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PERSPECTIVE

# Challenges facing cross-disciplinary collaboration in conservation ethics

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**Abstract**

The enterprise of conservation is inherently ethical, requiring conservationists to navigate morally challenging problems. Working together, conservationists and ethicists have developed the field of conservation ethics. Yet, due to the deeply interdisciplinary nature of the field, conservation ethics faces a unique set of challenges. We first comment on the harm caused by reciprocal ignorance between some practicing conservationists and ethicists. We then explore the difficulties of creating a widely applied ethic, examining conversations surrounding the recently emerged virtue ethic, Compassionate Conservation. By bringing attention to these challenges, and highlighting medical bioethics as a touchstone of productive applied ethical theory, we can help the field avoid unproductive pitfalls, as well as facilitate positive and productive communication and collaboration between the various members of the different disciplines involved.

**KEYWORDS**

applied ethics, compassionate conservation, environmental philosophy, wildlife management

## 1 | INTRODUCTION

Conservation is an ethically motivated field, aiming to preserve ecological entities - from individuals to ecosystems (Soule, 1985; Wallach, Bekoff, Batavia, Nelson, & Ramp, 2018). The academic pursuit of conservation is interdisciplinary, spanning evolutionary biology, ecology, anthropology, and economics. The applied pursuit of conservation is multifaceted and variable across scales; sometimes the approach is singularly focused on the preservation or rehabilitation of a particular species, while in other instances, it involves a holistic focus on all entities of an at-risk ecosystem. As such, all practicing conservationists (including but not limited to: biologists, ecologists, NGOs, and advocacy groups) are navigating a complex ethical landscape.

Given the breadth and weight of such a task, conservation could greatly benefit from clearly articulated and widely applied ethical principles (Curzer, Wallace, Perry, Muhlberger, & Perry, 2013; Vucetich & Nelson, 2007). Indeed, conservationists have called for help in navigating ethical dilemmas, such as how to manage invasive species (Rohwer & Marris, 2019), balance the needs of individuals and ecosystems (Rohwer & Marris, 2019), and integrate human needs into conservation work (Brittain et al., 2020). Collaboration at the intersection of ecology, conservation, and philosophy could provide this needed guidance, but faces substantial challenges. Using recently published dialogue within the field, we highlight these challenges, including (a) the need for reciprocal understanding in philosophy and ecology, as well as the importance of respectful

discussion and (b) adequate and articulated ethical principles to guide decision making for conservationists. To expound on these challenges, we first identify the consequences of mutual ignorance between some conservationists and some ethicists, and provide suggestions for remedying these issues. We then examine published conversations surrounding a recently established virtue ethic (Compassionate Conservation) that has sparked much contestation. Using these exchanges, we comment on the ways in which this ethical framework frustrates conservationists, as it currently does not meet a desired minimum level of ethical prescription for action (Brittain et al., 2020; Callen et al., 2020a, 2020b; Hayward et al., 2019; Oommen et al., 2019). While the challenge of creating adequate prescriptive guidelines is quite a significant task, we suggest ways forward. As the field of conservation ethics continues to grow (Batavia, Nelson, & Wallach, 2020; Vucetich & Nelson, 2007; Wallach et al., 2018), our goal is to draw explicit attention to these challenges to better facilitate productive communication and collaboration among practitioners and philosophers.

## 2 | CHALLENGES TO PRODUCTIVE COLLABORATION

The relationship between humans and nature has been a subject philosophers and natural scientists have grappled with throughout the nineteenth and twentieth century. As an academic pursuit, however, the established field of environmental ethics has a more recent history, stemming from Rachel Carson's "Silent Spring" and the works of Lynn White tying the question of man's role in nature to the environmental disasters of the second half of the twentieth century (Brennan & Lo, 2021). Conservation ethics is a subdiscipline of environmental ethics specifically focused on the applied question of how to best conserve ecosystems and wildlife. In the last several decades, several prominent philosophers have done critical work in the field of both environmental ethics and conservation ethics, including Baird Callicott, Holmes Rolston III, Michael P Nelson, and Julius Kapembwa. In addition, some acclaimed ecologists such as Michael Soule and John Vucetich, and environmental writers, such as Emma Marris, have contributed to conservation ethics as well. These critical works have helped define the role and scope of conservation, establishing (and at times challenging) current paradigms within the field.

