



This is a repository copy of *The geopolitical ecology of conservation : the emergence of illegal wildlife trade as national security interest and the re-shaping of US foreign conservation assistance*.

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/166230/>

Version: Published Version

Article:

Massé, F. and Margulies, J.D. (2020) The geopolitical ecology of conservation : the emergence of illegal wildlife trade as national security interest and the re-shaping of US foreign conservation assistance. *World Development*, 132. 104958. ISSN 0305-750X

<https://doi.org/10.1016/j.worlddev.2020.104958>

Reuse

This article is distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND) licence. This licence only allows you to download this work and share it with others as long as you credit the authors, but you can't change the article in any way or use it commercially. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>



The geopolitical ecology of conservation: The emergence of illegal wildlife trade as national security interest and the re-shaping of US foreign conservation assistance

Francis Massé^{a,*}, Jared D. Margulies^b

^a Department of Geography and Environmental Sciences, Northumbria University, United Kingdom

^b Department of Geography, University of Alabama, United States



ARTICLE INFO

Article history:

Accepted 19 March 2020

Available online 8 April 2020

Keywords:

Foreign assistance
Geopolitics
Conservation
Illegal wildlife trade
Geopolitical ecology
Wildlife crime

ABSTRACT

In this article we develop a geopolitical ecology of foreign conservation assistance. While the literature on the political nature of foreign assistance writ large highlights how geopolitical agendas are pursued through foreign assistance, we focus on how this geopolitics of foreign assistance articulates with biodiversity conservation concerns. We draw attention to how conservation donor agencies negotiate shifting geopolitical contexts in which the protection of biodiversity from the illegal wildlife trade (IWT) is increasingly framed in the language of national security concerns. We ask: Does framing IWT as a national security concern shape the allocation of foreign conservation assistance? What can answering this question tell us, both empirically and conceptually, about the geopolitical ecology of foreign conservation assistance specifically, and about the meaning of biodiversity conservation efforts to the state more broadly? We approach these questions by combining in-depth qualitative and quantitative analyses of the foreign conservation assistance provided by the US' lead wildlife conservation agency, the United States Fish and Wildlife Service (USFWS). Between 2002 to the end of fiscal year 2018, the USFWS Division of International Affairs provided assistance to 4142 projects across 106 countries worth over USD \$301 million. Our results show that an increasing portion of foreign assistance for biodiversity conservation is allocated to projects that have the specific objective of combating wildlife trafficking (CWT) at the expense of other conservation priorities. This transformation of what it means to fund conservation work overseas, we argue, lies at the heart of an emerging and intensifying geopolitical ecology of conservation, marked by increasing efforts to link the illicit harvesting and trafficking of wildlife with concerns about threats to national security. We conclude by discussing what a geopolitical ecology lens offers for understanding international assistance, biodiversity conservation, more traditional geopolitical concerns, and the intersections between them.

© 2020 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

"...there's something for everybody. If you love animals, if you want to see a more secure world, if you want our economy not to be corrupted globally by this kind of illicit behavior, there is so much we can do together." --- Secretary of State Hillary Clinton, Remarks at the Partnership Meeting on Wildlife Trafficking, 08/11/2012

1. Introduction

In this article we examine how foreign assistance for biodiversity conservation is shaped by geopolitical dynamics. We do this against

the backdrop of the escalation in commercial poaching and global wildlife trafficking that has gained increasing attention in the foreign affairs and international conservation community. Foreign assistance supporting interventions to address the illegal wildlife trade (IWT) has increased dramatically over the past decade.¹

¹ We use the term "foreign assistance" as defined by the US Foreign Assistance Act "...any tangible or intangible item provided by the United States Government to a foreign country or international organization under this or any other Act, including but not limited to any training, service, or technical advice, any item of real, personal, or mixed property, any agricultural commodity, United States dollars, and any currencies of any foreign country which are owned by the United States Government..." We use foreign assistance rather than "development" assistance or "aid" because much of the USFWS' and other conservation-specific funding do not necessarily fall under the stricter parameters of development assistance or aid. We acknowledge that the terms assistance/aid/international/foreign are often used interchangeably in academic and policy spheres and we try to maintain consistency where possible.

* Corresponding author.

E-mail addresses: francis.masse@northumbria.ac.uk (F. Massé), jdmargulies@ua.edu (J.D. Margulies).

Multilateral and bilateral donors provided over \$1.3 billion (USD) in assistance from 2010 to 2016 to address IWT in African and Asian countries alone (The World Bank, 2016). The United States is one of the largest providers of foreign assistance to combat wildlife trafficking (CWT). The heightened profile of IWT at national and international levels is occurring in response to global increases in particular kinds of illegal wildlife trade that pose a legitimate threat to biodiversity. In this article, however, we demonstrate that *how* IWT is discursively understood and mobilized as a geopolitical-ecological issue has changed over time. In leveraging geopolitics, we are referring to how international concerns about the illicit harvesting and trafficking of wildlife have become increasingly entangled with concerns of national security interests and the insecurities posed by transnational organized crime (Duffy, 2014; 2016; Massé, Lunstrum, & Holterman, 2018). The ecology in geopolitical-ecology draws attention to how certain threats posed to nature help shape foreign policy, but also how geopolitical dynamics have material implications for biodiversity and the ways in which it is managed on-the-ground in specific locales. Starting from an understanding that neither foreign assistance nor biodiversity conservation are apolitical subjects, we ask: Does framing IWT as a geopolitical issue – as a form of destabilizing serious organized crime and national security concern – shape priorities for wildlife conservation efforts internationally? What can answering this question tell us, both empirically and conceptually, about the geopolitical ecology of foreign conservation assistance specifically, and about transformations taking place reshaping the very meaning of biodiversity conservation efforts more broadly?

We approach these questions through an examination of how the geopolitical ecology of biodiversity conservation manifests in the lead conservation agency of the United States, the US Fish and Wildlife Service (USFWS). We specifically focus on its Division of International Affairs. Within USFWS, the International Affairs program provides funding to projects and partners in over 100 countries to assist and support species and habitat conservation. We conducted a mixed-methods study of USFWS' foreign assistance by compiling and analysing all of the foreign assistance USFWS International Affairs provided from 2002 to the end of 2018. We examine what types of projects USFWS foreign assistance supports, where, for which species, and how this has shifted over time. We combine this qualitative-quantitative assessment with in-depth interviews with key stakeholders and discursive analysis of policy documents, reports, and legislation. This methodology enables an understanding of temporal changes in the allocation of foreign assistance for biodiversity conservation and the context and reasoning underpinning these shifts. We find an increasing portion of foreign assistance for biodiversity conservation being allocated to projects with the specific objective of combating wildlife trafficking (CWT). This marks a move away from funding species and habitat conservation, broadly understood, as well as community-focused interventions, to a narrower focus on combating wildlife trafficking through greater funding of law enforcement both within and outside of conservation protected areas.

This transformation of what it means to fund conservation work overseas lies at the heart of an emerging and intensifying geopolitical ecology of conservation, marked by efforts to link the illicit harvesting and trafficking of wildlife with concerns about threats to national security. Foreign assistance to conservation thus increasingly fits within and contributes to broader dynamics of securitizing other types of foreign assistance, including development aid (Duffield, 2010; McCormack & Gilbert, 2018; Massé et al., 2018). As the proceeding sections demonstrate, the changing manner in which biodiversity conservation is framed, discussed, and contextualized within the US foreign policy agenda impacts how conservation is understood and practiced, which alters how foreign conservation assistance is allocated. As such, our study

reveals how an institution with a specific mandate to conserve wildlife and their habitats, like USFWS, operates within and negotiates a broader geopolitical and foreign policy milieu, in turn shaping their funding decisions and priorities.

It is here where our study contributes to the recent scholarship on geopolitical ecology, which represents an “explicit encounter between critical geopolitics and political ecology” (Bigger & Neimark, 2017: 14). We develop a geopolitical ecology of foreign conservation assistance. In the context of this study, this means drawing attention to how conservation donor agencies negotiate shifting contexts in which the protection of biodiversity is increasingly framed in the language of national security concerns, and with what material effects. Developing these conceptual linkages brings political ecology's interests with how ecological transformations intersect with matters of political economy and the production of environmental inequalities into conversation with geopolitical matters of statecraft, foreign policy, and the role of geopolitical institutions intervening in and shaping environments (Benjaminsen, Buhaug, McConnell, Sharp, & Steinberg, 2017; O'Leary, 2019).

In what follows, we develop a conceptual framework to understand the geopolitical ecology of foreign assistance more broadly, and of conservation specifically. We combine insights from the political ecology of conservation (Asiyanbi, 2016; Neumann, 1998; Peluso & Vandergeest, 2011; West, 2006), critical geopolitics of foreign assistance, broadly understood (Bachmann, Bell, & Holmqvist, 2015; Bryan, 2015; Fassin, 2010), and recent work on geopolitical ecology (Belcher, Bigger, Neimark, & Kennelly, 2019; Bigger & Neimark, 2017). While literature on the political nature of foreign assistance highlights the geopolitics of such assistance, we highlight how this articulates with ecological concerns and related discourses (Benjaminsen et al., 2017). We then develop a brief history of how IWT gained prominence as a geopolitical issue in US national security and foreign policy agendas. Following a description of the study method, we then work through the case study of the USFWS International Affairs program to analyze shifts in foreign assistance to biodiversity conservation. Here, we elaborate a mixed-methods approach for doing geopolitical ecology. This approach complements and broadens the scope of fine-scaled analysis prevalent in political-ecological work by combining a meta-study of globally-oriented funding with in-depth qualitative research. This approach enables a robust analysis of global trends and how apparatuses of state power shape human-environment policy from a distance. We conclude by discussing what a geopolitical ecology lens offers for understanding foreign assistance, biodiversity conservation, more traditional geopolitical concerns, the intersections between them and how this could materialize in development-specific funding and agencies.

2. Geopolitical ecology of foreign conservation assistance

Bigger and Neimark (2017) define geopolitical ecology as a “conceptual framework that combines the strengths of political ecology with those of geopolitics in order to account for, and gain a deeper understanding, of the role of large geopolitical institutions, like the US military, in environmental change” (14). Their argument for drawing together critical geopolitical scholarship with the analytical and theoretical tools of political ecology builds on prior work operating in this conceptual space; for instance, work in political geography of the environment (Benjaminsen et al., 2017; Sundberg, 2009; Vandergeest & Peluso, 1995) and environmental security studies (Dalby, 2009; 2014; Duffy, 2006; 2010). Political ecology is concerned with how environmental change, land degradation, and human-environment relations, including conservation, are inherently political and shaped by

uneven power relations across multiple scales. The insertion of geo- focuses attention on those specific institutions and power relations that behave geopolitically and shape environments through actions and discourses of geopolitical statecraft (see for example O'Lear, 2019). *Critical geopolitics* more explicitly captures the discursive, representational, and political-economic dynamics that shape foreign policy, territorial and resource control, and national and international security (Mercille, 2008; O'Lear, 2019; Power & Campbell, 2010). *Toal*, 1996). *Critical geopolitics* also highlights the increasing influence of non-traditional security concerns and actors into these arenas (Dalby, 2010; 2014; Koopman, 2011). Bigger and Neimark (2017), for example, specifically locate the workings of geopolitical ecology in the military's use of climate change to justify the provision and acquisition of new biofuel powered military hardware, technologies, and ways of waging war.

