

From Biopower to Ontopower? Violent Responses to Wildlife Crime and the New Geographies of Conservation

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Abstract

Intensifying global dynamics of wildlife crime are rapidly reshaping conservation politics, practices and geographies. Most pronounced are the manifold violent responses to wildlife crime, including direct lethal action and increasing anticipatory action to prevent these crimes from happening in the first place. This paper reflects on these dynamics in relation to recent literature that employs Foucault's concept of biopower to understand the governance of increasingly precarious human and non-human life. Building on Brian Massumi's exposition of ontopower – an 'environmental power' that "alters the life environment's conditions of emergence" – I explore whether we are seeing a move from bio- to ontopower where the imperative is less the construction of systemic forms of governmentality to ensure life's 'optimisation' than on processually pre-empting incipient tendencies towards unknown but certain future threats to life. Phrased differently, ontopower focuses on how to prevent nature's destruction in the future through pre-emptive measures in the present. Drawing on empirical research on violent responses to rhino poaching in South Africa, the paper argues that we are seeing the uneven emergence of new geographies of conservation based on ontopower. It concludes by speculating whether conservation's insecurity is turning into its pre-emptive other by making (green) war necessary for non-human life's survival.

Keywords: Biopower, ontopower, conservation, Brian Massumi, wildlife crime, violence

INTRODUCTION

Wildlife crime has seen a steep rise over the last decade. The world over, increasingly organised forms of violent crime against species and ecosystems are worrying many conservation organisations deeply. According to WWF, "in more than 50 years of conservation, we have never seen wildlife crime on such a scale. Wildlife crime is now the most urgent threat to three of the world's best-loved species—elephants, rhinos and tigers."¹ In response, conservation actors have sprung

into action, setting up massive campaigns to try and turn the tide, thereby reorganising many conservation practices and areas accordingly. Importantly, and worryingly, conservation actors are responding to violent wildlife crime in increasingly violent ways – something referred to in the literature as green militarisation or green violence (Lunstrum 2014; Büscher and Ramutsindela 2016).

In this paper, I investigate these violent responses to wildlife crime and the new geographies of conservation to which they lead. I do so by building on recent literature that employs Foucault's concepts of biopolitics and biopower to understand the governance of increasingly precarious human and non-human life. Foucault (2007; 2008) coined the term biopolitics to understand how life was understood, administered and governed through increasingly sophisticated governmental techniques that sought to optimise the life of aggregated (human) 'populations' in the 18th to 20th centuries. Recent literature has sought to blur the distinctions between

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human and non-human life, arguing that – especially under the hegemony of neoliberal governance of ‘sustainable development’ but with explicit reference to earlier forms of environmentalism (Biermann, 2016) - it is ‘life in general’ that needs to be governed and ‘optimized’ under contemporary capitalism (Reid 2013; Grove 2014; Cavanagh 2014).

In the conceptual language of biopolitics, Biermann and Mansfield (2014: 269) thus argue that conservation biology has a drive to ‘optimise’ biological diversity through the question ‘which diversity of life optimises life in general?’. They, and others like Fletcher (2010) and Braverman (2015), emphasise the current importance attached to actively monitoring and intervening in biodiversity with the aim to enable a better balance between the requirements of individual lives of different species and the aggregate, intertwined health of human and non-human life in general. The Kruger National Park (KNP) in South Africa, through its longstanding programmes of intervention, including culling of species, controlled burning, waterhole management and more, is a good example of this biopolitical governance of biodiversity. As I will show, Kruger governance has long been, and continues to be focused on a biopolitical ‘desired state’ of the environment.

Yet what if this ‘desired state’ is increasingly under threat from various sources, including wildlife crime? And what if, more generally, life itself is increasingly shaped in an overarching threat-environment where climate change, terrorism, disease epidemics, financial woes and other perils haunt our structures of governance and politics? This must have theoretical consequences: as we witness an increasingly urgent sense of future threats to life, we need to ask with Brian Massumi (2015) whether ‘biopolitics’ can still explain what is going on or whether we need to shift perspective. After all, the idea of biopolitics was premised on the existence of a fairly steady and knowable population that could be governed through calculative planning, incentive mechanisms and standardisation of processes and procedures. In response to this, Massumi (2015: 26) asks

“how could the figure of a nonstandard environment, characterized by an ever-presence of indiscriminate threat, riddled with the anywhere-anytime potential for the proliferation of the abnormal, possessed of a threatening autonomy, which power must paradoxically respect in order to act on it, in a world that is in a permanently far-from-equilibrium critical condition – how could this *not* represent a major shift?”

Massumi argues that power is shifting from biopower/biopolitics towards what he calls ‘ontopower’ – an ‘environmental power’ that “alters the life environment’s conditions of emergence” (idem). With ontopower, the imperative is less the building of systemic forms of governmentality to ensure life’s optimisation but on processually pre-empting incipient tendencies towards unknown but certain future threats to life. Ontopower in conservation focuses on the question of how to prevent nature’s

destruction in the future through pre-emptive measures in the present. It intervenes not in territory, but in what Massumi calls ‘prototerritory’: a field of application that targets all those actions that may potentially aid the future materialisation of a threat.

This paper builds on Massumi’s ideas to explore whether we are seeing a move from bio- to ontopower in the field of conservation. I will argue that the rise of ontopower can be seen in empirical reality in situations of ‘crisis conservation’ where increasingly ‘green wars’ are being fought to safeguard species and ecosystems from destruction (cf. Marijnen and Verweijen 2016). I will focus specifically on the violent responses to rhino poaching in South Africa as a potent example of how we are seeing a move from bio- to ontopower in conservation practice. In particular, in the penultimate section, I will argue that we can empirically distinguish two emerging geographies of anticipatory/preemptive action: one focused on controlling wildlife crime threats so as to bring back the possibilities for more technocratic biopolitics; the other more openly ‘ontopowerful’ by focusing on all those actions that could possibly lead to poaching attacks in the future. In the concluding discussion, I will interrogate the potential broader validity of this move, as well as its limits. I end by speculating whether (green) war is becoming the new ‘positive’ ground for the optimisation of (future) life.

