

The Natural Resource Crime Lexicon: Parlance, Proxies, and Polemic

Friedo Herbig

Department of Criminology & Security Science, School of Criminal Justice, College of Law, University of South Africa (UNISA), Pretoria, South Africa

Email address:

herbifjw@unisa.ac.za

To cite this article:

Friedo Herbig. The Natural Resource Crime Lexicon: Parlance, Proxies, and Polemic. *International Journal of Law and Society*. Vol. 5, No. 2, 2022, pp. 226-241. doi: 10.11648/j.ijls.20220502.21

Received: May 26, 2022; **Accepted:** June 22, 2022; **Published:** June 27, 2022

Abstract: During the last two decades, much has been probed and recorded in the historically discounted realm of natural resource crime and criminality. By and large, it appears that criminological intellectuals acquiesce that crime in this sphere of activity necessitates robust research intervention, and that it be accorded a status equal to that of other more traditional and pejorative crimes, so prevalent in society today. Although accord in this respect may be viewed as accomplished, there remains a nuanced and yet unsettled friction amongst scholars regarding the most astute and ethical terminology to embody and develop this form of crime and its future trajectory. At its heart, lies the argument that poly-discursive rhetoric and lexes cannot be used to justify hegemony over already embedded terms and/or doctrine. Little purchase can be seen in referring to crime in the natural resource ambit by multivalent and/or overbreadth terms. Doing so, subsidizes the myth of an international tolerance thereof crafted purely by the whims of certain authors in the face of an ostensibly weakening role of erstwhile and/or more logical (historiographical) associations. As with many other disciplines, tethering points related to criminal justice are contingent on intelligent interpretation of earlier times for signboards and runes mapping the future. Terms, and by implication, research rigor, are profoundly reliant on the context and explanations provided by raconteurs and erstwhile interlocutors. This evaluation formulates an argument for the abrogation of factionized, ambiguous and confusing natural resource crime nomenclature and the ensconcing of a single fit-for-purpose lexicon, namely conservation crime/criminology, to address issues of natural resource trauma primarily, as well its interface with the social environment as an ancillary, but proportionately significant dimension.

Keywords: Conservation Crime/Criminology, Environmental Crime/Criminology, Proxies, Lexicon, Natural Resources, Semantical/Sociolinguistic Drivers

1. Introduction and Succinct Backstory

This article takes issue with the corpora of congeners being used to exemplify crime/criminality levelled at natural resources and showcases the sociolinguistic and psycho-criminological drivers endorsing its semantical posturing and perpetuation. It asks some potentially uncomfortable questions, and is firmly situated in the critical paradigm. It argues for bonding behind one term, namely conservation crime, for the sake of research traction and direction, reducing eclectic linkages and promoting the conservation crime/criminological cause. Furthermore, this article aligns with issues of methodology. It identifies pitfalls associated with the cabaret of terms being used to levy meaning onto

crime in the natural resource remit that may trigger reality disjunctures, creating conflict encumbering effectual biodiversity management. Ergo, it might not resonate equally with all academic egos. Nevertheless, it should not be considered inherently disputatious, or as contumelious disregard for other authors' rights, but rather as an extremely candid (unadulterated), food-for-thought submission, directed at stimulating fecund and robust discussion, as the semantical incubation period can by now be regarded as past passé. The time for considered transformation has, therefore, never been more appropriate. Although this etymological/linguistical area of enquiry is beginning to receive more consideration from criminological scholars, natural resource terminology remains contested and appears, even now, quite

unexpectedly, to be generating offshoots. Lexes, or keywords cannot merely be used and consigned arbitrarily, as words and their meanings palpably stand in a network of relationships.

Exemplifying crime in the natural resource sphere by equivocal and imprudent terms is obstructive, because doing so funds the fiction of a global approval thereof, formed solely by the stances of certain authors in the face of a supposedly fading role of older and more revered seams [1]. More than most other disciplines, matters associated with criminal justice depend on prudent understanding of the past for pennons charting the future. Terms, and by implication research rigor, are heavily reliant on the context and explanations provided by chroniclers and previous researchers. The hindrances imposed by quasi definitions/terms, should not be allowed to impact on the struggle against, amongst others, poaching, overexploitation and other crime directed at natural resources, biotic or abiotic. Definitional complexities, and the challenges arising from them, have led to an alternate denotation (conservation crime) that allows for a more true-to-life description, but which also facilitates a more logical (focused) way in which researchers can compartmentalize natural resource issues, and transact their research from a crime-specific perspective [2]. Such an approach is not, however, accepted widely and diverse/diversifying captions still seem to be the order of the day.

Research relating to natural resources has increased vigorously in the last two decades as environmental issues have become more prominent globally and is evidenced by the proliferating number of publications in this sphere. There is, however, still no parity regarding the nomenclature to be employed in the natural resource crime remit. There seems, still, to be no syncretic understanding thereof, with increasingly multifarious and tenuous captions being fashioned and presented as time goes by. Various lexical tangents, often combining several so-called 'environmentally orientated' words, are, however, being foisted into the natural resource crime/criminology narrative, each battling for some credence or academic status in the process. This has resulted in several semantical artifacts being produced. Semantical artifacts (anthologies) distort the lines between what constitutes, and what does not constitute, crime in the natural resource remit (not really that prevalent in other crime studies). It also attenuates research focus and direction. Such pliability serves (at least tangentially) to sideline dedicated intervention and research and machinates against a uniform methodology. There is, frankly, no terminological univocity, as found in most other areas of scientific research.