We further develop the framework and approach of geopolitical ecology by analysing a sub-set of human-environment relations that is a core area of concern for political ecology, namely biodiversity conservation. Specific intersections between the military, conservation, and security apparatuses have long-formed part of a geopolitical ecology, even where the term itself is not used. For example, Peluso and Vandergeest (2011) examine how the crisis discourses of national security related to Cold War insurgencies came together to extend conservation and state territoriality through militarized and counter-insurgency means. Similar intersections and practices persist in a range of contexts (Dunlap & Fairhead, 2014), from Africa (Asiyanbi, 2016; Verweijen & Marijnen, 2018) to Latin America (Ybarra, 2012; Devine, 2014) and Asia (Barbora, 2017; Margulies, 2018). As a number of scholars demonstrate, biodiversity conservation as both a practice and means of ordering space has become increasingly militarized in orientation, especially in regard to how conservation rangers and protected area staff interact with communities living alongside (and often times, dispossessed from) conservation spaces (Annecke & Masubele, 2016; Duffy 2014; 2016; Duffy et al., 2019; Mabele, 2017; Massé & Lunstrum, 2016). Lunstrum (2014, 817) captures this dynamic with the concept of 'green militarization', defined as "the use of military and paramilitary (military-like) actors, techniques, technologies, and partnerships in the pursuit of conservation." A number of researchers further develop these themes through the inter-related concepts of "green violence" (Büscher & Ramutsindela, 2015), "green wars" (Büscher & Fletcher, 2018; Ybarra, 2018), and "green security" (Kelly & Ybarra, 2016) which detail the use of violence and warfare against the public in securing conservation spaces and biodiversity (Bocarejo & Ojeda, 2016; Howson, 2018; Fletcher, 2018; Pennaz, Ahmadou, Moritz, & Scholte, 2018).

Directly pertinent to our intervention are the ways threats to wildlife from illegal hunting and trafficking of flora and fauna are securitized and treated as an issue of national security. Formerly considered merely a matter of conservation concern (which it is), the illegal trade in wildlife is now accompanied by narratives framing "poachers as terrorists" and the poaching economy as national security threat (Duffy, 2014; 2016: 238; Lunstrum & Ybarra, 2018; Hübschle, 2017; Massé & Lunstrum, 2016). While poaching-terrorism connections remain largely unsubstantiated by evidence (Duffy, 2016; Haenlein and Smith, 2017; Pennaz et al., 2018), these narratives are productive for certain actors in mobilizing and justifying military or security-style interventions in conservation spaces, and the para-militarization of conservation rangers (Duffy et al., 2019; Verweijen & Marijnen, 2018). These types of interventions reflect broader trends in how the discourse of securitization as a contemporary paradigm operates as a mode of antipolitics (Ferguson, 1994), sidestepping debates over responsibility for structural, socio-political and economic drivers of environmental challenges and change (Gourevitch, 2010).

While we are not focused explicitly on the militarization of conservation in this article, foreign assistance and its providers are deeply entwined with geopolitical activities. The development-security nexus, for example, refers to the coupling of foreign assistance allocation with particular donor country national security interests (Bryan, 2015; Duffield, 2010; Stern & Öjendal, 2010). Of particular concern to critical scholars studying the security-development nexus is the increasing amount of development assistance being allocated towards security-focused interventions and subsequently away from more traditional development concerns such as poverty alleviation, education, and human health (Bachmann, 2018; McCormack, 2018; McCormack & Gilbert, 2018). This shift in allocation occurs alongside the expanded enrolment of military, policing, and security sector actors on the ground and in decision-making, including what gets funded, where, and to what degree (Bachmann, Bell, & Holmqvist, 2015; Duffield, 2010; Fassin, 2010). The integration and linking of development assistance with security concerns is emergent in development assistance to conservation. Development assistance by the European Commission, for example, increasingly supports green militarization in Virunga National Park (Marijnen, 2017). Massé et al. (2018) demonstrate how development interventions in a rhino poaching hotspot try to prevent people's involvement in illicit wildlife economies to "neutralize the security threat poaching might pose" (2). These examples reveal direct connections between the geopolitics and security politics of conservation, development, and foreign assistance.

Militarization and the ways in which militaries become involved in nature protection (or destruction) are no doubt central to a geopolitical ecology of conservation. However, the integration of biodiversity conservation, geopolitics, and security interests may not necessarily lead to militarized or outright securitized responses. Much like the development-security nexus, the deepening of links between these fields and communities of actors can contribute to more subtle shifts in the priorities of biodiversity protection in important ways. We identify foreign assistance to biodiversity conservation as one of these subtle arenas of geopolitical ecology warranting greater attention, even where it may not support outright militarized practices.

More specifically, the shifts in allocation of foreign assistance by a country's lead wildlife conservation agency, like USFWS, resulting from the geopolitical framing of IWT at the highest levels of state power reveals geopolitics working *through* conservation, and affecting biodiversity conservation on-the-ground. Our intervention here is less about how powerful geopolitical institutions like the US State Department and congressional foreign affairs committees directly manage nature and contribute to environmental change—though this is certainly a question of relevance for geopolitical ecology. Rather, we are focused on how the USFWS, as a *conservation* agency providing assistance for biodiversity protection overseas, negotiates shifting geopolitical contexts that frame threats to biodiversity conservation. In negotiating these contexts, we focus on how (intentionally or not) USFWS foreign assistance produces material and political effects on the ground through shaping conservation activities.

2.1. Foreign assistance to biodiversity conservation

Like other forms of foreign assistance, environment-focused foreign assistance is not shielded from broader political-economic concerns. Power dynamics and competing interests shape how the "environment" and "natural resource protection" are defined for the purposes of foreign assistance. In the US context, the Foreign Assistance Act of 1977 first authorized foreign "assistance for environmental and natural resources protection and management" (Ivory, 1992: 1063). Shaped by the ideological priorities

and political climate prevailing at the time, foreign assistance to the environment in the 1970s and into the 1980s was driven primarily by an economic rationale focused on promoting the sustainable use of resources for poverty alleviation, rather than biodiversity protection as a specific target (Ivory, 1992; Corson, 2010). Corson (2010) demonstrates how the focus of environmental assistance began to shift in the 1980s as a constellation of interests and actors from NGOs, civil society, and the private sector worked through the US Congress to prioritize biological diversity and species protection, particularly in the Global South, in foreign environmental assistance. It is within this context that in 1987 the US Congressional Appropriations Committee first mandated foreign assistance to fund biodiversity conservation overseas. During the late 1980s and into the 1990s, the US Congress reconfigured the meaning of foreign environmental assistance. “The environment,” in terms of foreign assistance, came to be defined “as foreign biodiversity, to be protected in parks away from competing economic and political interests and in foreign countries” (Corson, 2010: 578). Not only did this shift create a new and specific space for foreign assistance dedicated to biodiversity conservation, it also demonstrates how US Congress, its sub-committees, other parts of the US government, and the networks they enroll to advise them play a major role in shaping the trajectory and priorities of foreign assistance to environmental and biodiversity issues.

Foreign assistance to biodiversity conservation can have different objectives. Miller (2014: 341), for example, examines biodiversity-related official development assistance and differentiates between “mixed” biodiversity assistance and “strict” biodiversity assistance (also see Hicks, Parks, Roberts, & Tierney, 2010; Miller, Agrawal, & Roberts, 2013). The former refers to assistance that “explicitly addresses both ecological and economic objectives.” Strict biodiversity assistance, on the other hand, refers to assistance “which is more narrowly focused on conservation objectives without a stated development component” (341). While we focus on foreign assistance broadly, as USFWS does not necessarily abide by official development assistance parameters, Miller demonstrates how assistance to support conservation-related projects can have multiple objectives.

As the US’ lead wildlife conservation agency at home and abroad, the USFWS International Affairs program, established in 1989, provides assistance through its granting programs to partners around the world to support species and habitat conservation.² The USFWS’ mandate is specific to the conservation of species and their habitats, and may support community-based natural resource management and livelihood projects insofar as they contribute to the objective of biodiversity conservation. Building on Miller (2014), our analysis of USFWS funding points to an emergent, third, category of conservation assistance that neither “strict” nor “mixed” definitions account for. This is conservation assistance that has both biodiversity and *security* objectives.

We draw on the geopolitical ecology framework advanced by Bigger and Neimark (2017) and insights from the literature on the geopolitics of foreign assistance to examine the prioritization of IWT and related security concerns in foreign assistance for conservation. We highlight three key themes for thinking about the geopolitical ecology of foreign conservation assistance: 1) the ways in which geopolitical discourse justifies certain conservation-related actions, priorities, decision-making, and funding decisions; 2) the political-economic structures through which foreign conservation assistance decision-making happens; and 3) how actors working within geopolitical settings and institutions help produce

high-level understandings about biodiversity, challenges to protecting it, and how best to do so. Drawing on our analysis of USFWS International Affairs, we mobilize this framework to examine how foreign conservation funding and assistance is allocated, how this has shifted over time, and with what implications.

3. Methods

3.1. Analysis of US Fish and Wildlife Service International Affairs

3.1.1. Data collection

We gathered data on foreign assistance provided by the USFWS International Affairs program from the US Foreign Aid Explorer (FAE).³ We searched the FAE using filters related to USFWS funding accounts for the years 2002–2018 and exported this data for analysis. These filters include U.S. Fish and Wildlife Service, Resource Management; U.S. Fish and Wildlife Service, Multinational Species Fund; U.S. Fish and Wildlife Service, Contributed Funds. Any search using the above filters for pre-2002 yields no disaggregated results.

We conducted a process of data cleaning to ensure that each project had an adequate ‘Activity Description’ and/or ‘Activity Name.’ For any project that was missing an Activity Description we manually searched the USFWS International Affairs annual project summaries and filled in the information where possible. We also ensured that funding amounts in the FAE database and USFWS project summaries aligned by performing a manual check. We deleted from the database any duplicates and projects that had no adequate description or name for analysis. To cross-validate our methodology, we shared our produced dataset, methodology and subsequent results with USFWS International Affairs program staff, who supplied us with missing information and corrected errors they detected in the dataset due to mistakes within the FAE database.

3.1.2. Code building, development, and testing

We employed an inductive thematic coding technique following a grounded-theory methodology to analyze USFWS International Affairs funding (Charmaz, 2006). Code development entailed a multi-step process using the constant comparison technique, including multiple rounds of code development, training, and inter-coder reliability testing (Corbin & Strauss, 2008). We designed the codes to capture the principle objectives of USFWS funded projects. We began with an initial sample of projects (n = 40) to develop coding categories. Each of the authors independently coded this sample dataset without any previously defined codes. The inductively produced codes by each author were then compared and refined. The process of coding a sample dataset was repeated with the set of codes and again compared and refined using a new subsample in order to develop theoretical saturation (n = 40). This process was repeated again, further adjusting the codes by refining the language, folding some codes into broader codes, and expanding others into multiple codes until we were confident the set of codes adequately covered the full scope of USFWS projects.

Through this exercise we developed a set of nine primary thematic codes (Table 1). The first author consulted USFWS materials, project documents, and notice of funding opportunities to compare the codebook with the language used by USFWS. We made minor modifications to the codebook language to harmonize our codebook with USFWS language for congruency when undertaking document analysis. Next, we formalized code definitions, and detailed the inclusion and exclusion criteria of the codes. Both authors then

² <https://www.fws.gov/international/wildlife-without-borders/africa/central-africa.html>.

³ Any U.S. Government department or agency that provides foreign assistance must report this to USAID’s Economic Analysis and Data Services that manages the FAE.

Table 1
Project Codes and Definitions.