THE BIPOWER AND BIOPOLITICS OF CONSERVATION

Interestingly and perhaps somewhat surprisingly, the critical study of conservation has not seen much use of the concepts of biopolitics and biopower. This is in sharp contrast to broader fields of development, sustainability science and, especially topics like climate change and biotechnology, which have been central in broader theorizations of biopolitics and biopower (Clough and Willse 2011; Dalby 2013; Grove 2014; Death and Gabay 2015). My aim in this section, however, is not to give an overview of this literature (see Cavanagh 2014). Rather, I want to outline several influential ideas about biopolitics and biopower in these literatures and how they have been applied with respect to conservation with the aim to provide the ground for a discussion of Massumi’s notion of ontopower.

The most elementary point about the concept of biopolitics from this paper’s perspective is that the positive governance of life revolves around the continuous making of judgements about what forms of life need to be supported and what forms not – an argument Foucault famously analysed in terms of ‘making live’ and ‘letting die’. What this entails is that life and its many forms and possible development trajectories need to be studied, ordered and classified so as to be able to decide “whom to correct and whom to punish, as well as who shall live and who shall die, what life-forms will be promoted and which will be terminated” (Dillon and Reid (2009: 87). According to Biermann and Mansfield (2014: 261), quoting Foucault (2007: 18), “these decisions rely on distinctions between normalcy and aberrance, between biological advantages and

threats. But not only must biopower distinguish between good and bad, it must also ‘maximize the good circulation by diminishing the bad’.

Based on this central idea, Connor Cavanagh (2014) has perceptively broadened the terrain upon which biopolitics usually operates. He argues that under ‘conditions of global environmental change’, “biopolitics mutates from simply constituting a specific mode of governing humans, if it ever truly was, and instead manifests as the politics and political economy of supporting certain and asymmetrically valued forms of both human and nonhuman lives within rapidly shifting ecological conditions”. (2014: 277). Based on this, Cavanagh identifies three ‘primary axes’ across which contemporary biopolitics in development and sustainability thinking operates: “first, between differently ‘racialised’ populations of humans; second, between asymmetrically valued populations of humans and nonhumans; and, third, between humans, our vital support systems, and various types of emergent biosecurity threats” (idem: 273). His central idea builds on the foundational point mentioned above, namely that development institutions propose interventions and visions to support specific forms of life, while ‘approving that others may be ‘let die’.

In relation to conservation, Youatt (2008), Fletcher (2010) and Biermann and Mansfield (2014) are among the few who have explored the links with biopolitics (see also Braverman 2015). Fletcher (2010: 176–177) dissected multiple and intersecting governmentalities at work in conservation discourses that demand differential value judgments about the promotion or withering of forms of human and non-human life. Biermann and Mansfield (2014: 269), likewise, explain that the biopolitical governance of conservation focused on ‘biological diversity’ is based on an acknowledgement that “within that diversity exist kinds that foster ongoing life, which therefore should be maximized, and kinds that are a threat, which are conceived as abnormalities that should be let die”. Importantly, Biermann and Mansfield (2014: 269) argue further that, since “not all life has intrinsic value—only those parts of life that foster ongoing emergence of life”, conservationists must make judgements “about what parts of nature to make live and what to let die in the name of making live”.² They conclude that “this biopolitical logic is often used to justify the immediate exploitation of nature, people or both” (idem: 269), particularly by state or corporate actors to align the optimisation of the conservation of (forms of) life with accumulation, profit, security or other interests.

The implications of the broadening of the (environmental, conservation and other) terrains upon which biopolitics operates have only recently started to be explored in the literature. Nel (2015), for one, argues that the biopolitics of carbon-focused market environmentalism in Uganda leads to ‘direct’ and ‘circuitous’ forms of ‘bio-cultural sacrifice’ through direct deforestation or more indirect ‘normalisation of environmental degradation’. Lorimer and Driessen (2013, 257) examine the ‘bovine biopolitics’ of a rewilding experiment in the Netherlands focused on the introduction of heck cattle,

which are ‘monstrous’ “in so far as they unsettle the modern division between the wild and the domestic”. As a final example, Cavanagh and Benjaminsen (2015: 725) engage with the ‘biopolitical implications’ of conservation-induced displacements of various populations to argue that we are seeing “the emergence of an increasingly widespread type of resistance to conservation in the developing world: guerrilla agriculture, or the illicit cultivation of food within spaces zoned exclusively for the preservation of nonhuman life”.

This growing body of research is important for showing the different ways in which combinations of forms of human and non-human life are encouraged, stymied, shaped and resisted, including in relation to conservation. Yet, in all its variety and creativity, the various works discussed still stay rather close to an understanding of biopolitics and biopower as ‘make live, let die’. With contemporary political economic dynamics and power structures changing rapidly, we need to account for new and differential forms of power that conventional understandings of biopower may find hard to capture (cf Clough and Willse 2011). In the broader sustainability literature, these new forms of power are hinted at more explicitly, especially in relation to climate change.

The most important analyses in this regard are those that analyse what Taylor (2015: 53) refers to as the ‘holy trinity of climate change adaptation’, namely the ‘core notions’ of vulnerability, adaptive capacity and resilience. As Julian Reid (2013) also points out, the ‘holy trinity’ of vulnerability, adaptation and, especially, resilience, are focused on the present-day anticipation of future threats to the sustainability of life. The idea is that dramatic changes in the environment are upon us and we need to get ready, and adapt ourselves in relation to these external threats.³ And since these concepts seem to “have become the standardised and almost exclusive means for conceptualising climatic change and associated social and ecological transformations” (Taylor 2015: 53), both authors agree that they are extremely problematic, for they take ‘existing institutional logics’ as a given and a starting point for addressing climate change, while disabling more complex understandings of the power and political structures embedded in contemporary environmental change (idem: 191; Reid 2013; Baldwin 2013).

Power, in these analyses, is no longer ‘biopower’ (or biopolitics) in its more conventional conceptualisation, something also pointed out by Dalby (2013: 185). He argues that the emergence of the idea of the anthropocene and its geological implications requires thinking about the possibilities for a “political vocabulary for thinking creatively about new forms of biopolitics, or perhaps even more importantly a politics after biopolitics”. Dalby, and to some extent also Baldwin (2013), move towards an understanding of biopolitics as emergence, as caught in ‘processual’ dynamics of continuous becoming, even pointing at the need for a ‘pre-emption’ of incipient tendencies. These dynamics and their implications for rethinking biopolitics and biopower have recently been most fully described by Brian Massumi, and it is to his account of ontopower we now turn.

