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To cite this article: Francis Massé, Elizabeth Lunstrum & Devin Holterman (2017): Linking green militarization and critical military studies, *Critical Military Studies*, DOI: [10.1080/23337486.2017.1412925](https://doi.org/10.1080/23337486.2017.1412925)

To link to this article: <https://doi.org/10.1080/23337486.2017.1412925>



Published online: 19 Dec 2017.



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Linking green militarization and critical military studies

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ABSTRACT

The precipitous increase in commercial poaching across parts of Africa has been met by progressively more militarized responses. Amounting to green militarization, we now see national armies, increasingly paramilitarized rangers, military tactics, and even sophisticated military technology used to address the problem. Scholarly investigations on the topic have largely been approached from a political ecology perspective and hence have not made connections with the equally relevant field of critical military studies (CMS). We see this as a missed opportunity. This paper is thus an early attempt to begin forging these connections. At the most general level, we introduce green militarization – as a practice and realm of scholarly debate – into CMS. By bringing in environmental conservation and non-human nature, this offers a broader view into the vast areas of nominally civilian life that are increasingly militarized, a defining interest of CMS. Second, we draw from core CMS insights – especially regarding the link between development and security – to grasp changing practices and trends in green militarization. In particular, we illustrate how the recent shift towards softer militarized approaches amounts to poaching-related soft counter-insurgency, which we capture in the concept of the conservation–security–development nexus. Here, communities become the object of development interventions to ‘win hearts and minds’ and prevent their involvement in poaching, thereby neutralizing the security threats poaching might pose. We close by suggesting future areas of intersection between CMS and the political-ecological work on green militarization in hopes of inciting a deeper engagement.

ARTICLE HISTORY



Received 3 November 2016
Accepted 17 November 2017

KEYWORDS

green militarization;
poaching; environment;
security–development
nexus; counter-insurgency
(COIN); nonhuman nature

I. Introduction

We have seen a recent intensification in the militarization of conservation practice and space. Captured by the concept of green militarization, this is largely a response to commercial poaching, particularly of charismatic megafauna such as rhinos and elephants. Our research on green militarization in Mozambique and South Africa over the last 5 years has hence brought us into contact with paramilitarized rangers, military officials, and what is essentially military doctrine developed to help stem commercial poaching that is undermining conservation in the region.¹ The result of such military buildup has been deadly, with several hundred suspected poachers shot and killed in the Mozambique–South Africa borderlands over the last few years (interviews 2016;

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Reuters 2015).² Of growing interest to scholars, studies of links between protected areas and militarization have unfolded predominantly in the field of political ecology (Büscher 2016; Büscher and Ramutsindela 2015; Duffy 2016; Dunlap and Fairhead 2014; Lunstrum 2014, 2015a; Marijnen and Verweijen 2016; Massé and Lunstrum 2016; Ybarra 2012), or the study of how politics and power shape socio-ecological relations and vice versa (Neumann 2005; Robbins 2012). Perhaps surprisingly, these investigations have largely not made connections with parallel debates on other practices of militarization in the equally rich and quickly growing field of critical military studies (CMS). This paper is an early attempt to begin forging these needed connections, and does so by offering two interventions.

The first is to introduce green militarization into CMS. This allows us to show how taking the political-ecological work on the topic together with CMS offers a broader view into the vast areas of nominally civilian life that are increasingly militarized, and also expands the focus of CMS to include the natural environment and non-human nature.³ Equally important, CMS provides the tools to help us grasp new trends in green militarization and hence contributes to our understanding of these processes and related political-ecological debates. This latter point leads to our second intervention. While recent forms of green militarization have largely taken a hard or kinetic approach to addressing wildlife crime – including state-orchestrated raids, arrests, and killings of suspected poachers – we see it as arguably entering a new phase in Southern Africa. This is one in which the hard approach is certainly not displaced but rather complemented by a softer approach based on counter-insurgency (COIN) doctrine that promotes community engagement and development, essentially to ‘win hearts and minds’. Drawing on CMS and in particular theorizations of the security–development nexus, we argue this recent trend in green militarization amounts to a conservation–security–development nexus. Here communities become the objects of development interventions precisely to prevent their involvement in the wildlife trade and hence neutralize the security threat poaching might pose.

We begin by offering an overview of green militarization that draws from both the political ecology literature and our empirical work in Southern Africa as a means of introducing it into CMS. The region is significant as it is the epicentre of global rhino poaching and a core site of militarized responses to commercial poaching. It is also a type of laboratory to test the applicability of militarized approaches for other regions including those where poaching is seen as funding terrorism (SANParks 2014). The overview will also show that much of the scholarly intervention on militarized conservation and indeed much of our own data paints a picture of hard militarized responses. Using this as our second point of departure, we then provide preliminary evidence for the implementation of a softer, community-based approach. Drawing on CMS interventions into the relation between development and security as embodied in the security–development nexus, we show how this fits with, extends, and supplements existing forms of militarized conservation. We make sense of this by introducing what we see as a *conservation–security–development* nexus. We close by suggesting future areas of intersection between the political-ecological study of green militarization and CMS to hopefully incite a much richer and long-term engagement.

II. Introducing green militarization

A robust literature chronicling the intersections of military activity and the environment now spans a range of disciplines. Often influenced by Westing (1975), this literature highlights the negative impacts of military activity on the environment. This includes the massive consumptive patterns of an expansive physical and social military infrastructure, the direct impacts of conflict and military buildup on ecosystems and wildlife, and the often-indirect impacts caused by the victims of warfare such as refugees (Hanson et al. 2009; Hupy 2008; Woodward 2004). This is joined by a growing literature on the strategic deployment of animals and the harnessing and manipulation of biophysical processes in the name of war and other military interventions and military research (Brady 2012; Cudworth and Hobden 2015; Gregory 2016; Kosek 2010). Others point to climate change as a new military–environment encounter driven by environmental security and resource scarcity discourses (Gilbert 2012).