Code	Description
Supporting Habitat Conservation & Management (non-Law Enforcement)	Programs that support conservation and management efforts, broadly defined, but that excludes law enforcement and anti-poaching management; broad support for protected areas and their development and management, including equipment, infrastructure and so forth; monitoring of species populations.
Combating Wildlife Trafficking (CWT)	Programs that have the primary objective of reducing poaching, the illegal killing of wildlife, and wildlife trafficking. This includes programmes that aim to strengthen, develop, support, and train law enforcement in protected areas and habitats. Law enforcement is often used synonymously with anti-poaching.
Community-Based Natural Resource Management (CBRNM)	Programs that seeks to involve local people/communities in conservation or species/habitat management. This also includes programmes focused on awareness raising, outreach and education for communities in and around protected areas (i.e. 'local communities').
Research	Programs that are primarily funding studies and research. Research can generally be defined as those programmes that seek to study something or acquire new information and data about species, populations, landscapes and related dynamics. Even if the research is to improve or act in support of conservation management it should be coded as 'Research' to distinguish programmes that fund research for the improvement of conservation management and programmes that support and do conservation management. Also includes studies to understand species population and dynamics.
Capacity building of local stakeholders for conservation	Programs that aim to train and improve the capacity of local stakeholders (e.g. politicians, leaders, practitioners) to do conservation; about funding the training/capacity building of local stakeholders to do it rather than funding the actually management activities themselves.
Human Wildlife Conflict (HWC) Management	Programs that have the objective of mitigating, reducing, and/or managing adverse effects of wildlife on human populations and their property.
Education, Dissemination, Networking	Programs that seek to support higher education initiatives, the dissemination of research, and the funding of conferences, workshops, and symposiums that can help people connect and disseminate experiences and findings related to conservation.
Wildlife Product Demand Reduction	Programs encompassing efforts to reduce the demand and consumption of wildlife through education, awareness raising, outreach, behaviour change.
All	A broad code allocated to projects that are very broad in scope and that aim to achieve four or more objectives within the same project.

tested the refined codes on a larger sample of 150 projects to again ensure the codes comprehensively covered all activities. This resulted in a finalized code book that provided detailed instructions for the coding process.⁴

The first author trained a research assistant on the codes and coding process. After studying the code book, the lead author and assistant separately coded the same 10 percent sample of the projects ($n = 374$). We performed an intercoder reliability test using Krippendorff's Alpha (KALPHA) method (De Swert, 2012; Krippendorff, 2011) and the KALPHA macro developed by Hayes and Krippendorff (2007). The test yielded a high intercoder reliability score ($\kappa = 0.8603$, $n = 374$). A KALPHA score above 0.80 is generally considered as the standard for intercoder reliability testing, with a minimum score of 0.67 often considered acceptable (De Swert, 2012). A bootstrapping procedure indicated only a 2.2 percent chance of a KALPHA score below 0.80 if the whole dataset were tested. The assistant and lead author next proceeded to code the entire dataset, excluding 2018 projects which were coded by the lead author. Once complete, the lead author conducted a spot check of a random 10% sample of the entire dataset (>95% intercoder agreement).

To delve deeper into the potential significance of USFWS funding trends we conducted a second round of coding on a subset of projects using the IWT-intervention categories developed by the World Bank in its report analyzing foreign assistance to address IWT (The World Bank, 2016). The World Bank uses six categories to define these interventions: Policy and Legislation; Law Enforcement; Protected Area Management to Prevent Poaching; Communication and Awareness; Promoting Sustainable use and Alternative Livelihoods; and Research and Assessments (See Table 2).⁵ We coded each of the projects categorized as either CWT or Demand Reduction in the USFWS database ($n = 1418$) according to one of these six World Bank intervention categories

(see section 6 for results). Within the context of USFWS International Affairs funding, the results provide an understanding of what exactly it means to support CWT, what CWT-focused projects entail, and how this has changed over time.

3.2. Contextualizing document analysis

We compiled and analyzed over 60 individual documents, including policy briefs, agency annual budget reports, legislation, multilateral agency documents, and program descriptions in the qualitative data analysis software Nvivo. We conducted this document analysis to contextualize the analysis of USFWS International Affairs funding. Government documents included those from the US Department of State, United States Agency for International Development (USAID), US Fish and Wildlife Service, the US Government Accountability Office, and the White House. Other documents included reports by the United Nations Office on Drugs and Crime, The World Bank, and the Global Environment Facility. We inductively coded documents using an iterative and grounded theory approach with repeated cross-referencing and discussion between both authors (Charmaz, 2006). Examples of codes generated through this inductive process included "framing IWT as a form of serious organized crime", "IWT as form of threat finance", and "elephant poaching as emotional subject."

3.3. Qualitative interviews

To further contextualize the coded dataset of USFWS International Affairs funded projects, we conducted in-depth, semi-structured interviews ($N = 16$) and focus groups ($N = 2$) with key stakeholders, which we discursively analyzed following a similar coding procedure as for document analysis. Participants included actors within several offices of USFWS, The World Bank, USAID, The State Department, and at several leading conservation organizations who have received funding from the USFWS International Affairs Program, among other interviewees. High-level interviews offer critical insights into how particular agencies and key individ-

⁴ See supplementary material for the code book.

⁵ We included projects coded as Demand Reduction in this subset of projects because demand reduction is included in and is a priority of the World Bank's Communication and Awareness intervention category

Table 2
IWT Intervention Categories Adopted from the World Bank's Global Environment Facility (The World Bank, 2016).

IWT Intervention Category	Description
Policy and Legislation	Inter-sectoral policies and regulatory frameworks that incorporate wildlife conservation and management considerations; strengthening laws and customs/trade facilitation process.
Law Enforcement	Coordination mechanisms and establishment of operational units, intelligence-led operations, and transnational law enforcement coordination to tackle higher-level operatives; increased capacity of customs officials, transportation, and detection technologies.
PA Management to Prevent Poaching	Protection of natural habitats for species; on-the-ground support to PAs to address poaching (i.e. rangers, equipment etc.); investments to increase community, private, and state reserves and surrounding areas protected forests under land use policies that mitigate wildlife poaching and promote wildlife management best practices.
Communications and Awareness	Outreach and communications efforts to raise awareness and reduce demand across range, transit, and end-use countries demand reduction efforts and campaigns to increase awareness, change consumer behaviour toward consumption of illegal wildlife products, and reduce market participants in the illegal trade.
Promoting Sustainable Use and alt livelihoods	Incentives for communities to live with and manage wildlife and to avoid human-wildlife conflict; income derived from wildlife management in support of sustainable development and integrated natural resource management practices; alternative legal livelihoods to those involved in the illegal trade.
Research and Awareness	Decisions support tools, research, analysis, databases, stakeholder coordination, knowledge management, and monitoring.

uals approached the subject of combating wildlife trafficking and foreign conservation assistance more broadly. They also deepen our understanding of the changing discourses about illegal wildlife trade within US foreign policy and conservation sectors.⁶ In addition to these interviews, this article is broadly informed by over seven years of qualitative research across four continents by both authors on IWT and conservation, offering insight into how (US) foreign assistance to address IWT manifest on the ground in both source and consumer countries, and how this has changed over time.

4. From 'boutique issue' to 'international crisis': The shifting discourse of IWT in US foreign policy and its effects

On Thursday May 24, 2012, Senator John Kerry made the opening remarks in a hearing of the Committee on Foreign Relations in the United States Senate titled, "Ivory and Insecurity: The Global Implications of Poaching in Africa." He began by acknowledging that the matter of ivory poaching "may seem to some to be slightly off the beaten path" for the Foreign Relations Committee (US Senate Committee on Foreign Relations, 2012:1). It is worth quoting what Senator Kerry said later in the meeting at length, in conversation with Tom Cardamone, Managing Director of Global Financial Integrity, a Washington DC-based security consulting firm, and Dr. Iain Douglas-Hamilton, founder of Save the Elephants, a Nairobi-based conservation organization, both of whom were invited to give testimony to the committee:

⁶ Interviews have been anonymized. Consent from research participants was obtained via written or verbal consent based on their preference in accordance with approved University research ethics protocols.

The trick here... is not to lose sight of the connectedness of all of these things. This is not just about elephants. It is not just about poaching in one place. The dots connect here to the whole issue of failed states, governance, lack of law enforcement, preying on people, the sort of random violence that comes as a consequence of this, the enormous sums of money. Criminal syndicates are walking away with billions of dollars out of this. And one of the things that I saw full square in the 1980s when we began to look at Noriega's bank of preference and ran across Osama bin Laden's name was that this is all interconnected. The opaqueness is used by all of these illicit entities, including terrorist groups, to move their money, to avoid accountability, to stay outside of governing structures. And all of those entities that are outside of those governing structures are depleting the capacity of states to function and to do what they are supposed to do. So, I think that this is worth raising the heat on it [ivory poaching] a little bit because those same thugs who can come in there and do that are also going to rape, pillage, plunder, move narcotics, facilitate somebody's ability to get money illicitly and may wind up blowing up a bunch of people in some community square. And so, I think it is important to fight back against failed statism, against the absence of governance, and I view this as a component of that (2012: 43–44).

The linkages Senator Kerry makes between IWT, failed states, and ivory as a source of threat finance were later debunked as myths promoted by certain conservation non-profit organizations (Duffy, 2016; Haenlein and Smith, 2017;; Pennaz et al., 2018). But the Senate hearing represented a key watershed moment signalling how future discussions about IWT would be approached and discursively framed within US foreign and domestic policy circles. It was one of the first high-profile fora signalling that IWT would be integrated into US foreign policy and national security agenda-setting. While claims of "poachers-as-terrorists" were unsubstantiated (Duffy, 2016: 238), what matters is the discursive power of such claims in shaping foreign assistance and conservation priorities.

Specifically, we focus on the ways in which IWT would now be leveraged to funnel US foreign assistance through more appealing and malleable IWT narratives, namely, the affective and emotional power of graphic imagery about slaughtered elephants, simple links to insecurity, and placing blame on foreign peoples and governments such as weak African states and China and East Asian consumers of IWT products (Margulies, Wong, & Duffy, 2019). As a former White House Council on Environmental Quality staff member summarized, "...so when we were part of the conversations, it [discussion about IWT] was almost always hand in hand with these security concerns and issues...and then it was elephants, there was this emotional thing around elephants. Those were the predominant themes that created momentum and passion around the issue" (Interview, 11/2019).

Senator Kerry's remarks signalled a rapid succession of events and policy actions declaring IWT as a priority of US foreign policy. Six months later, Secretary of State Hillary Clinton hosted a "Partnership Meeting on Wildlife Trafficking" at the State Department. In a similar message to the events' attendees, Secretary Clinton began her keynote address saying:

Now, some of you might be wondering why a Secretary of State is keynoting an event about wildlife trafficking and conservation, or why we are hosting this event at the State Department in the first place. Well, I think it's because...over the past few years wildlife trafficking has become more organized, more lucrative, more widespread, and more dangerous than ever before...I think many of us are here because protecting wildlife is a matter of protecting our planet's natural beauty. We see it's

a stewardship responsibility for us and this generation and future generations to come. But it is also a national security issue, a public health issue, and an economic security issue that is critical to each and every country represented here (US Senate Committee on Foreign Relations, 2012).

The US State Department summarized the meeting along similar lines:

The event brought together foreign ambassadors and leaders from international organizations, non-governmental conservation organizations and the private sector to energize and strengthen the global commitment to combat the illegal trade in wildlife and promote conservation by placing it *squarely on the foreign policy and security agenda* (US Department of State, 2012, emphasis added).

