



PALGRAVE STUDIES IN GREEN CRIMINOLOGY

Global Green Crime and Ecojustice

Edited by Daan van Uhm · Dina Siegel



palgrave
macmillan

Palgrave Studies in Green Criminology

Series Editors

Angus Nurse
Nottingham Trent University
Nottingham, UK

Rob White
School of Social Sciences
University of Tasmania
Hobart, Australia

Melissa Jarrell
Department of Social, Cultural, and Justice Studies
University of Tennessee
Chattanooga, USA

Criminologists have increasingly become involved and interested in environmental issues to the extent that the term Green Criminology is now recognised as a distinct subgenre of criminology. Within this unique area of scholarly activity, researchers consider not just harms to the environment, but also the links between green crimes and other forms of crime, including organised crime's movement into the illegal trade in wildlife or the links between domestic animal abuse and spousal abuse and more serious forms of offending such as serial killing. This series will provide a forum for new works and new ideas in green criminology for both academics and practitioners working in the field, with two primary aims: to provide contemporary theoretical and practice-based analysis of green criminology and environmental issues relating to the development of and enforcement of environmental laws, environmental criminality, policy relating to environmental harms and harms committed against non-human animals and situating environmental harms within the context of wider social harms; and to explore and debate new contemporary issues in green criminology including ecological, environmental and species justice concerns and the better integration of a green criminological approach within mainstream criminal justice. The series will reflect the range and depth of high-quality research and scholarship in this burgeoning area, combining contributions from established scholars wishing to explore new topics and recent entrants who are breaking new ground.

Daan van Uhm • Dina Siegel
Editors

Global Green Crime and Ecojustice

palgrave
macmillan

Editors

Daan van Uhm
Willem Pompe Institute for Criminal
Law and Criminology
Utrecht University
Utrecht, The Netherlands

Dina Siegel
Willem Pompe Institute for Criminal
Law and Criminology
Utrecht University
Utrecht, The Netherlands

ISSN 2946-269X ISSN 2946-2703 (electronic)
Palgrave Studies in Green Criminology
ISBN 978-3-031-91556-7 ISBN 978-3-031-91557-4 (eBook)
<https://doi.org/10.1007/978-3-031-91557-4>

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2025, corrected publication 2026

Chapter “[Conceptualizing Ecocide: Interdisciplinary Perspectives](#)” is licensed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). For further details see license information in the chapter.

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG. The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

If disposing of this product, please recycle the paper.

Foreword

Green criminology has now—for decades—been pushing the boundaries and expanding consideration of what constitutes harm. Harm transcends notions of legality; it includes the lawful and unlawful, the administrative violations as well as the criminal ones. For many green criminologists, harm also transcends humans; it includes people, but also all parts of nature—the non-human is central to consideration. Regardless of the species—and not only species but also ecosystems and the environment—the criteria for something to be environmentally harmful are suffering, damage, injury, injustice.

(In)justice is also a concept that green criminology has challenged understanding of. And this edited collection furthers this debate. Ecological, or ecojustice, is justice for non-human nature (Washington et al., 2018) or the justice between human and non-human species (Naess, 1973). To have a just relationship with the Earth and all the beings on it, humans should minimize—or, at best, end—suffering, damage, and injury. From a largely global perspective detailing examples from Africa, America, Asia, and Europe, the chapters in this collection explore the myriad ways in which humans act unjustly with regard to the non-human. Many of these instances involve non-human animals as victims of illegal hunting and wildlife trafficking. They are taken from their homes, kept as companion animals, forced to race, or killed for food or medicine. All these situations are forms of injustice—to the individual

non-humans who become victims, to non-human animal communities who lose members, and to the larger environment due to the degradation and disruption of ecosystems.

As the collection documents, eco-injustice is not confined to non-human animals. Human-induced wildfires are decimating landscapes as are human wars. The undeterred and unsustainable use of fossil fuels has set climate change in motion; this, in turn, is already impacting nature and human communities. In terms of human responses to climate change, one consequence is humans preying on other humans by trafficking them when they are forced to move.

The scale of injustice can be overwhelming, but contributions to the collection offer ways forward. One is foregrounding justice in the international justice system by recognizing ecocide as the fifth crime against peace within the Rome Statute. This would mean severe environmental harm becoming an internationally defined criminal offence. Another is expanding the use of restorative justice systems for green crimes so that when there is an injustice a remedy is central to the punishment. As the collection concludes, however, there are challenges for the furtherance of ecojustice. On a planet largely continuing environmental exploitation to sustain often lavish human lifestyles, where is the entry to scale up ecojustice? For anyone interested in learning more about the differing forms of eco-injustice and how even small improvements can be made to achieving more justice for the nonhuman, this collection is a vital resource.

