and human-dominated spaces (e.g., Breck et al. 2019), all while facing
  409 detrimental threats such as the rupturing of our climate and environmental violence (e.g., toxic
- 410 pollution and contamination). The phenotypic plasticity coyotes exhibit is something to marvel
- 411 over—almost like no matter how far humans bend them, they never break. And yet, this
- 412 phenotypic bending (i.e., plasticity) done by humans via the construction of a concrete jungle
- 413 and other large-scale landscape alterations is viewed as negative (e.g., Manzolillo et al. 2019)
- 414 rather than beautiful. Why is that? Mel Chen asks in *Animacies* "What happens when an animal
- 415 appears on human landscapes?" and for the urban coyote, dramatic and intense slippage occurs
- as it is rapidly thrown between the many constructed coyotes that exist in, for example,

417 NextDoor forums, Twitter threads, dinner table conversations, or local parks. The constructed covote – an "aggressor" and "villain"– directly alters how the material covote interacts with the 418 419 urban landscape with actions such as hazing aiming to reinstate human dominion and control 420 over the urban covote (Niesner, Kelty, and Robins 2024). The constructed covote has incredibly 421 tangible and sometimes violent consequences for the urban covote, who is simply resourceful, plastic, and resilient. This constructed coyote offers the human a "logical reason" to invest in 422 423 warfare and violence against the urban covote rather than build a home with the urban covote 424 (Niesner, Kelty, and Robins 2024). Yet, the coyote does not subscribe to this false image of self, 425 despite the human begging for the coyote to buy into this constructed image to validate the 426 covote's ultimate death and removal. The urban covote moves around the constructed covote and 427 does not seek to be validated from the world or have a desire to be of this world. The urban 428 coyote recognizes that it does not exist beyond the margins of society and the cities we have 429 come to know, so much so that its existence seems to beget the interrogation and destruction of 430 the constructed heteropatriarchal, white supremacist world that has pushed the urban covote into 431 these very margins. Within these margins is where the urban covote absorbs xenophobic and 432 racist rhetoric via the entanglement with society's constructed other who are similarly crushed 433 and caricatured by myriad systems of oppression. It is here the urban coyote becomes Queer and 434 embodies abolition, freedom, and revolution. It is in this space that we can begin to understand 435 that antagonisms towards the coyote are not random, but a direct result of colonialism,

436 heteropatriarchy, and white supremacy.

437 There is tension between cities and coyotes, such that when a coyote emerges in a city, it is a 438 polarizing force that disrupts, ruptures, and shatters all quotidian entities and infrastructure. The 439 coyote's existence has continued to evolve and become conditional within an ongoing settler 440 project, similar to myself as Black Oueer person. This can be further understood as extractivism 441 views and understands both nature (and Blackness) as entities to be controlled and commodified 442 (Anderson and Sumudzi 2018, 33). With this lens, it becomes clear that to be an urban coyote is 443 to be "anti-human" in the same way that to exist as a Black person in the US is to be "anti-state" 444 (Anderson and Sumudzi 2018, 112). The simple existence of the covote is in direct opposition of 445 urban spaces and human assumptions of where nature "deserves" to be. The very construction of 446 cities is often made to center (socially dominant) humans and their needs - leading to a dense, 447 built landscape created from a love-affair of oppressive systems. For the coyote, capitalism, 448 classism, anti-Black racism, and more materialize to create inequitable and unjust cities that evict 449 slow violence on marginalized communities (Wright 2021). In this toxic urban landscape that 450 was not built for the coyote, it persists as a form of resistance to the many forms of oppression 451 that are consciously overlooked in urban landscapes. The urban coyote experience is not one of 452 thriving, but survival, tenacity, and grit. The coyote's plasticity bends its destiny to encompass 453 life and a concrete future that prevents the constructed coyote from engulfing the urban coyote 454 until only its ghost is left.

