

A Day with Crows

Rarity, Nativity and the Violent-Care of Conservation

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Abstract: *This article explores the intermingled violence and care of endangered species conservation. The structure of the paper takes the form of a narrative account of a day spent at the Keauhou Bird Conservation Center in Hawai‘i, observing staff taking care of a captive population of critically endangered Hawaiian crows (*Corvus hawaiiensis*). Over the course of the day some animals were cared for (especially endangered birds), while others were trapped and killed as part of the conservation management of the larger property (i.e. feral pigs). This article works with these examples and the broader context of the Hawaiian crow project to explore the underlying conceptual frameworks and the associated regimes of ‘violent-care’ that structure how living beings are valued or sacrificed within contemporary conservation practices. The goal is not to develop or even apply a set of generalized ethical principles that would evaluate these outcomes. Rather, this article offers a descriptive and situated account of the values and framings that are already shaping possibilities for life and death in this project in an effort to render these frameworks and their assumptions visible and so more readily amenable to ongoing discussion, revision and contestation.*

Keywords: *Biodiversity, conservation, crows, ethics, extinction, Hawai‘i*

The sun was still about an hour from rising when I dragged myself out of bed. I was staying in a little house nestled amongst the trees in a small but sprawling village called Volcano on the Big Island of Hawai‘i. Here, near the summit of Kilauea at about 4,000 feet elevation, the weather is not at all like that depicted on iconic Hawaiian postcards. All year round, but especially in the winter, it is cool and overcast most days. But it wasn’t the weather that had brought me here. I was in Volcano to see and to learn about some of the rarest birds on Earth, birds that just happen to be crows.

A quick shower and a cup of tea and I got into the car for the short drive to the Keauhou Bird Conservation Centre (KBCC), located on the outskirts of Volcano. Amongst the many other highly endangered birds that call KBCC home are roughly half of the world’s remaining Hawaiian Crows (*Corvus hawaiiensis*), known locally by their Hawaiian name, ‘*alalā*. Reduced to a handful of birds in the late 1990s, and subsequently driven to extinction in the wild, the captive population is now all that remains of the species (split between KBCC and a sister facility on Maui). While there are hopes that these birds might soon start being released into local forests, much remains to be done to prepare them and their environment. Until then, the future of the species is dependent on the intimate and dedicated daily care provided in these captive facilities: feeding, cleaning, protection and enrichment, provided by a small team of staff 365 days a year.

It was, in large part, a fascination with these daily routines of care – as well as, of course, with the birds themselves – that had brought me to KBCC. Just what does it take to hold a species like ‘*alalā* in the world in this way? This article explores these intimate practices of care, but it does so in a way that takes the plight of ‘*alalā* as a focal site for a broader critical engagement with the values that underlie contemporary conservation in Hawai‘i, but also to some extent in the US and around the world. Specifically, I am interested in the dominant conservation orthodoxy – what I have here called a ‘conservation ontology’ – that shapes decision making about which animals are cared for, but also about those that can, or must, be ‘sacrificed’ in the name of conservation.

The first half of this article outlines this conservation ontology and its operation in the context of the ‘*alalā* program. At the heart of this discussion is the notion that conservation today is grounded in a very particular ‘regime of violent-care’ that operates with reference to two key criteria: rarity and nativity. Of course, the violence of conservation can take a variety of forms: abandonment, suffering, captivity, and killing (Rose; Chrulew; van Dooren 2014; Kirksey). In an effort to narrow the frame, the focus of this article is specifically the violence of killing. The second half of this article considers the potential future release of captive ‘*alalā* to explore some sites of contestation over how we ought to live with and kill animals. In particular, I focus on some current and possible future oppositions to ‘*alalā* conservation from hunters and animal welfare advocates, concerned with the future of pigs and cats in the landscape. In these

contestations we can see the intersection of competing ontologies and their associated regimes of violent-care, each proposing that different values and criteria – other than those of rarity and nativity – should structure decision making about who lives, who dies and for whose sake. The analysis offered in this paper is an exploration of these diverse ontologies; it does not aim to illuminate the broader power dynamics that ultimately structure which of these positions ‘wins out,’ or exerts more influence in the shaping of local environments. Each of the general positions explored here – those of conservationists, hunters and animal activists – is characterised by significant ‘internal’ diversity, each also mobilises a range of resources from protests and covert pig (re)introductions, to court rooms and the legislative authority of the US *Endangered Species Act*, to enforce and/or enact their vision of human/wildlife relations.¹

This article is grounded in an approach to ethics as ‘field philosophy.’² The analysis offered emerges out of situated encounters in the field. Presented in an accessible narrative form, this is also an analysis that seeks to engage a wide audience in philosophical discussions. This article does not work to develop or even apply a set of generalized ethical principles, but rather offers an empirically grounded exploration of the kinds of values and framings that are shaping possibilities for life and death. Jonathan L. Clark (2015) has referred to this as ‘descriptive ethics,’ emphasizing the role of interviews and ethnographic work in understanding how decisions with ethical consequences are already being made. Equally as importantly, Clark and I are both also concerned with those sites in which ‘decisions’ occur without any conscious reflection at all, generated by the operation of larger frameworks of value and meaning such that “at crucial moments of choice most of the business of choosing is already over”(Iris Murdoch in Gruen 2015). When the ‘logics’ that structure violence (or care for that matter) go unexamined, they become both invisible and commonsensical, and it is that much harder to contest for alternative spaces, relationships and possibilities. And so, weaving narrative and philosophical reflection together, my goal in this article is to highlight and analyse the way in which relatively abstract conservation values and priorities are being enacted in situated locations.

¹ I have discussed other aspects of this specific conservation program in several other publications (van Dooren 2014, 2015, 2016).

² The term ‘field philosophy’ has been used by a range of scholars, e.g. (Frodeman 2003; Lestel, Bussolini and Chrulow 2014). The approach taken here is inspired by this work.

Intimate daily care for birds

It was starting to get light when I arrived at the main building of KBCC at about 6:30am. The facility, a venture jointly supported by the State Government of Hawai‘i, the US Federal Government and the San Diego Zoo, breeds and releases a range of endangered forest birds. I had arranged with the centre manager to visit a few times during my month on the island to shadow staff and observe the day-to-day work of taking care of ‘alalā.

