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Police power in green: Furthering political ecologies of the state

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ABSTRACT

The growth of wildlife and environmental crime has catalysed efforts to strengthen state policing to better exert control over activities, flows, and people that threaten states' desired socio-ecological orders. The expanded role of policing in and over human-environment relations provokes conceptual and empirical imperatives to better centre policing in political ecology and political geography scholarship on state-environment relations. This article begins with the question of how political ecology might better account for and conceptualise policing power, and how doing so can help understand how, where, and through what practices and institutions states exercise power over socio-ecological relations. To capture the role of policing in exerting power and control over socio-ecological orders, this article brings together insights on critical theories of police power, conservation power and state power to develop the concept of *police power in green*. I argue that police power in green grounds the mechanisms through which state power is exerted over socio-ecological relations in ways that reflect a broader strengthening of state power. I use multi-scalar and ethnographic research to examine three processes that extend and expand police power in green, and related state power. These are: 1) expanding conservation law and criminality beyond conservation spaces to national territory; 2) creating new environmental police bodies; 3) strengthening and expanding traditional policing, enforcement and criminal justice institutions. I end by outlining how police power in green can connect and further critical scholarship on political ecologies of the state and broader debates on policing, the green state and state power.

1. Introduction

The growth of wildlife and environmental crime has catalysed global and national efforts to strengthen state policing to better exert control over activities, flows, and people that threaten states' desired socio-ecological orders. The expanded role of policing in and over human-environment and broader socio-ecological relations provokes conceptual and empirical imperatives to better centre policing in "political ecologies of the state" (Harris, 2017) and broader political ecology and political geography scholarship on state-environment relations (Benjaminsen et al., 2017). This article begins with the broad question of how political ecology might better account for and conceptualise policing power, and how doing so can help understand how, where, and through what practices and institutions states exercise power over socio-ecological relations.

Drawing on critical theories of police, this article uses an "expanded concept of police," with police and policing referring to much more than the institution of the 'police' itself (Neocleus, 2021, p. 46, emphasis in original). Policing refers to activities, processes and institutions of and including the police, but also legislative, judicial, administrative and

other state institutions and practices that aim to maintain certain social orders and intervene when "there appears to be disorder" (Neocleus, 2021, p. 18). Critical theories of police power demonstrate how policing – as an institution, practice, and deployment of power – is primarily about maintaining social and economic order in and for the capitalist system (Neocleus, 2021; Bloch, 2021; Yarwood, 2007). These productive theorisations of policing have yet to inform recent discussions concerning the increasing centrality of environmental concerns and socio-ecological orders to states and state-making. Capturing these intensifying state-environment relations and the ways in which environmental concerns are "becoming closely bound up with core state imperatives such as security (border policing), finance (taxation), accumulation (tourism), and legitimation (conservation)" are the related concepts of the green and environmental state (Death, 2016, p. 129; also see; Eckersley, 2004; Parenti, 2011; Whitehead et al., 2007). Police and policing are the mechanisms of state power aimed at maintaining certain social orders. In the case of conservation and related issues of wildlife and environmental crime, and the imperatives of the green state more broadly, policing necessarily extends to socio-ecological orders. Given the central positioning of political ecology to theorising

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and understanding state power and its relationship to environmental concerns (Harris, 2017; Loftus, 2020), one might ask, 'Where are police and policing in political ecology?' Not to single out political ecology, in a call to pay more attention to policing and "state power in blue", Coleman (2016) argues that political geography as a discipline has also paid little attention to how police and policing underpin the everyday functioning and relations of state power (also see Bloch, 2021; Coleman, 2009; Neocleus, 2021). How might police and policing underpin the green state, or state power in green?

To capture the role of policing in exerting power and control over socio-ecological orders, this article draws on theoretical insights into the relationship between police power, conservation power and state power to develop the concept of *police power in green*. I argue that examining and locating the practice of police power in green helps ground the mechanisms through which state power is exerted over socio-ecological relations in ways that reflect a broader strengthening of state power. More specifically, and drawing on a decade of research on conservation law enforcement and broader efforts to address commercial poaching and the illegal wildlife trade, this article argues that state efforts to increasingly police and control human-environment relations as environmental, more-than-environmental, and explicitly criminal concerns is resulting in the re-calibration, extension and expansion of the traditional organs of state policing power. Using multi-scalar ethnographic research from Mozambique to analysing global flows of international assistance, I detail three processes through which police power in green, and related state power and authority, become extended and expanded in the name of combatting wildlife crime.¹ These are: 1) expanding conservation law and criminality beyond conservation spaces to national territory; 2) creating new environmental police bodies, and 3) strengthening and expanding traditional policing, enforcement and criminal justice institutions to address wildlife crime. Each of these provides a grounded understanding of where, how, and through what practices policing of human-environment relations and the broader green state manifest in material, novel and often mundane ways far beyond the spaces and institutions of conservation. Police power in green thus provides a theoretical lens to approach, account for and critically examine the expansion of environment and conservation-related power outside of the spaces and institutions traditionally associated with conservation to more traditional organs of state policing. It also helps critically examine how policing and its institutions are increasingly being brought into the conservation and broader environmental sphere.

As a conceptual tool that ties together threads about the exercise of police power, state power, and conservation power, police power in green dovetails productively with and responds to recent political ecology scholarship on locating (state) power in environmental and resource governance (Ahlborg & Nightingale, 2018; Svarstad et al., 2018). It also draws on and contributes to understandings of state power as shaped by ever-evolving imperatives and challenges (Mitchell, 1991; Jessop, 2007, 2017), centring joint environmental-criminal concerns, like wildlife crime, as one such challenge. Specifically, this article contributes to locating and grounding the power of the green and environmental state in specific policing practices, institutions, and spaces, with what effects, and how and why these might be changing. The intervention of this article is thus less normative than it is about understanding and conceptualising the role and deployment of policing power in the emergence, development and practice of the green or environmental state. This is a necessary step in understanding evolving political ecologies of the state and related efforts to produce desired socio-ecological orders within and beyond state borders in response to

¹ Wildlife crime includes activities beyond poaching/illegal hunting and wildlife trafficking. I use the term to reflect terminology used by the conservation, law enforcement and policy community. For an overview of wildlife trafficking crimes, see Wyatt, (2021).

intensifying environmental concerns. It also sets the scene for future research into the implications of extended and expanded police power over human-environment relations for different human and nonhuman groups, especially as states seek to exert increasing control over intersecting environmental, criminal and security crises.