ONTOPOWER

Massumi's account of ontopower is part of a broader literature in security studies that seeks to rethink how power, politics and political economy have changed after 9/11, especially in relation to the 'war on terror', but also with respect to climate change, disease epidemics and other major 'threats'. A central preoccupation in this literature is on pre-emption and anticipatory action within an overall, all-encompassing threat environment (Goede and Randalls 2009; Anderson 2010, 2011; Aradau and Munster 2012; Goede et al 2014; Opitz and Tellmann 2014). Goede and Randalls (2009: 859), for example, open their article as follows:

"The apocalypse looms ever nearer. Irreversible climate change, the threat of global terrorism, conflicts and wars over declining natural resources, the mobile avian flu carried by migratory birds, all resound to the fears prevalent in political and popular discourse in the 21st century (at least in the 'developed world'). Whichever threat is conceived most pressing, there is a shortage of time in which to act, an immensity of tasks to accomplish, and the absolute necessity of taking precautionary action to prevent the very worst".

These threats, and the ways in which they are imagined, lead Goede and Randalls (2009) to analyse various 'arts and technologies' of 'the actionable future': a future that needs to be acted on in the present in order to adapt to or prevent the (impact of the) threat. In this same vein, Anderson (2010: 777) argues that the "problematization of the future as indeterminate or uncertain has been met with an extraordinary proliferation of anticipatory action". He calls for critical analyses of 'futurity' and how these lead to or prevent certain geographical, political, economic or other pathways. These and other contributions to the field of security studies have provided rich analyses of our contemporary political condition, and I build on some of their insights below.

What most of these have not done is assess how a focus on pre-emptive, anticipatory action presents a shift in thinking about power.⁴ As mentioned, Massumi (2015: 26) asks 'how the figure of a nonstandard environment' could "not represent a major shift" in thinking about power. He posits ontopower as building on *and* departing from biopower. In the remainder of the section I will concentrate on his conceptualisation. Importantly, I can only touch on what I believe are several central elements in Massumi's complex and sophisticated framing of this new mode of power. Hence, the discussion is explicitly framed around an aim to understand how the rhinopoeaching crisis in South Africa - discussed in the next sections - is changing contemporary geographies of conservation.

For Massumi (2015: 40), pre-emptive ontopower is an 'environmental power' that "alters the life environment's conditions of emergence", and hence not "a 'biopower' strictly speaking". He explains:

"Biopower's 'field of application' according to Foucault, is a territory, grasped from the angle of its actually

providing livable conditions for an existing biological being. Biopower normatively regulates the life conditions obtaining in the territory. Preemptive power operates on a prototerritory tensed with a compelling excess of potential which renders it strictly *unlivable*" (Massumi 2015: 40).

What this means - in my interpretation - is that power increasingly focuses on something that is about to happen, although it does not know when, where and how. This (compelling excess of) potential is so filled with tension that it must be resolved, one way or another: either the threat must materialise or be removed. As long as the threat is not resolved, the situation becomes, according to Massumi, unlivable: life cannot be lived in this tense, absorbing space. Ontopower, however, works precisely on this space, which becomes the 'prototerritory'. Massumi (2015: 41, *italics in original*) concludes: "an environmental power that returns to life's unlivable conditions of emergence in order to bring life back, redirecting its incipience to alter-emergent effect, is an *ontopower*". In my words: by operating on the tense space of the prototerritory, ontopower aims to avoid the threat and its potential effects on life, so 'redirecting' its unfolding to something more positive (in the eyes of the powerful).

Risking simplification, I will focus on four main differences between biopower and ontopower, summarised in Table 1. They revolve around the governance logic, focus, target of intervention and central problematic in the two forms of power.

Biopower is premised on 'positive' interventions focused on enhancing the life of a statistically knowable (human/nonhuman) population in a given territory. A 'positive' intervention is one that is both proactive and generally aimed at a favourable outcome, especially as it relates to the enhancement of life in the aggregate (i.e., in statistical terms, across the population). The crucial underpinning assumption for biopower is that the knowledge needed to come to statistically correct information about a population and the factors that (potentially) enhance life in the aggregate are more-or-less available and causally trustworthy. It takes into account certain 'disturbances', shifts and other systemic variations, but even these can potentially be estimated and rendered part of complex governmental calculations.

With ontopower, this crucial assumption no longer holds. As the broader security literature emphasises, the current 'life environment' has become a seemingly all-encompassing 'threat environment' where life is increasingly precarious in many ways and on many levels. The governance logic of ontopower can therefore not (only) be a 'positive' intervention based on causal calculation but is instead based on a fundamental premise of uncertainty whereby "complex nonlinear causation is the rule" (Massumi 2015: 30). The governance logic *needs* to become pre-emptive: focused on inherently unknowable, (re)emergent life dynamics as they unfold in relation to an equally unknowable threat between which no trustworthy or linear causal mechanisms can be established. Preemptive logic is, according to Massumi (2015: 15) *effective* rather than causal, which he explains as follows: "since its ground

Table 1
Four main differences between biopower and ontopower

	Biopower	Ontopower
Governance logic	Positive intervention (based on aggregate, rational calculation)	Pre-emptive intervention (based on affect)
Focuses on	Population	(Re) emergent life
Intervenes in	Territory	Proto-territory
Problematic	Enhancement of life in the aggregate	To reduce/resolve unlivability to allow (alter-) emergence of life

is potential, there is no actual cause for it to organise itself around. It compensates for the absence of an actual cause by producing a present effect in its place. This it makes the motor of its movement: it converts a future, *virtual cause* directly into a taking-actual-effect in the present”.

Crucially, he adds that, rather than based on rational statistical calculation, “it does this affectively. It uses affect to effectively trigger a virtual causality” (Massumi 2015: 15). So, because power cannot know what, where and how a particular threat will materialise in the future it must, to a degree, rely on chance or affect to draw a ‘virtual causality’ between present effects and future threats. Ontopower becomes a way of managing (non-linear) time, amongst others – as explained below – by translating temporal uncertainty into spatial predictability (which Aradau and van Munster (2012) refer to as ‘displacing time by space’). Yet a governance logic based on the affective virtualization of a future threat - though (potentially) dangerously open-ended - does not intervene based on chance alone. As De Goede and Randalls (2009: 867) ask: “Faced with an incalculable, yet catastrophic threat, how do scientists and policy makers go about deciding what to do?” Their answer:

“radical uncertainty does not lead to an abandonment of calculative techniques in favor of, for example, a political-philosophical recognition of the fragility of modern life. Instead it results in what Aradau and Munster (2007: 91) call ‘an insatiable quest for knowledge’ in the form of, for example, ‘profiling populations, surveillance intelligence, ... catastrophe management, prevention, etc’”.