This was my first such visit, and it was decided that I would shadow Sandra.³ Originally from the US mainland, Sandra has a background in ecology and conservation, having worked on the northern spotted owl and other projects before coming to Hawai‘i about a decade earlier. She was clearly passionate and knowledgeable about ‘alalā and other endangered species in the islands, and I was glad to have the opportunity to speak with her some more. That day, Sandra was assigned to the ‘uppers’ routine which meant that we would spend from 6:30-3:30 looking after the ‘alalā in the eight aviaries on the upper part of the property. In addition to this routine, there are also another ten ‘alalā aviaries at KBCC that comprise the ‘lowers’. Over the past decade or so, this breeding program has been incredibly successful with the captive population growing from an initial 12 birds to a current high of 112 ‘alalā, ranging in age from just a few months to 25 years.⁴

Sandra and I drove up the short bumpy dirt road to the uppers. As I got out of the truck I saw that the aviaries were separated by 20-30 metres of grass, interspersed with bushes and trees. Amongst this vegetation were plenty of the koa and o‘hia trees characteristic of this altitude. Many of the non-native plants in the area had been poisoned or removed as part of the ongoing management of the larger property (owned by Kamehameha Schools, one of the largest private landowners in Hawai‘i).⁵

That morning, the routine inside each aviary was pretty straightforward. Sandra tipped out the birds’ water container and replaced it with a clean spare. This dirty container was then washed out with diluted bleach and left to dry for its next use. At the same time, she hosed and washed any visible muck into the porous pebble floors of the aviary to keep the spaces as clean

³ This informant’s name has been changed to provide anonymity.

⁴ Figures as of June 2014. As previously noted these birds are split between KBCC and another facility on Maui

⁵ Kamehameha Schools was established through a trust endowed by Hawaiian Princess Bernice Pauahi Bishop (1831-1884). Although the trust’s primary responsibility is the running of schools, they also manage over 358,000 acres of land dedicated to conservation and agriculture. For further information, see <http://www.ksbe.edu> (last accessed 21 November 2015).

and disease-free as possible. She then collected old food containers and replaced them with fresh ones. Inside each new container was a bright assortment of tasty morsels carefully prepared by staff the previous day: peas, carrots, melons and other fruits and vegetables, alongside biscuits and a strange pink jelly substance that I was informed were both designed to provide optimal nutrition for captive birds. Melons were an obvious favourite with the ‘*alalā* and were frequently eaten or carried away almost as soon as we closed the door behind us.



Figure 1. An ‘alalā observing visitors to the aviary. Photo by author.

Conservation ontologies

Day in day out, 365 days a year, these birds must be fed, watered, monitored and cared for. In addition, staff spend hours each afternoon on ‘enrichment’ activities, working with the birds to ensure that they are challenged and stimulated physically and mentally (discussed further below). During the breeding season things are even more involved. For roughly four months of the year, breeding birds are watched via cameras in their aviaries to observe their reproductive behaviours, such as courtship, nest-building, egg-laying and incubation. Once eggs are laid, some of the females are given the opportunity to incubate, while other eggs are taken away by

staff to be machine incubated and hand reared, requiring round the clock feeding and care for their first months of life.⁶

My visit to KBCC provided me with a glimpse into these daily practices of care and attention. The huge investments of energy, resources and labour, both personal and institutional, that enable these birds and this species to survive in the world are visibly on display here. While many aspects of the project are certainly very basic, and conservation work on the islands in general is highly underfunded relative to mainland expenditure (Leonard), this investment is a clear indication of how much these birds matter, at least to some people and some institutions.

But what are the values that motivate and justify these practices of care for ‘alalā? Why invest so much in a crow, of all things? On one level the answer to this question is very simple: care for ‘alalā is grounded in the now thoroughly entrenched ideals and values of a global conservation movement. Of course, ‘conservation’ is itself difficult to define. In different times and places, it has meant very different things (Cioc; Robin 2007). My primary interest here, however, is in the now dominant discourse of ‘biodiversity’. As a range of detailed histories have shown, both the term ‘biodiversity’ and its companion science – conservation biology – emerged in a ‘climate of crisis’ in the USA in the 1980s (Takacs; Robin 2011). In this context, a focus on biodiversity made life/nature quantifiable in new ways, simultaneously allowing an accounting of, and drawing public and political attention to, the staggering loss of species, ecosystem and genetic diversity (Farnham).

At the heart of this conservation discourse is the notion that the diversity of Earth’s biological systems is a ‘good’, as Michael Soulé (1985) has put it. This position is now usually accepted on the basis of a general sense that biodiversity provides a range of current and potential economic benefits, ecosystem services, and even aesthetic, cultural and spiritual values (MEA; Posey). Alongside these more instrumental values, it is also occasionally noted that biodiversity is itself intrinsically valuable (UNEP). Taken together, this general set of values means that for many people, governments and institutions, biodiversity conservation is now viewed as being “self-evidently positive” (Howitt and Suchet-Pearson 323).

⁶ While on one level this monitoring and removal of eggs is clearly an act of care (for the species at least), it also means that many birds do not get the opportunity to rear their own young – an activity that others have argued is an important part of enriching captive lives. See my related discussion (van Dooren 2014, 87-122). In the past few years KBCC have made many advances in this area and are now allowing some birds to incubate and rear their own young (under close camera supervision).

While the roots of the biodiversity discourse lie in North America, and later Europe, today it is the central feature of a global orthodoxy. But its reach extends well beyond those dedicated individuals who deliberately take up conservation as a project in their lives. Today, this conservation orthodoxy is given form through national legislation and international conventions like the 1992 *Convention on Biological Diversity*. Through the work of government environment agencies and international, national and local non-government organizations (NGOs) – some of them exerting tremendous power – the discourses and values of biodiversity conservation increasingly shape the way that some landscapes, and with them their human and nonhuman inhabitants’ lives, are managed (Tsing; West). In addition, all over the world in a host of different ways, 21st century people are now enrolled into these modes of understanding and valuing the world: from school lessons that instil in students a sense of wonder and a basic notion of the importance of biodiversity, through David Attenborough documentaries, zoo visits, and perhaps even a viewing of *March of the Penguins*, we are now ‘trained’ into an awareness of the diversity and value of our biotic world.