The statement also demonstrates how the State Department, as representative of a concerned global community, enrolled conservation organizations in foreign policy and security matters and circles.

The US was not alone in raising the profile of IWT. Concerns about IWT and combating wildlife trafficking as a matter of serious and transnational organized crime that undermines local, national, and global stability has progressively garnered attention at the highest levels of international politics. This is exemplified through successive resolutions by various UN bodies including the Economic and Social Council, the UN Crime Commission, and the 2015 UN General Assembly Resolution 69/314 that elevated IWT to a serious crime (United Nations, 2015). We highlight these declarations because they unlock capacity for political action and mobilize material support for addressing IWT. As one US representative who was intimately involved in drafting US and UN policy resolutions on IWT explained, the US and Norway took the lead and co-sponsored the UN resolution because having IWT recognized as a serious crime in that forum “serves as a resource for law enforcement unlocking international cooperation tools for them to do joint investigations for mutual legal assistance” (Interview, 04/2019).

These statements, policies, and declarations exemplify how the meaning of illegal wildlife trade and the protection of wildlife has changed over the past 20 years in US Federal policy and legislative arenas. Moreover, and as summarized here, the emergence of IWT as a high-profile national security and foreign policy issue occurred in large part through its rapid prioritization by a small number of powerful political actors:

[It was a] kind of perfect storm. . . [Secretary Clinton] was intrigued just like then Senator Kerry was intrigued on the security apparatus [aspects] of the issue, from [it being] a longstanding conservation issue. The financial money laundering aspect, the security and tourists linkages, all of those things. . . That was the game changer for why, what led to. . . the President’s Task Force for combating wildlife trafficking (Interview with former State Department staffer, 04/2019).

With particular attention to the United States, Fig. 1 highlights key moments since 2011 related to the transformation of IWT from a “boutique issue” into “an international crisis” on the foreign policy agenda (USAID Program Officer Interview, 04/2018).⁷ Within the span of less than a decade, the illicit harvesting and trafficking of flora and fauna was re-packaged by powerful governmental, multilateral, and non-governmental international bodies into an issue of serious organized crime, a lucrative funding source for terrorist net-

works, and contributor to regional destabilization in areas of geopolitical importance to both the United States and international allies. We accept the legitimacy of the increasing problem of illegal wildlife trade during this same time period, but our interest is with how these issues came to be understood not just as *linked* to national security issues, but *became* national security problems requiring intervention.

The momentum to combat wildlife trafficking as an issue of geopolitical and national security importance continued, moving from the realm of discourse and symbolic action to material, legal, and policy effects. Around a year after the 2012 milestones noted above, President Obama issued the Order on Combating Wildlife Trafficking and established the Presidential Task Force on Wildlife Trafficking. Shortly thereafter in 2014, the US released its National Strategy for Combating Wildlife Trafficking. In the same year the US Congress, and specifically the Sub-Committee on Department of State, Foreign Operations, and Related Programs explicitly appropriated \$45 million in the foreign assistance biodiversity budget to “combat the transnational threat of wildlife poaching and trafficking.”⁸ This was the first time funding for CWT was earmarked in the foreign assistance budget. Appropriations increased to \$55 million in 2015, \$80 million in 2016, and almost \$91 million in each of 2017, 2018, and 2019.⁹ In 2011, the State Department’s Bureau of International Narcotics and Law Enforcement Affairs had an annual budget for wildlife or conservation-related law enforcement of \$100,000. Today the budget is over \$50 million a year. On the legal front, the Eliminate, Neutralize, Disrupt (END) Wildlife Trafficking Act passed in 2016 codified the National Strategy in law. This law also established a CWT granting program to be managed by USFWS in support of CWT-focused projects overseas. The first Notice of Funding Opportunity for the CWT grants went out in 2016 and the USFWS supported 12 projects worth \$1,162,775. In 2017 the importance of IWT as a transnational organized crime priority was again reiterated through its inclusion in President Trump’s 2017 Executive Order on Transnational Criminal Organizations and Trafficking (White House, 2017). IWT’s inclusion in this executive order also worked to safeguard funding for CWT in the context of large government spending cuts (Interview, 04/2019).

It is thus insufficient to develop a geopolitical ecology of conservation by only focusing on the “speech acts” of elite actors. The changing priorities of IWT and conservation have in turn altered the political economy of conservation, combating wildlife trafficking, and foreign assistance. How this increased funding for CWT is made to work is just as important as the monetary amounts. While there is more money to address CWT, funding is also being diverted from other budget lines and activities, including those related to conservation and biodiversity protection. An Environment program officer from one of the US’ leading donor agencies (not USFWS) explained how since 2015 about 25% of the agency’s biodiversity budget is allocated specifically to combating wildlife trafficking, with some of this being diverted from other programming (Interview, 04/2019). A former official from another agency providing foreign assistance to CWT described a similar situation whereby, “they [State Department] said, ‘Find money within your existing pot of funds [to fund CWT].’ So, basically, cut other programs” (Interview, 04/2019). In order to understand how this geopolitical context mobilizes material effects on the ground in re-shaping ideas about biodiversity conservation, we next explore

⁸ <https://www.congress.gov/bill/113th-congress/house-bill/3547/text>.

⁹ See <https://www.congress.gov/resources/display/content/Appropriations+and+Budget> for consolidated appropriation acts by year. The vast majority of CWT funding from Sub-Committee on Department of State, Foreign Operations, and Related Programs is appropriated to USAID’s biodiversity budget. These numbers provide useful context to understand the increase in funding for CWT from the highest levels of US government.

⁷ Also see the Executive Order on Combating Wildlife Trafficking for “international crisis” language. <https://obamawhitehouse.archives.gov/the-press-office/2013/07/01/executive-order-combating-wildlife-trafficking>

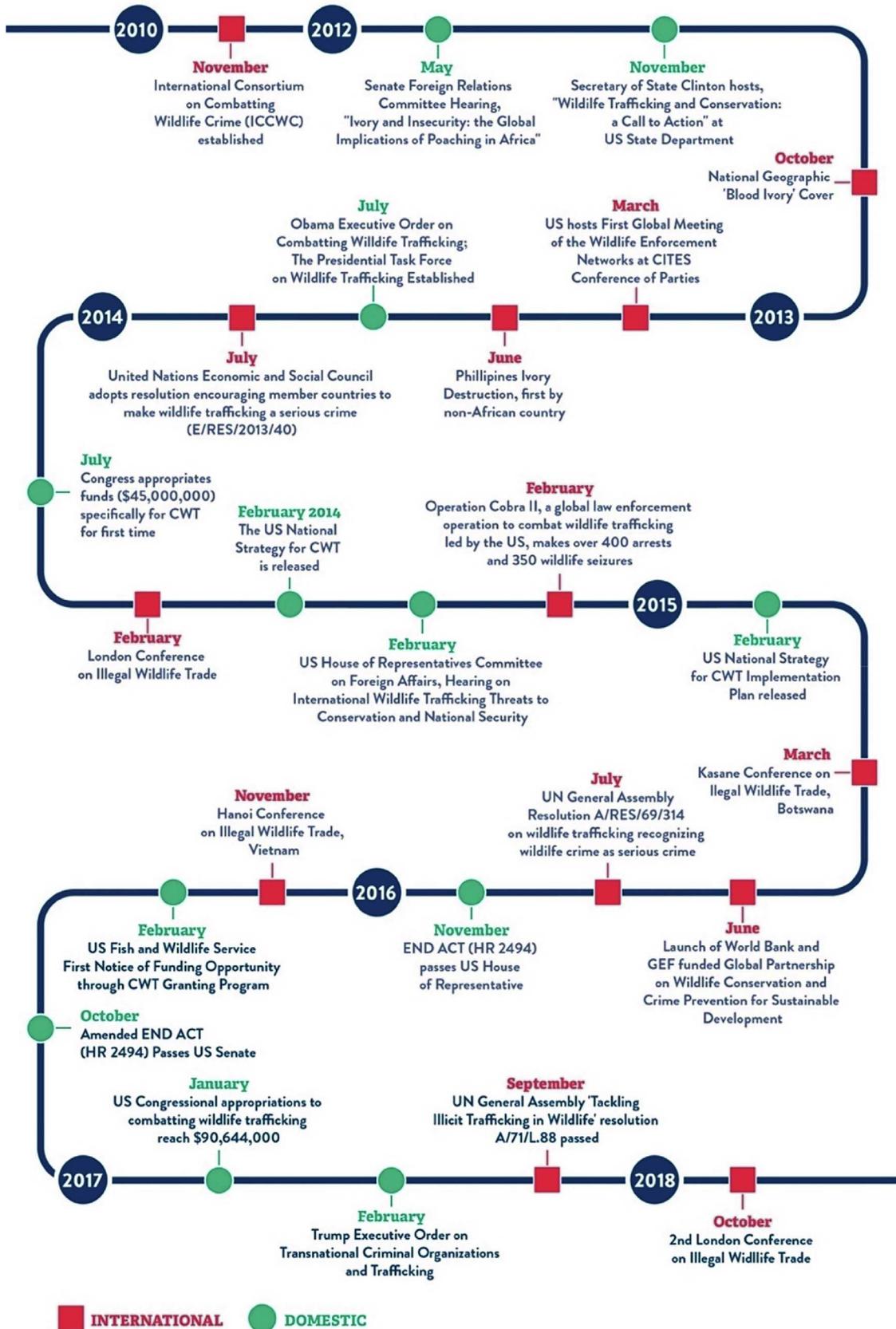


Fig. 1. Timeline of key events from 2011 to 2019 related to US domestic and international interventions to combat wildlife trafficking. Figure was developed through an iterative process involving document collection and analysis, interview coding, as well as repeated engagement with key expert stakeholders who revised and commented on earlier drafts in order to generate consensus around key moments, reports, legislation, and public events. Graphics credit: Ink and Water.

how foreign conservation assistance by the USFWS Office of International Affairs, the country's lead conservation agency at home and abroad, has changed over time.

5. The geopolitical ecology of illegal wildlife trade: The case of the US Fish and Wildlife Service International Affairs

From fiscal year 2002 to the end of fiscal year 2018, USFWS International Affairs supported 4,142 projects, worth \$301,054,957 USD in 106 countries. Projects with a primary focus on CWT account for a third of projects supported by USFWS and approximately a third of all spending, a little over \$100,000,000. Projects with a primary focus on Habitat Conservation and Management account for approximately just under one fifth of all projects and 16% of all funding, approximately \$49 million (Table 3). When disaggregated by species category and regional category, CWT is the largest category of foreign assistance from USFWS.

We are primarily concerned with reading across these funding trends to understand whether or not there are shifts in what the USFWS supports over time, and how, if at all, these shifts articulate with the changing geopolitical context of conservation and IWT. We find that the reframing of IWT as a key concern of US geopolitical strategy has affected how the lead wildlife conservation agency of the United States both approaches and supports the protection of biodiversity and their habitats in countries with wildlife populations of interest to the global conservation community. While the overarching mission of USFWS International Affairs may continue to remain focused on conservation, what is prioritized as the most valuable kind of conservation work has changed over time. As Fig. 2a shows, over the past 16 years the percentage of projects funded by USFWS International Affairs coded as CWT has risen steadily since 2002, while projects coded as any other thematic category, including more general protected area management and habitat protection, have followed a general downward trend. While less immediately apparent, Fig. 2b similarly illustrates a general trend of an increasing percentage of USFWS International funding allocated towards CWT, especially after 2009. Funding for CWT peaks in 2012 and 2018, coinciding with key moments where IWT gains attention at higher policy levels. It is important to note that Fig. 2a and b also demonstrate that USFWS has a consistent history of funding CWT projects that predates the shifts in how IWT is framed in US foreign policy and security debates as a geopolitical issue. Nevertheless, the relative percentage of projects with CWT as a primary focus has increased substantially, especially since 2011, the time leading up to major public statements and policy shifts that place IWT squarely on the foreign policy and national security agenda. A similar trend of an increasing relative share of foreign assistance to CWT at the expense of other objectives is found across all species and regional categories.