In spite of the philosophical works that constructively engage with conservation issues (Callicott, 1990; Kapembwa & Wells, 2016; Vucetich & Nelson, 2007), productive collaboration between the fields of ecology, conservation, and ethics has been stymied by some philosophical works that explore topics relevant to conservation ethics, yet do not incorporate ecological realities. This has been a persistent problem in contemporary philosophical discourse (see Horta, 2017; McMahan, 2015), but was most recently illustrated by a paper exploring the ethics of predation. Bramble (2021) considered two methods for wildlife managers to intervene in predator–prey interactions on behalf of prey in order to reduce overall suffering—either painlessly killing or herbivorising predators—and after considering the technological and ethical practicalities of both interventions, concluded that painlessly killing predators is the more ethical decision. In practice, removing predators from an ecosystem would result in an overabundance of prey individuals, ultimately leading to even more suffering, as prey individuals rapidly consume their resources and later die of starvation. This ecological reality, however, is unexplored in Bramble's text. The ecological absurdity of this normative recommendation did lasting harm to the relationship between practitioners and ethicists, demonstrated by the immediate response on Twitter. Bramble's mistreatment of the fundamental evolutionary and ecological principles underlying predator–prey interactions was a primary point of contention, with one reply identifying that the paper had thrown "basic ecology principles... right out the window" (Gonsalves, Chayant (@chayantg), 2020).

In addition, Bramble published in the *Journal of Applied Philosophy*, but failed to explicitly state that the scope and aim of his paper was *not* applied work (as he himself later tweeted, the work was intended to explore a purely philosophical thought experiment). This frustrated practitioners, leading some to completely dismiss ethics as a discipline (Jarret, David (@DavidJarret4), 2020). An ecologist asked rhetorically, "this paper does not help to take philosophy seriously ... How can I convince my scientific colleagues after this?" (Medel, Rodrigo (@medel2020), 2020). Another bookmarked the paper as "evidence that shows why philosophers should not be part of an environmental management team... its 'conclusions,' if you can call them that, are simply disposable from a scientific point of view" (Ospina, Andres (@andresospina), 2020). While informal reactions on Twitter from some ecologists cannot fully represent the considered opinion of all practicing conservationists, we do believe they illuminate how these types of papers can be perceived, and the consequences of those perceptions.

These exchanges also highlight the flip side of the coin: as much as there are some philosophers inquiring into applied conservation questions without the required ecological background, there are many conservationists and ecologists unequipped to engage with philosophical ethics. A reader with a philosophy background would easily have been able to recognize Bramble's paper as a theoretical exercise, rather than prescriptive applied

ethical guidelines for conservation. Conservationists' lack of philosophical training, and their often unknowing subscription (Nelson et al., 2021) to mainstream conservation dogmas (Wallach et al., 2018) was also exemplified in the exchange between Meyer et al. (2021) and Nelson et al. (2021). In this series of papers that explore the applicability of the Compassionate Conservation ethical framework (see section 2 for an explanation of Compassionate Conservation), Meyer et al. (2021) object to the inclusion of migrant species in biodiversity counts suggested by Compassionate Conservationists due to predicted negative consequences. All the while, they agree with the idea of challenging the existing paradigms in conservation, prompting one to wonder: how should conservationists manage migrant species given their potential to cause harm under this framework? However, Meyer et al. (2021) did not understand, or did not correctly account for, many of the philosophical points being made by Wallach et al. (2020). Indeed, the misunderstanding was so evident that the reply by Nelson et al. (2021) did not even attempt to address any substantive points made, but focused almost entirely on explaining the differences between: consequentialism and virtue ethics; assertions and arguments; ethics and an ethic; as well as detailing all the value-laden terminology in Meyer et al. (2021). The fact that Nelson et al. (2021) felt compelled to explain introductory ethics concepts rather than address Meyer et al.'s (2021) fundamental critique reveals the extent of the ignorance (in this case, of a collection of professional conservationists and ecologists publishing on ethical questions in a conservation journal). Other exchanges by conservationists within the field of conservation ethics also highlight the misunderstanding of philosophical concepts and argumentation (as suggested in Coghlan & Cardilini, 2020).