In this context, we might today understand conservation as an ‘ontology’ which, in Arturo Escobar’s terms, anchors “an entire apparatus for the dispersion of new truths throughout vast social domains” (55). Like the other ontologies that we inherit, inhabit and remake, conservation now “gives us our politics” (Haraway 1991a 150), at least in part and in some places.

But what kinds of values and politics emerge from a focus on conserving biodiversity? To begin with, it is clear that the *diversity* of living things is to be valued and protected. The emphasis here is on the ‘active management’ of our more-than-human world (Howitt and Suchet-Pearson). In this context, the ethical imperative is not to look after any individual plant or animal, but to manage the entire system as best we can to ensure the conservation of the maximum biodiversity (Mathews).

However, as Kate Rawles has argued, it would be a mistake to assume that the sole focus of contemporary conservation is biodiversity in an absolute or straightforward sense. She notes that “there is an element in conservation goals that is irreducibly to do with preserving the native, or the natural or, perhaps, with preserving a historical lineage” (Rawles 205). In this context, contemporary conservation is not just about maximizing biodiversity, but rather *native* biodiversity: the goal is to maximise the right kinds of diversity in the right places (van Dooren 2011).

What emerges from these values and commitments is an approach to managing the living world in a way that, in each distinct locale, prioritises the needs of the *rare* and the *native*, and above all else the *rare native* – like the ‘*alalā*. At the simplest level, these are the core

normative values that orient our contemporary conservation orthodoxy. I will return to this point in more detail below.

The story I have told thus far is quite a homogenous one about a global conservation effort that is everywhere the same. However, while a focus on native biodiversity is at the core of contemporary conservation, in practice this focus is taken up in different ways in different places. In this context, conservation might be understood as a ‘universal’ in Anna Tsing’s sense of the term: a widely recognised movement, ideal, or framework, that is mobile and flexible in its application. Contrary to the unchanging and eternal ‘universals’ of some philosophical systems, Tsing’s universals are sites of ‘sticky engagement’. ‘Capitalism’, ‘environmentalism’ and ‘liberalism’, for example, touch down in particular localities. Through processes of ‘friction’, these local places are reshaped while the universals are themselves ‘redone’ (Tsing).

Over the past few decades, for example, the global conservation movement has been continually challenged by academics, activists and local communities to rethink its core values and approaches. From strident critiques of ‘fortress ecology’ that have problematised the simple notion that ‘people are the problem’ (Jeanrenaud; West, Igoe and Brockington), through to more contemporary, and very mixed, efforts to institutionalise a greater emphasis on the role of traditional ecological knowledge (TEK) and community-based natural resource management (CBNRM) in *equitably* achieving conservation goals (Dressler et al.; Shackeroff and Campbell).

Despite these changes, as a range of studies now show, real questions remain about how this dialogue between a global conservation movement and diverse local peoples takes place. Julie Cruikshank, for example, has explored some of the ways in which conservation has tended to selectively take up TEK, depending on whether or not it ‘fits’ with preconceived goals. Genese Marie Sodikoff has similarly discussed the problematic tendency of conservationists to ‘cherry-pick’ indigenous cultural practices and taboos that support their projects, attempting to extract single strands out of a complex “socio-historical matrix” (2012; 2013). While much remains to be done, it is clear that – to some extent, for better or worse – contemporary conservation is now shaped through a dynamic global ‘friction’ that is simultaneously remaking the world and what it means to ‘conserve’ it. The conservation ontologies – always plural – that guide efforts here are a field of heterogeneous, overlapping and shifting ways of imagining and inhabiting our living world.

This is the complex context that frames ‘alalā’ conservation. The intimate daily care that I witnessed at KBCC can be explained as part of a larger effort to halt the extinction of, and

maintain or restore, native species and ecosystems. The ‘*alalā* itself is viewed as a precious and irreplaceable species – as one biologist put it in an interview, these birds are arguably the ‘pinnacle of intelligence in the ecosystem.’⁷ In addition, it is frequently noted that they play an important role in the maintenance of the Big Island’s forest ecosystems as key seed dispersers (Culliney). But alongside these rather conventional conservation goals, the relevant plans for ‘*alalā* and the associated literature, as well as the individuals involved in the project (some of whom are Hawaiian themselves), also frequently reference local cultural values in support of the project. This is part of a broader transition in which the State and major conservation NGOs are increasingly recognising the cultural and traditional significance of biodiversity, especially for native Hawaiians.⁸ For example, it is often noted that ‘*alalā* is an ‘*aumakua*, or ancestral deity, for a local family on the Big Island. More generally, people point out that these birds are a vital living member of the larger Hawaiian landscape that carries meanings and stories, and so ought to be valued and protected (anonymous interviews, 2013).⁹ Beyond mere lip service, it is also clear that in at least some cases a great deal of effort is being made to consult and work with the community to ensure that ongoing access to land and use of resources is enabled (Keala Pono Archaeological Consulting).

In this context, the work that goes on at KBCC – the care and concern that is invested in the future of ‘*alalā* – is straightforwardly an endeavour grounded in the values and priorities of contemporary conservation ontologies, albeit of a distinctly Hawaiian variety.

The violent-care of conservation

But care for the rare native is only one side of this conservation equation. In Hawai‘i, and around the world, care for some species and ecosystems is now inseparable from the ongoing, and often fatal, ‘management’ of others. Focusing specifically on the violence of killing, we see that it is widespread and multiplicitous in contemporary conservation. Sometimes conservation programs

⁷ Interview with Jeff Burgett (USFWS), conducted by the author on 19 December 2011.

⁸ See, for example, the website of TNC’s Hawaiian High Islands Ecoregion program: <http://www.hawaiiecoregionplan.info/culture.html> (last accessed 13 May 2013). In the remainder of this article I will employ the standard Hawaiian practice of reserving the term ‘Hawaiian’ for native Hawaiians. Other long-term residents of the islands are simply referred to as ‘locals’.