While the funding trends shown in Fig. 2a and b indicate an increasing prioritization of CWT in foreign assistance for biodiversity conservation at the expense of other types of interventions and projects, CWT is a broad category that can incorporate different types of activities and sub-objectives. Recent literature critiques the increasing conservation-sector focus on poaching as being overly concerned with law enforcement-first approaches and interventions that prioritize intelligence-gathering and counter-insurgency techniques, for example (Duffy et al., 2019; Roe et al., 2015). It is therefore important to understand more precisely what foreign assistance to CWT entails. This is not only because CWT is the most significant funding category of USFWS, but because, as our data shows, it is one that the USFWS and higher levels of US government are prioritizing.

As a reminder, we coded each of the 1418 projects categorized as either CWT or Demand Reduction according to one of these six

World Bank intervention categories (See Table 2). Table 4 displays these results. Of the 1418 projects with a primary CWT objective, those projects that support protected area management to prevent poaching accounted for 70% of all projects and spending on CWT from 2002 to the end of fiscal year 2018. This category of assistance largely entails funding for the training, establishment, and ongoing operations of anti-poaching or law enforcement units within spaces of conservation. Operational support could also include funds for surveillance equipment and aircraft, 4x4 vehicles, monitoring systems, or field posts for anti-poaching units. As a World Bank official explained, this category is to address poaching on the ground (Interview 04/2019). The second largest category was "law enforcement", accounting for a fifth of all spending and projects with a primary focus on CWT. The "law enforcement" category differs from support to protected area management to prevent poaching in several ways. First, law enforcement projects are primarily focused on the national and international scale, rather than the local scale of the protected area. Second, the activities in these projects largely take place outside of protected areas and even outside of what we might normally think of as "conservation" institutions or actors. Examples of such projects include: providing training and equipment to customs officials to more effectively intercept illicit wildlife products at ports of entry and exit; supporting law enforcement bodies with national and cross-border intelligence gathering activities; training and institutional support for wildlife crime investigation and prosecutions; and supporting national and transnational law enforcement operations to investigate and arrest high-level wildlife traffickers and syndicate members.

Taking these categories together, direct law enforcement in the form of anti-poaching and patrolling in protected areas and law enforcement outside of protected areas to directly address IWT accounts for >90% of all CWT-focused interventions funded by the USFWS international affairs since 2002. The remaining 9–10% of CWT-focused funding and projects is shared among research and assessments, communications and awareness (largely demand reduction), policy and legislation, and promoting sustainable use and alternative livelihoods. As a percentage of the larger USFWS dataset, projects with a direct law enforcement focus as described in the "law enforcement" and "PA management to prevent anti-poaching" account for 31% of all USFWS international affairs funding and projects supported from 2002 to 2018. More foreign assistance has thus gone to supporting direct law enforcement than to any other broad category of USFWS foreign conservation assistance, including habitat conservation and management.

Tracking these CWT categories across time shows an increase in the relative amount of funding allocated to projects in the "law enforcement" category, as well as an increase in the proportion of projects with that focus beginning in 2014. This was the first year where the Foreign Appropriations Act directed funds to combat wildlife poaching and trafficking and is after the US Senate Hearings, Hillary Clinton's State Department meeting, and the issuing of the Executive Order on Combating Wildlife Trafficking. While there is still a strong and primary focus on anti-poaching and protected area level enforcement in foreign assistance to biodiversity conservation, the data suggests that in the period following IWT's integration into the foreign policy agenda as an issue of national security concern, USFWS' foreign assistance to biodiversity conservation began to give more priority to CWT interventions outside of the traditional spaces and institutions related to conservation, and towards more policing and intelligence practices focused on arresting wildlife traffickers and intercepting trafficked wildlife materials. Moreover, these increases in "law enforcement" coincide with relative decreases in funding and projects in the other five CWT intervention categories. As with the broader portfolio of USFWS foreign assistance, this trend is indicative of the

Table 3
Summary of USFWS International Affairs Spending from 2002 to 2018.

Objective	# of Projects	% of Projects	Funding Allocated (USD)	% of Overall Funding
All	141	3.4	36,390,158	12.1
Anti-Poaching/CWT/Law Enforcement	1,380	33.3	100,798,114	33.4
Capacity Building of Stakeholders	305	7.4	35,520,980	11.8
CBNRM	414	10.0	20,206,058	6.7
Demand Reduction	38	0.9	3,228,629	1.1
Education, Dissemination, Networking	388	9.4	18,264,839	6.1
Habitat Conservation & Management	772	18.6	49,080,648	16.3
HWC Management	228	5.5	12,206,050	4.1
Research	476	11.5	25,359,481	8.4
Total	4,142	100	301,054,957	100

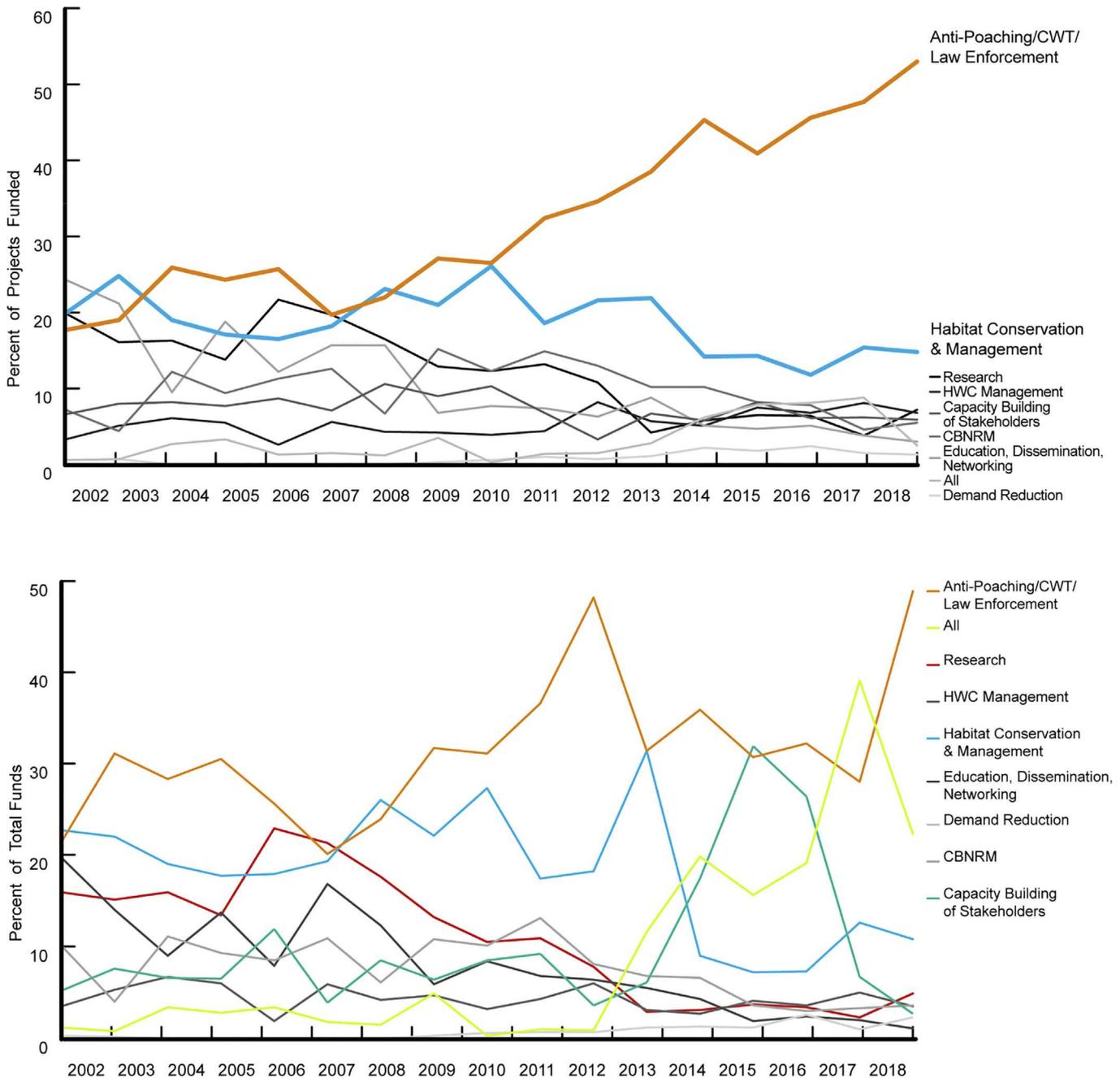


Fig. 2. Percentage of USFWS funded projects per coded objective category (2a, top), and percentage of total funds allocated by USFWS per coded objective category (2b, bottom).

Table 4

Breakdown of US Fish and Wildlife Service CWT and Demand Reduction projects coded using World Bank CWT intervention categories.

CWT Category	# of Projects	% of Projects	\$(USD) Allocated	% of Funding
Communications and awareness	45	3.2	3,808,264	3.3
Law Enforcement	281	19.8	20,778,751	19.8
PA Management to prevent poaching	986	69.5	72,010,749	69.5
Policy and Legislation	12	0.9	1,651,133	0.8
Promoting Sustainable use and alternative livelihoods	34	2.4	1,588,415	2.4
Research and Assessments	60	4.2	4,189,431	4.2
Total	1,418	100	104,026,743	100

changing geopolitical context of IWT and conservation assistance within the US Federal Government.

A number of critiques over the past decade concern the lack of focus and funding for supporting communities in and around protected areas and poaching hotspots, support that could help address the root causes of IWT and poaching in particular (Duffy & Humphreys, 2014; Duffy et al., 2019; Roe et al., 2015). Many of these critiques are concerned with the negative impacts of heavy-handed and enforcement-first approaches (Annecke & Masubele, 2016; Duffy et al., 2019; Lunstrum, 2014). Given these concerns, we analysed what portion of the 1418 CWT-focused projects supported by USFWS since 2002 had a community component. Out of 1418 CWT-focused projects, 247 (17%) had a component to include communities in activities. 89% (n = 214) of these CWT-projects with a community component consisted of establishing or supporting community-based anti-poaching, patrolling, or support to law enforcement. Like others, we encourage efforts to include communities in anti-poaching and law enforcement, but these must be sensitive to potential drawbacks for those communities involved (Massé, Gardiner, Lubilo, & Themba, 2017; Roe et al., 2015). Moreover, community anti-poaching still takes an enforcement-first approach and does not necessarily address the primary drivers of why people engage in and/or support illicit wildlife economies. This lack of support to addressing the root causes of poaching is further exaggerated when looking across the different species categories. Community patrols to protect nesting turtles and their eggs account for 50% of all funded projects on anti-poaching prevention with a community component. Materially, these results indicate that the CWT-related interventions supported by USFWS follow broader conservation and CWT trends of giving relatively little funding support to community-oriented initiatives (Duffy & Humphreys, 2014; The World Bank, 2016). This is especially true for interventions focused on charismatic megafauna such as elephants and rhino in Sub-Saharan Africa, where poverty, opportunity for economic advancement, vulnerability, and dangers associated with living with wildlife are often driving forces behind illegal hunting.