This is not to say that practicing conservationists do not hold particular ethical beliefs with respect to conservation. For example, the majority of conservationists value "the protection of the integrity and continuity of natural processes," stemming from Soule's foundational work on the practice of conservation biology (Soule, 1985). Yet this common ethical belief may be unexamined (Nelson et al., 2021) and unarticulated. Rather than learning to critically examine what conservation should value, these dogmas of conservation (Nelson et al., 2021) are part and parcel of the current standard education of a conservationist and assumed in their professional work.

## 3 | CHALLENGES IN CREATING AN APPLICABLE FRAMEWORK

Motivated by a concern for individual non-human animal welfare and with the goal of providing guidance for conservationists, Compassionate Conservation has recently emerged as a virtue ethic to guide conservation practice (Wallach et al., 2018, 2020). This is in contrast to, for example, a consequentialist ethic: a directly prescriptive ethic which holds that the right action is that which produces the best outcome (where different consequentialist theories will provide different accounts of what counts as best; Sinnott-Armstrong, 2019). By calling on conservationists to embody the virtue of compassion, Compassionate Conservation seeks to shape conservationists' decision-making process in a less directly prescriptive way; actions and policies are justified if they are the extension of what it is to be compassionate (Nelson et al., 2021). Wallach et al. (2018) acknowledge that the notion of what constitutes compassion can be ambiguous, but elucidate that "a virtuous person will carefully attend to the capacity of others to experience both joy and pain and make efforts not to inflict intentional and unwarranted suffering as a manifestation of one's compassionate character" (Wallach et al., 2018). They then provide several tenets to follow in order to embody the virtue of compassion within conservation. At the heart of Compassionate Conservation, however, lies a concern for individual nonhuman animals, in addition to concerns for species or ecosystems. Simultaneously, it is explicitly naming the implicit mainstream ethical norms in ecology and asking conservationists to consider the individual as well as the species (a challenge to norms that we celebrate). For further reading on the background of this framework, see Wallach et al. (2018) and Wallach et al. (2020).

The implementation of Compassionate Conservation, however, has been met with resistance. Conservationists contend that the guidelines cannot be successfully integrated with existing ecological theory (Hayward et al., 2019), focus too singularly on the right-to-life for charismatic megafauna (Oommen et al., 2019), do not consider how to integrate human needs (Brittain et al., 2020), and focus entirely on sentient animals (Callen et al., 2020a) which may draw taxonomic lines incompatible with ecological realities. Additionally, a common critique of virtue ethics frameworks writ large, and echoed by conservationists here, is the lack of universally agreed-upon understandings of what it is to embody a given virtue (Hursthouse & Pettigrove, 2018)—there is an ambiguity in what constitutes compassion, which can leave practicing conservationists without a command of how to realize compassionate action. Perhaps most relevant to the current challenges to effective cross-discipline collaboration, Compassionate Conservation has yet to articulate how practitioners can navigate many challenging conservation situations (Rohwer & Marris, 2019). For example, in the recent conversation between Meyer et al. (2021) and Nelson et al. (2021), we find that while Compassionate Conservationists persuasively argue

for the moral consideration of non-native species (Wallach et al., 2020), they do not address the fundamental concern of navigating ethical dilemmas: what should a conservationist do if the migrant species threatens the existence of the native individuals, native species, or the ecosystem function on which all the individuals depend? In other words, how does one act compassionately towards multiple individuals, when the interests of those individuals conflict? In the response to Meyer et al. (2021), Nelson et al. (2021) explicitly stated that they would not be addressing these fundamental concerns; however, many of these practical challenges need to be addressed if Compassionate Conservation is to be widely accepted.