⁹ Unless otherwise stated, references to “anonymous interviews, 2013” refer to interviews conducted by the author with a range of people, including biologists, managers and hunters, on the islands of Hawai‘i and O‘ahu in January and February 2013.

kill to remove predators or competitors, or to remove individuals or species that alter ecosystems in undesirable ways. At other times, animals might be killed to provide food for an endangered species, either because a captive population needs to be fed or because for some other reason a group of ‘desirable’ free-living animals is not able to locate adequate amounts of safe food (i.e. ‘vulture restaurants’). In yet other cases, animals might be killed to provide valuable information and learning opportunities, either for individuals of the endangered species itself or for their human carers (van Dooren 2014, 108-122).

My interest in juxtaposing care for species like ‘alalā with the killing of a range of other animals is to explore the underlying regime of violent-care that structures life and death possibilities in contemporary conservation. This regime is a product of the broader framework of values that informs conservation ontologies: in particular, it is structured around the aforementioned goal of conserving *native biodiversity*. Grounded in this goal, conservation programs tend to create basic divisions between desirable and undesirable organisms through the interplay of two key contrasts: ‘rarity’ and ‘nativity’. In this context, each species, and in some cases each individual, can be positioned in relation to relevant others with respect to these two criteria. Life and death decisions are then made, seemingly logically, on the basis of where an organisms/species sits in general terms, as well as their specific relationships with other relevant organisms/species. While this all sounds complex, its application is actually remarkably simple and often disturbingly commonsensical.

i. The rare and the abundant

While mornings at KBCC were focused on basic feeding and cleaning, afternoons were spent providing enrichment for the birds. On the day of my visit, the main enrichment focused on ‘gourmet mice’ – animals bred for the pet food industry, frozen and flown in from Florida. We pushed each dead mouse into a green rubber ball, which we then stuffed with grass to conceal the mouse and make it a bit more challenging for the ‘alalā to get at. At the aviaries, Sandra and I threw the balls inside, closed the door and watched from a window to make sure that each bird was getting its mouse (important for both enrichment and nutrition). Most birds made short work of our carefully prepared balls. Holding them still with one foot they delicately reached their long beaks through all the grass and pulled out the fleshy prize in the centre (see figure 2). Occasionally, a bird would unpack the grass from the ball first, a beakful at a time. Either way, once they had freed them from the ball, most birds took their mouse up to a high perch in the aviary to enjoy their reward in a less exposed position. Every now and again, little pieces of mouse fell to the floor of the aviary in front of us as they were torn apart above; any larger pieces were usually promptly collected and eaten. All in all, the mice/balls achieved the desired result, producing a flurry of excitement and interaction.



Figure 2. An ‘alalā warily checking out a mouse in a ball. Photo by author.

In this context, the deaths of mice enable care for ‘alalā. As an abundant and easy-to-reproduce ‘resource’, these mice are a good example of the operation of the criterion of *rarity*. This distinction embodies the two extremes of the endangered species classification systems that now exist at a range of scales, local, national regional and international, ranging between the ‘critically endangered’ and those of ‘least concern’. Quite obviously, in this context the lives and needs of organisms are weighed relative to their conservation classification. ‘Least concern’ here crosses over from the species to the individual as those, like mice, whose species is of least concern are themselves rendered dispensable for the sake of the more endangered. Their lives simply do not count equally through the lens of a conservation ontology.

When comparing ‘alalā with mice, the notion of rarity appears to be very straightforward. In other contexts, however, things are more complex. For example, scale often makes a great deal of difference. A species that is highly endangered internationally may be deemed to be over-abundant in a particular locale and killed or made vulnerable accordingly (Thompson; Chrulaw). Alternatively, species that are doing well internationally, might be deemed to be endangered at a particular local scale and conserved (Hinchliffe) – when this happens, they may well be managed in a way that requires the killing of others who from a different scalar perspective would not have been perceived as a threat to anything (significant) at all (van Dooren 2011).

Rarity can also be assessed at the level of the individual organism, with reference to genetic diversity. In the case of ‘*alalā*’ conservation, the only individual of this species found outside of Hawai‘i is a male who now lives at the San Diego Zoo’s Safari Park in California. Hand-reared in the early days of the captive breeding program, this bird does not socialise well with others of his species, preferring the company of humans. As he has not bred, however, his genetic material is considered to be particularly valuable for the future of the species, and it is hoped that one day his semen may be collected for use in artificially inseminating birds in Hawai‘i.

In contrast to this rare individual, around the world captive endangered animals whose genetic material is ‘over-represented’ might be deemed to be surplus to the ‘species survival strategy’, and consequently killed when space or resources are limited (Chrulaw). At KBCC, birds who are over-represented or past healthy breeding are not ‘euthanized’, but allowed to live out their days. The most obvious example is Lilinoe, the beautiful old ‘*alalā*’ who now spends her time admired by school groups and the public in the ‘education aviary’. But here too, even if in more subtle ways, those birds who are ‘over represented’ (or no longer breeding) – those with the genes of ‘least concern’, relatively speaking – will tend to be called upon first in potentially higher risk situations. For example, an important recent study to determine which native plants ‘*alalā*’ eat – and so might need in their release environments – utilised “adult non-reproductive ‘*alalā*’” to ensure that certain plant species were not toxic before allowing the rest of the captive flock to consume them (Culliney 8). It is important to note that this study was still only conducted after a detailed risk assessment was carried out.¹⁰ Similarly, as the time approaches for release, it is likely that, as in similar programs around the world, birds with less valuable genes will be the first to travel out into the wider world, paving the way for their (genetically) rarer and more valuable kin.