Ontopower’s pre-emptive interventions combine affect and ‘an insatiable quest for knowledge’ to come to particular anticipatory moves, one of which is the establishment of what Massumi calls the ‘proto-territory’. Based on available information and affective hunches, ontopower must make anything that may aid a threat’s insipience its intervention-space or *proto-territory*. This, obviously, leaves much space for ambiguity, as everything can *potentially* be part of the proto-territory – rendering power again dangerously open-ended by extending the geographies of intervention almost indefinitely (as was, of course, the case with George W. Bush’ response to 9/11 and the powers he gave to the ‘homeland’ department).

Moreover, this proto-territory, as Massumi (2015: 40) argues, is “tensed with a compelling excess of potential which renders it strictly *unlivable*”. The governance problematic then becomes to reduce or resolve this unlivability to allow (alter-)emergence of life, away from the threat. But up

until this point – which may never occur – a proto-territory remains unlivable, which means two things: first, the fact of having to live with the idea that a life-threatening event is about to happen but not knowing when, where or how leads to an excess of threat-tension that must be reduced or resolved. Second, as emphasised by Anderson (2010: 780): “because the disaster is incubating within the present, life will remain tensed on the threshold of disaster even if an immediate threat is acted against. Anticipatory action must, therefore, become a permanent part of liberal democracies if disaster is to be averted”. Ontopower, in other words, is a contradiction-in-terms: it is focused on resolving a threat by becoming like it. By meeting a threat on its ‘proto-territory’ it can never actually resolve it, rendering war open-ended and permanent.

Massumi’s conceptualisation of ontopower goes much further than can be conveyed here. Important is that even though he is sensitive to the nonhuman environment, he does not include biodiversity as a (potential) object of ontopowerful governance. Following the above-relayed extension of biopower to include biodiversity, I argue that ontopower similarly has major implications for governing nonhuman nature and its relation to humans. Simply put: contemporary major ‘threats’ also affect biodiversity. Climate change is obviously one major threat that is affecting conservation action, governance and thinking.⁵ Another major threat, one that is also generating much current action, is the massive resurgence of wildlife crime around the world (Duffy 2014). In fact, wildlife crime seems to have become the more urgent of the ‘all-encompassing’ threats to biodiversity, especially in relation to charismatic species such as the orang-utan, the elephant and the rhinoceros. It is to this threat and its implications for conservation geographies that I now turn.

GREEN VIOLENCE AND THE THREAT OF POACHING

Since late 2008, the stark and global increase in wildlife crime seems to have taken the conservation world by storm. In relation to rhino poaching, in particular, a dramatic increase in the value of rhino horn has been accompanied by an equally dramatic increase in the number of rhinos poached (see Figure 1). According to the UK government, which convened a major international conference on the issue, “illegal wildlife trade is a serious criminal industry worth more than £6 billion each year” that is “threatening the future existence of

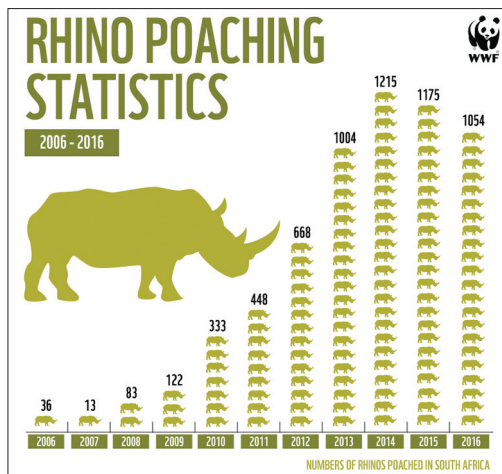


Figure 1

South African rhino poaching statistics 2006-2016. Source: WWF

whole species”.⁶ While proposing a broad suite of responses to wildlife crime, one key response was the use of (counter) force against poachers and poaching syndicates, which coincides with a striking militarization of conservation in practice (Lunstrum 2014; Duffy et al. 2015). Especially in response to rhino-poaching in southern Africa, but also in response to poaching in other parts of the world, a major increase in the use of violent force to protect biodiversity has been noted in the literature, something that Büscher and Ramutsindela (2016) refer to as ‘green violence’. Green *violence* is more than militarisation, and also includes the dramatic increase in symbolic, discursive, social and other forms of violence that accompanies the global surge in wildlife crime.

This section explores what happens when ‘green violence’ is increasingly constructed around the pre-empting of potential poaching threats. This potentiality is centrally configured around the figure of the ‘poacher’ who can, seemingly, strike anywhere, anytime, and with almost any means. One powerful example is given by a major campaign against wildlife crime initiated by Prince William and several major conservation organisations under the banner #Whosideareyouon⁷. This campaign was introduced by Prince William as follows:

“Around the World, the illegal wildlife trade is responsible for the slaughter of tens of thousands of animals a year, pushing some of our most loved species to the brink of extinction. Our children should not live in a world without elephants, tigers, lions and rhinos. Enough is enough. We are not asking for your money. We are asking for your voice and your attention. We are asking you to join our side. It’s time to choose between critically endangered species and the criminals who kill them for money. Whose side are you on?”⁸

Increasingly, the language is of a ‘war against poaching’, a term often used in the media and by organisations responding to wildlife crime (Duffy 2016).⁹ But, importantly, this ‘green war’ is no longer just reactionary action to defend rhinos and other species. Increasingly, it is aggressive action initiated to

pre-empt poaching before it occurs. Duffy (2016: 238) refers to this as ‘war by conservation’, which entails:

“an ‘offensive position’ in certain locations whereby conservation is the intervening aggressor, not simply the defender of wildlife; war by conservation is a proactive, interventionist militarized response that is spatially amorphous and extends well beyond protected areas and into the land and communities surrounding them”.