Vienna, Austria

Tanya Wyatt

References

- Naess, A. (1973). The shallow and the deep: Long-range ecology movement: A summary. *Inquiry*, 16, 95–99.
- Washington, H. Chapron, G., Kopnina, H., Curry, P., Gray, J., & Piccolo, J. J. (2018). Foregrounding ecojustice in conservation. *Biological Conservation*, 228, 367–374. <https://doi.org/10.1016/j.biocon.2018.09.011>

Contents

Global Green Crime and Ecojustice	1
<i>Daan van Uhm and Dina Siegel</i>	
Green Crime and Ecojustice	17
Planetary Health and Eco-Justice: Contributions from Green, Southern, Cultural and Decolonial Criminologies	19
<i>Nigel South</i>	
Greening Justice: Ecojustice and Remediating Environmental Harm	41
<i>Angus Nurse</i>	
Living, Dying, and Sharing a Planet	67
<i>Ragnhild Sollund</i>	
Conceptualizing Ecocide: Interdisciplinary Perspectives	89
<i>Daan van Uhm, Cedric Ryngaert, Susanne Knittel, and Marijke van Kuijk</i>	

Flora and Fauna Markets	117
The European Illegal Puppy Trade & Organised Crime <i>Jennifer Maher</i>	119
Wildlife Trafficking in Spain: Causes, Consequences and Future Considerations <i>Mònica Pons-Hernández</i>	157
Not My Snake, Not My Circus: Customary Illegality and Moral Economies in the <i>Bitis</i> Trade <i>Janine Heim</i>	181
Wildlife Poaching in the COVID-19 World: A Retrospective Analysis of Poaching Trends Inside a Private Nature Reserve During the COVID-19 Lockdown <i>Nick van Doormaal, Paul Allin, and Craig Spencer</i>	207
Understanding and Navigating International Wildlife Trade Data: Avoiding Pitfalls Caused by Systemic Detail Obfuscation <i>Orion L. B. Goodman, Michael F. Thusty, and Andrew L. Rhyne</i>	237
Culture, Politics and Social Constructions	271
Cockroach Races and Cricket Fights <i>Dina Siegel</i>	273
The Devastation of Sea Otters in the American Northwest. A Look From Eco Global History and Criminology (18th and 21st Centuries) <i>Matilde Souto Mantecón and Inés Arroyo Quiroz</i>	291
What Mercy? A Case Study of Mercy Release in Hong Kong <i>Rebecca W. Y. Wong</i>	317

Photovoice for Ecojustice: Following the European Eel from the Sargasso Sea to the River Severn	335
<i>Alison Hutchinson</i>	
A Source of Disease, Health, or Both? Wildlife Consumption in China after the Emergence of COVID-19	365
<i>Jessica Bell Rizzolo, Annah Zhu, and Ruishan Chen</i>	
Conflict, Organized Crime and Crime Convergence	389
Environmental Crimes, Illicit Economies and the Emergence of a Mekong Crime Complex	391
<i>Mark Brown</i>	
Environmental Crimes in East Siberia and Activities of Chinese Mafia	415
<i>Andrey G. Anisimov</i>	
The Climate Change–Migrant Smuggling Nexus: Smuggling Services as the Only Way to Reach Europe	447
<i>Manuel Cabezas Vicente</i>	
Environmental Crimes in Ukraine Under War Conditions	473
<i>Anna Markovska, Oleksii Serdiuk, Angus Nurse, and Iryna Soldatenko</i>	
The Hidden Toll: Women and Girls in the Intersection of Climate Change and Domestic Servitude	503
<i>Nieves Sanz Mulas</i>	

Correction to: Conceptualizing Ecocide: Interdisciplinary Perspectives

C1

Daan van Uhm, Cedric Ryngaert, Susanne Knittel, and Marijke van Kuijk

Index

527

Notes on Contributors

Paul Allin obtained his masters in Wildlife Management at the University of Pretoria in 2016 and is currently conducting his PhD research at the University of Stellenbosch, looking at using remote sensed imagery and machine learning to improve game censuses. Paul leads the research department within Transfrontier Africa and believes that the best contribution research can bring in this field is through applied studies that increase our understanding and foster coexistence.

Andrey G. Anisimov is a criminologist from Russia, with a PhD in Criminology from Saratov State Academy of Law (2016). He served 17 years in the Ministry of Internal Affairs, focusing on crime research and prevention in the Irkutsk region. He is currently an Associate Professor of Criminal Procedure and Forensic Science at the Irkutsk Law Institute of the All-Russian State University of Justice. His scientific interests include environmental crimes, crime and globalization, and crime and culture.

Inés Arroyo-Quiroz (Mexico), Biologist (UNAM, 1996), with a PhD in Biodiversity Management (University of Kent, 2004), works as a researcher on animal use, wildlife trade, green criminology and ecoglobal history, and is currently developing the projects 'A historic perspective of the fur and leather trade from wild species involving Mexico centuries' and 'Representation of wild animals in Mexican cinema, from the per-

spective of green cultural criminology'. Inés also acts as co-chair of the IUCN Green Criminology Specialist Group.