Finally, with regard to the criteria of rarity, it must be noted that in practice equally rare species are not all treated in the same way. A complex array of financial, political, scientific and cultural factors play a considerable role in determining which endangered species actually have resources invested in their future. This situation is hard to forget when exploring the conservation of ‘*alalā*’, a bird that is infrequently referred to by conservationists as the ‘Hawaiian

¹⁰ Personal correspondence with Richard Switzer, Associate Director of Applied Animal Ecology at the San Diego Zoo, on 6 June 2014.

crow’ in large part because it is hard to generate interest in the conservation of a crow.¹¹ Similarly, as has now been well documented, for a variety of political reasons the average endangered Hawaiian species receives roughly 15 times less combined Federal and State funding than a comparable species on the US mainland (Leonard). Similar trends exist around the world, with a relatively small group of charismatic vertebrates – primarily mammals and birds – attracting the ‘lion’s share’ of conservation funding (Lorimer). It is therefore not rarity in any objective sense that structures priorities here, but rarity as filtered through the prism of a range of all too human, and often all too ‘western’ (Thompson), institutions, assumptions and priorities.¹²

ii. The native and the introduced

As we left one of the aviaries on our rounds that afternoon I noticed a small trap nearby set to catch feral cats and mongoose, both species introduced to the islands since European arrival. Like the clearing of introduced plants, this trapping was part of a general effort to restore native species on the property. While the captive ‘*alalā*’ were quite safe from predators in their aviaries, the many other free-living birds on the property likely wouldn’t fare as well (including breeding pairs of the endangered nene [Hawaiian goose] who had taken up residence). While there are few specific studies in the islands, a growing body of evidence from around the world clearly indicates that where feral cats are present they can have a serious impact on small bird, mammal and reptile populations (Loss, Will and Marra; USGS; Dickman). In addition, cats spread toxoplasmosis, which can be lethal to many native and endangered species in the islands, from ‘*alalā*’ to Hawaiian monk seals (Work et al.; Honnold et al.). As a result, in many conservation areas around the islands cats are now trapped and culled.

Alongside these smaller traps, pigs were also being actively ‘managed’ on the property. In fact, that morning we found two pigs that had been caught overnight in a trap in the uppers (see figure 3). Sandra radioed this information down to the KBCC center manager who in turn

¹¹ Personal correspondence with Alan Lieberman, interview conducted by the author on 29 November 2010. At the time Lieberman was the Director of Regional Conservation Programs at the Institute for Conservation Research, San Diego Zoo (now an Emeritus Research Fellow).

¹² In practice, a range of other factors (formal and informal) influence which rare native species are given priority in any jurisdiction (as well as which introduced or common species are rendered most expendable). With finite conservation funding, decisions frequently have to be made about which of these species should take priority. Relevant factors incorporated into decision making include: ecological function and significance, economic significance, likelihood of success, national and public interest, and financial cost.

contacted the ranch manager who would come and collect them. After we had fed most of the ‘alalā, Sandra combined their day-old food scraps – along with two whole juicy paw paws – into a single container and took it over to the small enclosure where the pigs were awaiting collection. She wasn’t sure when they would be picked up and wanted to make sure that they weren’t hungry or thirsty. As she slowly approached the pigs, they grunted and lunged towards her but were contained by the small pen. Sandra tipped the food in for them and we moved on to the last of the aviaries.



Figure 3. Two pigs caught in a trap. Photo by author.

That afternoon when we arrived at the top of the uppers to resume work after lunch, the ranch manager had arrived to collect the pigs. Sandra greeted him and introduced me. When she enquired about the pigs he told us that they were two relatively young males. Now tied up in the back of his truck, they would be killed and butchered for meat that afternoon.

Introduced first by Polynesian peoples, and later by Europeans, pigs occupy a complex position in people’s imaginations in Hawai‘i, perhaps more so than any other species. They are loathed by many: dangerous animals that visit people’s backyards and might attack pets or children. They are also viewed as a major obstacle to conservation in the islands: Hawai‘i’s forest

ecosystems evolved in the absence of mammals (with the exception of the Hawaiian Hoary Bat, also endangered), and consequently have tended not to do well once they are introduced. As pigs root around in the soil they kill young plants. In many of the island's forests, pigs and other ungulates have completely removed any plant life below the canopy. This means that no new trees are coming up to replace those above, producing what some biologists that I spoke with referred to as 'museum forests' (see figure 4). Thinned out vegetation also means that soil is not being adequately held together so that when it rains – which it does a lot in many of Hawaii's high elevation forests – erosion becomes a major problem, undermining the forests and silting up rivers and coastal areas. The absence of a forest understory also severely reduces plant diversity, meaning that year-round food availability is limited for many birds. At the same time, open forest means that there are no hiding places from 'io (Hawaiian hawks) and other predators. Finally, as pigs create wallows in normally very friable soil, they produce new sources of standing water that are thought to be allowing mosquitoes to spread into higher elevations, bringing with them avian malaria and a range of other diseases to which many local birds have no resistance (Lohr; Duffy; Giffin).



Figure 4. The largely missing understory at a possible 'alalā release site on the Big Island. Photo by author.

Amongst Hawaii's conservation community, it is now hard to find someone who thinks that maintaining the island's biodiversity is at all compatible with the presence of pigs and other ungulates – at least within any given area (Juvik and Juvik). But pigs and many other ungulates are ubiquitous in Hawai'i – unless they have been fenced out, culled, and then actively managed, they are present. As this is expensive, it tends to only happen in limited areas. In addition to expense, there is ongoing and often forceful opposition by hunters to most efforts to remove pigs and other ungulates from public lands, including state forest reserves that are, at least in part, designated as conservation areas (van Dooren 2016). While it may be reasonable to keep populations of ungulates for hunting in some specific areas, for most conservationists it is vital that they not be allowed to continue living as widely as they currently do.

Pigs, cats and mongoose offer us an example of the second key criterion that structures regimes of violent-care in contemporary conservation: nativity. As noted above, it is not simply biodiversity writ large, but rather *native* biodiversity, that is the goal of conservation. In this context, the pre-European, or in some cases pre-human, ecological condition and species composition is valorised. Through the lens of a conservation ontology, those 'introduced species' that arrived after this point are viewed as at best expendable, and at worst a threat that requires eradication. All over the world, introduced species are now often public enemy number one, killed in their thousands and sometimes millions (Simberloff).

While cats, mongoose and pigs pose little threat to the crows at KBCC, things will be very different for released birds. At the present time, several areas of forest have been proposed as possible release sites for 'alalā. In each case, a large area of forest will be fenced to exclude pigs and other ungulates, and all of those animals inside will be killed to enable the restoration of forest ecosystems (Geometrician Associates). Doing so, it is hoped, will provide 'alalā with the diversity of plants necessary for good year-round diets and an understory to hide from 'io (Hawaiian hawks), while also minimising the spread of avian malaria. Cats and mongoose, as well as rats, who cannot be excluded by basic fencing, will likely be actively poisoned or trapped. 'Removal' of these predators will reduce their impacts on birds, especially juveniles, and minimise the risk of toxoplasmosis and some other diseases.