Criminological research, as with others, is helmed and fused by explicit concepts/phenomena - phenomena that are noticeably exemplified and perceptible and, for the most part, collectively understood to mean a thing or group of things. With few exceptions, these phenomena are analogously defined and comprehended, facilitating research endeavors and serving to broaden the horizons and precincts of a line of enquiry. Even those with, yet, unsettled definitions, such as

'terrorism' and 'white-collar' crime, as well as the relatively recent 'rural' crime, inherently base their research thrust on associated issues, which only deviate negligibly from other semantical renderings. If research is directed at ambiguous and indistinct criminal issues/concepts, it would, for all intents and purposes, frustrate the objective of such scientific enquiry. "Think of research levelled at crimes such as murder, arson, culpable homicide, rape, robbery, fraud, to name but a few. All these concepts are widely understood in more-or-less the same way. Research into such areas of interest is well delimited and results communally augment to the body of knowledge being generated within that criminological remit" [1]. Regrettably, research in the natural resource remit, is still currently being directed at an issue that suffers from a significant etymological and identity crisis. Despite research and interest in this sphere steadily growing over the last twenty years, there is still no real agreement as to what crime studies relating to the natural environment should be termed. There are those that stubbornly proceed with certain tendentious terms, despite the ambiguity and controversy surrounding their use. Others pause to examine the options and make 'informed' decisions in choosing an appropriate diction, whilst yet others deem it prudent to fashion even more complex versions of an already vexatious issue.

Terms, as well as words, and by inference designations, levy, or are designed to levy specific meanings and are subsequently of fundamental importance generally, but even more so in the criminological research and criminal justice communities where a high degree of fastidiousness and astuteness can be regarded as *de rigueur*. It is quite paradoxical that words, which are normally used to commune, can also be used to misinform and dupe people, or to convey subtle, methodically vague, missives. In this regard a dialogue of the natural resource lexicon should not be viewed as a mere linguistic exchange, but as an issue that lays bare the visceral nature of the semantical contagion. Labelling is far from being a neutral or simple process. Instead naming really does matter, not least because names levy effects (and identities). Names, either preclude or invite kinds of potentials, capacities and juxtapositions of bodies [3]. Crime and criminality involving natural resources is often construed and/or referred to by dicta, such as ecological, wildlife, green, and/or environmental crime/criminology, as well as by an assortment of hybrid amalgamations. These idioms are, however, deemed to be vague and inaccurate and do not serve to promote the authentic categorization and/or management of environmental/biodiversity trauma.

"The existing lingua franca, mentioned above, has, it is submitted, created a fair amount of confusion and prevented this type of criminality being overtly defined and addressed. Natural resource crime issues in the criminological coppice have typically been addressed somewhat shortsightedly and dealt with under the aforesaid diverse and vague adages and narratives" [1]. Such abstruse terminologies have undermined the demarcation of cogent and unequivocal

precincts about this form of criminality and have clearly served to sideline tuned and committed sustainability, intervention and palliation in this sphere [4]. There is, therefore, an urgent need for the development, formulation and recognition/entrenchment of a feasible, frugal and intra, inter-and trans-academically identifiable crime category that will realistically capture earthly conservation-related crime and criminality. The supervening sections deal with several semantical derivatives/strands, currently being applied to refer to the study of crime and criminality in the natural resource realm, and will be unzipped and scrutinized [1].

2. Environmental Crime/Criminology

Environmental crime/criminology is, without a doubt, the most recognizable term presently being used to describe criminological enquiry into the field of natural resources and related issues, and can, tongue-in-cheek, be regarded as somewhat of a hegemonic construction in this arena. “The word environmental, in such cases, is predominantly flaunted as meaning the study of environmental (natural resource) crime/damage and ecological justice as well as transgressions against the natural environment, humans, eco-systems and animals” [1]. The term, which has, matter-of-factly, become the ‘poster child’ for this verbiage, has at some time or another, been used by most scholars (including, albeit fleetingly, the author of this article) publishing in the realm of natural resource crime and to list them all would, therefore, be superfluous. This particular concept, and its comprehension, have, however, ejected a stream of clichéd parlance, such as, ecological crime/criminology, green crime/criminology, wildlife crime/criminology and even heritage, nature, and zoological crime/criminology as well as a slew of pixelated amalgamations, all ostensibly directed at studying roughly the same thing, but in reality addressing some rather differing and moot issues that should not really resort under the preserve of natural resource crime at all – such as animal rights, eco-feminism, domestic animal abuse, and so forth. It is, furthermore, asserted that environmental crime can be regarded as an ambiguous and byzantine term [5]. Clearly then, the term/concept (environmental crime/criminology) retains an open texture and presents with considerable semantical vagaries, leaving this posture very much in flux.