In the next section I bring together insights on state power and its relationship with policing and conservation. I focus on their articulations with theories of the green or environmental state to develop the conceptual foundation for police power in green. I then provide an overview of my ethnographic and multi-scalar research on policing wildlife crime in Mozambique and globally. Section Four locates and examines the strengthening of police power in green in response to wildlife crime from the global level to manifestations on-the-ground in Mozambique. I end by discussing how through its centring of police, policing and police power, police power in green can help political ecology and scholarship on the political geography of the environment more robustly contribute to broader critical debates on policing, the green state and state power more broadly.

2. Police power and the (green) state

Neocleus (2021, 46) draws a direct line between a critical theory of police and state power. He argues "any theory of police must involve a theory of state power; conversely, any theory of state power must necessarily consist of a theory of police." Any theory of the green or environmental state must thus account for and conceptualise how policing power factors into the operationalisation and performance of state power over human-environment relations. Given the centrality of the relationship between police power to state power, I take a step back to clarify my use of state power and the state. While there is a tendency to fall back on police or state power along Foucauldian sovereign, disciplinary or biopolitical understandings, "any one-dimensional analysis [of power] fails to account fully for modern police techniques" (Johnson, 2014, p. 19; emphasis in original). Drawing on Johnson (2014), police power consists of all the above; it is about defining criminality, managing legality, and subsequent punishment of those breaking the law. Police power also consists of surveillance to discourage people from acting out of accordance with state desires. It is also biopolitical in that policing seeks to protect desired populations and socio-economic orders from threats. Recent work demonstrates the coming together of these various modes of power in conservation (Fletcher, 2010) and in the specific techniques used to police conservation space against poaching (Massé, 2020).

A focus on the exercise of power, the practices through which this occurs, and how these are shaped also underpin my approach to the state. Specifically, I turn to Jessop's (2007) and Mitchell's (1991) analyses that focus on the state less as a thing, and more on the exercise of state power as an effect of a bundle of practices shaped by social relations internal and external to the state and its institutions. As Jessop (2007) argues, the "juridico apparatus" of states, including the police and its varying institutions and their exercise of power, are shaped by, respond to, and consist of interests and capacities external to the state itself. The exercise of state power, and how, where, and for what purposes, shifts as states and other social forces "redefine their priorities, expand or reduce their activities, recalibrate or rescale them in the light of new challenges [...]" (Jessop, 2007, p. 6). Jessop (2007, 2017) specifically mentions the importance of changing human-environment relations as part of broader social relations that require more thorough examination to understand state power.

Reflecting this flexibility of broader state power, police power and policing are similarly "ebbing and flowing, transforming along with changes in politics and society" (Johnson, 2014, p. 24). As captured by the increasing theorisations of state-environment relations (Harris, 2017; Loftus, 2020) and through concepts such as the green and environmental state (Death, 2016, p. 129; also see; Eckersley, 2004; Parenti, 2011; Whitehead et al., 2007), environmental challenges and

specifically socio-ecological relations are one such set of interests, challenges and relations that are increasingly recalibrating and reshaping broader state and policing power and institutions. Police power in green can thus help develop the underdeveloped connections between state power, police power and practices of policing socio-ecological relations.

Related concepts of the green and environmental state refer to states in which environmental concerns are “becoming closely bound up with core state imperatives” and processes of state-making (Death, 2016, p. 129; also see; Eckersley, 2004). Theoretical and empirical work on the green or environmental state help make sense of the relationship between states and the environment. One side of the relationship examines how environmental concerns, contestations, and the desire to exert control over these, are increasingly part of state-making and the practice of state-power (Death, 2016). Another side of the relationship concerns the state as environment making, as an entity that produces certain types of environments through its interventions or lack thereof (Parenti, 2011; Whitehead et al., 2007). Eckersley (2004, 3), for example, argues any theory on the state-society-environment triad “must take, as its starting point, the current structures of state governance, and how such structures are implicated in either producing and/or ameliorating ecological problems.” The green or environmental state thus extends the “resource-state nexus” (Bridge, 2014, p. 119) that highlights the co-production of the geographies of natural resources and state power to incorporate the broader co-constitution of state power and environments, inclusive of human-environment relations and socio-ecological orders.

The deepening intersections between state power and environmental concerns reflects Jessop’s (2007) argument about the relationality of states and state power- or how the state and state power are not isolated; they are part of a broad set of socio-economic, political, and importantly ecological relations that they respond to, whether that be climate change, pollution or environmental crime like wildlife poaching and trafficking. In interventions to address (or not) environmental challenges, the existing and reconfigured workings of state power often become visible or locatable (Ahlborg & Nightingale, 2018; Loftus, 2020). One such example is how the “coercive arm” of the state - manifested in laws, their enforcement and broader policing and security apparatus - gets mobilised to protect the environment and punish environmental wrongdoers (Eckersley, 2004, p. 7; also see Massé, 2020).

Existing geographical work on policing can offer further insights into the relationship between police power and state environmental power. Coleman (2016, 76; 2009), for example, draws on feminist political geography and critical geopolitics to ground the abstract relationship between state and police power by examining the everyday practices of policing that “undergird” state power. He demonstrates that everyday practices of policing are central to understanding how state power operationalises and materialises in specific spaces and through specific actors and institutions. Further political geographical work on policing complements these insights by examining the spatial and territorial practices of policing and the use of force and surveillance to pacify suspected threats to the state, economy and maintain and secure a given socio-economic order (Adey, 2010; Bloch, 2021; Herbert, 1996, 1997; Johnson, 2014; Paasche, 2013; Yarwood, 2007). Building on the premise that police and policing are the mechanisms of state power aimed at maintaining certain social orders, it follows that for the *green* or *environmental* state, this necessarily extends to socio-ecological orders. Despite offering a way to locate actually existing practices through which states seek to control human-environment relations and produce socio-ecological orders, policing as a concept for understanding the relationship between state power and the environment is underdeveloped. It is this exercise of (green) state power through (green) policing that this article is concerned with further critically unpacking and developing.