Further analysis reveals an array of complexities found within military–environment encounters, especially those that involve environmental conservation. One example is the increasingly common transformation of former military sites into state protected areas, or military to wildlife (M2W) conversions, a phenomenon we see stretching from North America (Havlick 2011) to Southern African (Mckenzie 1998). ‘De-militarized zones’ – what are in fact heavily militarized landscapes – have also emerged as important sites of biodiversity conservation, as these spaces are too dangerous for human habitation and development (Kim and Cho 2005; Brady 2008). The example of M2W conversions and demilitarized zones illustrates novel and arguably non-intuitive military–conservation encounters and outcomes.

Military actors also play a more concrete role in biodiversity management and spaces of conservation, highlighting a direct relationship between environmental conservation and the military, among other security forces. Indeed, this has emerged as a quickly growing area of inquiry within the field of political ecology. The establishment and management of protected areas have historically been used to exert state control over recalcitrant populations and their resources (Neumann 2001; Peluso 1993; Vandergeest and Peluso 1995). Often made possible by the framing of vulnerable and marginalized populations as the enemy of conservation, the state and its military apparatus have played a leading role in policing such populations through the use of overt and covert forms of violence (Devine 2014; Neumann 2001; Vandergeest and Peluso 1995; Ybarra 2012). Such engagement is increasingly translating into green militarization or ‘the use of military and paramilitary personnel, training, technologies, and partnerships in the pursuit of conservation efforts’ (Lunstrum 2014, 814). This is a trend we see across parts of Africa (Duffy 2014, 2016; Dunlap and Fairhead 2014; Marijnen 2017; Marijnen and Verweijen 2016; Massé and Lunstrum 2016; Verweijen and Marijnen 2016) and Asia (Barbora 2017), with military buildup also unfolding in protected areas in Latin America (Devine 2014; Ojeda 2012; Ybarra 2012).⁴ Indeed, there is a long history of military involvement in conservation (Devine 2014; Ellis 1994; Lunstrum 2015a; Spence 1999; Wels 2015). The difference today is that such involvement is quickly intensifying and vastly expanding within a broadly framed conservation context and sense of ecological crisis.

What might be driving this current intensification of green militarization? While the answer is complex and harkens to a broader militarization of nominally civilian areas of life analysed by CMS scholars (see below), part of the answer rests in a concerning rise in wildlife crime, namely commercial poaching. Commercial poaching is illicit or extra-legal hunting for profit. While there has long been a global trade in wildlife, this recent expansion is tied to a larger, wealthier consumer base willing to pay handsomely for rhino horn for medicinal purposes⁵ and for elephant tusks and rhino horns alike as trophies displayed as signs of wealth. Ivory rings in at USD \$1,000–\$2,000/kilogramme on the black market, with rhino horn reaching a staggering \$40,000–\$70,000/kilogramme, outpacing the price of gold and cocaine. Taken together, these are part of a broader global illicit trade in wildlife worth \$5 billion to \$25 billion a year,⁶ placing it among the ranks of the trade in guns, drugs, and people (US Department of State 2014; UNDP 2015).

This new wave of commercial poaching is quite concerning. For instance, in South Africa, which is currently home to 75% of the world's remaining 30,000 rhinos,⁷ incidences of rhino poaching rose from 13 in 2007 to over 1000 in 2013 and have not dropped below this number since (Save the Rhino 2017). At these rates, we could see the loss of rhinos in the wild in our lifetime (Ferreira et al. 2015). Similar deadly trends have followed the African elephant where poaching along with habitat loss translate into a yearly loss of 8%. There are fears the population may be halved within a single decade (Chase et al. 2016).

The response of the global community and individual countries has grown in proportion to the problem. Governments of end-user countries like China and Vietnam are working to curb demand for wildlife products (TRAFFIC 2017). National and international efforts and cooperation aimed at combatting the transit and movement of wildlife products have also increased (DEA 2016; Obama 2014). Another series of responses, however, have set out on a more militarized path. Located primarily within and near protected areas, this militarization of conservation largely overshadows the other responses to the poaching crisis in both its intensity and the attention and resources it is allocated (Duffy and Humphreys 2014; Hübschle and Faull 2017; Lunstrum 2014; Roe et al. 2015).

If green militarization amounts to the growing use of military actors, logics, techniques, and technologies within the realm of conservation, what might it look like in practice? Let us turn to our work in Southern Africa. We begin with a July 2016 event in which South African officials accepted an unspecified number of under-barrel grenade launchers (UBGLs) provided by Milkor (SANParks 2016). A private South African defence corporation, Milkor is known for its prolific production of grenade launchers and their sale across 60 countries (Milkor 2017). Speaking to the audience, a state representative laid out what this contribution to the state arsenal would enable: '[we] will continue to look at new and innovative ways [of] fighting the relentless incursions.... We have no choice but to conquer this war' (SANParks 2016). The 'war' afoot is that of rhino poaching. While these particular UBGLs are designed to help 'flush' poachers out of the bush and arrest them (rather than kill them), their contribution to South Africa National Parks (SANParks) is part of a much broader militarization of conservation practice. Indeed, Milkor's offering is reflective of SANParks' and other states' and conservation institutions' conscious drive to develop partnerships with