The fundamentals of environmental crime explicitly showcase its remit as being conjoined with the spatial distribution of crime and allied issues. Within criminological clusters the term environmental criminology predates any other nuance and is a rational and acknowledged referral to the study of such zoning and distribution of crime, not to the study of crime involving natural resources per se. Nevertheless, quite inexplicably, White, in fact, suggests that certain authors have called for the term ‘environmental criminology’ to be reclaimed from its association with the spatial study of criminal events [6]. How is it possible to reclaim a term from a concept that coined and contextualized it to begin with? “Environmental crime/criminology, as a

concept incorporating crime zoning, spatial distribution and geographies of crime within the criminological vocabulary, can be regarded as *a priori* knowledge, i.e., one is ‘a priori’ justified in believing a given proposition if, on the basis of pure thought or reason, one has a reason to think that the proposition is true” [7]. For example, if today is Wednesday, then today is not Friday. Similarly, if environmental crime/criminology relates to spatial distribution and concentric zones (of crime), then it does not relate to natural resource-related crime.

“The term (environmental crime/criminology), it appears, was sophistically adopted by certain scholars/researchers and applied to the study of natural resource-related crime without due regard to the meaning originally assigned to it (in an *a posteriori* manner), basically a type of reasoning that works backward from an effect to its causes and can lead to false conclusions, subtracting it from the niche for which it was initially constructed” [7]. Because natural resource crime and criminality, as well as the study thereof, has been referred to by miscellaneous captions through the years, these somewhat heterogeneous marques have, it is submitted, detracted from this phenomenon, and its appraisal, being endorsed with its own clear-cut and instantly recognizable personality, and compromised, to a degree, dedicated and sustained intervention in this arena. “This view is supported in that the contemporary field of environmental criminology includes studies of the spatial patterning of crime at different levels of aggregation; the ‘journey to crime’, or the processes by which potential offenders recognize potential crime sites and specific opportunities; and the creation and maintenance of areas of criminal residence” [8, 9]. The term ‘environmental’ within criminology, has, and is still to this day, principally employed in studies of ‘place’ and the spatial patterning of crime and not only used to explain why a specific offender commits a specific crime, but to understand various aspects of a criminal event to identify patterns of behaviour and environmental factors, such as bushes surrounding a golf course, that create an opportunity for crime [10, 11].

The term, therefore, can simply no longer be loosely employed in a nonchalant fashion and introduced as a *deus ex machina* (solution), whenever an author so desires. “Several definitions exposing the original meaning of the term environmental crime/criminology by more than a few authors, serve as a proof positive hereof. Wortley and Mazerolle consider environmental crime/criminology “to be a generic label that covers a wide range of overlapping perspectives, at the core of which, its various strands are bound by a common focus on the role that the proximate environment plays in the enactment of crime, and a conviction that careful analyses of these environmental influences are the key to the productive investigation, control and prevention of crime” [12]. “Terrorism, internet fraud, internet child pornography, organized crime and smuggling of immigrants are just some of the problems to which environmental criminology and crime analysis have been applied in recent years [12]. Environmental criminologists examine the place and the time when the crime transpired.

They are interested in land usage, traffic patterns and street design, and the daily activities and movements of victims and offenders. Environmental criminologists often use maps to look for crime patterns, for instance, by exploiting metric topology [13]. The Sage Dictionary of Criminology points readers requiring lucidity about environmental criminologies to sections dealing with the Chicago School of Sociology, Geographies of Crime and Social Ecology [4]. Moreover, environmental criminology has extensively informed crime mapping and analysis, which have become increasingly central to the work of the police service and analogous agencies during the last 30 years” [14, 15]. Environmental criminology is a field of study interested in the interfaces between criminals and the physical environment that surrounds them, focusing specifically on the places where crime occurs and the characteristics of those places [16].

“Geographic profiling, for example, is not merely achieved by a set of mathematical equations, but is underpinned by, and relies on, many criminological theories for its success. Its scientific basis is embedded in environmental criminology and, more specifically, in routine activity theory and crime pattern theory [17]. Research in this area embodies an applied application of criminological theory to the real world of police investigation [18]. In fact, the crime setting or place, the ‘where and when’ of the criminal act, is the primary concern of environmental criminology” [19]. The origins of this perspective lie in human ecology, Jeffery’s bio-social learning approach and Hirschi’s social control theory. By reversing the reasoning and logic of these theoretical models, it may be possible to predict the most probable location of a criminal’s residence [18, 14]. Environmental criminology involves examining how opportunities for crime vary in space and time [20]. Additionally, environmental criminology has introduced explicit theories of criminal opportunity that can be used to explain how and why an offender identifies targets as well as how crimes can be prevented [20]. There is, undeniably, regularly confusion surrounding the term environmental criminology, as it is frequently understood to focus on the role of environments and situations, and has generated an appreciation as “place-based criminology” [21]. Somewhat obtusely to mainstream reasoning, environmental crime is also sometimes regarded as an actual (genuine) criminal offence, rather than a category, and, as such, is more problematic than other crimes [22]. Quite fortuitously though, the essence of the issue is encapsulated by the view that the term environmental criminology may too easily be confused with the longer established description of crime patterns and features of the urban environment [23].

“The concept/term, as historically formulated, cannot simply have its authority poisoned or eroded and its meaning changed on a whim. Modifying the word’s meaning has captured (hijacked) its original denotation and brought with it ambiguity and a degree of temerity, which, as such, militates against much of the wisdom and conventions expounded upon elsewhere in this paper. The term and concept environmental criminology, as originally framed, has a

distinguished genealogy that traces back to the eighteenth century. The other meanings being attributed to it can subsequently be dismissed as mere artefacts or Trojans of the original and authentic application.” [1].