2.1. On conservation, the state, policing

This relationship between green state power and policing emerges clearly in work that examines state power in, through and for conservation. Conservation areas are examples of spaces and environments bound up in the production of socio-ecological orders and state power that concern the (green) state (Vandergeest and Peluso 1995; Jacoby, 2014; Neumann, 2001; Dongol & Neumann, 2021). Conservation areas are material, territorialised expressions of state power over human-environment relations. And while not always explicitly labelled as such, policing has long been central to this process. Much like tactics of spatial policing examined by political geographers (Herbert, 1997; Yarwood, 2007), conservation’s common spatial manifestation in the form of protected areas works to expand and extend state power over people, resources, space and flows in those areas (Marijnen, 2018; Bluwstein & Lund, 2018; Weldemichel, 2020). This is achieved through new conservation laws (Matusse, 2019), the subsequent extending of policing to areas previously “beyond the reach of law enforcement and other government agencies” (Duffy, 2001, p. 2) and through “new, intensive, and often violent forms of policing and counter-poaching interventions that will empower new state structures and agencies” (Death, 2016, p. 129; also see Margulies, 2018; Mushonga & Frank, 2020). Recent work brings insights from political geography of policing to understand day-to-day anti-poaching and conservation law enforcement as an example of policing protected areas (Massé, 2020; McClanahan & Tyler, 2016). Drawing on geographies of policing, this work begins to capture the relationship between the practices and powers to control flows and bodies in and through protected areas and the workings of political ecological/geographical power of the state more broadly. Specifically, rangers and others tasked with policing protected areas and the human and nonhuman flows within and through them embody and deploy state power on-the-ground everyday over human-environment relations in conservation space; they are “petty environmental sovereigns” (Massé, 2020, 2). Examining the intersections of environment-related policing and traditional bodies of state policing can help locate conservation and broader green related policing power and those petty environmental sovereigns who wield it far beyond the spaces and institutions of conservation, wherever such power might be exercised.

Mirroring arguments concerning the green state, conservation-oriented interventionism and the creation of protected areas often have non-conservation or non-ecological objectives related to control over valuable resources, taxation and accumulation (Cavanagh & Himmelstam, 2014; Asiyani, 2016; Kelly, 2011), in addition to concerns like the quelling of national security and criminal threats, and the civilising, disciplining, and pacifying of populations deemed unruly (Muralidharan & Rai, 2020; Peluso & Vandergeest, 2011; Ybarra, 2012). States use the expanded policing and law enforcement that accompany protected area creation and maintenance, for example, to better control illicit cross-border trade and movement, including migration, smuggling, and importantly, wildlife trafficking (Devine, 2014; Duffy, 2001; Kelly & Ybarra, 2016). Much like traditional policing has always been more about the state’s desire to maintain certain social and economic orders than of crime control itself (Johnson, 2014; Neocleus, 2021), so to have spaces of conservation and their policing been tied up with diminishing threatening and producing desired ecological, but also socio-economic, orders linked to more traditional state imperatives that are not necessarily ecologically or conservation oriented.

Commercial poaching and wildlife trafficking is one such concern that has recently been elevated to an issue that intersects with other state concerns about crime, instability, security and the economy (Gore et al., 2019; Massé & Margulies, 2020). The subsequent elevation of conservation to a higher state imperative of Big ‘P’ Politics has resulted in the deepened integration of the conservation and security sectors, often manifesting in the (para) militarisation and securitisation of conservation (Lunstrum, 2014; Büscher, 2018; Duffy, 2016; Mabele, 2016;

Marijnen, 2017; Mushonga; Mushonga & Frank, 2020; Ramutsindela, 2016; Weldemichel, 2020). These analyses demonstrate that as conservation concerns become entangled with broader state imperatives of security, crime and the economy (and related interests), the state brings immense power to bear on conservation spaces, and control over of human-environment relations within and around them through a militarized and securitized response.

It is here where police power in green builds on and complements existing work on conservation power and its relation to state power. While much political ecology of conservation productively highlights state conservation power in action, these analyses are largely limited to state power over and through the spaces and institutions of conservation, with much of the recent work focusing on the securitisation, militarisation and policing of conservation spaces, namely protected areas and the changing practices of conservation to a more heavy-handed anti-poaching, law enforcement, and paramilitary approach. Analyses of the military and security sector's involvement also largely focus on their move into and around conservation space (Büscher, 2018; Lunstrum, 2014). Even where policing is drawn upon specifically, it still focuses primarily on the spatial policing of protected areas.

The focus on militarisation and securitisation often rightly centres the more violent and spectacular efforts to address these joint ecological-security/-criminal concerns. While policing, security and even militarisation exist on a spectrum and consist of many overlaps (Holmqvist et al., 2015; Yarwood & Paasche, 2015), policing power often manifests through less spectacular, often more mundane practices. It is often given a veneer of higher legitimacy than militarized or security approaches as policing often fits into broader discourses about reform and strengthening of the legal and criminal justice sector. This might make policing more palatable to a broader public, but no less capable of producing a state's desired socio-ecological orders. Coleman's (2016) call to pay attention to everyday practices of policing draws much needed attention to state power as not necessarily overtly violent, spectacular, obvious, monolithic, or eventful; state policing power and its expansion and extension might be small, incremental, and rather mundane. Even so, this collection of everyday, small practices can form part of a larger project of expanding and cementing the state's reach, authority and power to maintain social, and socio-ecological, orders. Shying away from centring policing as its own practice and power, and one that exists in relation and in complement to more forceful approaches can, however, "serve to maintain these distinctions and possibly obscure much-needed critical understanding of more mundane, nuanced, and less spectacular forms of policing" within the conservation and environmental spheres (Massé, 2020, 760).

As detailed below, over the past decade there has been an incremental building up and strengthening of conservation policing far outside of protected areas and environmental institutions to address wildlife crime that amounts to an expansion and extension of policing and its various institutions. This includes changes in law, establishing new police forces, expanded policing practices, and training and capacity building of investigators, prosecutors and judges, among others. These law enforcement and policing related practices constitute real and familiar embodiments of state power on-the-ground that contribute to shoring up the state's ability to control space, flows, activities, and human-environment relations; in short, to disrupt unwanted, and produce desired, socio-ecological orders. This is a converging of broader conservation and policing-related processes of state power. It is here where a critical theorising of police power, broader state power, and the environmental state coalesce to warrant further conceptual and empirical analysis.