the defence sector to secure its goods and services. In fact, the press release celebrating the UBGL handover explained that ‘partnerships of this nature allow SANParks to provide the desperately needed support in terms of equipment to the counter poaching teams’. Other partnerships include well-publicized donations to SANParks of military-grade surveillance and pursuit aircraft from the Paramount Group, the continent’s largest privately owned defence corporation (SANParks 2012a, 2013). In neighbouring Mozambique – both a site of commercial poaching and a source of poachers into South Africa including Kruger – we also see partnerships with private security firms such as Quemic, Rhula, and Dyck Advisory Group as well as conservation-specific security firms such as Conservation Outcomes and Maisha, many of which also work in South Africa.⁸ They provide services ranging from intelligence gathering to the training and even provision of paramilitarized rangers, tactics, and technologies for conservation areas and organizations. What we are seeing here is not only the expanding use of military technologies and partnerships with for-profit defence corporations but equally the expansion of the influence of non-state security/military-related actors on conservation.

This, however, is only the tip of green militarization unfolding across the region. For instance, the field ranger corps has been undergoing a more intensive paramilitarization than seen in the past. Fieldwork observations and interviews from 2012 to 2016 reveal how rangers in both countries are now dedicating the vast majority of their time to anti-poaching security at the expense of broader conservation mandates. This shift in time and duties is paralleled by a shift in training, with rangers receiving more intensive paramilitary training, including training in covert operations, tactical ambushes, COIN, and intelligence gathering.

The military proper is also increasingly involved in conservation. This begins with the inclusion of military officials, both current and retired, to head anti-poaching operations. In South Africa, Ret. General Johan Jooste, who gained military experience during South Africa’s Apartheid border wars, oversees conservation security and anti-poaching at the national level. In Mozambique, a former special forces sniper leads the International Anti-Poaching Foundation (IAPF), which signed a Memorandum of Understanding (MoU) with the Mozambican government to aid (more accurately, conduct) anti-poaching in the borderlands adjacent to South Africa. Some of the anti-poaching managers he has hired also come from a special forces background. A former European special forces operative manages a specialized anti-poaching unit in Mozambique’s Limpopo National Park (until recently an important entryway for poachers into Kruger) while Conservation Outcomes and Maisha are run by and hire former special forces and intelligence personnel (interviews 2014–2016).

These practices are complemented by the entry of the army proper into these same spaces (Anneck and Masubele 2016; Humphreys and Smith 2014). Indeed, while the army’s mandate in Kruger is border patrol, this translates into anti-poaching security given that rhino poaching is the main transgression along the international border between Kruger/South Africa and Mozambique. Reflecting broader political-ecological insights, the entry of the army into conservation enables military forces to reinvent themselves in times of so-called peace, thereby furthering the use of military tactics within and beyond the boundaries of protected areas (Devine 2014; Duffy 2014;

Neumann 2004; Ybarra 2012). This is a dynamic we certainly see in post-Apartheid South Africa (Lunstrum 2015a).

Together these militarized conservation forces are deploying a range of tactics – some explicitly military, others less so – to address poaching. First, they work to ‘neutralize’⁹ poachers using ‘man-hunting’, surveillance technologies, and tactical ambushes. In addition, militarized conservation places a heavy emphasis on intelligence gathering, often involving former Apartheid and Israeli Defence Forces (IDF) intelligence operatives, as we witnessed within and outside conservation areas in Mozambique.

Added to this are the all-too-common discursive tactics of referring to poaching as a ‘war’ being fought by ‘insurgents’. Often focused on charismatic species under threat, these increasingly mundane citational acts legitimize the involvement of a range of actors including military actors in the drive to save biodiversity, often with rather contradictory and violent outcomes (Duffy 2014, 2016; Dunlap and Fairhead 2014; Lunstrum 2014; Marijnen and Verweijen 2016). Beyond explicitly military approaches, the framing of the problem as a war and insurgency helps authorize the common COIN tactic of relocating communities. Indeed, we see the physical removal of Mozambican communities from protected areas thought to be involved in poaching South African rhinos. The rationales for these relocations are complex and largely predate the poaching crisis. Yet interviews with Mozambican state and park officials nonetheless confirm poaching and its militarized framing have given these relocations more urgency (interviews 2014–2016; also see DEA 2016; Lunstrum 2015b; Massé and Lunstrum 2016). Importantly, many military and anti-poaching personnel are moving away from the language of ‘war’ in acknowledgement of its potential negative consequences (Hübschle and Jooste 2017, 65).

Concerns with green militarization do not amount merely to military buildup largely in ostensible non-military and non-conflict zones. They also point to the ensuing violation of human rights of those suspected to be involved in poaching, including state-orchestrated killings and forced relocations, along with the (further) alienation of communities from conservation efforts. Even from a strictly conservation perspective, the latter is concerning as it is likely to harm conservation efforts in the long run given that sustainable conservation depends on strong people–park relations (Cooney et al. 2016; Lunstrum 2014; Duffy et al. 2015; Hübschle 2016).

In short, as a response to the precipitous increase in commercial poaching, conservation practice and space are being militarized. This includes the interventions of the military proper, to be sure, but equally encompasses the use of military technologies, related partnerships with defence corporations, the increased paramilitarization of conservation officers, and the deployment of military tactics and militarized language of war and insurgency. Taken together, the militarization of conservation literature and our own fieldwork illustrate how the boundaries of military and civilian spaces, actors, and institutions are becoming increasingly blurred.