Mark Brown is a criminologist at the School of Law of the University of Sheffield (UK) and the School of Social and Political Sciences, University of Melbourne (Australia), with an interest in transnational organized crime. Some of the research upon which his chapter is based was undertaken while working as an advisor exploring the intersection of Myanmar's illicit economy and the long-running civil war and periodic insurgencies in the country's borderlands.

Manuel Cabezas Vicente holds a PhD with cum laude distinction from the University of Salamanca, where he also earned a Law degree, a Master's in Access to the Legal Profession, and a Master's in Criminal Law. A member of CIDH-Diversitas, he has contributed to various European, national, and regional R+D+i projects. He teaches at the University of Salamanca, collaborates on postgraduate programs, has published internationally, and completed research stays at the University of Montreal, McGill University, and the University of Granada.

Ruishan Chen is Professor and Vice Dean at the School of Design, where he works on biodiversity conservation. Chen is the lead author of the IPBES Global Land Degradation and Restoration Assessment Report and the Transformation Change Report.

Nick van Doormaal completed his PhD in Criminology at the Netherlands Institute for the Study of Crime and Law Enforcement (NSCR) and Utrecht University (UU) in 2020. Throughout his studies, Nick collaborated multiple times with Transfrontier Africa, both in conducting studies on wildlife poaching within Olifants West Nature Reserve and in setting up research experiments on wildlife security. Nick's research interests include wildlife crime, environmental criminology, and human-wildlife conflicts by using quantitative methods.

Orion L. B. Goodman is a PhD student at John Jay College of Criminal Justice, where he intends to continue his research on trade in wildlife and other natural resources.

Janine Heim is a PhD researcher at Maastricht University, researching the exotic pet trade between Germany and South Africa. With a background in communication and security studies, her interests also include the trade structures and networks of other niche sectors.

Alison Hutchinson is a green criminologist with research interests including wildlife and environmental harms and crimes, global biodiversity governance, and social-ecological justice. She has researched the intersections of legal and illegal trade in European species through the ESRC-funded *Beastly Business* project and, prior to this, developed a global legislation dashboard on wildlife offences. She earned her PhD from Northumbria University (UK), where her thesis examined the harms and crimes against commercially exploited marine species.

Susanne C. Knittel is Associate Professor of Comparative Literature at Utrecht University in the Netherlands. Her research centres on the question of how societies remember atrocities—specifically how they deal with the uncomfortable issues of guilt and responsibility—and what role literature, art, film, and other cultural representations play in this process. Currently, she is the principal investigator of the ERC-funded EcoViolence project, which explores how contemporary culture represents and remembers the genocide–ecocide nexus.

Marijke van Kuijk is an Associate Professor at Utrecht University, the Netherlands. She is a forest ecologist committed to global forest conservation, in particular in tropical areas. Her research focuses on plant–animal interactions across diverse forest conditions, including intact, hunted, logged, fragmented, and recovering ecosystems. She leverages her expertise to guide forest management, conservation, and restoration efforts.

Jennifer Maher is Associate Professor of Criminology at the University of South Wales, UK. Her main research interests lie in green criminology and interspecies and interpersonal violence and harms, including wildlife crime, illegal pet trades and dangerous dogs. Her research has attracting funding from the European Commission, the European Parliament, UK governments, South Wales Police and the RSPCA, and her expertise is sought internationally, including completing the UN ICCWC Toolkit review of the UK response to wildlife and forest crime. She is currently

reviewing the Welsh Government's Animal Health and Welfare Framework and evaluating alternative approaches to effective dog control for the RSPCA. She is co-Chair of the GREEN Working Group of the European Society of Criminology (ESC).

Anna Markovska is an Associate Professor in Criminology at a Deputy Director of the International Policing and Public Protection Research Institute (IPPPRI) at Anglia Ruskin University. Her research interests encompass policing and organized crime within the post-Soviet context. She has contributed to several research projects focused on Ukrainian society during the war.

Angus Nurse is Professor of Law and Environmental Justice, Director, Centre for Access to Justice and Inclusion (CAJI), Anglia Ruskin University, Cambridge, UK. Angus researches and teaches critical criminal justice and redress for social harms, with specific interests in animal law, corporate environmental responsibility, environmental law and human rights.

Mònica Pons-Hernández is an MSCA SEAS Postdoctoral Research Fellow at the University of Bergen, specializing in green criminology. She holds a BS in Criminology from the University of Barcelona, an MS in Transnational Crime from the University of Glasgow, and a PhD in Law from the University Rovira i Virgili. Her research on glass eel trafficking has been given an award by the Spanish Society of Criminological Research and the American Society of Criminology.

Andrew L. Rhyne is a professor of marine biology at Roger Williams University, where he has invested his career in understanding the complexities of marine ornamental aquaria.

Jessica Bell Rizzolo is a conservation social scientist who holds a joint PhD in Sociology and Environmental Science and Policy from Michigan State University. She has published work on wildlife crime prevention, the wildlife trade, and wildlife consumption in journals such as *EcoHealth*, *Frontiers in Conservation Science*, *Global Ecology and Conservation*, and *Nature Conservation*.