Environmental crime/criminology is, therefore, the *weltanschauung* of crime patterns in the built environment and the spatial distribution of crime, not crime relating to natural resources. Certain criminologists/researchers, and others, are, however, categorizing environmental crimes in varying ways, which not only has implications for the study of environmental harm, but due its nature and dynamics, will cause discussions surrounding definitions, deliberations and typologies to be ongoing [24]. Heterogenous labels have regrettably undermined this phenomenon, and its analysis, being attributed a unique and unambiguous identity and compromised, to a certain extent, robust and uninterrupted intercession in this area [25]. It is, therefore, necessary to consolidate this issue and ascribe to natural resource crime and criminality a unique and unambiguous identity. In the final analysis it can be stated with conviction that environmental crime/criminology is an irreducible term, i.e., one that is incapable of being diminished, transformed or simplified further – it has, in other words, acquired an established genome.

3. Green Crime/Criminology

Green criminology appears to focus on ‘harm’ and ‘value judgements’ about criminal or iniquitous behaviour rather than criminality, making it very difficult to objectively define its ambit [26]. Those who function within green criminology tend to embrace zemiology (the study of social harms) and define it in ways that most aptly align with their own elucidations of how green criminology should be applied, both in theory and praxis. Indeed, there is presently no universal conformism regarding green terminology or applicability within the criminological field [5, 27]. Green criminologists, it is submitted, regularly exhibit an antediluvian view regarding international species and biodiversity conservation – this caucus (in the main) quite flippantly reveals neo-colonial arrogance while simultaneously displaying an alarming tendency to patronize civil society. Several green criminologists appear to eschew experiential research, and most of these questions have gone unaddressed [28]. Several eminent authors have utilised the term green crime/criminology, either as a stand-alone term, interchangeably or in concert with others [23-24, 29-53]. Notwithstanding the term’s enthusiastic usage, often as a *doppelganger* for ‘environmental’ crime, green crime/criminology is, for obvious reasons, not the least of which is its substantial scope, vagueness and indexicality, unreservedly discounted as a viable and/or functional term to describe crime and/or promote focused research in the conservation/natural resource arena [25].

Despite its fluidity, green crime/criminology may easily, and mistakenly, be linked with green activist groups, radical environmentalism and eco-terrorism, regularly used to

describe the fanatical, obsessive, and often dictatorial conservation periphery, and immediately invokes visions of “frenzied” purist groups, including, but not limited to, the Great Transition Initiative, Deep Green Resistance, Earth Liberation Front, and the Climate Action Network (see also *Greenpeace* and *Sea Shepherd*) [1]. Some groups are willing to pursue violent tactics in pursuit of environmental aims, which has an important influence on who they resonate with and who supports them – accordingly the term ‘green’ has been allowed to gain a foothold in the general (and scholarly) consciousness. The theoretical breadth of (green) activist groups allows them to deal with a multitude of issues (often lacking specific focus), considerably decreasing application accuracy (as a field of study) [54]. This expansiveness, tangentiality and breadth (in relation to green criminology research) speaks to the fact that a good deal of work has been directed at exposing different instances of substantive social and ecological injustice instead of adequately regulating harmful (natural resource) activity [55]. It is clear, therefore, that much of green criminology continues to draw upon philosophical perspectives (a philosophical stance) to define activities as environmental harms.

Green criminology is seen to be enamored with crimes and harms affecting the natural environment, the planet, and the associated impacts on human and non-human life [23]. “Green researchers suggest that it has developed into a distinctive and ‘fertile’ area of study that now draws together criminologists with a wide range of research interests and theoretical orientations. They state unequivocally that criminologists most frequently employ the term “green criminology” to describe the study of ecological, environmental or green crime or harm, and related matters of speciesism and environmental (in)justice” [4].

The view is also held that green criminology is still formulating its basic terminology, but at the same time expanding its field of study [56]. Green criminology is sometimes defined as “the study of environmental harm, environmental laws and environmental regulations by criminologists” [6, 23]. “Green criminology is also criticised because it lacks a (suitable) definition and creates ambiguity [44]. Halsey, in fact, suggests that the term “green” should be jettisoned from socio-environmental discourse primarily because it does not adequately capture the inter-subjective, inter-generational or inter-ecosystemic processes, which combine to produce scenarios of harm” [3, 26]. Green criminology misunderstands the nature and extent of the task at hand, and does not possess the lexicon to move beyond modernist conceptions of (natural resource) harm and restoration [26]. Green criminology only deals with issues such as those conventionally and credulously branded “green issues”, for instance, animal rights, animal abuse/cruelty, ecological spirituality, eco-philosophy, and eco-feminism [57].

Additionally, circumstantial evidence suggests that green criminologists, sometimes, display an antediluvian stance regarding international species preservation, unveiling neo-colonial haughtiness while at the same time being

supercilious towards civil society [25]. Some authors even refer to green-environmental criminology - confirming, it is submitted, the ambiguity of these terms, and demonstrating, that a fusion of already nebulous and granulated terms does nothing to promote a focused methodology in relation to the scrutiny of natural resource crime and criminality [58]. “Researchers/authors must realize that crime studies involving natural resources and allied issues are a specific area of interest in a dynamic setting within certain parameters, not constantly shifting paradigms - it must be universally regarded as one concept with one parlance, not indexically (i.e., a word or phrase that is associated with different meanings (or referents) on different occasions), to be added to or subtracted from at a whim” [4].