We offer this introduction to green militarization, which again has largely been explored within a political ecology framework, as a first step in placing it on the proverbial radar of CMS and to initiate a larger dialogue between the two areas of investigation. At the most basic level, this widens the purview of CMS to better encompass the disturbingly vast and quickly expanding areas of nominally civilian

life that are increasingly being militarized. We can now add conservation to this range of practices and spaces that includes, for example, healthcare (Loyd 2009), humanitarianism and development (see below and this special issue), cities (Graham 2011), international borders (Gregory 2011), university campuses (Woodward, Jenkins, and Williams 2017), and climate change (Gilbert 2012). The addition of conservation also expands the focus of CMS to explicitly include the non-human and processes of environmental protection. While others have begun to look at how non-human nature and biophysical processes are militarized, these are largely examples of ‘nature’s’ militarization in the name of war or security more broadly (Brady 2012; Cudworth and Hobden 2015; Gregory 2016; Kosek 2010). Where green militarization differs, and hence widens our focus, is that non-human nature and the spaces in which it is protected are militarized at once in the name of security (a point we turn to below) and for its own sake. This both provides new logics that authorize military interventions and expands the population of ‘vulnerable subjects’ that deserve military protection (also see Duffy 2014; Eckersley 2007). In short, it opens a whole new (non-human) realm available for military intervention. CMS also has much to offer analyses of green militarization and the broader field of critical military studies. This leads to our second contribution, that of showing one concrete way in which core insights of CMS help us grasp key features of a quickly changing green militarization.

III. A soft approach to anti-poaching: conservation, development, security

Militarized conservation practice in Southern Africa’s poaching hot spots, as elsewhere, has largely taken a hard or kinetic approach, from arrests and killings of suspected poachers to military-style intelligence gathering and forcible evictions. Increasingly, however, we are beginning to see the emergence of softer approaches that fit more comfortably within a framework of community development. This includes development projects aimed at enhancing livelihoods and social improvement alike. For instance, a private Mozambican reserve near the epicentre of the rhino poaching economy runs its own paramilitary anti-poaching force that works in partnership with Mozambican and South African state security forces. Importantly, the reserve also supports new economic and livelihood development activities. This includes the establishment of a women’s centre in Massingir, a focal point of poaching activity, where women make handicrafts to sell for tourist and other markets. Moving beyond development to social investment, the Mozambican–South African borderlands are now home to no less than four soccer leagues that are sponsored directly by anti-poaching organizations. The goal of these livelihood and social initiatives as explained by those involved is to engage with local community members to again win hearts and minds to deter entry into the poaching economy (interviews 2014 and 2016).

How then do we begin to make sense of these recent interventions, ones that seem to take us in an entirely different direction from a hard militarized response? Do these mark the end of green militarization or at least a move beyond its kinetic approach?¹⁰ Building from the CMS literature, in fact, we see these softer development-based approaches as fitting quite comfortably within a green military framework. Indeed, we see this as likely a new phase in green militarization, at least in Southern Africa. We

make the case by first drawing from CMS's insights into the relation between development and security and then use these to frame our empirical observations. We then turn to the security logics that authorize these soft anti-poaching projects, which once more lead us back to key insights of CMS.

CMS scholars have highlighted the link between development and security and the militarization of development assistance and practice, which they capture in the concept of the security–development nexus (Bryan 2015; Chandler 2007; Duffield 2010; Stern and Öjendal 2010). This nexus is dual sided. It first grasps how development is directly deployed as a security strategy that is often militarized. The argument is that development reduces poverty and associated vulnerabilities and in so doing makes the world a safer place as people will be less likely to join insurgent, criminal, or terrorist groups. In this respect, former United Nations (UN) Secretary-General Kofi Annan has argued economic insecurity and poverty can increase people's vulnerability, thereby providing a 'fertile breeding ground for other threats, including civil conflict, such as instability and even conflict' (United Nations 2004, vii). Development here is a soft COIN strategy. Soft COIN approaches include not only economic development but also social investment in communities, with a focus on infrastructure and feel-good initiatives in what amounts to militarized 'public diplomacy' (Copeland and Potter 2008; Fitzpatrick 2009). Public diplomacy is meant to win the hearts and minds of local people and draw support away from the 'bad' insurgents or other threatening groups towards the 'good' military and security forces. The other side of the security–development nexus draws attention to the securing of development assistance itself to ensure or secure its success. This becomes important because if insurgents, conflict, or other nefarious forces undermine development, people's vulnerability increases. This in turn can lead to an onset of security threats (Stern and Öjendal 2010).

Growing from this series of articulations, development now rests squarely within the purview of global security politics. As a result, the roster of actors involved in development practice is expanding to include those related to the global security and military apparatus. This includes state and government institutions and their respective military and security forces, private-sector security and military actors, and even non-governmental organizations (NGOs) with military links that may or may not be concerned directly with development itself (Enloe 2000; Holmqvist, Bachmann, and Bell 2015; Orford 2015). With non-military actors working side by side with military actors or even becoming more militarized themselves, such security–development interventions are marked by a blurring of who is and is not a military actor and who is or is not supporting militarization (Duffield 2010; Enloe 2000; Fassin 2010).

These insights help us grasp the recent anti-poaching-related development interventions as soft COIN approaches aimed explicitly at countering commercial poaching as a joint ecological–security threat, rather than first and foremost realizing development for its own sake. Others, in fact, have begun to draw links between conservation and COIN strategies. Indeed, Dunlap and Fairhead (2014, 951) provide an overview of COIN-like practices to gain control of forests for security purposes in what they call 'conservation counterinsurgency'. Verweijen and Marijnen (2016, 2) similarly chart how dynamics of conflict and armed mobilization articulate with 'overlapping counterinsurgency and conservation practices' in their research on green militarization in the conflict-torn

Democratic Republic of the Congo (DRC)'s Virunga National Park. Moreover, and still focusing on Virunga, Marijnen (2017, 1567–8) argues the European Commission's related use of development assistance to '(in)directly fund' both hard and soft militarized conservation practices represents the 'green militarisation of development aid'.