- 455 The world we've come to know is not neutral nor natural phenomenon but constructed through
- 456 many systems of oppression that affect humans and non-humans alike (Schell et al. 2020;
- 457 Hubbard and Brooks 2021; Cannon et al 2023; Estien et al. 2024). The urban coyote, along with
- 458 other wildlife, is swept up in this constructed world where it subjected to harsh social and
- 459 ecological processes stemming from injustices and oppressive systems (e.g., imperialism,
- 460 capitalism). Yet, traditional ecology prevents ecologists from engaging with this part of the
- 461 world when investigating the environmental pressures, both social and ecological, that influence

- 462 wildlife. With the reconstructed ecological home, and the lens it produces, we can begin to
- 463 recognize that the large-scale oppression directed towards marginalized and minoritized humans
- 464 - including racialized rhetoric, violent actions, environmental degradation, and unjust laws -
- 465 encompass the urban coyote, ultimately shaping its phenotype and crystalizing it as a Queer
- 466 being.

#### 467 **Conclusion: Ecology as a Home**

468 "We should not wait for the magic words we want to hear to come out of someone else's mouth 469 when we can designate, dictate, and deliver change ourselves."

#### 470 Zoe Samudzi and William C. Anderson, As Black as Resistance

471 Science as a modern approach has a long history of entanglement with white supremacy,

- 472 dismissing other forms of knowledge, being, and understanding. Such that when we reduce non-
- 473 human organisms to solely scientific terms, we are reducing and stripping non-human organisms
- 474 of their being and preventing a full understanding of said organism. We are inevitably
- 475 reinforcing a taxonomical hierarchy and colonial human/non-human power schemes, losing the
- 476 ability to create boundless, intimate relations with our research subjects. What if intimacy and
- 477 love, such as respect, trust, commitment, and recognition (hooks 2000, 5), was shown to wildlife 478 as a researcher? For instance, what would it mean for ecologists to commit to wildlife and
- 479 recognize wildlife as beings with agency? Committing to and recognizing the agency of wildlife
- 480 would lead to erecting and reinforcing the ecological home, consequently pushing ecologist to
- 481 shift their disciplinary lens and methodological approaches. The movement into the ecological
- 482 home allows ecologists to better recognize, for example, the myriad oppressive structures that
- 483 shape the urban coyote (Cannon et al 2023). More applicably, it is through the trans-species
- 484 intimacy within the ecological home that we can begin to think how to plan cities and manage
- 485 urban landscapes that support all life, especially those that have been marginalized.
- 486 Currently, ecology has found itself in an unintimate landscape that encounters itself as a hurdle.
- 487 In this piece, I have argued that by Queering ecology, ecologists are able to shift the field such
- 488 that the core aspects to ecology – understanding the relationship between organisms and their
- 489 environment – can be better interrogated. Specifically, I have argued that through
- 490 (re)constructing ecology as a home, we can best identify the vast social-ecological pressures,
- 491 including systemic racism, charged rhetoric, and constructed perceptions, that shape wildlife
- 492 ecology. My hope is that by grounding ecology as a dwelling place and working within a home,
- 493 an intimate atmosphere for a multitude of concepts, bodies, and souls to interact at a never-494
- ending table can be created. This intimate ecological atmosphere calls for the abolition of
- 495 taxonomic hierarchies because intimacy, and by extension respect, care, and coexistence, cannot 496
- exist with dominion. Through ecological homemaking, we can begin to understand the 497
- positionality of wildlife in our constructed world, how this varies across organisms based on 498 their social and ecological niches, and how the ecological pressure wildlife are subjected to is a
- 499 direct consequence of this violent, constructed world.