3. Researching state power in green

Tracing the strengthening of police power in green as a response to increases in wildlife crime emerges from multi-scalar and multi-sited research on anti-poaching, conservation law enforcement, and efforts

to address illegal wildlife trade (IWT) going back to 2012. My research was primarily focused in Southern Mozambique along the border with South Africa and its Kruger National Park, the epicentre of rhino poaching and efforts to address it. Over 10 trips I conducted research in the area every year from 2012 to 2019, except for 2017. Research included living in the Town of Massingir and surrounding villages, the heart of the rhino poaching economy that lies adjacent Mozambique's Limpopo National Park, a conservancy of private reserves, and South Africa's Kruger National Park. I conducted brief periods of observation of anti-poaching and conservation law enforcement in 2013 and 2014 and spent six months in 2015–2016 living with and observing state and state-sanctioned personnel - rangers, environmental police and border patrol - tasked with policing rhino and elephant poaching.² I gained insight into their day-to-day practices of policing and securing protected areas and the logics of power that inform and shape these. During this time, I was confronted with the expanding practices and power of conservation policing well-beyond protected areas. These included road-blocks by environmental police, their presence at border crossings, and joint actions by various policing bodies in towns and villages. The expansion of the Mozambican state's efforts to address IWT compelled me to turn the analytical lens beyond spaces of conservation to non-conservation spaces, interests, institutions, and practices to what was happening in villages and towns, but also the legislature and judiciary, rural police camps, dirt roads, national highways, and the meeting rooms and hallways of state and non-state institutions, the latter referring to what Corson (2016) calls corridors of power. I also conducted 34 interviews with a variety of actors involved in efforts to address poaching and wildlife trafficking. These included conservation area managers, rangers, environmental police officers, private security organizations, local authorities, officials from the National Administration of Conservation Areas, the Attorney General's Office, regional and global NGOs, and multilateral and bilateral donors supporting conservation and efforts to address environmental crime.

In 2018 I began to scale out my ethnographic research to understand how efforts to combat wildlife crime in Mozambique articulate with broader regional and global efforts. From 2018 to 2020 I conducted 27 interviews with various stakeholders in bi-lateral, multi-lateral and state agencies working to strengthen and support state law enforcement and policing responses to wildlife crime at home and abroad.³ I also analysed international funding to strengthen state policing to address wildlife trafficking (Massé & Margulies, 2020). My understanding of global scale dynamics is complemented by ethnographic observations of a global conference that brought together donors, heads of state and the private sector to set an agenda for how to more effectively "end wildlife crime" through a law enforcement and policing-first approach (Massé et al., 2020).⁴ What became clear throughout this research is that Mozambique is not an isolated case study. In many ways it is a microcosmic example of global efforts to strengthen and support policing responses to support conservation and combat wildlife crime. Mozambique speaks to and in many ways reflects a broader, more generalizable, global phenomenon of strengthening the role of traditional institutions of police power far beyond spaces and institutions of conservation to address wildlife crime. It is precisely these broad-scale efforts to strengthen and support policing over human-environment relations in specific countries and as a global project that demand further critical engagement from political ecology and political geography.

² Research on elephant poaching was largely focused in northern Mozambique.

³ See Appendix for a list of supporting and cited interviews. Interviews from 2012 to 2014 and those focused on poaching economy itself are not listed, but provide useful background. Not all interviews listed are cited directly.

⁴ This work was done in collaboration with several colleagues on the BIOSEC project.

4. A global effort to strengthen police power in green

The strengthening of policing power to combat poaching and wildlife trafficking is a global agenda. For example, the International Consortium on Combatting Wildlife Crime (ICWC) was launched in 2010 and brings together five “international organizations and agencies with mandates in law enforcement and criminal justice capacity-building” to provide support for combatting wildlife crime as a serious crime.⁵ This includes, for example, the UN Office on Drugs and Crime’s (UNODC) focus on “national capacity-building of law enforcement, judiciary, prosecution and legislation.” From 2010 to 2016 donors provided \$253 million in international assistance to Asia and Africa alone to strengthen policing outside of conservation areas for the purposes of combatting wildlife crime. This includes supporting intelligence gathering on wildlife crime, establishing police and “operational units,” “trans-national law enforcement coordination” and strengthening the capacity of state agencies like the judiciary, customs and border control to more effectively police wildlife crime (Wright et al., 2016, p. 18). A further \$103 million supported legal systems to address wildlife crime.

These broad trends in strengthening policing to combat wildlife crime materialise across a variety of global programs. One example is the World Bank/Global Environment Facility’s “Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development”, also known as the Global Wildlife Program (GWP), established in 2015.⁶ In its first year, the GWP allocated \$18.16 million to “strengthen [enforcement and judiciary] capacity”, “establish wildlife crime units/task forces”, strengthen “investigation procedures and techniques” and support “interagency and international cooperation in law enforcement” (World Bank, 2018). Further funding was allocated to develop and strengthen wildlife crime-related information and intelligence systems, “design and implement national [IWT] strategies and laws” and develop guidelines and procedures for wildlife crime sentencing and penalties (World Bank, 2018). Some of the GWP’s key achievements for 2020 include establishing “7 inter-agency coordination mechanisms” to combat wildlife crime, supporting “32 joint law enforcement operations” and establishing “10 new or revised legal instruments to strengthen wildlife conservation” (World Bank, 2021). The GWP provided more funding for initiatives aimed at strengthening state policing institutions and practices, broadly understood, than there was for more traditional anti-poaching in protected areas.