All of these species are classed as 'introduced' by conservationists: cats, mongoose and some rats having arrived after European settlement, and pigs with a more complex history of introduction (discussed further below). In this case, these introduced species will be targeted in a particularly focused manner because they are deemed to directly and significantly threaten 'alalā and other endangered natives. In Hawai'i, the literally thousands of plant and animal species that have been introduced by humans have been greeted by a broad spectrum of responses from conservationists (Staples and Cowie). Those that are thought to be relatively

benign are still usually expendable and undesirable, but in an environment with very limited conservation funding they are unlikely to be actively targeted.

Like rarity, the criterion of nativity is also often more blurry and problematic than it at first appears. Over the past several decades, the introduced/native divide has been the subject of sustained criticism from within both the natural sciences and the humanities and social sciences (Davis et al.; Wright; Keulartz). Scholars have explored the problematic nature of assuming that some prior historical state marks the ideal or best environment. In the context of ongoing evolution, migration, climatic and other transformations, there is no static ‘right state’ or ‘correct’ species composition. With this dynamism in mind, scholars have argued that perhaps we ought to pay more attention to actual relationships between newly-arrived species and existing ecosystems, rather than assuming that ‘introduced’ species will necessarily cause ‘harm’ (Sagoff; Davis et al.). In the context of climate change and other large-scale ecological transformation, this traditional approach will be at best unworkable and at worst deeply destructive (Soulé 1990). Other scholars have drawn attention to the anthropocentric, and often Eurocentric and xenophobic, assumptions and rhetoric that underlie the notion that (some) human activity and species introductions necessarily disrupt the ‘natural state’, and that vigorous ‘invading aliens’ ought to be suppressed in the national interest (Head; Coates).

In Hawai‘i, this already complex division between native and introduced takes on a particular political form. As Stefan Helmreich notes, many local people – including biologists – now commonly speak of a third category of organisms: canoe species. These are the plants and animals brought to the islands by Polynesian peoples roughly 1,500 years ago, almost all of which are culturally significant. As will be discussed further below in the context of pigs – one of the most culturally important and arguably ecologically destructive of these canoe species – there is sometimes strong opposition to claims that these animals are ‘introduced’ or ‘invasive’ and consequently ‘out of place’ in Hawai‘i. Humans are bound up with other animals here, and this ‘ecological’ claim is readily interpreted as (or becomes?) a ‘political’ one (van Dooren 2016). Despite all this complexity and ambiguity, nativity continues to play a central role in conservation values and decision making in Hawai‘i and around the world.

iii. Balancing acts

Of course, figuring out where organisms ‘fit’ in relation to criteria of rarity and nativity is in practice only the first part of determining who should live and who should die in the name of conservation. While both of these criteria are themselves complex in their application, this complexity takes on a new dimension when these organisms/species are evaluated *in relation to*

one another. The question of how to deal with predation of ‘alalā by ‘io (Hawaiian hawks) offers an important example of this.

When an earlier release of captive-bred ‘alalā was attempted in the 1990s, several of the birds were picked off by ‘io (USFWS I-20). In the lead-up to the next planned release, thought is being given to how this threat might be better managed. For the most part, as previously noted, it is hoped that a restored forest understory will provide ‘alalā with additional cover. ‘Io themselves cannot be ‘managed’ like cats or mongoose because they are both native and endangered. If they were classed as introduced they would likely be actively managed to reduce or remove them. If they were native and abundant, their populations might be ‘thinned out’ or perhaps even removed from some targeted areas. As they are native and endangered, however, any management is likely to interfere with them as little as possible – and it is exceedingly unlikely that it will be lethal (although renewed recent efforts to ‘downlist’ the ‘io may change these dynamics).

In this context, it has been argued that ‘alalā might be conditioned to be more wary of ‘io. Earlier captive-bred and released birds had no experience with these predators, nor were they taught about them by their parents. In this context, ‘predator avoidance training’ might involve exposing ‘alalā to the calls and silhouettes of ‘io, and then creating a situation where they see another bird nearby – perhaps a myna, a khaliji pheasant or another common bird – attacked by an ‘io.¹³ In other uses of this technique, for example with the critically endangered Puerto Rican Parrot, a trained hawk has been used and the attacked bird has been fitted with a protective ‘jacket’ to minimise harm (White Jr., Collazo and Vilella). As ‘alalā, like parrots, are intelligent birds, it is thought that a few such demonstrations would likely instil in them the importance of avoiding ‘io once released.

It is not clear whether this kind of approach to conditioning ‘alalā will eventually be taken, but the logic behind it offers a perfect example of the operation of these overlapping criteria. Here a common, introduced bird is put to use in a dangerous situation as part of the larger project of caring for, and minimising the disturbance of, two endangered species (‘alalā and ‘io). A similar logic informed the use of American crows as surrogates for ‘alalā in experiments to determine whether it was safe to use diphacinone, a rat poison, in areas where ‘alalā may also be exposed to it (Massey, Valutis and Marzluff). These practices of substitution

¹³ Personal correspondence with Richard Switzer, Associate Director of Applied Animal Ecology at the San Diego Zoo, on 2 April 2013.

and surrogacy, where an animal of ‘least concern’ stands in for an endangered one in potentially dangerous or lethal situations, are not at all infrequent in conservation projects (van Dooren 2014).

Contested regimes of violent-care

At KBCC on the day of my visit, the lives and deaths of animals, the violence and the care, were all very straightforwardly structured around the priorities of contemporary conservation ontologies. But when ‘*‘ala‘ala*’ are released into the island’s forests they will travel into a world where things are not always as straightforward. They will move into landscapes with a range of claims and contested priorities, where conservation is only one voice, or one set of voices, about how life and death decisions ought to be made. These are places in which competing regimes of violent-care structured around fundamentally different values – some of which have nothing to do with rarity and nativity – shape ideas and possibilities. Of central relevance in the case of ‘*‘ala‘ala*’ are the contestations between conservationists and pig hunters, as well as (potentially) those between conservationists and animal welfare advocates.