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## 510 References

- 511 Ahuja, Neel. 2015. "Intimate Atmospheres: Queer Theory in a Time of Extinctions." *GLQ: A* 512 *Journal of Lesbian and Gay Studies* 21 (2–3): 365–85.
- 513 Anderson, William C, and Zoé Samudzi. 2018. As Black as Resistance: Finding the Conditions
- 514 *for Liberation*. AK Press.
- 515 Baldy, Cutcha Risling. 2015. "Coyote Is Not a Metaphor: On Decolonizing, (Re)Claiming and 516 (Re)Naming 'Coyote." *Decolonization* 4 (1).
- 517 Bhatia, Saloni, Stephen Mark Redpath, Kulbhushansingh Suryawanshi, and Charudutt Mishra.
- 518 2020. "Beyond Conflict: Exploring the Spectrum of Human–Wildlife Interactions and Their
- 519 Underlying Mechanisms." *Oryx* 54 (5): 621–28. https://doi.org/10.1017/S003060531800159X.
- 520 Boycott, Timothy J, Sally M Mullis, Brandon E Jackson, and John P Swaddle. 2021. "Field
- 521 Testing an 'Acoustic Lighthouse': Combined Acoustic and Visual Cues Provide a Multimodal
- 522 Solution That Reduces Avian Collision Risk with Tall Human-Made Structures." PLoS One 16
- 523 (4): e0249826.
- 524 Cannon, Clare EB, Alex McInturff, Peter Alagona, and David Pellow. 2024. "Wild Urban
- 525 Injustice: A Critical POET Model to Advance Environmental Justice." *Environmental Justice* 17
  526 (2): 120–27.
- 527 Chamberlain, Dan E., Dominic A. W. Henry, Chevonne Reynolds, Enrico Caprio, and Arjun
- 528 Amar. 2019. "The Relationship between Wealth and Biodiversity: A Test of the Luxury Effect
- on Bird Species Richness in the Developing World." *Global Change Biology* 25 (9): 3045–55.
- 530 https://doi.org/10.1111/gcb.14682.
- 531 Chen, Mel Y. 2012. Animacies. Duke University Press.

532 Clark, Nigel, and Kathryn Yusoff. 2018. "Queer Fire: Ecology, Combustion and Pyrosexual

- 533 Desire." *Feminist Review* 118 (1): 7–24.
- 534 Collins, James P, Ann Kinzig, Nancy B Grimm, William F Fagan, Diane Hope, Jianguo Wu, and
- 535 Elizabeth T Borer. 2000. "A New Urban Ecology: Modeling Human Communities as Integral

- 536 Parts of Ecosystems Poses Special Problems for the Development and Testing of Ecological
- 537 Theory." Am. Sci. 88 (5): 416–25.
- 538 Des Roches, Simone, Kristien I. Brans, Max R. Lambert, L. Ruth Rivkin, Amy Marie Savage,
- Christopher J. Schell, Cristian Correa, et al. 2021. "Socio-eco-evolutionary Dynamics in Cities."
   *Evolutionary Applications* 14 (1): 248–67. https://doi.org/10.1111/eva.13065.
- 541 Dickman, Amy J. 2010. "Complexities of Conflict: The Importance of Considering Social
- 542 Factors for Effectively Resolving Human–Wildlife Conflict." *Animal Conservation* 13 (5): 458– 543 66.
- 544 Draheim, Megan M, Susan A Crate, ECM Parsons, and Larry L Rockwood. 2021. "The Impact
- of Language in Conflicts over Urban Coyotes." Journal of Urban Ecology 7 (1): juab036.
- 546 Estien, Cesar O., Mason Fidino, Christine E. Wilkinson, Rachel Morello-Frosch, and Christopher
- 547 J. Schell. 2024. "Historical Redlining Is Associated with Disparities in Wildlife Biodiversity in
- 548 Four California Cities." *Proceedings of the National Academy of Sciences* 121 (25):
- 549 e2321441121. https://doi.org/10.1073/pnas.2321441121.
- 550 Estien, Cesar, Claire O'Connell, Xavier Francis, Grace Smith-Vidaurre, Bryan Kluever,
- 551 Elizabeth Hobson, and Annemarie van der Marel. 2022. "Temporary Behavioral Responses to
- 552 Playbacks by a Pest Parrot and Implications for Management." Animal Behavior and Cognition 9
- 553 (4): 363–84. https://doi.org/10.26451/abc.09.04.01.2022.
- 554 Frank, Beatrice. 2016. "Human–Wildlife Conflicts and the Need to Include Tolerance and 555 Coexistence: An Introductory Comment." *Society & Natural Resources* 29 (6): 738–43.
- Freyne, Gail Grossman. 2020. "Transgender: An Expanded View of the Ecological Self." In
   *Transecology*, 174–89. Routledge.
- Gómez-Barris, Macarena. 2017. *The Extractive Zone: Social Ecologies and Decolonial Perspectives*. Duke University Press.
- 560 Haraway, Donna J. 2016. *Staying with the Trouble*. Duke University Press.
- 561 Harris, Nyeema C, Christine E Wilkinson, Gabriela Fleury, and Zoliswa N Nhleko. 2023.
- 562 "Responsibility, Equity, Justice, and Inclusion in Dynamic Human-Wildlife Interactions."
- 563 *Frontiers in Ecology and the Environment* n/a (n/a). https://doi.org/10.1002/fee.2603.
- Hody, James W, and Roland Kays. 2018. "Mapping the Expansion of Coyotes (Canis Latrans)
  across North and Central America." *Zookeys*, no. 759 (May), 81–97.
- 566 Hood, Glynnis A., and David G. Larson. 2014. "Beaver-Created Habitat Heterogeneity
- 567 Influences Aquatic Invertebrate Assemblages in Boreal Canada." *Wetlands* 34 (1): 19–29.
- 568 https://doi.org/10.1007/s13157-013-0476-z.