The soft (and hard) COIN approaches we witness in Southern Africa reflect core insights of these contributions but differ in important respects. Here these approaches are deployed in times of peace, unlike in the DRC, and focus on combatting commercial poaching of wild animals. In this respect, soft COIN takes the form of development assistance to incentivize people not to poach or join criminal poaching syndicates and, as we will see, to be amenable to providing intelligence. Drawing explicitly on the CMS literature on the security–development nexus, we posit that this translates into an explicit *conservation–security–development* nexus. Turning to examine what this looks like in practice, we suggest green militarization in Southern Africa is moving into a new phase, one that embraces a softer approach but that nonetheless fits quite comfortably within a larger militarized framework.

The conservation–security–development nexus in Southern Africa

Throughout our fieldwork, reserve managers, state officials, and community members have explained how it is the impoverished conditions – in part exacerbated by conservation interventions – in South Africa and Mozambique that leaves young men so easily recruitable by poaching syndicates. As one village leader in Mozambique explained, 'There are more [men] that go [to Kruger] now to hunt. This is motivated by hunger and lack of money' (interview 2015). And a director of a security firm explained that young men turn to poaching and crime syndicates because they 'can't find work' (interview 2014). Given this reality, alternative livelihood programmes are being developed with the explicit intention of reducing poaching.

Let us return to the women's handicraft-based livelihood project in Massingir. The manager of the wildlife reserve organizing the project explained how this initiative, which is visibly advertised in the centre of town, is specifically aimed at 'winning hearts and minds' by providing alternative livelihood options to both discourage people from engaging in poaching and encourage them to support the reserve's anti-poaching activities (interview 2014). Farther south in Mozambique's Sabié District, a conservation NGO's rhino programme has set up a humanitarian-esque food-for-work programme. This entails having local people in the Mangalane area, a hotbed of rhino poaching, work on community improvement projects such as maintaining roads, in exchange for food aid (interviews 2015). While emerging as a response to the 2015–2016 drought, the programme is specifically designed to provide food to sway local people away from turning to poaching to make ends meet. We also see income-generating activities being promoted by development assistance organizations. The United States Agency for International Development (USAID) funded a Conservation Alternative Livelihood Analysis in these same borderlands adjacent to Kruger National Park (USAID 2016). The recommended income-generating opportunities include cattle raising, conservation-related tourism, and the production and harvesting of vegetables, marula, and medicinal plants. The objective here is 'to provide jobs and support legal business opportunities that will disincentivize local communities from participating in

poaching activities' (USAID 2016, 8). The report even recommends USAID partner with the International Fund for Agricultural Development (IFAD)'s existing project in the area aimed at developing the beef supply chain. The reason is that 'this intervention will strike at the heart of poaching areas first' and suggests 'the most direct and cost-efficient strategy for USAID activities may be to work with other existing donor programs on gearing the activities of its new program toward anti-poaching areas' (USAID 2016, 18). What we see here are recommendations to not only develop new interventions, but to gear, and perhaps even co-opt, existing development and livelihood interventions towards the specific objective of combatting poaching (also see Massé et al. 2017).

Social investment and public diplomacy also enter the picture as explicit conservation–security strategies. Worryingly, a manager of Mozambique's Limpopo National Park explained how they cannot focus on solving poverty because that will not happen. It is too long-term a goal, and the benefits of community-based natural resources management cannot compete with the benefits of poaching. So instead they work on 'being in their [communities]' good books' by building positive relations with them through practices like providing agricultural extension support and social infrastructure (interview 2014). Other anti-poaching officials agree with the need to build positive relations, expressing how work on 'roads and infrastructure' is key to winning community support (Hübschle and Jooste 2017, 67). So is providing housing. One Mozambican reserve, for example, built a dozen houses in a community that is particularly hostile to anti-poaching and conservation personnel. The reserve owner explained how this was explicitly aimed at luring young men away from the illegal rhino horn trade (interview 2015). The soccer leagues also have the explicit aim of drawing support away from poachers and poaching syndicates and towards conservation and rhino protection (interviews 2015–2016). Indeed, the IAPF (again, a paramilitary anti-poaching organization working in the area) brands its logo on the soccer jerseys of the league it funds. This enables the organization and its personnel to be associated with this positive social initiative in order to gain the support of local people (interview 2016). This is COIN-like public diplomacy at work, and is advocated by top anti-poaching officials in South Africa as well (Hübschle and Jooste 2017).

In addition to preventing entry into the poaching economy, these forms of development are also important for intelligence gathering, another key COIN strategy. As a manager for Mozambique's Limpopo National Park explained, anti-poaching is most effective when communities are tapped for poaching-related intelligence gathering, which requires engaging them in development activities (interview 2014). Indeed, intelligence-gathering is the primary tactic of 'clearing the park from the outside' that looks to supplement hard military tactics within protected areas (interviews 2015–2016; also see Büscher *forthcoming*; Hübschle and Jooste 2017). As an anti-poaching official in charge of managing informant networks explained, 'We are using military-style intelligence where we gather intelligence and then arrest poachers in towns, very rarely in the bush' (interview 2016).