5.1. Beyond the numbers: Justifying foreign assistance to biodiversity in geopolitical terms

The previous section demonstrates how the heightened profile of IWT in US politics has led to a dramatic increase in security-related funding for conservation and CWT through a shift in the allocation of foreign conservation assistance. These patterns occur alongside discursive shifts in what IWT and foreign assistance to biodiversity conservation signifies. We see this, for example, in USFWS annual budget justification reports. The language the USFWS uses to justify its annual budget to the US Department of Interior and related Congressional Appropriations committees recently incorporated “geopolitics”, alongside increasing use of the words “trafficking”, “poaching”, and “crime” over the past decade (Fig. 3).

The increasing use of crime and security language by USFWS to justify its work is an acknowledgement of the geopolitically-charged milieu in which the primary conservation agency of the United States finds itself responding to, and affirming, the geopolitical concerns and desires of the United States foreign policy apparatus. As one USFWS International Affairs staff member explained:

We are the only agency in the US government that is conservation for conservation's sake and not in the name of something else, because that is our department and agency mission. . . It is about the conservation of the species. I mean, we can talk more about security, but we have always recognized security and stability, and we have some other work in Central Africa that is related to all of that and poverty reduction and human interaction, but for us it is about the conservation (Interview, 04/2018).

This statement suggests that while USFWS staff believe conservation matters intersect with security concerns, the mission of USFWS remains unaffected by broader geopolitical contexts. Our findings are at odds with this perspective, and at a minimum suggest a significant reframing of what doing conservation work now signifies in contemporary contexts compared to just ten years ago. Beyond the shifts in foreign assistance presented above, the way USFWS describes the International Affairs Division and its role as a lead player in addressing IWT in the first pages of the 2020 Budget Justification report is indicative of this point:

The Service plays a leadership role in the implementation of the National Strategy for Combating Wildlife Trafficking, addressing urgent conservation and global security threats posed by poaching and illegal trade in wildlife (USFWS, 2020: IA-2).

USFWS uses similar language on the emergence of a biodiversity-security nexus to justify a request for a program change comprising of over \$1 million in additional funding:

The recent escalation in poaching of protected species and the corresponding illegal trade poses an urgent threat to conservation and global security [. . .] The Service provides technical and financial assistance to partners to support innovative projects that address wildlife poaching and trafficking by strengthening enforcement, reducing demand for illegally traded wildlife, and expanding international cooperation and commitment to mitigate this threat (USFWS, 2020: IA-10).

The USFWS now explicitly positions itself through its programmatic activities as working in support of US geopolitical interests. The same 2020 report states “The [USFWS] Service funds, facilitates, and supports vital efforts to conserve wildlife and high value landscapes that provide economic, geopolitical, and other benefits to the American people” (USFWS, 2020: IA-10). We see this broader articulation of foreign assistance to biodiversity conservation converging with US’ geopolitical interests most clearly in USFWS’ work in Gabon, a country that receives by far the most foreign funding assistance from USFWS globally. While a number of

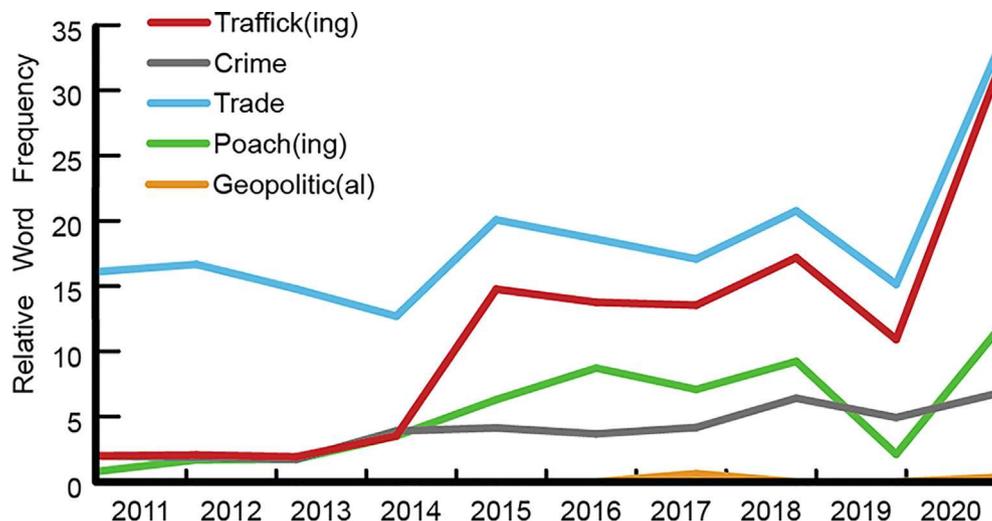


Fig. 3. Frequency of key words appearing in US Fish and Wildlife Service annual budget justification reports relative to document length (based on total word count).

interviewees made clear Gabon receives a large amount of conservation assistance because of the political will of its government to invest in conservation (Garland, 2008), and because of the country's biodiversity, the 2020 budget justification report discloses broader geopolitical motivations that move far beyond IWT. Justifying the large sums of money USFWS provides to Gabon, the report states:

Controlling large-scale illegal fishing, mainly by foreign trawlers, is a shared interest between conservationists and energy producers. Working together through Gabon Bleu, these stakeholders were able to meet biodiversity goals and enable the safe and responsible development of Gabon's energy resources, which exports a majority of its oil output to the U.S (USFWS, 2020: IA-7).

USFWS uses similar geopolitical language in defining its work in Latin America to conserve "the Western Hemisphere's High-biodiversity Value Landscapes":

A stable and secure Western Hemisphere is critical to the safety and economy of the American people. To that aim, the Service provides technical and financial support for conservation efforts in Central and South America that help to support American business and recreation in the region and strengthen rule of law (USFWS, 2020: IA-8).

The extent of geopolitical influence within and over conservation policy and practice thus manifest as a much more general phenomenon beyond the specifics of wildlife trafficking.

6. The geopolitical ecology of conservation assistance

USFWS increasingly positions habitat and species protection as both a concern of, and contributing to, national and geopolitical security. While USFWS has always funded CWT-related efforts, this has proportionally increased over time at the expense of other conservation priorities. Integrating thematic coding analysis with discursive textual analysis reveals clear connections between discussions and framing of IWT as a matter of US geopolitical concern in high-profile US political fora beginning in 2011–2012, and changes in how USFWS positions and justifies their role as a conservation agency to US Congress. These changes, in turn, produce material effects on the ground via the kinds of projects they support (or not) through international grants. Taken together, our results signify a shift in what gets prioritized, materially supported

and understood as biodiversity conservation in US foreign policy more generally, and addressing IWT more specifically.

Our case study of the USFWS demonstrates the ways in which biodiversity conservation and threats to particular species are increasingly mobilized as spatially powerful, discursively malleable, and emotionally-laden concepts through which US geopolitical interests are furthered on the ground. The connections being made between protecting biodiversity and geopolitical interests highlights an emerging and increasingly important category of foreign conservation assistance that has joint ecological and national security objectives, even where clear evidence of security connections is lacking. Conservation assistance thus exists alongside development in furthering and reflecting the securitization of foreign assistance, and foreign policy, more broadly.

The geopolitical context of IWT and its subsequent influence is not limited to US foreign policy or assistance (e.g. Duffy, 2010). The UK has held multiple international conferences on IWT (Fig. 1), during which UK foreign policy actors have made similar, often unsubstantiated, connections linking regional stability and security with the need to intensify and militarize the fight against IWT (Massé et al., 2020). These efforts have similarly resulted in increases in foreign assistance from its Department for Environment, Food, and Rural Affairs' (DEFRA) and Department for International Development, respectively, to CWT (DEFRA, 2019; Duffy & Humphreys, 2014). Deepening connections between the military and conservation assistance, DEFRA and the UK's Ministry of Defence have joined together to "to support and fund a series of military-led counter-poaching activities" in Sub-Saharan Africa.¹⁰ The largest provider of multilateral environmental assistance, the World Bank's Global Environment Facility, has also given more priority to wildlife trafficking with the creation of the Global Wildlife Program. Established in 2015, the Program provides \$131 million in grants to combat wildlife trafficking (and claims it will leverage over \$700 million more) (The World Bank, 2018). Over \$56 million of this has gone towards law enforcement-specific projects, while \$19 million has gone to landscape management and almost \$33.5 million going towards community engagement, the latter of which includes community policing.

By explicitly connecting the prevention of wildlife crime with sustainable development, the Global Environmental Facility has

¹⁰ UK anti-poaching support in Malawi to help tackle organised crime Retrieved from <https://www.gov.uk/government/news/uk-anti-poaching-support-in-malawi-to-help-tackle-organised-crime>.

signalled that IWT is a development challenge and concern to which international development assistance, and not just conservation assistance, should be channelled. Reflecting the conclusions of others (Marijnen, 2017; Massé et al., 2018), concerns about IWT as a de-stabilizing regional force and threat to international security (substantiated or not) have led to the integration of conservation in the development-security nexus, thereby re-shaping flows and dynamics of development assistance related to conservation and security. Our analysis has focused in detail on what this means for foreign conservation assistance. What precisely this looks like in terms of *development* assistance or assistance from development-specific agencies and with what implications in terms of assistance allocation and effects on the ground remains unclear. This subject requires further research, and could be advanced through the framework of geopolitical ecology of foreign assistance as developed in this article.

A number of scholars have demonstrated the generative potential of putting the grounded empirical research tradition of political ecology into deeper conversation with critical geopolitics and political geography, disciplines with long histories of theorizing the complex nature of states and how power operates across geographic scales (Adger, Benjaminsen, Brown, & Svarstad, 2001; Robbins, 2008). Political ecologists are often more accustomed to, and excel at, studying the messy and conflicting character of the state in the management of non-human nature at relatively small geographic extents and fine-scales of analysis. We find, however, that many of the analytical methods familiar to political ecology are in fact well suited to 'studying up' the state and its geopolitical nature (Nader, 1969). This is not only to understand the complex character of state actors operating on the ground embroiled in the negotiations of 'everyday politics'—for instance, through ethnographic studies of bureaucrats (Gupta, 2012; Corson, 2016)—but in order to say something more meaningful about the broader apparatuses of state power at work crafting and intervening in human-environment interactions from a distance (Bigger & Neimark, 2017; O'Lear, 2019).

Methodologically then, we see promise in future efforts combining diverse sources and types of data to develop richer understandings of how geopolitical strategy moves outwards from recognized seats of formal power, reconfiguring human-environment relations. We acknowledge, however, that analyses oriented in the reverse direction—'from the ground up'—are just as important for fully embracing a geopolitical *ecology*. Other methodological opportunities for tracing the entwined flows of financing and political intent in producing environmental change abound: for instance, future work building on the research presented here through 'follow the policy' and 'follow the money' approaches could explore in greater detail how the discursive and funding shifts we describe in this article affect particular localities and the human as well as non-human communities foreign assistance interventions seek to influence (Peck & Theodore, 2012). At the same time, the findings we present matter in several pressing ways, which speak to concerns echoed elsewhere.