- 569 Hood, Glynnis A., Varghese Manaloor, and Brendan Dzioba. 2018. "Mitigating Infrastructure
- 570 Loss from Beaver Flooding: A Cost–Benefit Analysis." *Human Dimensions of Wildlife* 23 (2):
- 571 146–59. https://doi.org/10.1080/10871209.2017.1402223.
- 572 Hood, Glynnis A., Anne C. S. McIntosh, and Glen T. Hvenegaard. 2021. "Ecological
- 573 Compromise: Can Alternative Beaver Management Maintain Aquatic Macroinvertebrate
- 574 Biodiversity?" *Wetlands* 41 (8): 112. https://doi.org/10.1007/s13157-021-01494-7.
- 575 Hooks, Bell. 2000. "All about Love: New Visions."
- 576 Hubbard, Phil, and Andrew Brooks. 2021. "Animals and Urban Gentrification: Displacement
- and Injustice in the Trans-Species City." *Progress in Human Geography* 45 (6): 1490–1511.
  https://doi.org/10.1177/0309132520986221.
- 579 Jones, Amelia. 2002. *Performing the Other as Self: Cindy Sherman and Laura Aguilar Pose the* 580 *Subject.* na.
- 581 König, Hannes J., Christian Kiffner, Stephanie Kramer-Schadt, Christine Fürst, Oliver Keuling,
- and Adam T. Ford. 2020. "Human–Wildlife Coexistence in a Changing World." Conservation
- 583 *Biology* 34 (4): 786–94. https://doi.org/10.1111/cobi.13513.
- Law, Alan, Fiona McLean, and Nigel J Willby. 2016. "Habitat Engineering by Beaver Benefits
  Aquatic Biodiversity and Ecosystem Processes in Agricultural Streams." *Freshwater Biology* 61
  (4): 486–99.
- 587 Leong, Misha, Robert R. Dunn, and Michelle D. Trautwein. 2018. "Biodiversity and
- Socioeconomics in the City: A Review of the Luxury Effect." *Biology Letters* 14 (5): 20180082.
  https://doi.org/10.1098/rsbl.2018.0082.
- 590 Lozano, Jorge, Agnieszka Olszańska, Zebensui Morales-Reyes, Antonio A Castro, Aurelio F
- 591 Malo, Marcos Moleón, José A Sánchez-Zapata, Ainara Cortés-Avizanda, Henrik von Wehrden,
- and Ine Dorresteijn. 2019. "Human-Carnivore Relations: A Systematic Review." *Biological*
- *Conservation* 237:480–92.
- Luciano, Dana, and Mel Y Chen. 2015. "Introduction: Has the Queer Ever Been Human?" *GLQ: A Journal of Lesbian and Gay Studies* 21 (2): iv–207.
- 596 Manzolillo, Brielle R, Carol S Henger, Tatyana Graham, Nadya Hall, and Anne H Toomey.
- 597 2019. "Are Coyotes 'Natural'? Differences in Perceptions of Coyotes among Urban and
- 598 Suburban Park Users." *Cities and the Environment (CATE)* 12 (2): 1.
- 599 McInturff, Alex, Wenjing Xu, Christine E Wilkinson, Nandintsetseg Dejid, and Justin S
- 600 Brashares. 2020. "Fence Ecology: Frameworks for Understanding the Ecological Effects of
- 601 Fences." *BioScience* 70 (11): 971–85. https://doi.org/10.1093/biosci/biaa103.
- Morton, Timothy. 2010. "Guest Column: Queer Ecology." *Pmla* 125 (2): 273–82.
- 603 Muñoz, José Esteban. 2020. The Sense of Brown. Duke University Press.