Cedric Ryngaert (PhD Leuven 2007) is Professor of Public International Law at Utrecht University (Netherlands). His research interests include the law of jurisdiction and extraterritoriality, immunities, sanctions, international security law, international criminal law, non-state actors, the role of international law before domestic courts, international responsibility, and international organizations. He is the chair of the Dutch Advisory Council on International Law (CAVV) and the editor-in-chief of the *Netherlands International Law Review* and the *Utrecht Law Review*.

Nieves Sanz Mulas is a Professor of Criminal Law, with three years' experience as a Prosecutor. An expert in Criminal Policy, Professor Sanz has given more than 300 lectures at national and international level, and has been awarded an honorary doctorate on four occasions. She is the author of more than 100 publications and is currently the director of the Centre for Research in Human Rights and Public Policy (*CIDH-Diversitas*) at the University of Salamanca, Spain.

Oleksii Serdiuk is an associate professor and Head of the Research Laboratory for Social and Psychological Support and Rehabilitation of MoIA Employees at Kharkiv National University of Internal Affairs, Ukraine. He is also a National Contact Point (NCP) for Horizon Europe Cluster 3 and holds the rank of Lieutenant Colonel of Police. In 2015, he was a visiting scholar and senior research fellow at the Addiction Center, University of Michigan, USA. With over 25 years of experience in fostering cross-disciplinary and international research collaborations, he is the author of more than 190 academic and professional publications.

Dina Siegel is Professor of Criminology at the Willem Pompe Institute for Criminal Law and Criminology at Utrecht University. Dina Siegel studied Social Anthropology and Sociology at Tel Aviv University and obtained her PhD in 1996 from the Vrije Universiteit Amsterdam. Between 2001 and 2008, she worked as an assistant professor at the Faculty of Law at the Vrije Universiteit Amsterdam, and since 2009, she has been a professor of Criminology at Utrecht University. Dina Siegel conducts research on various forms of organized crime. She has published on topics such as the Russian mafia, human trafficking, drug smuggling, terrorism, caviar trade, underground banking, dog fighting, crime in the

diamond industry, mobile banditry, and the intersection of cultural criminology and green criminology.

Iryna Soldatenko is the head of the department of Applied Sociology and Social Communications at V. N. Karazin Kharkiv National University, where she has held the title of associate professor since 2006, having earned her PhD in Sociology in 2004. She is currently a British Academy Research Fellow at the International Policing and Public Protection Research Institute (IPPRI), Anglia Ruskin University, UK, and has previously held a visiting researcher position at the Leibniz Institute for Media Research | Hans-Bredow-Institut (HBI) in Hamburg, Germany (July–December 2022). Her academic expertise spans communication, sociology, public relations, and anticorruption methodologies.

Ragnhild Sollund is Professor of Criminology at the University of Oslo. She has mostly carried out research in the areas of migration, racial profiling, and green criminology. From 2010, she has concentrated her research on human–animal relations, particularly wildlife crimes and harms. Sollund was partner to the EFFACE project, funded by the European Union, and project leader of Criminal Justice, Wildlife Conservation and Animal Rights in the Anthropocene (CRIMEANTHROP) (2019–2024) funded by the Norwegian Research Council. Sollund has a wide range of publications, including *The Crimes of Wildlife Trafficking: Issues of Justice, Legality and Morality* (Routledge, 2019) and *Wildlife Trade and Animal Victimization: Parallel Harms and Crimes* (Routledge, 2025).

Nigel South is Emeritus Professor of Sociology and Criminology at the University of Essex, UK. He has made various contributions to the development of ‘Green Criminology’. In 2022, he received the ‘Outstanding Achievement Award’ from the British Society of Criminology and in 2013 received a ‘Lifetime Achievement Award’ from the American Society of Criminology, Division on Critical Criminology and Social Justice.

Matilde Souto Mantecón who has a PhD in History from El Colegio de México, specializes in 18th-century economic, political, and maritime history. Her most recent publications include, co-authored with Fausta Gantús, “One City, Two Cartographies: Campeche, 18th and 19th

Centuries” (2024), and “The Mexican Press and Historiography in the Face of Spanish Conflict. The Use of Resentment in the Case of José María Lobato’s Pronouncement” (2024).

Craig Spencer is the founder and executive director of Transfrontier Africa, as well as the warden of Olifants West Nature Reserve, which is located in the Balule region of the Greater Kruger National Park in South Africa. Through his NGO, Craig has developed novel solutions, including the Black Mamba wildlife security program which focuses on young women from the neighbouring tribal villages.

Michael F. Tlusty is an associate professor of sustainability and food solutions in the School for the Environment at the University of Massachusetts at Boston.