The place of pigs in the Hawaiian forest is often a topic of considerable contention. As with the many other species of ungulates that have been introduced to the islands by people – including deer, mouflon and feral cattle and sheep – proposals to fence areas and remove pigs are often greeted by protests and anger from the hunting community (Duffy). The history of conflict between conservationists and hunters in Hawai‘i is a complex one, full of misunderstandings and distrust. In contrast to the dominant scientific view that pigs damage forests and cause erosion, some hunters argue that pigs actually play a positive ecological role: tilling the soil and rooting out weeds. For other hunters, these ecological debates are largely irrelevant: the question is simply whether birds and their conservation should take priority over hunters (anonymous interviews, 2013).

These debates between hunting and conservation are now familiar all over the USA, and in many other parts of the world (Adams; McCarthy). In Hawai‘i, however, they take a distinctive form, especially when it comes to pigs. Unlike other ungulates, pigs were initially introduced to Hawai‘i by Polynesian peoples and they remain an important part of Hawaiian culture in the form of stories like that of Kamapua‘a, the pig god (Kame‘eleihiwa). More importantly, today pig hunting is seen by many to be a traditional cultural practice, as well as an important recreational and subsistence activity. As a growing body of scholarship is showing, however, pig hunting in the islands is likely a product of the last couple of hundred years. Prior to European arrival, the pigs in Hawai‘i were of a smaller Polynesian variety and they were kept close to home, usually fenced in. With the arrival of the larger European boar this situation

changed as pigs gradually became commonplace in the islands' forests (Maly, Pang and Burrows; Gon III).

Pigs offer a prime example of the way in which the dominant conservation discourse is disrupted by the 'friction' produced in local contexts. While there is often a strong emphasis in the islands on the alignment between conservation and Hawaiian values, the situation is frequently more complex than this. As Jonathan Goldberg-Hiller and Noenoe K. Silva have noted in relation to the conservation of sharks in Hawai'i, native culture is frequently '(mis)appropriated' in these conversations, and presented as unproblematically aligned with government conservation objectives. Quoting proposed 2010 legislation, they note that "ecological balance is seen as coterminous with the 'great cultural, historical and spiritual significance [of sharks] for many native Hawaiians, native Hawaiian practitioners, and others who value the Hawaiian culture'" (430).

Up in the forests where 'alalā will hopefully one day be released, some Hawaiians, especially hunters, do not support the government's vision of conservation at all. In addition to questioning the conservation science and its values, many of these people see the pig as a vital part of their culture, and take personal offence at the suggestion that it is an 'invasive pest'. As one hunter put it: "These animals brought by Hawaiians and given to Hawaiians as a walking food source is not invasive. And if they are, Hawaiians are invasives?"¹⁴ For many of these people, pig hunting is still understood as a traditional practice with deep roots, and T-shirts and art in Hawai'i frequently depict imagined scenes of ancient hunters. While others accept that pig hunting is probably a more recent phenomenon, they argue that it is *now* a traditional practice nonetheless – something that they have shared amongst generations of their families – that they must be allowed to continue doing (preferably in the same places that they have always done it). For these people, conservation is often incompatible with culture and tradition (van Dooren 2016).

At the heart of this debate over 'alalā and pigs are two alternative sets of values and their associated regimes of violent-care. While conservation ontologies encourage the valuing of rare and native 'alalā and the deaths of introduced (and far too common) pigs – especially because

¹⁴ Comment posted to online discussion forum by 'hunters6262' under the title "U got to be kidding me", Tue Jun 26, 2012 2:34 pm (Available online at: <http://hawaiisportsman.forumotion.com/t5382-big-island-video-news-hunters>).

the latter is threatening the former and others – some hunters instead see a violence to themselves, their cultural practices and even their families’ subsistence, in the fencing and removal of pigs. In this context, supporting the presence of pigs in the forest is itself as an act of care for family and for culture.

These hunters’ own regimes of violent-care privilege these human needs in the form of pigs and other ungulates. As it applies to animals’ lives, the criterion here is care for the ‘familiarily edible’ at the expense of all else. Indeed, according to many of their critics, these hunters simply view the forest as a pleasant backdrop for collecting their food: a “big refrigerator,” whose sole purpose is to keep their meat fresh (anonymous interviews, Feb 2013). To this end, some hunters advocate the introduction of plants and other alterations to the environment that will aid pigs and other ungulates to thrive, and even (re)introduce pigs to already fenced conservation areas. In one sense, these animals are deeply cared for here, although always under the spectre of their coming death; cared for so that they might be killed another day. But this care too is unavoidably coupled with violence towards others, in this case towards ‘alalā and the many other birds and plants hanging on at the edge of extinction in Hawaii’s forests.

It is important to note, however, that these are not the only voices of hunters or Hawaiians in this debate. While those hunters who oppose the removal of pigs for conservation have often been the loudest, it is far from clear that they are the majority. Many hunters, of course, are also conservationists and see a need to limit the distribution of these animals in the islands. In addition, many Hawaiians do not share the views of these hunters about the place of pigs in either the forest or in Hawaiian culture. For these people, the islands’ forest are alive with a *diversity* of plants and animals, all of whom have their places in Hawaiian stories and culture, and many of whom are currently being sacrificed for the sake of pigs and those that hunt them (van Dooren 2016).

Contestations over the future of cats in Hawai‘i provide another important site to explore the intersection of conflicting regimes of violent-care. Increasingly, animal welfare groups in Hawai‘i and around the world are challenging conservation agendas.¹⁵ In the case of ‘alalā, the primary issue is what is to be done with the many feral cats in release sites who will likely depredate young birds and spread toxoplasmosis and other diseases. Usually, trapping and killing – preferably over a broad area – is the key response from conservationists. As this cannot

¹⁵ On the island of Hawai‘i, the two key organisations are the Humane Society and Advocats (anonymous interviews, Jan-Feb 2013). For a discussion of similar contestation in Florida, see (Hatley).

be done once and for all it is likely that it will be required in perpetuity in any release site. But many animal welfare groups and sympathetic individuals now support feral or free-living cats and even provide food and basic medical treatment for them. These groups tend to advocate ‘capture, neuter and release’ programs, which don’t remove – and according to many conservationists don’t even effectively limit the growth of – cat populations (anonymous interviews, 2013). In many parts of Hawai‘i, feral cats now form large ‘colonies’ in and around urban areas (buoyed by supplementary feeding by local people). For example, one of the last populations of yet another highly endangered bird, the O‘ahu ‘elepaio, is located in a small area of forest with a cat colony nearby. Many of these colonies are thought to impact significantly on birds and other animals, including highly endangered species.