An analysis of funding from the United States Fish and Wildlife Service International Affairs similarly demonstrates that an increasing amount of overseas *conservation* funding has been allocated to support initiatives to strengthen policing capacity to combat wildlife crime (Massé & Margulies, 2020). The United States has similarly increased development assistance for policing wildlife crime outside of protected areas. From 2006 to 2011, US development funding helped develop ASEAN-WEN, a regional programme to strengthen wildlife enforcement networks (WENs) in Asia (Interviews, 2018a; 2018b). ASEAN-WEN was followed by Asia’s Regional Response to Endangered Species Trafficking (2011–2016) that focused much more intently on law enforcement and policing of wildlife trafficking outside of protected areas, and then Wildlife Asia (2016–2021) that similarly focuses on trafficking (along with demand reduction). As one official explained, under Wildlife Asia they now work very little in protected areas but focus on strengthening policing capacity more broadly (Interview, 2018a). Another official commented on this shift to supporting more broad policing explaining how it is about “recognizing what’s needed to be effective and work on that enforcement chain, whether it’s just on simple forensic science to be able to get something to court or improving the legislation or training prosecutors and informing judges” (Interview, 2019h). Examples of

strengthening policing to address wildlife crime are also found in the Global North. In the UK, for example, the National Wildlife Crime Unit was launched in 2006 “to assist in the prevention and detection of wildlife crime” in the UK.⁷

While these broad trends may be enough to make the case for a global project that is supporting police power in green, they do little to demonstrate how such efforts materialise on the ground, and how they extend and expand the ability of a particular state to exert power over socio-ecological relations. Put another way, remaining at the level of these broad trends does little to understand how and where police power in green is expanded and exercised on-the-ground in real ways. As Ahlborgh and Nightingale (2018, 383) argue, it is not enough for power to be left in the abstract, power “needs to be exercised to be realized.” Understanding the exercise of conservation policing power in its everyday roll out and exercise is a necessary first-step to answering where and how police power in green is being expanded, exercised and with what effects. To make police power in green “more tangible” (Ibid. 383), I examine the materialisation of these macro trends and global project of addressing wildlife crime through the strengthening of conservation-related policing on the ground in Mozambique.

5. The practice of police power in green: strengthening conservation policing in Mozambique

5.1. Extending and expanding police power in green I: de-territorializing conservation laws, criminality and policing

The fight against IWT in Mozambique catalysed new conservation-related legislation. In 2014, the Mozambican government passed Law N^o 16/2014, popularly known as the Conservation Areas Law (CA Law). While part of a broad reform of conservation in the country, the CA Law was primarily driven by the need to address wildlife crime occurring within and across Mozambique’s borders. The most high-profile aspect of the CA Law was updating illegal hunting from a conservation transgression punishable by a fine, to a crime with an 8–12 year prison sentence. As the 2014 CA Law applied only to conservation areas, there was substantial debate among conservation, policing, legal and justice system actors concerning the insufficient power it granted law enforcement and police to address wildlife crime (Interviews, 2015^c; 2016a; u; g;k; 2018d; 2019f). The consequences of territorializing legislation to conservation areas was that the CA Law de facto territorialised criminality or unwanted activities outlined in the law to these spaces. It thus did little to address activities and relations, such as the possession and trafficking of wildlife and wildlife products, that might occur *beyond* the territory of conservation areas.

As noted by many participants in the law enforcement, conservation and criminal justice sector, this lacuna hamstrung the power of rangers, police and the state in general to tackle wildlife crime (Interviews, 2015o; 2016a; u; g;k; 2018d; 2019f). For one, it is incredibly difficult to catch a poacher in the act of hunting. Second, and relatedly, there was nothing in the 2014 CA Law to deal with accomplices, porters, transporting, selling, or buying wildlife products; it focused on the act of illegal hunting, not the flows of trafficking, related activities and broader socio-ecological relations that constitute wildlife trafficking and environmental crime more broadly. Law enforcement, policing and criminal justice officials were thus often without mandate, and powerless when trying to arrest and prosecute these activities that are core to wildlife crime that the state wanted to curtail.

To address this weakness in ability to police illicit human-wildlife relations, Mozambique’s Attorney General’s Office, working with bilateral and multilateral development donors, revised Mozambican law to strengthen mechanisms through which the state - via the police, law enforcement and criminal justice sector - could pursue and arrest people

⁵ <https://www.unodc.org/unodc/en/wildlife-and-forest-crime/iccwc.html>.

⁶ <https://www.worldbank.org/en/programs/global-wildlife-program/overview>.

⁷ <https://www.nwcu.police.uk/how-do-we-prioritise/priorities/>.

outside of conservation areas and under a far broader scope than poaching. First, while the CA Law only pertained to conservation areas, a subnational territory, the Mozambican Penal Code applies to all national territory. The Mozambican state revised the Penal Code to harmonise it with the new conservation-related crimes and penalties in the 2014 CA Law. Legislation pertaining to poaching or conservation crimes thus became de-territorialised from conservation areas and conservation law. One Mozambican judge explained that with the broad criminalisation of poaching under the Penal Code, legal authorities could use articles within it that are sufficient to arrest and prosecute those who are in possession of wildlife products and who are involved in the transporting, selling, buying of such products, handling of related money, and supporting poachers (Interview, 2016k). The second way in which conservation law was expanded beyond the spaces of conservation was to revise and reform the 2014 CA Law itself. Lei 5/2017 de 11 de Maio updated the 2014 CA Law to further criminalise involvement in poaching and the wildlife trade beyond the act of killing to include possession, transportation, and sale of wildlife products, among other activities and relations that extend beyond conservation areas.

Expanding and extending the mandate of conservation law enforcement (and enshrining it in national law) mirrors broader trends in policing to move away from strict spatial policing to a policing of flows and relations (Adey, 2010). The CA Law became less focused on policing conservation areas or space, and more about policing human-wildlife relations, and specifically the various activities and flows constituting wildlife crime. Ways of relating to nature outside of the state's desired parameters or deemed a threat to certain socio-ecological and socio-economic orders are now rolled into the broader legal system and can thus be policed with relevant laws enforced outside of the institutions and spaces of conservation. These legal revisions underpin a tangible extension and expansion of policing power over human-environment relations by codifying in law (and criminalising) undesired ways of relating to wildlife independent of where in Mozambique they occur.