Intelligence work and more effective anti-poaching strategies are not merely an objective of development but are also supported (in)directly by development actors and organizations. For example, USAID – again, a development organization – is a key actor in the US' Global Anti-Poaching Act and is similarly open about its support for

anti-poaching interventions and ‘wildlife enforcement networks’ including intelligence-based approaches to anti-poaching (House Foreign Affairs Committee 2015; USAID 2017). Indeed, USAID in Mozambique (in)directly funds joint ranger–state police security operations, and the work of private security and intelligence firms including Maisha Consulting and Conservation Outcomes. These are two security firms developing anti-poaching intelligence networks in the country’s Niassa National Reserve, a global hotspot of elephant poaching (interviews 2016). Mozambican development NGOs also hire and work with private intelligence and security firms to combat rhino poaching in southern Mozambique (interview 2016).

In short, the hard kinetic green militarized approach to commercial poaching in Southern Africa is being joined by softer COIN interventions. These aim to win hearts and minds to discourage entry into the poaching economy but also to make community members more amenable to related intelligence-gathering. Indeed, this is what the conservation–security–development nexus looks like in practice. From here we begin to ask what might be enabling this coming together of conservation, security, and development actors and the blurring of their commitments. This leads us into the explicit security rationales behind anti-poaching efforts and hence once again to the insights of CMS and the broader field of critical security studies.

Securitizing commercial poaching and authorizing green militarization

The field of critical security studies has certainly given us a vocabulary for understanding how an issue becomes securitized, or understood as a legitimate security threat, and how this then justifies military and broader security interventions (Buzan, Waever, and de Wilde 1998; Waever 1995). In the context of anti-poaching interventions, commercial poaching is securitized both as a more traditional issue of national/global security and increasingly as an issue of economic security. This framing has certainly authorized hard, kinetic green militarized approaches but increasingly softer COIN approaches as well. Stated differently, for there to be a conservation–security–development nexus, it is not enough for development initiatives to be aimed merely at reducing poaching. Poaching must first be understood as a security threat.

Indeed, like development assistance, wildlife and spaces of conservation have become integrated into a global security politics, giving rise to a security imperative that authorizes both hard and soft green militarization (Cavanagh, Vedeld, and Trædal 2015; Duffy 2014, 2016; Dunlap and Fairhead 2014).¹¹ On its webpage, USAID explains it supports efforts to combat the illegal wildlife trade because wildlife trafficking is an ‘*international development*’ issue because it undermines security, rule of law, and our efforts to end extreme poverty ... Protecting wildlife from poaching and illegal trafficking helps secure our global heritage and fights against the criminal networks that exploit humans and nature and thereby threaten national security and rule of law’ (USAID 2017, emphasis in original; also see Obama 2014).

And various UN agencies have labelled poaching and wildlife trafficking a ‘serious global security concern’ (UNDP 2015). We see security threats from poaching and the wildlife trade concentrated around three pillars: connections to terrorism, insurgency, and organized crime; the related security and integrity of international borders, territory and sovereignty; and economic security.

Much of the work examining the integration of poaching into global security politics has focused on the presumed links between poaching, the wildlife trade, and terrorism, especially in East and Central Africa (Duffy 2014, 2016; White 2014). Poachers, put simply, are framed as terrorists or are represented as financing terrorist and militia groups (McNeish 2014; Obama 2014), despite little empirical evidence to support these claims (Duffy 2016; Maguire and Haenlein 2015). Poachers in Southern Africa are similarly routinely framed as armed ‘insurgents’, many of whom clandestinely cross international boundaries and threaten national territory and sovereignty. Speaking of the cross-border nature of rhino poaching and his desire for the army to play a bigger role, the former SANParks Chief Executive Officer (CEO) and acting CEO of Ezemvelo KwaZulu-Natal Wildlife, David Mabunda, contends ‘this is counter insurgency’ and ‘is no longer a conservation war, but it is a war of our sovereignty so we should look at it in terms of our national security’ (Mkhize 2015). Similar rhetoric is routinely used by high-ranking SANParks officials (Lunstrum 2014; SANParks 2012b). In the context of Kruger National Park, the focus on poaching as an attack on national security, territory, and sovereignty reflects the reality that Kruger is more than a conservation space; it is a border space (Lunstrum 2014, 2015a; Massé and Lunstrum 2016; SANParks 2012b).¹²

While claims of poachers as terrorists are not well evidenced, the involvement of organized crime in the illegal wildlife trade is. Organized crime is indeed a poaching-related security concern both locally and globally and is one we see manifest on the ground in Southern Africa (Hübschle and Faull 2017). This has in part, for instance, motivated South Africa to label rhino poaching ‘a National Priority Crime’ (DEA 2017). In this context, the founder of the IAPF, which takes an unapologetically militarized approach to anti-poaching in the Mozambican borderlands, argues ‘eliminating poaching helps to prevent the destructive downward spiral of the illegal wildlife trade. Poaching is the gateway for criminalization of individuals and whole communities’ (gofundme 2016). Echoing USAID (see above), other South African and Mozambican conservation and anti-poaching officials express a fear that the illegal wildlife trade could lead to a broader culture and cementing of organized crime and a subsequent erosion of the rule of law and security in areas where the poaching economy has taken hold (interviews 2014–2016; also see Hübschle and Faull 2017).