One illustrative example here is the tenBoma approach spearheaded in Kenya against elephant poaching by the International Fund for Animal Welfare (IFAW). In a pamphlet (Figure 2) they argue that

“Poaching is big business. Poaching networks have become professionalized. They are large, well-resourced and sophisticated. The criminals behind poaching are the same criminals that are behind drug smuggling, gun running, human trafficking and even insurgency and terrorism. Defeating them is not easy. To save elephants from the threat of extinction we need to be able to predict poaching attacks and catch poachers before they kill, not just chase them after the elephants are dead”.¹⁰

TenBoma, according to IFAW, “is revolutionary in focusing on predicting and preventing poaching rather than pursuing criminals after the carcasses have been found”. Yet, “for law enforcement agencies to catch poachers before they kill, they need to ‘build a network to defeat a network’”¹¹, which includes massive requirements for data gathering:

“Enforcement officers and community residents form a network of watchfulness and information sharing. When combined with sophisticated data analysis, this collaboration can lead to early detection of criminal poaching gangs and intervention before animals are killed. The tenBoma project wildlife crime intelligence “fusion center” will gather and interpret data from KWS and as many other stakeholders as possible – including community scouts, police and other law enforcement agencies and non-governmental organizations. Based on the resulting data analysis, KWS can create predictive models and anticipatory responses to poaching in Tsavo and Amboseli national parks – placing Kenya law enforcement one step ahead of organized crime groups and armed militias”.¹²

This ‘anticipatory action’ is also increasingly familiar in and around the KNP as the centre of the rhino-poaching crisis, and has obvious links to Massumi’s conceptualisation of ontopower and broader theories of anticipatory, pre-emptive governance. In the section that follows I will therefore discuss the rhino-poaching crisis in the KNP in more detail based on research from 2012-2015 in the area.¹³ The KNP, one could argue, has long been famous for its explicitly biopolitical governance of the park, where it seeks to maintain a dynamic ‘desired state’ of its integrated socio-biophysical properties through continuous



Figure 2

IFAW tenBoma leaflet. Source: <http://www.ifaw.org/sites/default/files/IFAW-tenBoma.pdf>. Accessed: 29 March 2016

monitoring, intervention and surveillance.¹⁴ This biopolitical governance, I will argue, is now increasingly giving way to ontopowerful governance due to the rhino-poaching crisis. This is clear, for example, from an interview with a senior conservation manager of the Kruger when he argues that rhino-poaching:

“has really changed the way we have been doing business. It has become THE priority. And a lot of other conservation work has been neglected unfortunately. Rangers are supposed to do soil, fire management, burning management, reporting animal’s concentrations, or new distributions – all of that has fallen by the wayside to get rhino poaching under control”.¹⁵

The move from biopower to ontopower, however, is not straightforward, linear or complete (if at all possible). Hence, we need to carefully distinguish what ‘geographies of anticipatory/preemptive action’ (Anderson 2010) are currently unfolding in and around the KNP. I argue that two such geographies are especially prominent, namely the use of ontopower as a return to or to safeguard biopower based on a strategy of displacement of time by space, and full-on ontopower responses based on the establishment of a broad, open-ended ‘proto-territory’. These responses are not neatly separable in practice, yet I believe they illuminate to what extent we see a move towards ontopower around the KNP.

GEOGRAPHIES OF ANTICIPATORY/PREEMPTIVE ACTION

A first geography of anticipatory/preemptive action present in the Kruger is one based on a strategy to displace time by space, as explained by Aradau and van Munster (2012: 104). They argue that “acting in the future is about the management of space, access, surveillance and traceability of entrance, exits and movements” whereby “the temporal unexpected, the potential interruption suggested by the etymology of catastrophe (an overturn, a “reversal of what is expected”) is interpreted spatially as what is out-of-place: behaviours and places that somehow do not fit into familiar spatial arrangement”. In the KNP, we see this strategy implemented in practice through a move back to familiar spatial modes of organising. In an interview, the senior officer responsible for anti-poaching in the KNP mentioned that “the general idea is that there is a fortress Kruger, a core zone – with pickets, and obstacles, in the south – this will be the Intensive Protection Zone (IPZ), which will be a sanctuary within a sanctuary”.¹⁶ Hence, by building a ‘fortress Kruger’ within Kruger, park management tries to create a knowable and heavily surveilled space that allows for the detection of movements or elements that are ‘out-of-place’ and hence could signal (the emergence of) a future poaching attack.

The reference to ‘fortress Kruger’ is highly symbolic and emotionally laden. Basically, it means that (a part of) the park returns to the spatial arrangement that made sense when it was founded, namely during conditions of colonial segregation and (later) apartheid. This spatiality of strictly enforced park boundaries without human presence (other than tourists, rangers or experts) was heavily contested under post-apartheid but is now again strengthened under pressures of poaching (Büscher 2016a; Büscher and Ramutsindela 2016).¹⁷ This strengthening, however, is neither obvious nor easy. On the one hand, as argued by Lunstrum (2014: 824), “Kruger’s vast reach and challenging topography—coupled with the speed of rhino horn removal and transport” highly influences the specific dynamics of “the militarization of the park”. On the other hand, and on a more abstract register, the displacement of time by space can lead to what Aradau and van Munster (2012: 105) call ‘a withdrawal of time’, whereby:

“the future is seen to function in a positivistic epistemic mode, where the solution to future threats is not to understand their origins, conditions of possibility, and emergence, but to accommodate these threats through spatial ordering and mapping. As a result, differences between kinds of events and their spatio-temporal conditions become immaterial to their governance. The withdrawal of time, cuts individuals from the social and political conditions in which events happen and locates them within an empty-container space”.

To some degree this is also happening around the rhino-poaching crisis in the KNP. Many conservation organisations, their funders and other interested actors are developing social

relations that are increasingly constituted in relation to the ‘next poaching attack’.¹⁸ At the same time, this means a spatial disengagement with or withdrawal from historical origins and conditions, including that of the claims of local communities, in favour of strict ‘spatial ordering and mapping’.¹⁹ But this argument only goes so far, as many actors in South Africa are all too aware that the park can never revert back to being an ‘empty-container space’. Participant observation at the South African Department of Environmental Affairs, South African National Parks and Kruger National Park confirmed that many staff members, even if they support measures to implement ‘fortress Kruger’ do not want this ‘fortress’ to become an ‘empty-container space’, but believe it needs to be able to serve its ecological *and* social functions within post-apartheid South Africa.

This is what is referred to in the KNP management plan as the ‘desired state’, which is “based on a collectively developed vision of a set of desired future conditions (that are necessarily varying), integrating ecological, socio-economic, technological, political and institutional perspectives within a geographical framework” (SANParks 2008: 28; see Figure 3 for a visual depiction of the ‘desired state articulation’). As mentioned, however, funding has radically been reverted within the KNP to tackle the poaching crisis, and this is impacting on other normal conservation work, especially that which is typical of the ‘biopolitical’ kind and captured within the ‘desired state’ ideal. The idea here is also that when the area is secured, it becomes easier to return to a more traditional biopolitical governance of biological diversity in Kruger. In this way, then, biopower and ontopower merge and remain closely connected.