4. Ecological (eco) Crime/Criminology

“Although the term ecological criminology is used less commonly than the former expressions, it has pierced the criminological diaspora and is being advanced by certain authors. Several prominent authors/researchers also employ this term (as a stand-alone or jointly) [60-63]. As with environmental criminology, *eco-* or *ecological criminology* is primarily (and historically) associated/linked with the study of spatial patterns of crime in an urban context and the influence that neighbourhood organisation has on criminal activity [64-65]. This stance advances that an ecological study enables researchers to surmount individualism and, through the collection of social data, acquire a sense of the attributes of sizeable cohorts of people” [66].

Once again, it is submitted, that ‘ownership’ of the term has, due to its established and orthodox usage, been ‘claimed’ by this connotation. Mutating the linguistic waters even further, terms such as eco-global and green criminology (as fields) are believed to have placed issues of environmental crime and justice on the criminological agenda [67]. The question that needs to be asked, is why, currently, we still cannot agree on the elementary issue of crime semantics? Surely, criminologists probing this field, can see that indistinct (shared) terminologies will not elevate the study and management of natural resource criminality and its adjuncts. The term, as it was originally framed, cannot merely fall into abeyance; there is a sacrosanct differentiation; it is not a liminal term, but has distinct meaning and application that cannot be seized and ascribed another denotation subjectively. This term, specifically, is fraught with syntactic ambiguities. Moreover, using such a non-rigid indicator, with a wide scope, is consistent with wide scope narration.

5. Wildlife Crime/Criminology

Wildlife crime/criminology is probably one of the most ignominious and constrictive terms currently in circulation, especially when used in its wider sense as applying to crimes directed at natural resources *in toto*. This term has been used by several authors (as separate terms or jointly) [21, 68-75].

Intrinsically, the use of the term wildlife crime beggars the following questions. Are tame/domesticated 'wild' animals regarded as wildlife?

Are wild animals in Zoos, and the like, considered to be wildlife in the same way in which wild animals fulfil their niche roles in nature? If not, where must the line be drawn between what constitutes wildlife crime and what does not? What about crimes against wild plants and other natural resources (biodiversity) not regarded or defined as wild animals? This term, it is submitted, underscores the degree to which natural resource crime and criminality is being deliterated.

6. Off-piste and Hybrid Crime/Criminology – Showcasing the 'Double Entendre'

Adding more proverbial fuel to the single term semantical soiree outlined above, as well as a further layer of lexical complexity, are those authors who insist on presenting conflated and synthetic dictions, and conjoin terms replicated and/or winnowed from all that is nature-related as a type of catch-all or *deus ex machina*, ostensibly to resolve the dilemma. It appears as though several authors (enigmatically, often those who have at some stage employed some, or all, of the aforementioned terms), in an attempt to palliate the confusing situation regarding terminology, seek to, somewhat hypocritically, 'clarify' the impasse by creating new (gaudy) terms and shoeorning them into the discourse. In this manner, still more confusion is ferreted into the discourse enervating the dialogue even further. Perhaps they are inured, or are merely trying to provide succor and compensate for the terminological hotchpotch that currently presents in the natural resource crime/criminological diaspora? Imprecise terminologies allow researchers in this field to pursue their own policy agenda (with poetic licence).

These postured, cosmeticised, and/or hybrid terms can be viewed as the *reductio ad absurdum* of the study's search for an identity and simply beggars the question *Quo Vadis?* It becomes obvious that many of the amalgamations (misnomers) being crafted and submitted, are fraught with flawed logic and are deposited as nothing else, but attempts to attach/levy identity onto natural resource crime's rhizomatic footprint. These fusions include, but are not limited to, 'environment/green' [56], 'green/decolonial/environmental' [31], green/human rights/land use [76], 'wildlife/environmental/science' [2], 'eco-crime' [62], 'biopiracy/green' [77], conservation/wildlife crime [78], defaunation/wildlife/exploitation/zoonotic/green [79], and green/environmental [58]. There has even been a suggestion by a so-called 'leading expert' to name it 'socio-spatial criminology' [80]. Crime in the natural resource ambit has also been referred to as 'victimless crime', 'invisible crime', 'incidental crime' and 'nature crime' and frequently rank low on the law enforcement priority list [81]. Most recently, the

term 'hunting crimes' has surfaced as part of the rural crime recognition thrust and, quite indifferently, claims that 'environmental crime' is founded within 'rural crime'. It has also recently been claimed that there is a growing international recognition and interest in the challenge and extent of rural crime, within which environmental crime lies [82]. Notwithstanding, perceiving 'ecological' criminal offences as victimless crimes diminishes their importance and the circle of subjects interested to unveil, prove, prevent, suppress and impose punishments for these offences [83]. Such 'miscalibrations', serve to devitalize the natural resource crime/criminological discourse/lexicon, especially when used interchangeably, and can, at most, provide their originators with a placebo effect for the misnomer pathology that currently presents. The terms, regrettably, veer erratically between adaption and denial – between attempts to address the predicament and attempts to make it magically disappear.