Practicing conservationists may find Compassionate Conservation wanting for another reason: the motivations for conservation actions are the desired consequences—for example, the persistence of individuals, species, or ecosystems (Trombulak et al., 2004; Wallach et al., 2018)—rather than the embodiment of virtues. Conservationists therefore tend to lean consequentialist—responding naturally to consequentialist reasoning, and holding consequentialist beliefs by default. We do not believe that this consequentialist leaning results in conservationists *only* focusing on the outcomes rather than the morality of the actions themselves, as suggested in Nelson et al. (2021), although we do agree that turning away from consequentialist norms would require a large paradigm shift in conservation (Nelson et al., 2021; Wallach et al., 2018). We also note that consequentialist frameworks have their own challenges; while virtue ethic frameworks do not directly provide prescriptive guidelines that can meaningfully inform action, consequentialist frameworks often present significant practical epistemic challenges for those attempting to determine exactly what action would lead to the best consequences.

Yet it is important to remember, both consequentialist and virtue ethics thinkings can have elements of the other entwined within (Hursthouse & Pettigrove, 2018). Regardless of whether a practitioner ascribes primarily to a consequentialist or a virtue ethic, in an applied ethical scenario they can both weigh the morality and consider the consequences of their actions. As such, while practitioners may find Compassionate Conservation incomplete, many tenets of Compassionate Conservation are not necessarily at odds with a more consequentialist framework. For example, it is possible that such tenets could be situated within a more consequentialist utilitarian, or even a rights-based framework.

## 4 | MOVING TOWARD AN APPLIED CONSERVATION ETHIC

In a first step to facilitate productive collaboration, we suggest conservationists need to engage with philosophers in good faith, and be willing to build a working understanding of ethical theory. The work of conservation is inherently ethical (Marris, 2021, p. 201; Soule, 1985; Wallach et al., 2018) and those working in the field need to be equipped with the tools necessary to help navigate difficult situations. To accomplish this goal, we suggest that basic ethical training should be incorporated into mainstream academic training for practicing conservationists. Just as those in the field of business or medicine must take classes to help them gain fluency in basic ethical frameworks, we suggest conservationists and ecologists also need this education. Such training should be mandated in undergraduate or graduate coursework for ecology and environmental science degrees. For example, required courses such as environmental philosophy or applied ethics classes will equip practicing conservationists with the tools needed to recognize and navigate difficult ethical scenarios. Furthermore, as mentioned previously, many conservationists hold values that influence their practice that may not be critically examined (Nelson et al., 2021). A course on the history of environmental ethics as well as how ethical frameworks are established and utilized would provide conservationists with the tools needed to reflect on and critically examine values that have become dogmatic within conservation science and practice. Such classes will also expose more practicing conservationists to practicing ethicists and philosophers, potentially fostering collaboration. This will also allow conservationists to spot and disregard philosophical works that are logically unsound or ignorant of basic ecological principles (i.e., Bramble, 2021). In nonacademic settings, routine conversations with philosophers about ethical norms and issues in conservation practice could facilitate reflective and critical thinking.

Just as practicing conservationists must engage with philosophers in good faith, philosophers must do so in kind as well. Many of the philosophers mentioned above working at the intersection of conservation and ethics are well versed in ecological principles, but all philosophers who wish to engage with conservation ethics should ensure that their understanding of the underlying ecology is sound. Additionally, philosophers should be mindful of the lack of ethical training of many ecologists when engaging in applied conservation ethics. While it can be frustrating to engage with readers who misinterpret a piece of work (Nelson et al., 2021), it is important to engage respectfully (see Coghlan & Cardilini, 2020). Dismissing such challenges in favor of condescending (even if necessary) explanations of ethical terminology does not make for productive collaboration and only serves to drive a wedge, stifling further conversation (Nelson et al., 2021).