Another reason why this specific idea of a ‘withdrawal from time’ is problematic is because we see another, second geography of anticipatory/preemptive action present in the Kruger, namely one that moves decidedly beyond Kruger’s boundaries, and hence beyond KNP as an ‘empty container space’. As the anti-poaching head of Kruger mentioned

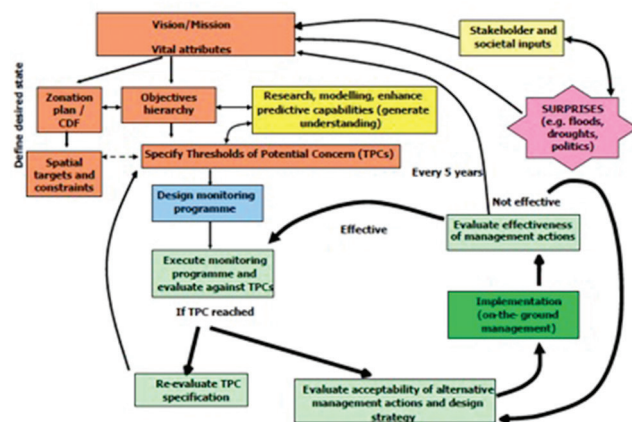


Figure 3

“Desired state articulation (components shown in orange blocks) within the overall strategic adaptive management framework as embraced by SANParks”. Source: SANParks 2008: 29

in an interview, “ultimately you must clear the park from the outside”, which includes ensuring “that poachers are neutralized outside the park”.²⁰ In Massumi’s terms, this means establishing a proto-territory upon which the ‘war’ against poachers can be fought; a proto-territory that brings the war to the poachers and ‘neutralizes’ them in the future poaching attack’s incipience.²¹ Obviously, this second geography is very broad and open-ended, and includes but also moves beyond the strategy of displacing time by space. So, for example, it includes radical displacements such as a complete lock-down of certain spaces outside the park, something currently planned for the small town of Hoedspruit where, if implemented, everybody who comes in or out will be monitored through face recognition, car plate recognition, and so forth.²²

The key to this second geography, however, is precisely that it moves beyond the tactic of displacing time by space. This geography – which we could call the ‘threat of poaching proto-territory’ – basically entails anything that could possibly lead to poaching incidents in the Kruger, and which “uses affect to effectively trigger a virtual causality” (Massumi, 2015: 15). In other words, one must ‘sense’ where and when the next poaching attack will strike to become that which one aims to fight. In turn, this is always a combination between affect, information and anticipation, as participatory observation in an anti-poaching trip in one of the private reserves next to Kruger demonstrated.²³ This trip showed that actual military anti-poaching activities in the field depend on understanding the terrain, available information about poaching activities (if any) and, especially, the affective hunches of particular rangers involved in the on-the-ground situation. One commander, for example, explained to me that he mixes teams in the field up according to where he believes it makes most sense in relation to potential poaching attacks.

It is, however, (potentially far) beyond the boundaries of the park that establishing the proto-territory becomes especially broad and open-ended as every *potential* action that could possibly lead to or support *future* poaching becomes a target in the ‘war on poaching’. This renders the war on poaching simultaneously a ‘war of affect and perception’ whereby “it is necessary not only to perceive potential, but to perceive it before the enemy perceives your perceiving it” (Massumi, 2015: 235). What this means in practice, amongst others, is that one must learn to “think like a poacher” in order to anticipate their next move.²⁴ As part of this, SANParks and private games reserves have both ‘massively’ been setting up local informant networks in neighbouring communities in order to understand and infiltrate poaching chains, all with an aim to get ‘pre-emptive’ information about potential poaching attacks.²⁵ Based on preliminary participatory observation and interviews, it is clear that this is having significant effects on local communities, particularly in terms of the creation of mistrust and suspicion within communities, and alienating them further from conservation (see also Hübschle 2016). These effects, however, are not yet well understood and require further investigation.²⁶

One possible broader effect of these ontopowerful governance attempts is based on the fact that, as in the ‘war

on terror’, information about potential is always ‘incomplete’. Hence, action cannot wait until everything is known about a threat because then it is too late – as also the IFAW tenBoma approach corroborates. Anticipatory action inside and outside the park directed at future poaching’s incipience is therefore being tried out in practice, with as its most consequential result a shoot-to-kill policy: the shooting and killing of potential poachers without trial or knowing for sure whether they are, indeed, poachers. This is already legally practiced in Botswana and considered in Namibia, but it is also illegally practiced in and around the greater Kruger. In conversations with anti-poaching rangers, they made it clear that they do shoot suspected individuals when they have the chance.²⁷ Again, the extent to which this happens is unclear and in need of further investigation, but what is clear is that there has been a blurring of the legal and the illegal due to the seeming necessity of anticipatory actions to pre-empt poaching.

Another broader effect is that Kruger is now caught in an ‘endemic threat environment’ “tensed with a compelling excess of potential which renders it strictly *unlivable*” (the ‘untenable tension that must be resolved’). There is thus a situation where anti-poaching units, conservation agencies and the general public have become so worked up about the poaching that it leads to untenable tensions that many find hard to resolve. In my research, this tension came out in several ways. In an official power point presentation by a senior SANParks official, for example, it was mentioned that “poachers are replaced at a faster rate than rhino”.²⁸ The consequence of this seemed to be that this must be reversed by ensuring – as mentioned above – that poachers are ‘neutralized’ outside the park. But the very fact that there are apparently so many potential people willing to poach, delivers an untenable tension that also leads to much public anxiety. In another paper (Büscher 2016b), I show how in online social media groups, especially white members of the public are calling for the killing of poachers in the most extreme ways, thus further helping to publicly frame the KNP as an ‘endemic threat environment’.