First, our findings show how contemporary conservation is characterized by the ratcheting up of investment in the securitization of responses to IWT, and the capturing of discursive control over how IWT is framed as a conservation problem turned national security threat. Our approach to examining these dynamics through geopolitical ecology provides a detailed narrative of how this shift has materialized at the global scale over time. Second, there are new practices materializing on the ground within the context of reframing IWT as a national security issue. This is best evidenced by the increasing amount of funding and support for law enforcement and policing efforts outside of the traditional spaces and institutions of biodiversity conservation. These include support for (cross-border) intelligence activities, wildlife crime investigation

and prosecutorial capacity, and support to (trans)national law enforcement and policing operations. Scaling up efforts beyond traditional spaces and institutions of conservation like protected areas has a role to play in addressing IWT. But, this trend demonstrates how under growing geopolitical pressure, foreign conservation assistance increasingly reflects the approaches and objectives of foreign police assistance (Hills, 2006; Friesendorf, 2016). A geopolitical ecology highlights the need to take seriously the emerging ways in which foreign conservation and environmental assistance might support and articulate with other foreign policy agendas of legal, policing, and security-sector reform (Ellison and Pino, 2012). Moreover, the growth in these law enforcement approaches reflect securitization's ability to repress or minimize more fundamental questions concerned with "power and distribution" that underpin so many environmental challenges (Gourevitch, 2010, 413), including conservation and biodiversity protection.

Finally, the results of this study offer new insights about how geopolitical discourse *matters* materially (O'Lear, 2019), affecting economic investments in particular conservation approaches at the expense of others. Given the trends we discuss, these shifts in investment point towards continued underfunding of conservation programs focused on livelihoods and economic well-being, and even general habitat and landscape protection, in favor of 'law and order' and securitized approaches to doing conservation in the name of curbing IWT (Büscher, 2016; Duffy, 2016). Looking towards future research efforts, we ask: if the language of conservation and combatting illegal wildlife trade is entirely captured in the US and elsewhere as a geopolitical subject, who, or what, will win and lose as a result of these new discursive arrangements? How will conservation as geopolitics produce, shape, and reconfigure new socio-environmental relations where conservation is practiced? Answering such questions would complement our examination of the broad pattern of geopolitics' discursive entrance into conservation as a generalizable and increasingly powerful dynamic shaping the very nature of what conservation may become.

7. Conclusion

In this article we advance empirical and conceptual understandings of geopolitical ecology by showing how biodiversity conservation is increasingly geopolitical in its nature, and how powerful geopolitical actors work through conservation in an effort to control, constrain, and produce global socio-natures in advantageous geopolitical configurations. Our findings demonstrate an impressive leveraging and reworking of conservation threats, and more specifically IWT, as a concern of national security to support and justify US geopolitical statecraft around the world.

To return to the epigraph of our article, when Secretary of State Hilary Clinton said "there's something for everybody" in illegal wildlife trade, we understand this to mean that combating wildlife trafficking has emerged as a successful and strategic space of convergence through which geopolitical actors can coalesce power and exert political will. The intensification of conservation spaces (once again) as violent arenas of war, oppression, disenfranchisement, and dispossession remain problematic and unsettling as made clear elsewhere (e.g. Anneck & Masubele, 2016; Asiyani, 2016; Barbora, 2017; Büscher & Fletcher, 2018; Duffy, 2016; Duffy et al., 2019; Kelly & Ybarra, 2016; Lunstrum, 2014). But here, our analysis stretches deeper into spaces where often the most politically significant decisions about what to support and how to best conserve biodiversity through foreign assistance play out, while remaining furthest removed from where conservation activities occur in practice. While acknowledging the real threat to biodiversity that IWT poses, we demonstrate in explicit terms the

material effects of geopolitical discursive acts for reshaping the priorities of conservation activities and the political-economy of foreign conservation assistance through the interconnected networks and spaces through which power moves. Tracing out these political-economic linkages through the monetary flows of foreign assistance by the USFWS, we find that geopolitical ecology is a productive analytical framework for interrogating how issues of geopolitical and environmental concern re-shape one another.

CRedit authorship contribution statement

Both authors contributed fully to all aspects of the research, analysis, writing and manuscript. Funding was provided by BIOSEC project, which was not acquired by us.

Declaration of Competing Interest

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.

Acknowledgements

We would like to thank all research participants and specifically those of the USFWS who participated in our research and gave feedback. A special thank you Angelica Ochoa for her assistance in coding and to the Sheffield Undergraduate Research Experience scheme who provided funding to make her assistance possible. Thank you to Rosaleen Duffy for feedback on a draft version of the manuscript. Previous versions of this manuscript were presented at the Northumbria University's Environmental and Global Justice Research Group and the WildCRU Conservation Geopolitics Forum. This work was supported by the European Research Council Grant # 694995 (BIOSEC).

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.worlddev.2020.104958>.

References

- Adger, W. N., Benjaminsen, T. A., Brown, K., & Svarstad, H. (2001). Advancing a political ecology of global environmental discourses. *Development and Change*, 32(4), 681–715. <https://doi.org/10.1111/1467-7660.00222>.
- Annecke, W., & Masubele, M. (2016). A review of the impact of militarisation: The Case of Rhino Poaching in Kruger National Park, South Africa. *Conservation and Society*, 14(3), 195–204. <https://doi.org/10.4103/0972-4923.191158>.
- Asiyambi, A. P. (2016). A political ecology of REDD+: Property rights, militarised protectionism, and carbonised exclusion in Cross River. *Geoforum*, 77, 146–156. <https://doi.org/10.1016/j.geoforum.2016.10.016>.
- Bachmann, J. (2018). Militarization going places? US forces, aid delivery and memories of military coercion in Uganda and Kenya. *Critical Military Studies*, 4(2), 102–120. <https://doi.org/10.1080/23337486.2017.1328809>.
- Bachmann, J., Bell, C., & Holmqvist, C. (2015). *War, police and assemblages of intervention*. London, UK: Routledge.
- Barbora, S. (2017). Riding the Rhino: Conservation, Conflicts, and Militarisation of Kaziranga National Park in Assam. *Antipode*. <https://doi.org/10.1111/anti.12329>.
- Belcher, O., Bigger, P., Neimark, B., & Kennelly, C. (2019). Hidden carbon costs of the “everywhere war”: Logistics, geopolitical ecology, and the carbon boot-print of the US military. *Transactions of the Institute of British Geographers*. <https://doi.org/10.1111/tran.12319>.
- Benjaminsen, T. A., Buhang, H., McConnell, F., Sharp, J., & Steinberg, P. E. (2017). Political geography and the environment. *Political Geography*, 56, A1–A2. <https://doi.org/10.1080/00221349708978769>.
- Bigger, P., & Neimark, B. D. (2017). Weaponizing nature: The geopolitical ecology of the US Navy's biofuel program. *Political Geography*, 60, 13–22. <https://doi.org/10.1016/j.polgeo.2017.03.007>.
- Bocarejo, D., & Ojeda, D. (2016). Violence and conservation: Beyond unintended consequences and unfortunate coincidences. *Geoforum*, 69, 176–183. <https://doi.org/10.1016/j.geoforum.2015.11.001>.
- Bryan, J. (2015). War without end? Military humanitarianism and the limits of biopolitical approaches to security in Central America and the Caribbean. *Political Geography*, 47, 33–42. <https://doi.org/10.1016/j.polgeo.2015.01.006>.
- Büscher, B., & Fletcher, R. (2018). Under pressure: Conceptualising political ecologies of green wars. *Conservation and Society*, 16(2), 105.
- Büscher, B., & Ramutsindela, M. (2015). Green violence: Rhino poaching and the war to save Southern Africa's peace parks. *African Affairs*, 115(458), 1–22. <https://doi.org/10.1093/afraf/adv058>.
- Büscher, B. (2016). Reassessing fortress conservation? New media and the politics of distinction in Kruger National Park. *Annals of the American Association of Geographers*, 106(1), 114–129. <https://doi.org/10.1080/00045608.2015.1095061>.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London, UK: Sage Publications.
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd Edition). Thousand Oaks, CA: Sage.
- Corson, C. (2010). Shifting environmental governance in a neoliberal world: US AID for conservation. *Antipode*, 42(3), 576–602. <https://doi.org/10.1111/j.1467-8330.2010.00764.x>.
- Corson, C. A. (2016). Corridors of power: The politics of environmental aid to Madagascar. New Haven, CT: Yale University Press.
- Dalby, S. (2014). Rethinking geopolitics: Climate security in the Anthropocene. *Global Policy*, 5(1), 1–9. <https://doi.org/10.1111/1758-5899.12074>.
- Dalby, S. (2010). Recontextualising violence, power and nature: The next twenty years of critical geopolitics? *Political Geography*, 29(5), 280–288. <https://doi.org/10.1016/j.polgeo.2010.01.004>.
- Dalby, S. (2009). *Security and environmental change*. London, UK: Polity Press.
- DEFRA. (2019). More funds to tackle the Illegal Wildlife Trade. April 23, 2019. Retrieved from <https://deframedia.blog.gov.uk/2019/04/23/more-funds-to-tackle-the-illegal-wildlife-trade/>.
- De Swert, K. (2012). Calculating inter-coder reliability in media content analysis using Krippendorff's Alpha. *Center for Politics and Communication*, 1–15.
- Devine, J. (2014). Counterinsurgency ecotourism in Guatemala's Maya Biosphere Reserve. *Environment and Planning D: Society and Space*, 32, 984–1001. <https://doi.org/10.1068/d13043p>.
- Duffield, M. (2010). The Liberal Way of development and the development—security impasse: Exploring the global life-chance divide. *Security Dialogue*, 41(1), 53–76. <https://doi.org/10.1177/0967010609357042>.
- Duffy, R. (2016). War, by conservation. *Geoforum*, 69, 238–248. <https://doi.org/10.1016/j.geoforum.2015.09.014>.
- Duffy, R. (2014). Waging a war to save biodiversity: The rise of militarized conservation. *International Affairs*, 90(4), 819–834. <https://doi.org/10.1111/1468-2346.12142>.
- Duffy, R. (2010). *Nature crime: How we're getting conservation wrong*. New Haven, CT: Yale University Press.
- Duffy, R. (2006). The potential and pitfalls of global environmental governance: The politics of transfrontier conservation areas in Southern Africa. *Political Geography*, 25(1), 89–112. <https://doi.org/10.1016/j.polgeo.2005.08.001>.
- Duffy, R., & Humphreys, J. (2014). Mapping donors: Key areas for tackling illegal wildlife trade (Africa and Asia). *Evidence on Demand, UK*. https://doi.org/10.12774/eod_hd_june2014.duffy_et_al.
- Duffy, R., Massé, F., Smidt, E., Marijnen, E., Büscher, B., Verweijen, J., Ramutsindela, R., Simlai, T., Joanny, L., & Lunstrum, E. (2019). Why we must question the militarisation of conservation. *Biological Conservation*, 232(April 2019), 66–73. <https://doi.org/10.1016/j.biocon.2019.01.013>.
- Dunlap, A., & Fairhead, J. (2014). The Militarisation and Marketisation of Nature: An Alternative Lens to 'Climate-Conflict'. *Geopolitics*, 19(4), 937–961. <https://doi.org/10.1080/14650045.2014.964864>.
- Fassin, D. (2010). Heart of humaneness: The moral economy of humanitarian intervention. In D. Fassin & M. Pandolfi (Eds.), *Contemporary States of Emergency: The politics of military and humanitarian interventions* (pp. 269–293). New York, NY: Zone Books.
- Ferguson, J. (1994). *The anti-politics machine: “development,” depoliticization, and bureaucratic power in Lesotho*. Minneapolis, MN: University of Minnesota Press.
- Fletcher, R. (2018). License to kill: Contesting the legitimacy of green violence. *Conservation and Society*, 16(2), 147. https://doi.org/10.4103/cs.cs.16_148.
- Friesendorf, C. (2016). Police assistance as foreign policy: Explaining donor practices. *Review of International Studies*, 42(2), 377–400. <https://doi.org/10.1017/s0260210515000297>.
- Garland, E. (2008). The elephant in the room: Confronting the colonial character of wildlife conservation in Africa. *African Studies Review*, 51(3), 51–74. <https://doi.org/10.1353/arw.0.0095>.
- Gourevitch, A. (2010). Environmentalism—Long live the politics of fear. *Public culture* 22(3) (2010), 411–424.
- Gupta, A. (2012). *Red tape: Bureaucracy, structural violence, and poverty in India*. Duke University Press.
- Haenlein, C., & Smith, M. (Eds.). (2017). *Poaching, wildlife trafficking and security in Africa: Myths and realities*. London, UK: Routledge.
- Hayes, A. F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication Methods and Measures*, 1, 77–89.
- Hicks, R. L., Parks, B. C., Roberts, J. T., & Tierney, M. J. (2010). *Greening aid?: Understanding the environmental impact of development assistance*. Oxford, UK: Oxford University Press.