Specifying conservation and wildlife crimes in national criminal law like the Penal Code, sparked a major shift in the state's on-the-ground and day-to-day ability to effectively police and prosecute wildlife crime. Specifically, revising criminal and conservation legislation has repercussions for how we understand rangers and conservation law enforcement officials as "petty environmental sovereigns" through whom state power over human-environment relations works and is operationalised on the ground. Developed by bringing together Butler's (2006) "petty sovereign" and Fletcher's (2010) sovereign environmentality, petty environmental sovereign refers to rangers, conservation law enforcement officials or other state actors who have been delegated authority to protect nonhuman life and punish those who illegally enter protected areas (Massé, 2020). The updated 2017 CA Law and reforms to the Penal Code expand and extend the spatial and policing mandate of rangers and other law enforcement to protect nonhuman life and punish transgressors of conservation and criminal law beyond conservation space. It marks the expansion and extension of the authority of petty environmental sovereigns to exercise delegated power in the name of the socio-ecological orders beyond traditional conservation spaces and settings. These legal manoeuvres also extend this power to non-conservation/-environment related counterparts in other policing sectors, thereby expanding the body of petty environmental sovereigns to actors within traditional organs of state policing.

5.2. *Extending and expanding police power in green II: creating new environmental police*

The strengthening, extension and expansion of conservation law has been accompanied by the creation of a new police force, the Policia das Recursos Naturais e o Meioambiente (PRNMA), commonly referred to as the Environmental Police, in 2014. The PRNMA is a national police force tasked with policing human-environment relations or maintaining

socio-ecological orders; it is a new corpus of petty environmental sovereigns. The PRNMA is not under a conservation authority but falls under the Police in Ministry of the Interior. The initial creation of the PRNMA included the hiring, training, and deployment of 1500 environmental police officers throughout the country within and outside of conservation areas.

PRNMA officers have greater powers and authority than conservation rangers do. This includes greater powers of arrest, detainment, use of force, and investigations. Importantly, this authority and power of PRNMA officers extend outside of conservation areas in ways that those of rangers do not. Hence, while rangers are commonly and traditionally the frontline of conservation law enforcement and policing in conservation areas, PRNMA officers police wildlife crime, and are the frontline enforcers of conservation and environmental law, outside of protected areas and in broader national territory. As explained by one PRNMA Commander, their primary mandate is to "protect the environment and natural resources from illegal use both within and outside of conservation areas" (Interview, 2015a).

The PRNMA represents and wields state authority and power on-the-ground in tangible ways. It has operational bases throughout the country, often located outside of conservation areas and within or just outside of towns and villages where poaching and other illicit resource extraction, like mining and timber, is high. The PRNMA extends conservation policing outside of conservation area boundaries through roadblocks, ambushes, searches, and pursuit of poaching suspects. In reserves in the borderlands adjacent to South Africa, as well as in Niassa and Cabo Delgado, the rangers work and even live alongside PRNMA forces who do have the authority to arrest, use force, and enforce laws both within and outside of conservation areas. Even away from conservation areas, one must regularly pass through PRNMA roadblocks throughout the country on national highways, rural roads, and upon entering certain towns where they stop and search vehicles for wildlife contraband. In addition to ambushes and roadblocks, PRNMA officers follow up on intelligence and poaching activities to enter villages and arrest people. The PRNMA are also stationed at ports of entry and exit to prevent the import and export of wildlife products and arrest potential traffickers. Even without researching environmental crime and law enforcement in Mozambique, one is likely to come across the PRNMA. This visible expression of state policing power did not exist in fieldwork in 2012–2014. Once again, these practices de-territorialize, extend and expand the power of conservation policing from spaces of conservation to outside of them.

The PRNMA is not just any new state presence; it is a state policing body that visibly bolsters state policing power throughout the country from national highways and borders to the most remote areas where state law enforcement and related power has hitherto existed or been weak. Speaking to this newly expanded state presence, a PRNMA Commander and his forces in southern Mozambique explained that the biggest difficult they have in policing the area, the population and their relations with the environment is the historical lack of state presence, and specifically the lack of state police and law enforcement, in these areas (Interview, 2015a; h). The PRNMA, a police force formed specifically to police human-environment relations and combat wildlife and other environmental crime, is the first state police and law enforcement body that has existed in the area (Interviews, 2015a; h). Green policing is thus bolstering broader state (policing) power in areas where it was previously weak or non-existent.

5.3. *Extending and expanding policing power in green III: strengthening traditional policing, enforcement and criminal justice institutions*

In the first few years of my research, it was widely accepted that the legal system, law enforcement, police, and judicial organs of the Mozambican state were ill-equipped to deal with wildlife and environmental crime (Interviews, 2015o; 2016a; b;d; g;k; l). Capacity, practices, processes, and knowledge related to wildlife crime and how to police it

were lacking across the conservation, police and legal sector. The urgency to address wildlife crime catalysed a broad strengthening of traditional organs of state police power not directly related to conservation, like its police and judicial bodies, to put conservation policing into practice.

How the mandate to combat wildlife crime is re-calibrating state power is made clear by looking at the top of what is arguably the pyramid of state policing power: Mozambique's Attorney General's Office (AGO). Part of the AGO's recent national strategic plan includes several items related directly to strengthening the state's ability to address wildlife crime (Interviews, 2016a; g;k;u; 2018d; p; 2019a-f; h). This has included institutionalising wildlife crime in law enforcement and criminal justice bodies through training customs, police, prosecutors and others to police the illicit use of biodiversity. This is the first time that wildlife crime had been on the agenda or been a focus for the AGO (Interviews, 2016a; g; 2018d). The AGO developed wildlife crime as a focal point, even hiring a technical advisor to coordinate on issues of wildlife crime and related capacity building (Interviews, 2016a; g; 2018d; 2019c), and appointing a senior prosecutor to work specifically on wildlife crime (Interview, 2019a).

While there are specifics about wildlife poaching and trafficking, the strategy was and continues to be about strengthening the policing of wildlife crime through a broader reforming and capacity building of the policing, justice and legal system in Mozambique, with targeted interventions focusing on wildlife crime. Some of this work includes things like training of prosecutors and judges and the development of investigative practices and protocols for wildlife crime, with much of this funded through conservation donors, but also international agencies related to policing and law enforcement like UNODC and INTERPOL. Whilst living with conservation law enforcement personnel in 2015–2016, I observed how the PRNMA and criminal investigation police lacked the knowledge and resources to process and handle the crime scene of a poached rhino carcass (Interview, 2016a; 2016u). This limited the ability of the state to arrest, detain and prosecute people suspected of being involved in rhino poaching. To rectify this, the government with support of donors embarked on a program to train police and investigators in wildlife crime. This has included the development of manuals and training on things like putting together a viable case for wildlife crime using proper evidence and investigative procedures. There have been subsequent rounds of training sessions with prosecutors, police, and customs throughout the country on the new CA Law and updated criminal code and how to effectively put together a wildlife crime case for prosecution.