Daan van Uhm is Professor of Environmental Crime and Associate Professor of Criminology (Open University/Utrecht University). Daan van Uhm has conducted research on various forms of environmental crime, including illegal mining in Latin America, wildlife trafficking in Southeast Asia, deforestation in Central Africa, and the criminalization of ecocide. He obtained his PhD in Criminology at Utrecht University in 2016 (now published by Springer as *The Illegal Wildlife Trade: Inside the World of Poachers, Smugglers and Traders*). In 2018, he received the Veni grant of the Dutch Organisation for Scientific Research (NWO) for his research project ‘The Diversification of Organized Crime into the Illegal Trade in Natural Resources’ and in 2022 the ERC Starting Grant (European Research Council) for the research project ‘Green Crimes and Joint Crime Ventures: Laundering Natural Resources’. Van Uhm primarily focuses on research in the context of environmental crime and green criminology.

Rebecca W. Y. Wong is an Associate Professor in the Department of Social and Behavioural Sciences at the City University of Hong Kong. Rebecca’s research interests concern the intersections of green criminology, illegal trade in protected and endangered wildlife, animal abuse, criminal networks and issues of trust in the underworld. Rebecca holds a DPhil. in Sociology from the University of Oxford. She is also an Associate Fellow of the Extra Legal Governance Institute at the University of Oxford. In collaboration with the Netherlands Institute for the Study

of Crime and Law Enforcement, she was awarded a Visiting Professorship by the Royal Netherlands Academy of Arts and Sciences.

Annah Lake Zhu is Assistant Professor of Environmental Policy at Wageningen University in the Netherlands. She received her PhD in Society and Environment from the University of California, Berkeley and her Master's in environmental management from Duke University. Annah's research investigates China as an emerging global environmental actor from a critical social science perspective. She is the author of the book *Rosewood: Endangered Species Conservation and the Rise of Global China*, published by Harvard University Press.

List of Figures

The European Illegal Puppy Trade & Organised Crime

- Fig. 1 Overview of the research methodology 122
- Fig. 2 Estimated UK dog population 2010–2022 125
- Fig. 3 Price paid for dogs in the UK between 2011 and 2021 126

Wildlife Trafficking in Spain: Causes, Consequences and Future Considerations

- Fig. 1 An overview of when the different lockdown levels were active during the COVID-19 pandemic in South Africa 211
- Fig. 2 Total reported number of incursions and rhino poaching events by year in the study area between January 2017 and June 2023 221
- Fig. 3 Proportion of fresh snares by quarter-year in the study area between January 2017 and June 2023 223

Understanding and Navigating International Wildlife Trade Data: Avoiding Pitfalls Caused by Systemic Detail Obfuscation

- Fig. 1 Annual reported CITES export permits as reported by exporting country, inclusive of all-purpose types 248
- Fig. 2 Average rows of data per CITES permit as reported by exporting countries to the CITES Secretariat 249

xx List of Figures

Fig. 3	Annual reported unique CITES-listed taxa traded as reported by both importers and exporters	250
Fig. 4	Year-on-year percent change in unique CITES-listed taxa records	250
Fig. 5	Annual reported unique taxa, as indicated by LEMIS Species Codes	254

Photovoice for Ecojustice: Following the European Eel from the Sargasso Sea to the River Severn

Fig. 1	Overview of thematic analysis	338
--------	-------------------------------	-----

A Source of Disease, Health, or Both? Wildlife Consumption in China after the Emergence of COVID-19

Fig. 1	Characteristics of respondents ($n = 974$) as self-reported answers to single-choice demographic questions	369
Fig. 2	Geographic distribution of respondents ($n = 974$)	370
Fig. 3	Responses in the sample to a multiple choice question about types of TCM use	372
Fig. 4	Responses in the sample ($n = 974$) to a multiple choice question about which species are viewed as likely transmitters of COVID-19	377
Fig. 5	Perceived source of COVID-19 based on perceived country of origin	380
Fig. 6	Attitudes in sample ($N = 974$) towards China's current ban on wildlife consumption	382

The Climate Change–Migrant Smuggling Nexus: Smuggling Services as the Only Way to Reach Europe

Fig. 1	Disaster displacements in millions (2013–2022)	453
Fig. 2	Degree of agreement with the statement: “I felt cheated by the smuggler”	462
Fig. 3	Degree of agreement with the statement: “The smugglers helped me to achieve my goal”	462

List of Images

Wildlife Trafficking in Spain: Causes, Consequences and Future Considerations

Image 1	A baby falcon, a victim of illegal bird of prey trade in Spain	164
Image 2	European eels (<i>Anguilla anguilla</i>)	165
Image 3	Spur-thighed tortoises (<i>Testudo graeca</i>)	167
Image 4	Blue-and-yellow macaw (<i>Ara ararauna</i>)	170
Image 5	Protected cactus seized in Spain during Operation Thunderstorm	171

Photovoice for Ecojustice: Following the European Eel from the Sargasso Sea to the River Severn

Image 1	Washed-up pollution	340
Image 2	Passive security, a sign	341
Image 3	Managing the unseen	343
Image 4	Consequences for ecosystems	346
Image 5	Increasing disturbance	347
Image 6	Controlling fishers	349
Image 7	How to protect the invisible?	351
Image 8	Insurmountable barriers	353
Image 9	Habitat deterioration	355