7. Conservation Crime/Criminology – Towards a Doxic Identity

The limiting nature of the multifarious definitions given by several authors, as well as the extent of the divergence between the terms and opinions, with respect to what crime in the natural resource ambit should be defined as, demonstrates that this matter is still far from resolved. It stands to reason then, that not only is there an incentive to challenge existing provisions in scholarly discourse, but also that challenging it should be considered of utmost importance and urgency. I submit that the lack of a commonly accepted definition and the impact this has had on conservation crime/criminology management reflects a wrestling for forthright solutions to a conundrum that is still to be fully comprehended. Rectifying the definitional incongruence would go a long way in facilitating the study and appreciation of the field. Having underscored the limitations of the concepts/terms environmental, green, ecological, and wildlife crime/criminology, as well as the potpourri of disparate (hybrid) lexes, a case will now be made for the recognition and entrenchment of an unambiguous terminology, namely *conservation crime/criminology*.

7.1. Why Conservation Criminology

"Conservation crime/criminology was apparently suggested by an interdisciplinary group of scholars from the Department of Fisheries and Wildlife, School of Criminal Justice and Environmental Science and Policy programme at Michigan State University [84]. This claim is perhaps not quite accurate as the term was in fact coined and operationalized by Herbig and Joubert in 2006" [1]. "Conservation criminology is an interdisciplinary and applied modality for promoting and understanding programmes and policies associated with local and global conservation risks. It seeks to overcome limitations inherent to single-discipline science and provide practical guidance vis-à-vis organic developments. By integrating natural resource management,

risk and decision science, and criminology, conservation criminology-based approaches ideally result in improved environmental resilience, biodiversity conservation, and secure human livelihoods (recognises conservation crime as primary) – to wit, a syncretic approach. As an interdisciplinary science, conservation criminology requires the constant and creative combination of theories, methods, and techniques from diverse disciplines throughout the entire processes of research (think of zoology, botany etc.), practice, education, and policy. By relying on multiple disciplines, conservation criminology leapfrogs this ideal, it promotes thinking about second-and third-order consequences and risks, not just isolated trends” [1].

7.2. Authors’ Reflections on Conservation Crime as Preferred ‘Words of Art’

‘Conservation crime’ is the semantical nonpareil of the more insouciantly used term ‘environmental crime’ and is the preferred terminology of several authors/researchers when addressing issues relating to criminality directed at natural resources [4, 84-85]. Accordingly, it is seen as an interdisciplinary and applied modality for understanding programmes and policies associated with global conservation risks, which ideally result in improved environmental resilience, biodiversity conservation, and secure human livelihoods [84]. Conservation crime, as the vanguard to conservation criminology, can be defined as “any intentional or negligent human activity or manipulation that impacts negatively on the earth’s biotic and/or abiotic natural resources, resulting in immediately noticeable or indiscernible (only noticeable over time) natural resource trauma of any magnitude” [4]. Conservation criminology, therefore, explicitly deals with, amongst others, the dynamics and nexus between humans and (biotic/abiotic) natural resources on the receiving environment (as a casualty/victim), and the extent to which natural resource crime violates or impacts on the limits of acceptable change with regard to any natural resources, or a collection thereof [4].

“Conservation crime/criminology as developed and presented in this article, underscores the significant contribution this field of criminology can make in grasping the illegal manipulation and exploitation of natural resources and allied issues (without ambiguity), thereby amplifying and enriching its theoretical constructs and realizing justice through rounded mediation strategies. Given the constraints associated with the terms ‘green’ and ‘environmental criminology’, support is given to the term ‘conservation crime’ [84-85]. The term conservation crime/criminology is the preferred terminology for several reasons. Environmental or ecological criminology typically refers to the spatial study of criminal events. Green criminology is also problematic due to its association with political perspectives, (and the narrow range of associated issues) and its ambiguity” [84-85].

“We concur with Herbig and Joubert that conservation criminology identifies the core theme of this area of study” [84]. Conservation criminology can, furthermore, enrich the knowledge base of theories, methods and governance about

environmental issues by moving towards a more generalizable theory and beyond the limits of a single discipline [85]. Further support for the term/definition, conservation criminology, is provided by other research luminaries who state that, of the circulating fields/definitions, the most sophisticated is the proposal of Herbig and Joubert, later broadened by Gibbs et al, about a totally new branch of criminology, where the field of interest merges at least partly with the field of green criminology - conservation criminology [56]. Conservation criminologists have, moreover, illustrated the uses of many different kinds of environmental data and how they can be employed to test criminological arguments, but, there are few researchers engaged in that work, and there is a tremendous volume of research on those issues that can be undertaken [86]. Herbig and Joubert’s term, conservation criminology, harmonizes all the intellectual contributions in this sphere [87]. Regarding the vortex of definitions/terminologies circulating in this sphere, mainstream criminology seems to have shown little interest in offences against non-human animals and it may well be that environmental harm persists as a pigeonhole interest among criminologists [74].

“The sustained misemployment of the terms environmental, ecological, wildlife and/or green crime/criminology to depict the study of crime and criminality in the natural resource ambit can, therefore, further incite confusion by reinforcing prejudiced notions. This might well serve to inhibit and negate tolerance of attempts to rejuvenate the existing semantical template. The utility of a definition for the study of natural resources and allied issues will be the degree to which it elicits new types of existential territories, makes possible new modes of envisioning the human/earth nexus, and invites a reconceptualization of the relationship between damage and momentum. “The concept and terminology, ‘conservation crime/criminology’ aspirationally strives to establish equivalences between an existing heterogeneous phraseology in which there is a degree of similitude in the dissimilitude. By drilling down through the artefacts and conclusory semantics, a strong case can be made for using the terminology ‘conservation crime’ to establish a new semantical DNA. As an inferred concept, it should ensure that ambiguity is reduced and that, not only the edges of the crime phenomenon are addressed, but the entire phenomenon holistically and sustainably [1].