There has also been a broader strengthening of Mozambique's prosecutorial and judicial institutions and capacity with regards to wildlife crime. Supported by donors, the AGO organized a national meeting with all prosecutors about wildlife crime and its importance, followed by the training of prosecutors and judges on the new laws so they, and the state, can effectively adjudicate and process wildlife crime cases (Interviews, 2016a; g;u; 2018d; 2019a; c). This moves the CA Law from a paper law to an effective instrument in the state's arsenal to combat wildlife crime. The AGO has also assigned prosecutors and judges newly trained and specialised in wildlife and environmental crime to districts in the country with high levels of these incidents. Prosecutors and judges are a newly strengthened dimension in the state's corpus of petty environmental sovereigns, embodying and wielding policing power in green alongside rangers and environmental police. Improving these officials' capacity to prosecute wildlife crime offenders and for judges to hand down criminal sentences works towards the on-the-ground actualisation of the state's juridical and sovereign power over human-wildlife relations.

National and donor funded programs have also increased state capacity to detect and intercept wildlife trafficking and traffickers through training of police and customs at ports of entry and exit. This training is in addition to the creation of a new division within the Customs agency of Mozambique to "improve the detection of wildlife contraband at

airports and transit points" (MICOA, 2015, p. 23). The Government also "implemented a surveillance operation at Maputo International Airport, using sniffer dogs to detect illegal movement of protected species and specimens" (Ibid, 24). Physical infrastructure to police flows across its borders have also been upgraded, including the "installation of new scanners and equipment at ports and airports to detect wildlife products" (Ibid, 23). This all works to strengthen the Mozambican state's capacity to control flows across its borders.

An additional sector and set of practices being strengthened in the name of fighting wildlife crime is the national intelligence system. The NIRAP, for example, requires "a focal point in the Ministry of Interior with responsibility for the further development of Mozambique's wildlife crime investigations and intelligence capacity" (MICOA, 2015, p. 9). This includes the development a *centralized national* wildlife crime intelligence database and platform to establish a national "framework for wildlife crime intelligence." There are parallel efforts to further develop the capacities of relevant institutions such as the National Intelligence body by training "staff from law enforcement agencies on intelligence and investigation techniques in wildlife crime issues" (MICOA, 2015, p. 9). As a Mozambican prosecutor based in a poaching hotspot explained, "intelligence is the way forward" (Interview, 2016i; also see Moreto, 2015).

This new and strengthened intelligence apparatus extends conservation and policing power of the state on-the-ground in real ways. For example, a leader of informant operations explained: "we gather intelligence and then arrest poachers in towns, very rarely in the bush. It is not about coming across tracks in the bush so much as it is about intelligence" (Interview, 2016b; also Interviews, 2016h-r). Reflecting Büscher's (2018) analyses of how intelligence for anti-poaching produces new geographies of conservation, conservation-intelligence and law enforcement efforts extend far beyond the 'bush' and conservation areas where poaching occurs, with state power in these forms now penetrating into the villages, towns, homes, and even conversations of people who may not even be connected to wildlife crime.

State and sanctioned non-state actors have developed webs of informant networks in poaching hotspots. Operations are conducted with Environmental Police and the State Police's Criminal Investigation Unit who act on gathered intelligence to execute warrants, entering people's homes and arresting them. Conducting research in villages in these areas became increasingly difficult because of the informant and intelligence networks that are operating in them. As result, people became increasingly sceptical of me and colleagues as researchers; some did not even trust their neighbours. This is an embodied consequence of the expansion and extension of covert state power through intelligence and informant networks in the name of combating wildlife crime.

6. From police power in green to state power in green

The newly emergent conservation-policing intersections outlined above highlight a dual movement of conservation and policing power that underpin the expansion of broader state power. On the one hand, there is a roll out of policing to conservation. This entails the involvement of police and policing, broadly understood, in conservation issues and over human-environment relations. The second is a folding in of conservation and human-environment relations into traditional policing practices and institutions. The result is a convergence of conservation and policing interests that extends and expands state power over socio-ecological (and specifically conservation) relations in ways near and far removed from conservation spaces, institutions, and objectives. That is, the expansion, extension and deployment of police power in green enables everyday state power over human-environment relations. Police power in green underpins the green state; it grounds the power of the green state in the traditional practices and institutions of state policing power. These manifestations and practices of state power provoke a re-thinking of state conservation power, its spatiality and where and with whom it is located or operates through.

Police power in green, however, extends beyond wildlife crime and biodiversity conservation. For example, reflecting the biopolitical underpinnings of policing, there are calls for the increased policing of human-wildlife relations for the purposes of public health in response to the COVID-19 pandemic and zoonotic disease risks. States are also positioning policing as central in responding to disruptive socio-ecological orders caused by the climate crisis. The UN Police Adviser and Director of the Police Division has stated “the police will be on the frontlines as first responders” to the security threats posed by climate change and environmental crime (Carrilho, 2019). Police departments in the US are citing climate change as reasons for seeking military equipment (Redden & Kaufman, 2021), and a report on the future of policing in England and Wales states “Policy responses to climate change will require new legal mechanisms that will in turn require rigorous policing” (College of Policing, 2020, p. 42). Possible examples given are “enforcing regulations in carbon trading” and “more state involvement in identifying and holding responsible those who cause environmental harm.” There are already examples of carbon sequestration (Cavanagh, Vedeld, and Trædal 2015; Asiyani, 2016) and ‘green’ energy (Dunlap, 2021), for example, becoming securitized or subject to other forms of policing power. To what extent are such relations, natures, or threats to these relations, becoming subject to a more subtle, yet no less powerful, policing? The strengthening, extending and expanding of policing in response to socio-ecological concerns is becoming mainstreamed into future state planning and practices about how to govern unwanted, unruly, and threatening socio-ecological relations. These are all signs of police power in green and the green state in practice.