Our point in drawing attention to these security discourses is that they authorize militarized interventions, both hard and soft. In the latter sense, these are the discursive moves upon which the conservation–security–development nexus comes to make sense. We begin to see this link even more explicitly when we turn to a third security discourse, that of economic security. The argument here is that if commercial poaching undermines conservation, then it putatively undermines conservation-related development as well. As the Mozambican Minister of Tourism explained, poaching ‘is having a detrimental effect not only on [Mozambique’s] beautiful wildlife, but also on communities’ sustainable development, on tourism and on the security of economies of African nations’ (PPF 2014). Likewise, South Africa’s Department of Environmental Affairs claims rhino poaching threatens the ‘eco-tourism industry’ of South Africa (DEA 2010). The fear of economic consequences stemming from wildlife crime are also scaled up to the global level with claims from the US State Department suggesting wildlife crime ‘weakens financial stability and economic growth, particularly in countries for which tourism is a major revenue source’ (US Department of State 2014).

Reflecting the logic of the security–development nexus, at least part of the economic concern with poaching is not centrally about economies and economic well-being for their own sake, but comes back to more traditional national and global security anxieties. In this way, securing the development potential of conservation economies dovetails with the securitization of development more broadly. The logic here, according to conservation, security, and development officials, is that if conservation-as-economic-development is compromised, the resulting poverty and vulnerability may provide a breeding ground for further instability and recruitment by organized crime syndicates involved in poaching or other illicit markets (interviews 2014–2016). Echoing the words and sentiment of a director of an anti-poaching security firm in the region, rhino poaching is about ‘much more than the rhinos’ (interview 2014). Extending principles of the security–development nexus to non-humans is thus not only about wildlife but about the security of people, economies, and states as well.

In short, what is telling about all these security discourses – encompassing concerns for terrorism, insurgency, national borders, and economies – is that they do not authorize only hard militarized conservation interventions. They increasingly authorize softer approaches as well. The latter are precisely those that constitute the conservation–security–development nexus.

We strongly support community development, community-based conservation efforts, and building stronger park–people relations. These can help protect vulnerable communities, improve livelihoods, and equally protect wildlife, all over the short and long term. But approaches that fit within a conservation–security–development framework are arguably too instrumental and shortsighted. At the crux of our concern is how the primary objective of these projects is to reduce poaching. Within this framework we see community development interventions evaluated not from a community benefit standpoint but whether or not there is a measurable decrease in commercial poaching or increase in support for militarized anti-poaching. These observations further solidify what we see as an emerging conservation–security–development nexus. This is one in which, once more, these development initiatives have as their primary goal not addressing community needs but rather addressing security-cloaked conservation concerns.

This is not mere conjecture. In talking about the value of community-development initiatives, Gen. Jooste explains, ‘I would really like somebody to show me one community or demand reduction project that will decrease poaching before 2020’, highlighting again the main aim of these interventions is addressing rhino poaching (Hübschle and Jooste 2017, 65). We also witnessed how the continuation of rhino poaching by communities in Mozambique’s Sabié region led to calls by some neighbouring reserves and anti-poaching managers to stop investing in those communities. They argued if communities are going to continue to hunt rhinos and be hostile to anti-poaching personnel, it is not worth investing in good relations and community development. Instead, they argued, they should stick to a more hard-lined anti-poaching approach where communities are perceived as enemies. At a broader level, interviews with donors confirm if ‘development’ money earmarked to reduce poaching fails to achieve this goal, there is a risk that such funding will disappear and we will revert to a more direct and kinetic military approach, one that never went away but exists alongside development (interview 2015). The point of these examples is that certain development interventions are increasingly contingent on the realization of anti-poaching successes and not directed first and foremost at improving community well-being. This, we see,

is a shortsighted response both to addressing wildlife crime, which requires old and enduring community–conservation relations, and to ensuring the well-being of vulnerable communities.

IV. By way of conclusion: a further call to bring together CMS and green militarization

In this article we have taken a preliminary step in bringing together the political ecological study of green militarization and core debates in CMS. In introducing conservation's militarization, we have shown how this can importantly expand the focus of CMS to include conservation, and related non-human actors, as a key arena in which militarized logics and practices take hold and transform spaces and, ultimately, lives. In short, green militarization opens a whole new realm, including the non-human, to military intervention. We have also shown one concrete way in which studies of green militarization can be deeply enriched by engagement with core CMS debates. Namely, insights into the security–development nexus help us make sense of the dovetailing justifications, actors, and practices that embody what we call the conservation–security–development nexus. This is a nexus that sees development interventions targeting communities specifically to prevent their involvement in the wildlife trade and hence neutralize security threats poaching might pose. We make sense of this not as a departure from a broader militarized response but as complementary to existing hard tactics of green militarization, and see it as a potential new trend in green militarization. We encourage further empirical research to understand whether this trend is occurring elsewhere.

While we see the above as insightful intersections between political ecology/green militarization and CMS, there is much more work to be done. We hence close by outlining additional connections and future lines of inquiry that flow from these. Both political ecology and CMS are concerned with power and how it operates. The former is concerned primarily with how processes of power across scale shape human–environment interactions, and vice versa. CMS, on the other hand, focuses on military power and the processes through which it operates, without taking it for granted (Basham, Belkin, and Gifkins 2015; Rech et al., 2015). This is what Enloe (2015) calls a 'sceptical curiosity', a curiosity that resonates well with political ecology. Beyond our initial efforts in this article, how can this sceptical curiosity be applied to thinking about military power and its objectives in relation to conservation and the environment more broadly? Moreover, in what ways can an engagement by *critical* military studies counteract the work of *less-than-critical* examinations of military–environment encounters? The latter often takes on a Malthusian tone of ecological limits and resource scarcity causing economic and political instability (Bugday 2016; Homer-Dixon 1999), that political ecology has routinely debunked (Peluso and Watts 2001). Others go even further and advocate for an increase of counter-terrorism, special forces operations, and even shoot-to-kill policies to combat poaching (Kalron 2013; Miles 2012; Mogomotsi and Madigele 2017). Rigorous scholarship that questions these types of interventions and assumptions from a variety of perspectives is vitally important.