Situations like this one remind us that, although ostensibly built around care for animals, activities grounded in animal welfare and rights agendas are nonetheless structured by their own regimes of violent-care. We see this too in diverse animal ethics positions which – whether focused on capacities like sentience (Singer), being the “subject of a life” (Regan), or more informal criteria like cuddliness and familiarity – inevitably end up preferencing the lives of some over those of others. Preferential treatment may take many forms, from feeding pets with the meat produced in industrial abattoirs, or choosing to eat shrimp that ‘lack’ the capacity to suffer, to advocating for the rights of feral cats while remaining silent about rats and mongooses (and certainly not providing food for them). In advocating to keep feral cats in the Hawaiian environment – especially in large numbers – these cat advocates also contribute to the deaths of countless birds and the potential extinction of their species. This is, of course, a complex space of competing ethical claims, but it seems far too simplistic not to remove these cats – and to even actively support their growing presence through feeding – because of their rights or claim to ongoing life, while ignoring all those other lives that are lost as a result.

A great deal of attention has been given in ethical debates to the contrast between focusing on individual animals (from positions grounded in animal ethics) and focusing on species and ecosystems (from positions grounded in environmental ethics). This is an important contrast, but it should not be overdrawn. It primarily functions at the level of *motivation*, determining values and objectives. In other words, even though it is a *species* that is being protected or eradicated, it is *individual* organisms that are ultimately cared and provided for, or alternatively exposed to suffering and death. Similarly, even though we may be advocating for an individual’s rights or welfare, we are doing so on the basis of characteristics that it usually holds in common with the rest of its species/group – such as sentience or cuddliness. So it is always individuals that are acted upon, and some broader group membership or characteristic that determines the form of that action. Both positions necessarily allow the sacrifice of those that don’t ‘make the cut’ from the perspective of their particular way of classifying who counts and who doesn’t. In real world situations, where life for all ‘ecologically embodied’ (Plumwood)

creatures is necessarily lived at the expense of others, tough decisions have to be made. In this context, as I have argued elsewhere, the challenge lies in inhabiting these consequential, life and death, contexts without the easy comfort of ignoring any of our ethical obligations (van Dooren 2014, 38).

Hunters and animal welfare groups offer contrasting visions for our relationships with other living beings that are relevant to the future of ‘*‘ala‘ala* and all of Hawaii’s other endangered species. The specific values and understandings that guide these groups deserve far more detailed attention than I have been able to give them here. My point in introducing them, therefore, is simply to highlight the way in which controversy results from contestation between fundamentally different ontologies and their associated regimes of violent-care. The point here is not that each of these positions might ultimately be ‘weighed’ in a disinterested manner against the others with reference to some sort of ‘universal’ criteria (whose?), to determine the ‘correct’ course of action. These kinds of controversies, as Howitt and Suchet-Pearson have argued, will only be addressed through a “situated engagement with ontological pluralism.” To begin with, this engagement brings any and all criteria of valuation and decision making into permanent question, demanding a more thorough dialogue about where we are headed, and why this is a good direction. Beyond a simple acknowledgment of different perspectives, this engagement must be ‘situated’ (Haraway 1991b), it requires detailed attention to local specificity – *to these animals and these people in these places* – as well as to the deeper ontologies that structure the fundamental and often unexamined values, categories and priorities that we think and inhabit the world with.

Parting

Towards the end of the morning at KBCC, Sandra and I had a little extra task to perform. A young male ‘*‘ala‘ala*, at this stage still unnamed, had hurt his foot. It had been bandaged up in the week before my visit, and he was now confined to a small section of the aviary on his own (a few square metres). This confinement was intended to prevent roughhousing with other young birds that might exacerbate his injury. At the same time, staff didn’t want him to be lonely, so his sister was put in the large aviary next to him to keep him company.

Sandra and I went to collect the young ‘*‘ala‘ala* from his enclosure. While I kept out of the way, Sandra entered the small area and ever so gently placed a net over him. He didn’t struggle much at all, so she took him in her hands and placed him into a small carry cage, like the one that you might use to take a cat to the vet. With the bird packed away, we went out to the truck and I held the cage on my lap as Sandra drove us slowly down to the main building where the medical room was located. When we got there the centre manager joined us. Having had

extensive experience as a wildlife carer, she was the one who would replace the bandage. This bird had already seen a local vet, and would be taken for a check-up later. In more complicated or life threatening instances, vets from the San Diego Zoo have flown over to take care of sick or injured 'alalā.

Sandra carefully held the bird with his back against her chest so that his injured foot was accessible. Up close, I was surprised by how large he was, and also by his calmness: this wasn't the first time he had been whisked away to have his foot closely examined by a group of humans. He slowly surveyed the room in a seeming inquisitive manner, making eye contact with each of the people there. Once the old bandage was removed, the wound was carefully washed and re-dressed with a liquid bandage. About a minute later, when the dressing was dry to the touch, he was gently placed back in his carrier and Sandra and I took him back up to the aviaries and his waiting sister.

This was the most intimate expression of care that I encountered in my time at KBCC. Staff did everything they could to make the experience as painless as it could possibly be. As I left the facility that afternoon, on a high from my day of interacting with such charismatic and beautiful birds, as well as their caring and committed humans, I was quickly brought back down to earth when I arrived at the end of the long dirt road back to the highway. As I opened the door and got out of my rental car to unlock the property gate I heard a high pitched squeal and then a dull thud from the direction of the carport by the ranch manager's house, where his truck was parked. I wondered at first if a pig was being killed but then quickly realised that they were still in the back of the truck and the sound was just one of them kicking out at the metal. With thoughts of captive 'alalā and trapped pigs, of loving care coupled with ongoing violence and death, I got into my car and quietly drove back to town.

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