List of Tables

Wildlife Trafficking in Spain: Causes, Consequences and Future Considerations

Table 1	Main seizures of wildlife in Spain	162
---------	------------------------------------	-----

Wildlife Poaching in the COVID-19 World: A Retrospective Analysis of Poaching Trends Inside a Private Nature Reserve During the COVID-19 Lockdown

Table 1	Comparison of year-on-year changes in incursions, rhino poaching and patrol effort by using Poisson z-scores	222
Table 2	Result of general Poisson GLMM for with the number of fresh snares per quarter as response variable	223

Understanding and Navigating International Wildlife Trade Data: Avoiding Pitfalls Caused by Systemic Detail Obfuscation

Table 1	Some of the Species Codes used by USFWS LEMIS platform to record trade records at less detailed taxonomic levels and the number of times each was used between 2015 and 2020	258
---------	--	-----

A Source of Disease, Health, or Both? Wildlife Consumption in China after the Emergence of COVID-19

Table 1	Support for wildlife bans	374
Table 2	Support for wild-caught wildlife bans of various species	375
Table 3	Support for farmed wildlife bans of various species	376
Table 4	Attitudes towards regulations of wild versus domesticated animals	381

Environmental Crimes in East Siberia and Activities of Chinese Mafia

Table 1	Some characteristics of economic crimes committed by organized criminal groups involving Chinese citizens disclosed by law enforcement agencies of the Irkutsk region	433
---------	---	-----



Global Green Crime and Ecojustice

Daan van Uhm and Dina Siegel

Over the past decades, green crimes and ecojustice has gained significant international attention. Characterized by profound impacts such as deforestation, mining, climate change, and species extinction, 'green' issues have become global in nature, with far-reaching environmental and social consequences (Dirzo et al., 2014; Johnson et al., 2017; Steffen et al., 2015). Scientists have warned of a new, so-called Anthropocene epoch, which is marked by significant changes to the Earth and atmosphere as the result of human activities. The collapse of pre-industrial institutions and the development of new free trade zones and technologies have radically transformed the world and its ecosystems (Beck, 1992; Crutzen & Stoermer, 2000).

Understanding the interconnectedness of all life forms and their contributions to ecosystem stability and resilience is crucial for comprehending the evolving landscape of environmental protection and ecojustice (Benton, 1998; White, 2011). This emphasizes the necessity

D. van Uhm (✉) • D. Siegel

Willem Pompe Institute for Criminal Law and Criminology

Utrecht University, Utrecht, The Netherlands

e-mail: d.p.vanuhm@uu.nl; d.siegel@uu.nl

of preserving the environment not merely for its utilitarian benefits to humans but also for its inherent worth (Wilson, 1993; Crook et al., 2018). As a result, green crimes have emerged as significant global issues, necessitating their anticipation and integration into both scientific and social discussions.

Green Crimes and Criminogenic Implications

In recent years, green crime has emerged as one of the most significant black markets worldwide (UNEP & INTERPOL, 2016). The financial incentives for engaging in green crimes are substantial, with illegal activities such as deforestation, wildlife trafficking, illegal fishing, mining and waste dumping generating billions of dollars annually (Moreto & Pires, 2018; Petrossian, 2019; Siegel, 2020; Sollund, 2019; van Uhm, 2023; Wyatt, 2013; Wong, 2019). These activities are often considered as less risky compared to other forms of crime, as enforcement and penalties remain relatively weak. Therefore, crime groups are increasingly diversifying into the lucrative markets of natural resources, alongside other criminal activities (van Uhm & Nijman, 2022).

The criminogenic nature of global environmental issues perpetuates unequal power relations across the world. The increasing scarcity of natural resources, rising deforestation, and global pollution are all significant predictors of crime, conflict, and violence (Le Billon, 2012; Siegel, 2020). These environmental stressors exacerbate social inequalities and contribute to the marginalization of vulnerable communities, who are often the most affected by environmental degradation (Duffy, 2010; Ross, 2003). The competition for dwindling resources can lead to disputes, often escalating into broader conflicts. The exploitation of natural resources by crime groups further destabilizes these regions, creating a vicious cycle of environmental harm and social unrest (Welsch, 2008; van Uhm, 2024).