This article ends by discussing three conceptual takeaways that police power in green offers for analyses concerning state power broadly and policing power more specifically. It is through these three contributions that police power in green can help advance ‘political ecologies of the state’ (Harris, 2017; Loftus, 2020) and understandings of the operationalisation and materialisation of the green state.

The first, is how police power in green extends and expands the geographies of state conservation power, which in turn extends and expands police power itself to new spheres or concerns. While not always spatialised to conservation areas, productive analyses of state conservation power are often limited to spatialities directly related to conservation areas, such as buffer zones or areas adjacent them. The productive work on the militarisation and securitisation of conservation in response to IWT and its in broader national and security politics documents and examines how this has strengthened state power in often remote areas through the securing of conservation space via (para) military practices (Lunstrum, 2014; Duffy, 2016; Mabele, 2016; Marjinen, 2017; Ramutsindela, 2016). Some work also highlights how, to pre-empt the breaches of conservation territories by poachers, the state has extended itself outside of these territories and into communities around them (Büscher, 2018; Mushonga & Frank, 2020). In documenting these new geographies of conservation, Büscher highlights an example of extending the spatiality of state conservation power through intelligence practices. In these cases, however, there is still a direct connection to securing *conservation space* and on poaching specifically. The threat here is still a threat to the integrity of a protected area. Police power in green and its focus on flows, activities, and human-environment relations country-wide (and beyond) is less about a form of *spatial* ordering and integrity, and more concerned with socio-ecological ordering not necessarily bound to a specific spatial or sub-national territorial entity.

This shift to a conservation policing detached from conservation space is important for thinking about political ecological critiques of protected areas and the need to move beyond these territorialised forms of conservation. As states are unlikely to give up power and may look to increase power over socio-ecological relations, policing, and more specifically police power in green, is one way that states might seek to exert such power beyond traditionally defined conservation spaces. This broader form of policing allows states to exert control over socio-

ecological relations in a less explicitly spatialised or territorialised way. This is a potentiality that political ecologists and those calling for less spatialised, but still socially just, forms of conservation need to pay attention to.

Second, when looking at the workings of conservation power beyond conservation spaces, this power is often still rooted in conservation and conservation-development institutions of the state. The turn to policing also shifts power beyond and outside of conservation actors and institutions to the traditional organs of state policing power – the police and its various manifestations, legal system, judiciary and broader law enforcement and criminal justice system. Policing-related institutions on the international scale are also becoming more involved in supporting states to control unwanted, and specifically illicit, human-environment relations. What the case of Mozambique and broader global efforts demonstrate is that rather than merely layering on niche, conservation-related law, capacity-building and policing, addressing wildlife crime and the need to exert power over socio-ecological relations deemed threatening to the state is prompting a broader overhaul and strengthening of policing, legal, and judicial apparatus, practices, and powers that spill beyond environmental concerns. Advancing understandings of political ecologies of the state thus requires turning the analytical lens towards these institutions, actors and practices.

Third, police power in green brings together insights on how locating and examining police power uncovers the everyday practices of state power (Coleman, 2009, 2016) with political ecological work on locating power over nature and human-environment relations in grounded practices (Ahlborg & Nightingale, 2018). More specifically, police power in green grounds the green state, and green state power, in specific policing practices. Police power in green is one way through which the green state becomes exercised, felt, and experienced across state space from the most rural areas to borders, airports, highways and the courtroom. A necessary concern here, and thus area for future research, is how police power in green gets extended over specific groups of humans, nonhumans, practices, and relations and with what socio-economic and ecological impacts. Who and what experiences the green state through these policing practices, to what extent, and with what implications is a pressing question that requires further critical examination to understand where such policing may be fit for purpose, and where it may fall foul and need to be held to account.

7. Conclusion

I began this article by arguing that political ecology could do well to give more attention to policing and police power. This is in response to the increasing role of policing, broadly defined, in responding to environmental crime and regulating socio-ecological orders. Beyond political ecologists, the article also speaks to political geographers more broadly concerned with state-environment relations and state power. Specifically, I have examined how the *greening* of the state and the elevation of environment concerns broadly, and environmental crimes specifically, to core state imperatives is re-working and re-calibrating state policing power. I detail how this is materialising on-the-ground in Mozambique in response to the joint conservation-criminal concern of wildlife poaching and trafficking. Using the case of Mozambique and broader, global efforts to strengthen police power over illicit use of wildlife, I argued that the extension and expansion of police power in green is occurring through the de-territorialisation of conservation law and criminality beyond conservation spaces, the creation of new environmental police institutions, and the strengthening and expansion of traditional policing, enforcement and criminal justice institutions to address wildlife crime.

I combined these insights with an analysis of the intersections between theories of policing power, conservation power, and broader state power to put forward three conceptual contributions to help think further about the political ecologies of the state and the green state specifically. First, police power in green moves analysis of conservation

power away from the *spatial* ordering of human-environment relations as traditionally understood in the working of conservation power, to a focus on socio-ecological ordering, and importantly flows and activities deemed to threaten desired orders without fixing this power to conservation space. Second, police power in green brings much needed attention to how socio-ecological concerns are recalibrating and strengthening the traditional organs of state policing power. Third, and taking the first two into account, police power in green grounds the green state, and green state power, in specific policing practices that are felt, experienced and shape human-environment and state-society relations more broadly.

There are genuine urgencies around environmental harms and joint ecological-criminal concerns that require regulation, and in some cases policing, of human-environment relations. In thinking beyond wildlife crime, this article prompts further research, including for what purposes are certain human-environment relations subject to increased police power and on what grounds? A further question that arises, and that requires more critical attention, is that to what extent is police power in green reflective of and applied to genuine ecological concerns, and to what extent is it applied to human-environment relations deemed threatening to certain socio-ecological orders that underpin the neoliberal, capitalist ordering desired by states? How might this shape who and what is subject to police power in green? Put another way, to whom and what is police power in green accountable? This is a potential next step in thinking critically about the relationship between police power and political ecologies of the state.

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

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