One of the key elements in the building of this threat environment is the analogy of the ‘poacher as terrorist’. Obviously, the two are not the same, but they seem to function analogously within respective strategies of anticipatory and pre-emptive power. As Duffy (2016: 244) argues: “The discursive production of poachers as criminals, militias and terrorists has made it possible to consider, accept and implement new approaches that more closely reflect the methods of the War on Terror and global intervention”. This is what we increasingly see in and beyond Kruger through, for example, the use of drones, ‘hot pursuit’ options across international borders, illicit informant networks, and so forth. This supports Duffy’s argument about ‘war, by conservation’ (Duffy 2016), but also goes beyond it by positing that conservation’s insecurity turns into its pre-emptive other by making ‘green war’ the sine-qua-non of non-human life’s conditions of emergence. This, of course, is highly consequential for future types of conservation politics that might emerge, the (potential) implications of which I will discuss in the following and final section.

DISCUSSION AND CONCLUSION

Conservation actors have long believed that their interests in nature, wildlife and ecosystems are often not seen as important compared to ‘big’ international policy issues around finance, economics, trade and security, while they themselves believe it trumps all these other issues (Büscher 2013). The global wildlife crime and biodiversity crises have changed this, and conservation has now been tightly linked to global security concerns (Humphreys and Smith 2014; Kelly and Ybarra 2016; Duffy 2014; 2016).²⁹ In effect, the poaching crisis has enabled conservation to link itself to ‘big’ politics, something it had already started doing by positing conservation as a global economic and financial accumulation strategy (Büscher and Fletcher 2015). Now these elements are coming together even more strongly, leading Massé and Lunstrum (2016: 227) to posit the term ‘accumulation by securitization’, which aims to capture the “emerging relationship between conservation–securitization, capital accumulation, and dispossession”.

In this paper, I sought to contribute to emerging debates trying to make sense of these dynamics and the more central place of conservation in global accumulation, security, developmental and environmental interests. I have done so by investigating whether we are seeing a move from biopower to ontopower in conservation, following Massumi’s (2015) theorisation of this new power. The crucial element is that wildlife crime, especially poaching, is seen as an overall threat that not merely compounds existing threats to biodiversity (climate change, land-use change, etc) but to some degree, and for some actors, replaces them in terms of priority. This urgency, in turn, has triggered intense, major and violent responses, including those of green militarisation, green violence and ‘war by conservation’ (Lunstrum 2014; Büscher and Ramutsindela 2016; Duffy 2016).

From an ontopower lens, as I argued, this means that conservation’s insecurity leads it to a strong focus on pre-emption and anticipatory action with the tragic consequence that it sets up ‘green wars’ in order to allow non-human life to continue to live. Green wars, which I here define as protracted violent conflicts for environmental ends, are of course not new, as the other papers in this special issue show. Moreover, biopolitics and the violence of the ‘let die’ that it engenders have seen close historical links, as shown by Biermann (2016). Yet, I argue that ontopowerful green wars may have particular consequences that are important to carefully consider and empirically investigate. In a short concluding discussion, however, my aim is not to present an exhaustive overview of these consequences. Rather, I want to emphasise some *potential* directions for further theorisation and empirical research, both of which are ‘urgently’ needed.

Moreover, these brief reflections need to be seen against a broader contention of the paper that we *are* seeing a move from biopower to ontopower in conservation in some areas, yet unevenly so and arguably only in certain areas or spaces. In these spaces, such as the Kruger, the move from bio- to ontopower is leading to complex new conservation (and

violent) geographies, two of which I introduced above. Following and importantly, I want to emphasise that pre-emptive power is not the end of biopower/biopolitics. In fact, the first ‘geography of anticipatory/preemptive action’ was an explicit acknowledgement of the intertwining of the two, while broader biopolitical tendencies are also still visible, even as ontopower seems to gain importance as a mode of power. With that in mind, some important consequences I believe deserve theoretical and empirical attention.

A first consequence of ontopowerful conservation and the green wars it engenders is that conservation must become what it aims to avoid so as to meet potential poaching threats on a ‘prototerritory’. What does it mean to ‘think like a poacher’? And how does this imagination relate to the complex rural and (semi-) urban development situations that actual on-the-ground’ poachers (or better: illegal wildlife hunters) often live in (Duffy et al. 2016)? Precisely how this consequence changes relations in and around protected areas has only recently begun to be investigated. One important suggestion comes from a special issue edited by Kelly and Ybarra, who argue that an overarching conclusion coming from different case studies is that the drive for “security for one group often directly causes the insecurity of another group” (Kelly and Ybarra 2016: 173). Similarly, therefore, we need to further investigate how ontopowerful conservation (again) re-arranges the situations within which different actors become winners and losers in and around protected areas.

Related to this point is the establishment of the ‘prototerritory’. As I have argued, a proto-territory is by definition broad and open-ended, but what exactly does this mean? What exactly does it mean that ‘every *potential* action that could possibly lead to or support *future* poaching’ becomes a legitimate target for ontopower ‘alter-emergence’ of life? For sure, following Aradau and Munster (2012) and Goede and Randalls (2009), it allows for a much broader terrain of intervention, one that exceeds the material geographies of protected areas and its neighbouring areas by a long way. This is problematic in many respects, but even more so in the context of a broader, assertive conservation movement that has declared contemporary threats to biodiversity so all-encompassing that they believe it legitimates extreme forms of conservation. One particularly poignant example is E.O. Wilson’s *Half Earth*, in which he argues that severity of the biodiversity crisis warrants the most extreme interventions, including setting aside half the entire planet as ‘inviolable’ protected areas. And while Wilson is clear that his is not intended to be a realistic proposal but a grand ambition, he does believe that such extreme proposals can help embolden a beleaguered conservation movement to start demanding far more than it has done thus far (Büscher et al. 2017). ‘Beleaguered’ conservation’s proto-territory seemingly becomes simply ‘everything’, or at least half of everything, rendering actual action increasingly left to a combination of information, politics and chance (and hence, again, the reverse side of the poaching or terrorism that it wants to avoid).

Another important consequence to be investigated relates to the ‘unlivability’ of a present so tensed with anticipation that - in one way or another - it has to be resolved. In fact,

according to Wilson and colleagues (see Wuerthner et al, 2015), the present has become ‘unlivable’ due to the ultimate threat of the annihilation of all life. One of the implications is that everything must apparently move out of the way when (charismatic) species’ future life is concerned. We therefore move into new global racialised dynamics, as also argued by Cavanagh (2014), which include humans and nonhumans, and whereby the (future) lives of nonhumans can and do often trump the lives of humans (Massé and Lunstrum 2016; Kelly and Ybarra 2016).³⁰ The singular focus of many conservation and other concerned actors in trying to ‘save’ elephants, rhinos or other megafauna, often trumps all other concerns, especially complex local histories and contemporary politics (see Büscher and Ramutsindela 2016).