- Hills, A. (2006). Trojan Horses? USAID, counter-terrorism and Africa's police. *Third World Quarterly*, 27(4), 629–643. doi: 10.1080/01436590600720843.
- Howson, P. (2018). Slippery violence in the REDD+ forests of Central Kalimantan, Indonesia. *Conservation and Society*, 16(2), 136. <https://doi.org/10.4103/cs.cs.16.15>.
- Hübschle, A. M. (2017). The social economy of rhino poaching: Of economic freedom fighters, professional hunters and marginalized local people. *Current Sociology*, 65(3), 427–447. <https://doi.org/10.1177/0011392116673210>.
- Ivory, M. (1992). The politics of US environmental assistance, 1976–1986. *World Development*, 20(7), 1061–1076. [https://doi.org/10.1016/0305-750X\(92\)90131-E](https://doi.org/10.1016/0305-750X(92)90131-E).
- Kelly, A. B., & Ybarra, M. (2016). Introduction to themed issue: 'Green security in protected areas'. *Geoforum*, 69, 171–175. <https://doi.org/10.1016/j.geoforum.2015.09.013>.
- Koopman, S. (2011). Alter-geopolitics: Other securities are happening. *Geoforum*, 42(3), 274–284. <https://doi.org/10.1016/j.geoforum.2011.01.007>.
- Krippendorff, K. (2011). Computing Krippendorff's Alpha-Reliability Retrieved from https://repository.upenn.edu/asc_papers/43.
- Lunstrum, E., & Ybarra, M. (2018). Deploying difference: Security threat narratives and state displacement from protected areas. *Conservation and Society*, 16(2), 114. <https://doi.org/10.4103/cs.cs.16.119>.
- Lunstrum, E. (2014). Green militarization: Anti-poaching efforts and the spatial contours of kruger national park. *Annals of the Association of American Geographers*, 104(4), 816–832.
- Mabele, M. B. (2017). Beyond forceful measures: Tanzania's 'war on poaching' needs diversified strategies more than militarised tactics. *Review of African Political Economy*, 44(2017), 487–498. <https://doi.org/10.1080/03056244.2016.1271316>.
- Margulies, J. D. (2018). The conservation ideological state apparatus. *Conservation and Society*, 16(2), 181–192. <https://doi.org/10.4103/cs.cs.16.154>.
- Margulies, J. D., Wong, R. W., & Duffy, R. (2019). The imaginary 'Asian Super Consumer': A critique of demand reduction campaigns for the illegal wildlife trade. *Geoforum*. <https://doi.org/10.1016/j.geoforum.2019.10.005>.
- Marijnjen, E. (2017). The 'green militarisation' of development aid: The European Commission and the Virunga National Park, DR Congo. *Third World Quarterly*, 38(2017), 1566–1582. <https://doi.org/10.1080/01436597.2017.1282815>.
- Massé, F., Lunstrum, E., & Holterman, D. (2018). Linking green militarization and critical military studies. *Critical Military Studies*, 4(2), 201–221. <https://doi.org/10.1080/23337486.2017.1412925>.
- Massé, F., & Lunstrum, E. (2016). Accumulation by securitization: Commercial poaching, neoliberal conservation, and the creation of new wildlife frontiers. *Geoforum*, 69, 227–237. <https://doi.org/10.1016/j.geoforum.2015.03.005>.
- Massé, F., Gardiner, A., Lubilo, R., & Themba, M. (2017). Inclusive anti-poaching? Exploring the potential and challenges of community-based anti-poaching. *South Africa Crime Quarterly*, 60, 19–27. <https://doi.org/10.17159/2413-3108/2017/v0n60a1732>.
- Massé, F., Dickinson, H., Margulies, J. D., Joanny, J., Lappe-Osthege, T., & Duffy, R. (2020). Conservation and crime convergence? Situating the 2018 London Illegal Wildlife Trade Conference. *Journal of Political Ecology*, 27(1), 23–42.
- McCormack, K. (2018). Governing 'ungoverned' space: Humanitarianism, citizenship, and the civilian sphere in the territorialising practices of the US national security complex. *Critical Military Studies*, 4(2), 161–180. <https://doi.org/10.1080/23337486.2017.1371375>.
- McCormack, K., & Gilbert, E. (2018). Spaces at the intersections of militarism and humanitarianism. *Critical Military Studies*, 4(2), 97–101. <https://doi.org/10.1080/23337486.2018.1459291>.
- Mercille, J. (2008). The radical geopolitics of US foreign policy: Geopolitical and geoeconomic logics of power. *Political Geography*, 27(5), 570–586. <https://doi.org/10.1016/j.polgeo.2008.06.002>.
- Miller, D. C. (2014). Explaining global patterns of international aid for linked biodiversity conservation and development. *World Development*, 59, 341–359. <https://doi.org/10.1016/j.worlddev.2014.01.004>.
- Miller, D. C., Agrawal, A., & Roberts, J. T. (2013). Biodiversity, governance, and the allocation of international aid for conservation. *Conservation Letters*, 6(1), 12–20. <https://doi.org/10.1111/j.1755-263X.2012.00270.x>.
- Nader, L. (1969). Up the anthropologist-perspectives gained from studying up. In D. Hymes (Ed.), *Reinventing anthropology* (pp. 284–311). New York, NY: Pantheon.
- Neumann, R. (1998). *Imposing wilderness: Struggles over livelihood and nature preservation in Africa*. Berkeley, CA: University of California Press.
- O'Leary, S. (2019). *Environmental geopolitics*. Maryland, USA: Rowan and Littlefield Publishers.
- Peck, J., & Theodore, N. (2012). Follow the policy: A distended case approach. *Environment and Planning A*, 44(1), 21–30. <https://doi.org/10.1068/a44179>.
- Peluso, N. L., & Vandergeest, P. (2011). Political ecologies of war and forests: Counterinsurgencies and the making of national natures. *Annals of the Association of American Geographers*, 101(3), 587–608. <https://doi.org/10.1080/00045608.2011.560064>.
- Pennaz, A. K., Ahmadou, M., Moritz, M., & Scholte, P. (2018). Not seeing the cattle for the elephants: The implications of discursive linkages between Boko Haram and wildlife poaching in Waza National Park, Cameroon. *Conservation and Society*, 16(2), 125. <https://doi.org/10.4103/cs.cs.16.153>.
- Power, M., & Campbell, D. (2010). The state of critical geopolitics. *Political Geography*, 29(5), 243–246.
- Robbins, P. (2008). *The state in political ecology: A postcard to political geography from the field. The SAGE handbook of political geography (205–218)*. London, UK: SAGE Publications Limited.
- Roe, D., Cooney, R., Dublin, H. T., Challender, D. W., Biggs, D., Skinner, D., ... Murphree, M. (2015). *Beyond enforcement: Engaging communities in tackling wildlife crime*. Retrieved from 2015 <http://pubs.iied.org/pdfs/17293IIED.pdf>.
- Stern, M., & Öjendal, J. (2010). Mapping the security–development nexus: Conflict, complexity, cacophony, convergence? *Security Dialogue*, 41(1), 5–29. <https://doi.org/10.1177/0967010609357041>.
- Sundberg, J. (2009). Diabolic caminos in the desert and cat fights on the rio: A posthumanist political ecology of boundary enforcement in the United States-Mexico borderlands. *Annals of the Association of American Geographers*, 101(2), 318–336. <https://doi.org/10.1080/00045608.2010.538323>.
- Toal, G. (1996). *Critical geopolitics: The Politics of Writing Global Space*. Minneapolis, MN: University of Minnesota Press.
- The World Bank (2016). Analysis of International Funding to Tackle Illegal Wildlife Trade Retrieved from <http://documents.worldbank.org/curated/en/695451479221164739/Analysis-of-international-funding-to-tackle-illegal-wildlife-trade>.
- The World Bank (2018). The Global Wildlife Program 2016–2018 Retrieved from <https://www.thegef.org/publications/combating-illegal-wildlife-trade-2015>.
- United Nations. (2015). Resolution adopted by the General Assembly on 30 July 2015 69/314. Tackling illicit trafficking in wildlife. Retrieved from https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/69/314
- USFWS (2020). *The United States Department of Interior Budget Justification and Performance Information Fiscal Year 2020. Fish and Wildlife Service*.
- US Department of State (2012). Secretary Clinton Hosts Wildlife Trafficking and Conservation: A Call to Action Retrieved from <https://2009-2017.state.gov/r/pa/prs/ps/2012/11/200355.htm>.
- US Senate Committee on Foreign Relations (2012). Ivory and Insecurity: The Global Implications of Poaching in Africa. Hearing Before the Committee on Foreign Relations, United States Senate. 112th Congress, Second Session. May 24, 2012. Retrieved from <https://www.govinfo.gov/content/pkg/CHRG-112shrg76689/pdf/CHRG-112shrg76689.pdf>
- Vandergeest, P., & Peluso, N. L. (1995). Territorialization and state power in Thailand. *Theory and Society*, 24(3), 385–426. <https://doi.org/10.1007/BF00993352>.
- Verweijen, J., & Marijnjen, E. (2018). The counterinsurgency/conservation nexus: Guerrilla livelihoods and the dynamics of conflict and violence in the Virunga National Park, Democratic Republic of the Congo. *The Journal of Peasant Studies*, 45(2018), 300–320. <https://doi.org/10.1080/03066150.2016.1203307>.
- West, P. (2006). *Conservation is our government now: The politics of ecology in Papua New Guinea*. Durham, NC: Duke University Press.
- White House. (2017). Presidential Executive Order on Enforcing Federal Law with Respect to Transnational Criminal Organizations and Preventing International Trafficking. February 9th, 2017. Retrieved from <https://www.whitehouse.gov/presidential-actions/presidential-executive-order-enforcing-federal-law-respect-transnational-criminal-organizations-preventing-international-trafficking/>
- Ybarra, M. (2012). Taming the jungle, saving the Maya Forest: Sedimented counterinsurgency practices in contemporary Guatemalan conservation. *Journal of Peasant Studies*, 39(2), 479–502. <https://doi.org/10.1080/03066150.2012.666974>.
- Ybarra, M. (2018). *Green wars: Conservation and decolonization in the Maya Forest*. Berkeley, CA: University of California Press.