K

Kidnapping, 158, 398
 Killing, 69, 79, 82, 83, 158, 259,
 278, 360, 424

L

Labor exploitation, 5
 Lacey Act, 182
 Land grabbing, 505
 Laundering, 133, 169, 352, 366,
 398, 409, 429, 430, 441, 442
 Law
 administrative, 57
 civil, 57
 criminal, 7, 42–44, 49, 56, 57,
 60, 63, 92, 100, 101, 103,
 443, 457, 463, 464, 466
 enforcement, 8, 47, 142, 143,
 209–211, 213, 214, 216, 217,
 225, 227, 239, 255, 261, 392,
 396, 399, 400, 406–409,
 418–420, 422, 423, 429–436,
 438, 441, 442
 environmental, 5, 27, 44,
 47, 57, 61
 international, 54, 59, 194, 463,
 464, 466, 477, 489–494
 Legislation, 7, 44, 48, 54, 60, 70,
 131, 141, 142, 147, 173–175,
 197, 356, 463, 464, 481,
 516, 519
 Logging, 4, 159, 395, 418, 427, 428,
 431, 434, 439, 442, 475, 481

M

Mafia, 96, 134, 139, 415–443
 Mammals, 74n5, 167, 169, 170,
 193, 242, 295, 304, 307

Mass extinction, 25
 Media, 26, 45, 53, 68, 70, 91,
 124, 127, 131, 141, 142,
 164, 172, 184, 212,
 255, 329, 368, 419, 420,
 453, 519
 Mercury, 98, 298, 302, 306, 440
 Mercy release, 9, 10, 317–329
 Methamphetamine, 397, 407
 Middleman, 143, 215, 432
 Migration, 11, 12, 77, 79, 95,
 337, 348, 350, 353, 354,
 358, 360, 418, 419,
 447–461, 464–467, 504,
 506–509, 511, 512, 519
 Militia, 96
 Mine, 394, 395, 484
 Mining
 artisanal, 394
 license, 435, 437
 permit, 481
 Mobility, 170, 207, 208, 214, 224,
 228, 454, 455, 461, 504
 Money laundering, 133, 429,
 441, 442
 Monocultures, 76
 Mule, 166, 168
 Multinational corporations, 43, 161
 Murder, 437
 N
 National security, 466, 478
 Natural resources, 2, 5, 92–94, 97,
 100, 102, 104, 320, 406, 417,
 418, 421, 422, 424, 426–429,
 431, 440–442, 455, 456, 474,
 475, 477, 478, 481, 482, 484,
 486, 487
 Nature conservation, 354

- Non-governmental organizations (NGOs), 49, 58, 61, 67, 68, 123, 125, 129, 131, 135, 136, 144, 147, 187, 195, 240, 255, 261, 464
- Non-human animals, v, vi, 4, 7, 43, 50, 53, 68n2, 311
- Non-state actors, 3, 30, 394
- O**
- Offenders, 25, 41, 49, 56, 62, 123, 127, 128, 130–133, 135, 137, 139–144, 146–148, 209, 210, 212, 344
- Oil, 28, 29, 42, 45, 47, 56, 57, 62, 182, 309, 417, 457, 484
- Oppression, 53, 336
- Organized crime, 3, 5–7, 10–12, 48, 96, 97, 397, 418–423, 420n3, 428–429
- Overexploitation, 92, 93, 157, 158, 310, 311, 418
- Overfishing, 358, 455, 457, 465
- P**
- Pangolin, 366, 378, 396, 398
- Paramilitaries, 30, 407–409
- Patronage system, 427
- Permits, 138, 143, 158, 182, 183, 186, 189, 243–246, 248, 249, 251, 255, 481
- Pets, 8, 9, 74, 74n5, 75, 77, 81, 84, 119n1, 120–122, 124–127, 124n4, 126n5, 130, 131, 134, 135, 138–140, 142–145, 168–172, 181–183, 186, 192–196, 279, 280, 285, 321, 322, 324, 350, 510
- Planetary health, 6, 19–32
- Plants, 42, 59n2, 68n2, 92, 93, 98, 106, 109, 157, 158, 171, 172, 240, 241, 247, 282, 305, 309n49, 311, 325, 358, 371, 422, 429, 437, 438, 484
- Poaching, 8, 97, 98, 190, 195–197, 207–229, 365, 366, 420, 429
- Policing, 392
- Policy making, 5, 6, 9, 22, 27, 46, 49, 55, 61, 62, 104, 173, 175, 188, 195, 198, 208, 253, 260, 261, 276, 338, 342, 351–353, 361, 378, 418, 443, 458, 461, 464, 466, 467, 478, 479, 490, 492, 494, 503, 509, 518
- Political ecology, 5
- Politics, 6, 9–10, 31, 281, 408, 477
- Pollution
 - air, 45, 74, 440
 - ground, 356
 - water, 94, 95, 488
- Poverty, 5, 12, 31, 94, 95, 214, 225, 227, 452, 506–510
- Prevention, 22, 61, 62, 147, 209, 227, 368, 379, 409, 480, 516–520
- Primates, 168, 172
- Prison, 515
- Privatization, 197, 457
- Prosecution, 42, 43, 49, 57, 58, 60, 101, 104, 130, 147, 318, 319, 344, 432, 462, 464, 466, 483, 490, 492, 493, 493n5, 515, 515n11, 516