Second, CMS scholars are interested in the 'located, situated and constitutive natures of military power and its effects' (Rech et al., 2015, 47), 'new forms of interventionary power that forge novel spaces of military and civilian engagement' (Holmqvist, Bachmann, and Bell 2015, 1), and new governance institutions that take on a decidedly militaristic character

(Bachmann 2015). CMS can thus supplement the work of political ecologists who seek to understand how conservation, poaching, and the illegal wildlife trade help shape each of these processes and with what implications. These are implications that also have a human face, a point with which we would like to end.

As militarized forces and militaries themselves become increasingly involved in conservation, the killing of subsistence hunters and (wrongly) suspected poachers and the committing of other human rights abuses are becoming all too common (Brooks and Hopkins 2016; Carlson, Wright, and Dönges 2015). Put simply, we have a preliminary understanding of how militarized efforts to protect vulnerable wildlife populations and the spaces they occupy are creating other vulnerable populations. We also see these vulnerabilities extend beyond those suspected of poaching, to their families. Immediately apparent in Mozambique's poor borderland villages where many rhino poachers originate is the number of widows sitting idly outside of husbandless, fatherless homes. These women and their children are indirect victims of the 'war' on poaching, whose vulnerability increases dramatically with the death of the husband and father. Dozens of interviews with anti-poaching personnel and conservation rangers in South Africa and Mozambique also highlight how the increasingly militarized nature of anti-poaching and the response by armed poaching groups puts rangers directly in harm's way (also see Lunstrum 2014). Often perceived as murderers and human rights abusers, rangers in South Africa and Mozambique have even become vulnerable in their own communities where they are often subject to threats and physical violence, a reality witnessed by the authors and expressed in many interviews by rangers and anti-poaching personnel (interviews 2012, 2015, 2016). These personnel also highlight how the militarization of conservation is taking a psychological toll on rangers and conservationists (interviews 2012, 2015, 2016; Hübschle and Jooste 2017). This is leading to a rising problem of post-traumatic and acute stress disorder among rangers who are expected to 'go beyond their typical role as conservationists to become active players in guerrilla warfare, putting their lives in constant jeopardy' (GRAA 2016). CMS is well equipped to answer questions related to the production and perception of militarized subjectivities among rangers and conservationists. We draw attention to these unanticipated implications of green militarization as they strike at core CMS concerns. Hence, they suggest avenues for the future study of the militarization of conservation and the broader conservation–security–development nexus.

In short, we foresee a productive dialogue between the political-ecological study of green militarization and the field of CMS. Together they will help us make sense of the changing practices of militarized conservation, including its embrace of a softer approach embodied in the conservation–security–development nexus, and help us grasp the expanding ways in which 'the environment' and 'nature' are increasingly justified as areas of military intervention and the resulting impacts for people and non-human nature alike.

Notes

1. The observations and interviews we draw on come from fieldwork conducted by two of the authors in South Africa and Mozambique from 2012 to 2016, including over 6 months of ethnographic research with anti-poaching units and conservation-security personnel in the Mozambican borderlands.
2. The number of poachers killed has been disputed by South Africa National Parks (SANParks), but the organisation will not release their official numbers.

3. Reflecting a core insight of political ecology, 'nature' is not a separate realm from society or culture but rather is co-constituted by engagements between humans, non-human animals, and biophysical processes, and shaped more broadly by power-laden structures and discourses.
4. In Latin America, however, such military buildup is often based less on ecological than on economic and more strictly security rationales.
5. This is despite the lack of evidence rhino horn has curative properties given that it is made from keratin, the same material as hair and fingernails.
6. The huge range is explained by the fact the economy is illicit and hence difficult to measure.
7. These numbers are estimates that are commonly cited, but the number may vary from year to year and depending on the source.
8. All of these firms are run and partially staffed by former military and special forces personnel from Apartheid South Africa and the Israeli Defence Forces, among others.
9. 'Neutralization' is SANParks' term for arresting or killing poachers.
10. In a sense, there is little new with these initiatives. Conservation has long been mobilized as a development intervention in and of itself and as a way to strengthen park–people relations, which is beneficial to conservation outcomes (Child 2013; McShane and Wells 2004). Recent work has even highlighted how conservation and development interventions not only intertwine but are often conflated, even becoming one and the same (Corson 2016).
11. Others have examined in depth the moral imperatives or 'just war' rationale for militarized conservation based on the vulnerability of wildlife (Eckersley 2007; Duffy 2014, 2016; Cochrane and Cooke 2016).
12. We heed Shaw and Rademeyer's (2016) cautioning to not over-determine poaching as a national security issue. However, we still see the rhetoric of war and national security, even if problematically limited to a less-than-representative segment of the population, as effective in mobilizing resources and military/security actors in South Africa and elsewhere.

Acknowledgements

We would like to thank Emily Gilbert and Killian McCormack for organizing this special issue and for their comments on previous versions of this paper. A sincere thank you to Harriet Gray and two anonymous reviewers for their generous and constructive feedback that greatly helped strengthen the article. Thank you to SSHRC, OGS, and York University FGS for funding, to UEM in Maputo, and to all participants who made this research possible.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This research was supported by funding from the Social Sciences and Humanities Research Council of Canada (SSHRC).

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