- Murphy, Michelle. 2013. "Distributed Reproduction, Chemical Violence, and Latency." *Scholar and Feminist Online* 11 (3): 1–7.
- Nelson, Melissa K. 2017. "7 Getting Dirty." In *Critically Sovereign*, 229–60. Duke University
  Press.
- Niesner, Chase A, Christopher Kelty, and Spencer Robins. 2024. "The Coyote in the Cloud."
   *Environment and Planning E: Nature and Space*, 25148486241229011.
- 610 Ouyang, Jenny Q, Caroline Isaksson, Chloé Schmidt, Pierce Hutton, Frances Bonier, and Davide
- 611 Dominoni. 2018. "A New Framework for Urban Ecology: An Integration of Proximate and
- 612 Ultimate Responses to Anthropogenic Change." *Integrative and Comparative Biology* 58 (5):
  613 915–28.
- Peterson, M Nils, Jessie L Birckhead, Kirsten Leong, Markus J Peterson, and Tarla Rai Peterson.
  2010. "Rearticulating the Myth of Human–Wildlife Conflict." *Conservation Letters* 3 (2): 74–82.
- 616 Pooley, Simon, Saloni Bhatia, and Anirudhkumar Vasava. 2021. "Rethinking the Study of
- 617 Human–Wildlife Coexistence." *Conservation Biology* 35 (3): 784–93.
- 618 https://doi.org/10.1111/cobi.13653.
- 619 Ramalho, Cristina E, and Richard J Hobbs. 2012. "Time for a Change: Dynamic Urban
- 620 Ecology." Trends Ecol. Evol. 27 (3): 179–88.
- 621 Saaristo, Minna, Tomas Brodin, Sigal Balshine, Michael G Bertram, Bryan W Brooks, Sean M
- 622 Ehlman, Erin S McCallum, et al. 2018. "Direct and Indirect Effects of Chemical Contaminants
- 623 on the Behaviour, Ecology and Evolution of Wildlife." *Proc. Biol. Sci.* 285 (1885).
- 624 Schell, Christopher J, Karen Dyson, Tracy L Fuentes, Simone Des Roches, Nyeema C Harris,
- 625 Danica Sterud Miller, Cleo A Woelfle-Erskine, and Max R Lambert. 2020. "The Ecological and
- 626 Evolutionary Consequences of Systemic Racism in Urban Environments." *Science* 369 (6510):
- 627 aay4497.
- 628 Soulsbury, Carl D, and Piran C L White. 2015. "Human–Wildlife Interactions in Urban Areas: A
- Review of Conflicts, Benefits and Opportunities." *Wildl. Res.* 42 (7): 541–53.
- Warne, Rowena M, and Darryl N Jones. 2003. "Evidence of Target Specificity in Attacks by
- Australian Magpies on Humans." *Wildlife Research* 30 (3): 265–67.
- Weaver, Harlan. 2021. *Bad Dog: Pit Bull Politics and Multispecies Justice*. University of
  Washington Press.
- 634 Wilkinson, Christine E., Alex McInturff, Maggi Kelly, and Justin S. Brashares. 2021.
- 635 "Quantifying Wildlife Responses to Conservation Fencing in East Africa." *Biological*
- 636 *Conservation* 256 (April):109071. https://doi.org/10.1016/j.biocon.2021.109071.
- 637 Wright, Willie Jamaal. 2021. "As above, so below: Anti-Black Violence as Environmental
- 638 Racism." Antipode 53 (3): 791–809.

- 639 Young, Julie K., Edd Hammill, and Stewart W. Breck. 2019. "Interactions with Humans Shape
- 640 Coyote Responses to Hazing." Scientific Reports 9 (1): 20046. https://doi.org/10.1038/s41598-
- 641 019**-**56524**-**6.
- 642 Zacharias, Mark A, and John C Roff. 2001. "Use of Focal Species in Marine Conservation and
- 643 Management: A Review and Critique." *Aquatic Conservation: Marine and Freshwater*
- 644 *Ecosystems* 11 (1): 59–76.
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