7.3. Conservation Crime – Lobbying for a New Semantical Matrix

In contrast to the past and current trend of repeatedly restating inaccurate lexical propositions, regardless of contradiction and refutation (an informal fallacy known as proof by repeated assertion), The term conservation crime reverses much ambiguity in the field and propose that it be embraced and utilised by criminological scholars, industry and the criminal justice cluster alike [4]. Conservation crime/criminology is *democratic* (emphasis added) and not only focuses on the nuances and associations amongst

humans and the receiving (natural) environment, as the target, but also on the degree to which natural resource crime and criminality violate the limits of acceptable change with regard to any particular natural resource or alliance thereof. Conservation criminology should, it is argued, be categorized within its own remit as an adjunct of the traditional criminological field, which will facilitate its (science-related) management in a fashion comparable to other forms of serious crime in society [2]. Conservation criminology deals with a more focused range of issues than those customarily and simplistically labelled “green issues”, *inter alia*, animal rights, animal abuse/cruelty, ecological spirituality, and eco-feminism [57]. Conflated terms such as ‘green environmental criminology’, are also pandered about, endorsing the opacity of these terms and revealing that a mixture of already indistinct and non-specific terms does nothing to promote a focused approach to the issue at hand [58]. The continued misapplication of the terms environmental, ecological, wildlife, or green crime/criminology can, therefore, further agitate uncertainty by buttressing prejudiced beliefs, hampering this new conceptual framework.

Although criminology, as a discipline, tends to be somewhat anthropocentric in its approach and orientation, conservation crime/criminology does not emphasise the biological, mental and/or moral supremacy of humans over all other biotic and abiotic resources, or view non-human nature as “instrumental” in any way shape or form – as something to be usurped, processed, suppressed, expended, and/or disposed of in a manner which best suits the immediate interests of humankind [23]. Hesitation and restricted impetus in gravitating towards an unambiguous natural resource-oriented terminology, it is submitted, whether it is conservation crime/criminology, or perhaps some other, will further contribute to the perplexing attrition of focus in this variable terrain. “Continual subscription to inaccurate terminology and countervailance is to encourage (more) schisms and frustrate intervention efforts, resulting in natural resource crime and criminality remaining ‘all over the place’. Only when conservationists, criminologists and criminal justice system advocates alike, take a step back and (really) appreciate the uniqueness of terminology and entrench an perspicuous natural resource crime/criminological vocabulary, can they move forward together and embrace a new and more effective template for the study of this phenomena” [1].

8. Etymological Considerations

“English language principles can be used to assist in determining the most apposite word/term to use in relation to a concept. It can, quite frankly, in many instances be pivotal in assessing and distinguishing between what is acceptable praxis and what is not. Linguistics is the “scientific study of language” and basically entails what the source or sender expresses, communicates, or conveys in their message to the observer or receiver, and what the receiver infers from the current context [88]. It will be shown that in the diction under

scrutiny the messages being broadcasted are, to say the least, ambiguous, confusing and somewhat disingenuous, as no clear understanding is (or can be) shared by all. Ambiguity means “the possibility of interpreting an expression in more than one way, vagueness or uncertainty of meaning” [88]. Since the current context in which the terms under scrutiny are being used may lead to different interpretations and connotations, their usage cannot, it is submitted, be regarded as being effectual or pragmatic and can, therefore, at most, be considered language artefacts.

“Pragmatics is “the study of how context affects meaning” [88]. Of importance to the current discourse is situation context, which refers to every non-linguistic factor that affects the meaning of a phrase. An example of situation context can be seen in the phrase “it’s cold in here”, which can either be a simple statement of fact or a request to turn up the heat, depending on, among other things, whether or not it is believed to be in the listener’s power to affect the temperature. By the same token the phrase “environmental criminology is important” can either be interpreted as referring to the importance of the study of natural resource crime, or that the study of environmental crime (spatial planning/geographies of crime) is important - two entirely different concepts. Environmental crime and crime against the natural environment are, thus, two fundamentally dissimilar and mutually exclusive concepts. Different individuals will interpret the statement differently, which means that it is disingenuous and not being correctly and/or uniformly applied. Semantics is “the study of how meaning is conveyed through signs and language” [88]. Linguistic semantics focuses on the history of how words have been used in the past”.

This is particularly important to the issue under scrutiny as the historical use of the words *environmental/green/ecological* crime/criminology denotes something entirely different to that which they are currently being used to depict. Consonant with the foregoing, Friederich Schleiermacher, widely regarded as the father of social hermeneutics, believed that in order for an interpreter to understand the work of another author they must familiarize themselves with the historical context in which the author/s published their thoughts [89]. The central principle of sociological hermeneutics, therefore, is that it is only possible to know the meaning of something within the context of the discourse or world view from which it originates [89]. Context is critical to comprehension and, polysemous or pixelated terms as well as lexical parallaxes, obviously then, will not pass muster. The most important function of language is to transmit information. Language should serve as an effective communication. Usually we assume that the transmitted information is true. We are indignant if we find out it is not [90]. Deleuze echoes the above sentiments by stating the following: “As soon as we name or designate something or someone, on the condition that this is done with the necessary precision and above all the necessary style, we denounce as well: we remove the name or rather cause the multiplicity of the denominated to

rise up under the same name, we divide, we reflect the thing, we give under the same name, many objects to see, just as seeing gives, in a glance, so much to speak about” [91].