If we bring these points together, we are moving into a terrain where we are seeing the rise of what I call ‘the threat of conservation’: the point where conservation becomes its ontopowerful other and where the spectre of green militarization and green violence need to be ever-present and immanent in order to *pre-empt* their ‘other’, namely the threat of poaching or mass extinction. It is here that war becomes the ‘positive’ basis for the conservation of future life. This is a different war from the ‘unending war’ that Duffield (2007) speaks about in relation to biopolitical development dynamics. Duffield, like many others working in the frame of biopower (especially Dillon and Read 2009), basically defines ‘unending war’ in relation to the ‘letting die’ consequences of biopower, meaning that “while ongoing wars have declined, levels of generalized instability and human insecurity have increased” (2007: 223).

This is still the case, yet ontopowerful ‘unending war’ returns much more to ‘open’ or directly violent warfare and (anti-)jinsurgency. The new ‘green wars’ that this special issue investigates are more about open violence than Duffield’s biopolitical forms of ‘generalized instability and human insecurity’. This violence – which comes in various forms, not just physical/material – is seen as *necessary* in order to protect certain forms of life in their emergence. This type of unending green war, therefore, is no ‘positive’ ground for the optimisation of (future) life. It is about desperate, often racist and violent attempts to allow the survival of certain forms of life that multiplies the precariousness of the very life it says it aims to address.

This is a rather sobering conclusion. It is why ‘urgent’ research and reflection, including with respect to the limits of Massumi’s framework, is needed. Massumi’s framework, like Foucault’s original framework of biopower, leaves little space for the outside of power. Yet, as Tsing (2015) reminds us, as we contemplate and reflect on capitalist ruins, we also need to think about ‘the possibility of life in capitalist ruins’. This is not alter-emergent life directed by onto- or biopowerful actors, but by life itself; life (potentially) outside of power; life not as a problem, but as potential, not (only) in the future but in the present.

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NOTES

1. <http://www.worldwildlife.org/pages/stop-wildlife-crime> Accessed on February 18, 2017.
2. In the conservation literature, this is often referred to as ‘triage’: deciding how to allocate scarce resources to supporting the plight of one species over another.
3. As Walker and Cooper (2011) show, ‘resilience’ and related discourses have found much wider application, including in finance, urban development and more, and have started functioning as a more widely applicable ‘methodology of power’.
4. Although it needs to be said that Dillon and Read (2009: 149) come very close with their focus on how biopolitics changes in response to life-as-information and life as ‘contingently adaptive complex emergence’.
5. <http://www.csmonitor.com/Environment/2015/1015/How-climate-change-is-forcing-us-to-rethink-national-parks> and <https://earth.stanford.edu/news/climate-change-requires-new-conservation-models>. Accessed on May 11, 2016.
6. <https://www.gov.uk/government/topical-events/illegal-wildlife-trade-2014/about>. Accessed on May 11, 2016.
7. See <https://twitter.com/whosideareyouon> and <https://www.facebook.com/whosideareyouon>. Accessed on July 17, 2014.
8. <http://www.unitedforwildlife.org/#!/home>. Accessed on July 17, 2014.
9. See, for example, a recent BBC special on the “war on elephants”: <http://www.bbc.co.uk/news/resources/idt-6d40b788-af2f-4646-8177-c8db7ce6a881>. Accessed on May 13, 2016.
10. <http://www.ifaw.org/sites/default/files/IFAW-tenBoma.pdf>. Accessed on May 11, 2016.
11. Idem.
12. <http://www.ifaw.org/united-states/our-work/wildlife-trade/tenboma>. Accessed on May 12, 2016.
13. This includes 10 months of field research in South Africa over three trips, employing ethnographic participant observation, interviews with key stakeholders and collecting documents and further discursive evidence on the poaching crisis within the framework of a broader project on ‘nature 2.0’ (see Büscher 2016a; 2016b).
14. See the KNP management plan 2008: https://www.sanparks.org/assets/docs/conservation/park_man/knp-management-plan1.pdf. In it, it says, for example: “to reach or stay within the desired conditions agreed upon, KNP will adopt a strategic adaptive management approach. The strategic component will keep the longer view in focus, while the adaptive components will strive to ensure continual feedback at various levels in a spirit of continuing learning, fine-tuning and adjustment” (page 33).
15. Interview, senior conservation manager, Kruger National Park, February 13, 2014, Hoedspruit, South Africa.

16. Interview, senior conservation manager, Kruger National Park, February 6, 2014, Skukuza, South Africa.
17. See also interview, staff member South African National Parks, March 6, 2014, Phalaborwa, South Africa.
18. This is especially clear in relation to South Africa's 'National Integrated Strategy to Combat Wildlife Trafficking' (NISCWT), see https://www.environment.gov.za/mediarelease/molewa_onprogresagainst_rhinopoaching. Accessed on April 25, 2017.
19. Idem.
20. Interview, senior conservation manager, Kruger National Park, February 6, 2014, Skukuza, South Africa.
21. Clearly, the KNP has long been working outside of its park boundaries, in surrounding communities. The idea of the proto-territory, however, includes but also far surpasses these communities to include action and actors much further away that contribute to poaching threats.
22. Interview key informant, anti-poaching NGO, August 17, 2015, Pretoria, South Africa.
23. Participatory observation, March 2014, Balule, South Africa.
24. <http://edition.cnn.com/2015/09/22/africa/south-africa-rhino-poaching/>. Accessed on May 14, 2016.
25. Interview senior SANParks, officer February 6, 2014, Skukuza, South Africa; Telephone interview senior official Game Reserves United, March 6, 2014.
26. Participatory observation, Interview August 2015; see the PhD research by Emile Smidt, PhD student at the Institute of Social Studie, Erasmus University, The Netherlands, who is looking into this.
27. Participatory observation February-April 2014, Greater Kruger area, South Africa.
28. Powerpoint presentation given to author by senior conservation manager in charge of anti-poaching in Kruger, February 2014.
29. Something that it obviously was for longer, but more openly now, for example also institutionalized through the 'Wildlife Justice Commission', based in The Hague, the Netherlands, see <https://wildlifejustice.org/about-us/>. Accessed on May 2016.
30. The issue of race is crucial in the theorization of biopower and ontopower, yet in this paper I have not been able to stress and illustrate its importance due to lack of space.

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