- Protected areas, 208, 211, 213–215, 224–226, 228, 343, 356
- Protection, 1, 3, 22, 48, 53–55, 69, 79, 148, 158, 174, 175, 190, 191, 208, 225, 244, 248, 277, 309, 342, 350, 355, 367, 378, 398, 420, 427, 435, 443, 463, 466, 479, 480, 484, 485, 492, 494, 508, 515
- Punishment, vi, 41, 43, 62, 130, 147, 148, 189, 259, 475, 515, 516
- Puppy trade, 7, 119–148
- R**
- Rangers, 8, 209, 212, 213, 215–219, 221, 223
- Regulations, 3, 44, 47–49, 57, 78, 92, 93, 98, 120, 127–128, 132, 138, 140–142, 144, 173, 182, 183, 186, 191, 194, 197, 210, 211, 241, 243, 245, 259, 285, 318, 352, 358, 368, 377, 379, 381, 393, 394, 398, 426, 434, 457, 460
- Reptiles, 81, 160, 167–172, 184, 185, 187–191, 193, 194, 240, 242, 256, 275, 318, 324, 396
- Reputation, 192
- Resistance, 26, 31, 106, 491
- Rhino, 8, 197, 209, 212–220, 223–225, 228, 371
- Rights
 animal, 174, 197, 275
 environmental, 20, 50, 54, 311
 human, 5, 23, 50, 54, 55, 58, 60, 60n3, 70, 79, 99, 108, 491, 492, 518–520
 nature, 5, 102, 311
- Risk, 8, 10, 22, 28, 32, 48, 49, 51, 68, 76, 81, 94–96, 100, 104, 128–131, 147, 158n1, 181, 212–215, 226–228, 240–242, 246, 259, 261, 325, 367, 373–379, 381, 395, 404, 407, 409, 429, 449, 461, 463, 483, 486, 508, 511n4, 515
- Rome Statute, vi, 12, 90, 100, 489, 490, 492, 494
- S**
- Sampling, 123, 367–370
- Sea otters, 9, 291–311
- Security, 8, 93, 94, 160, 208, 214, 217, 218, 228, 261, 297, 328, 341, 395, 398, 408, 450, 456–459, 462, 466, 478, 511, 517n13
- Sexual exploitation, 511n5
- Siberia, 294, 295, 300, 415–443
- Slavery, 78, 133, 398, 509–519, 517n12, 517n13
- Smuggling, 5, 11, 132, 138, 166, 168, 169, 172, 255, 420, 422, 426, 429, 431, 439, 447–467, 509
- Smuggling routes, 213, 461
- Social construction, 3, 6, 9–10, 44, 75, 98
- Social inequalities, 2, 94, 197, 467
- Social justice, 4, 5, 43
- Source countries, 161

South Africa, 8, 29, 182, 187–189,
197, 209–212, 216, 223–225,
227, 228

Special Economic Zone (SEZs), 396,
398–399, 405, 406

Speciesism, 145, 275

Species justice, 53, 63, 85, 145, 146,
173, 336

State crime, 24, 477

State-corporate crime, 97

Strict liability, 101, 110

Supply, 94, 95, 120, 125–127, 130,
132, 133, 140, 143, 160, 161,
172–175, 240, 241, 259, 318,
357, 360, 393, 394, 422,
425–429, 434, 436, 457, 475,
518, 519

Surveillance, 337, 398, 457

T

Tax evasion, 135, 142

Theft, 28, 135, 136, 146, 418, 437

Tiger, 163, 240, 323, 366, 372, 398

Timber, 96, 98, 158, 393, 397, 399,
408, 417, 422, 426–429, 432,
434, 439, 442, 479, 481

Tourism, 94, 188, 208, 213, 214,
216, 279, 437–438

Traditional Chinese Medicine
(TCM), 10, 367, 368,
371–380, 382

Traditional knowledge, 31, 95, 450

Trafficking
drugs, 96, 159, 395, 397,
398, 420
human, vi, 5, 96, 133, 134, 159,
508, 509, 511, 512

timber, 62, 158

weapons, 96

Transportation, 166, 174, 183, 191,
210, 216, 321, 322, 325,
431, 462

Treadmill of production, 28, 347

U

Unemployment, 94, 216, 508

United Nations (UN), 54, 55, 90,
240, 242, 247, 491, 492, 504,
514, 516

United Nations Convention Against
Transnational Organized
Crime, 482n4

United Nations Office on Drugs and
Crime (UNODC), 132, 163,
165–167, 397, 461, 463,
483, 512

United State Fish and Wildlife
Services (USFWS), 8, 238,
243–245, 251–253,
255, 257–259

United States (US), 8, 51, 52, 59,
59n2, 60, 60n3, 90, 107, 108,
122, 126, 183, 188, 192, 238,
239, 241–243, 251–252, 254,
257, 259–261, 279, 281, 282,
284, 299, 301, 310, 318, 324,
371, 379, 393, 396, 398, 399,
403, 457, 478, 504n1, 513n6

V

Value, 4, 50, 53, 62, 69–71, 75,
75n6, 80, 84, 98, 105,
120–122, 128, 131, 132, 135,