While these recommendations serve as a stepping-stone to collaboration, the significant challenge of creating a

practical framework for conservation ethics remains. Conservationists are calling for specific guidance with difficult ethical dilemmas (Curzer et al., 2013; Rohwer & Marris, 2019; Soulsbury et al., 2020), but this level of prescription may be beyond the scope of what philosophers are able to provide. Highlighted by the exchange between Coghlan and Cardilini (2020) and Callen et al. (2020a, 2020b), Compassionate Conservation is aimed at convincing conservationists to embody the virtue of compassion (Coghlan & Cardilini, 2020), but conservationists desire more concrete direction in navigating difficult situations than Compassionate Conservation is currently prepared to supply (Callen et al., 2020a). Moving forward, this tension must be addressed, and likely requires compromise and acknowledgement of the difficulty of the task on both sides. No ethical framework will be able to help practitioners to avoid any ethical controversy, but through collaboration we may be able to create one that better helps navigate the contemporary dilemmas facing conservationists.

Cross-disciplinary collaboration between scientists and ethics is not new. We spotlight modern biomedical ethics as a touchstone of successful applied ethics. Just like conservation, medicine is also a field fraught with ethical challenges, yet medical practitioners have long engaged with ethicists to help navigate difficult questions. Indeed, by working with ethicists, medical practitioners employ bioethically informed guidelines that can be widely applied in practice (e.g., Beauchamp & Childress, 2001). The specific ethical dilemmas and resulting guidelines for conservation will certainly differ from those tackled in bioethics, in no small part because modern biomedical relies on individual ethical paradigms (deontology, consequentialism, virtue ethics) which do not resolve the current problems in conservation ethics presented by the value of both nonhuman animals and collectives. Just like conservation ethics, biomedical ethics also contends with the difficulties presented by value pluralism—often, the separate values of multiple lives. Biomedical ethics also contends with the fact that medical practitioners hold different, and occasionally conflicting ethical views. As a consequence, biomedical ethics has been informed by a variety of ethical frameworks (Gordon, 2012). Despite a plurality of views, collaboration between medical practitioners and ethicists has created guidelines for ethical practice. This ongoing collaboration also manifests in the hospital wing, where practitioners who face particularly difficult situations can call on trained bioethicists for help with immediate ethical dilemmas. In a similar way, incorporating trained environmental ethicists early in conservation projects may be productive practice.

Ultimately, even if practicing conservationists find fault with Compassionate Conservation, it has reignited discussion between the fields of ethics and conservation, engaging through papers in major conservation science journals (Batavia et al., 2020; Hayward et al., 2019; Nelson et al., 2021; Oommen et al., 2019; Rohwer & Marris, 2019; Wallach et al., 2018, 2020). With productive communication, collaboration could result in a robust cross-disciplinary effort to navigate pertinent ecological and ethical problems of our time, such as the challenges presented by species decline, "invasive species," climate change, and human-induced change to ecosystems. We believe that those working at the intersection of applied philosophy and conservation ought to do so cautiously and conscientiously: productive philosophical engagement relies on mutual respect and humility. As this discipline moves forward, it will benefit from a multitude of ideas. Many ecologists and conservationists have no formal ethical or philosophical training just as many ethicists and philosophers have no formal ecological or conservation training. If we accept inevitable miscommunication and misunderstandings while endeavoring to improve cross-disciplinary learning, we can stop the siloing and antagonism that are antithetical to the pursuits of both disciplines.

Dale Jamieson dedicates his book, *Singer and His Critics*, to "all those who believe that philosophy is not just an academic exercise, or a way of making a living, but also an instrument for improving the world and improving ourselves" (Jamieson, 1999). Medical practitioners and ethicists have worked together for decades, engaging over ethical quandaries. The current ecological crisis presents urgent problems, and the need for environmental scientists to engage with ethicists is acute. As we move into a time of unprecedented anthropocentric environmental change, collaboration between philosophy and conservation will be paramount in mitigating the harm humans have inflicted on the planet.

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## CONFLICT OF INTEREST

The authors declare no potential conflict of interest.

## AUTHOR CONTRIBUTIONS

Kristy Ferraro, Anthony Ferraro, and Nathalie Sommer developed the ideas and concepts within this paper collectively. Kristy Ferraro led the writing of the manuscript with contributions from Anthony Ferraro and Nathalie Sommer.

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