Drawing on the philosophy of science, one could argue that too many conceptual definitions, and dividing up concepts endlessly into smaller pieces, distorts rather than amplifies developing a profounder understanding of a subject. Ignoring harmonies across behaviors/outcomes, assumed to be unique, impedes advancing appropriate etiological vindications of those outcomes. In this regard, Albert Einstein’s urgings (in a *Life Magazine* interview) for explanatory prudence ring true - “the aim of science is, on the one hand, as complete a comprehension as possible of the connection between perceptible experiences in their totality, and, on the other hand, the achievement of this aim by employing a minimum of primary concepts and relations”. Moreover, Charles Darwin is famously quoted as having said, “[i]gnorance more frequently begets confidence than does knowledge.”

9. Perpetuating Parlance Posturing - Showcasing Sociolinguistic Drivers

The academe largely assumes that all investors act as perfectly rational persons. In truth, actual investors face cognitive limitations from biases, heuristics, and framing effects. Protagonists and influencers of the terms ‘environmental crime’, ‘ecological crime’, ‘green crime’, ‘wildlife crime’, and so forth, have, due to being vested with an unencumbered executive (lexical) discretion, and the latitude to pursue their personal semantical predilections, clearly erred. But, they have, for the most part, stuck with their original terminology (and even, in some instances, deviated to hybrid compilations or used the iterations interchangeably) because, it is submitted, it would be too uncomfortable to reverse their submissions by changing them to something more appropriate (even in the face of overwhelming evidence). These decisions can, of course, also be made without fear of redress and are virtually unreviewable. Therefore, crime in the natural resource remit has become, and remains to this day, the terminological ‘whipping boy’ of this research direction/diaspora. Using the crime of rape as an example – researchers unite behind its meaning and definition; terms are not changed on a whim and have not morphed into notions, such as sexual virtue robbery, private sexual piracy or bodily integrity violation, etc., etc. It remains rape.

Why then do researchers see fit to hang multifarious titles around the neck of natural resource crime/criminality research? Even more perplexing, why do so many authors/researchers seem to suffer from an “environmental generational amnesia,” in which their perception of environmental information (lexes) is framed without information about the historical state or states of the system [92]? Notwithstanding, there has been a surfeit of proxy terms assigned to the study of natural resource

crime/criminology, as well as substantial equivocation regarding them during the preceding two decades. The reasons for this phenomenon are, however, unclear and will, for the time being at least, remain a matter of some speculation. The rationales are probably intertwined and complex and relate to a combination of personal experiences, psychological state, personal objectives, position in society, and many other factors that cannot be scientifically monitored and accounted for. They, however, do little more than increase the transactional distance between natural resources/biodiversity and its management/conservation.

I submit that, in many instances, the motivation for authors to employ previously established/embedded, vague and/or hybrid terminology to describe the study of crime and criminality in relation to the natural environment is benevolent (psychologically stimulated), but that the perpetuation and dissemination thereof, is more inauspicious, perhaps even exhortations in nature. It is my submission that when the study of natural resource crime and criminality was in its infancy, some of the, now prominent, authors in this field (*influencers*), selected the term ‘environmental crime/criminology’, and in due course the terms, ‘ecological crime/criminology’, ‘wildlife crime/criminology’ and ‘green crime/criminology’ somewhat arbitrarily and/or due to some, or several, of the sociological/psychological drivers and generative mechanisms mentioned below without perhaps fully considering the genesis and/or concatenation of their use. It is now very uncomfortable for them to default on these terms. In other words, the situation is, to a large extent, computationally intractable. The following succinct account will facilitate the mapping out of sociological instances where semantical posturing, (wholly or in part) has the potential to occur and adversely impact researchers’ judgement.

9.1. Rashomon Effect

“The Rashomon effect describes how parties (academics/researchers) describe an event (for instance, the use of specific semantics) in a different and contradictory manner, reflecting their subjective interpretation and self-interested advocacy, rather than an objective truth. The Rashomon effect is defined within conservation as “the existence of multiple plausible, but conflicting perceptions, about the causes and underlying consequences of an urgent conservation challenge” [93]. In other words, a situation (such as natural resource terminology) in which an event/issue is given contradictory interpretations or descriptions by the individuals involved. Although conflicts can be a critical driver of positive environmental change, they are frequently costly and impair the aims of conservation [94-95]. Conservation and other natural resource conflicts (including semantical discrepancies and variance) can, therefore, quickly become pathological, fundamentally emasculating efforts to achieve conservation.

9.2. Mere Exposure Effect

“According to the mere exposure effect, people often

favour things that they have seen before over things that are new [96]. In 1968, social psychologist Robert Zajonc published a seminal paper on the mere exposure effect. Zajonc's hypothesis was that simply being subjected to something on a recurring basis (like the idea that environmental crime equates to natural resource criminality instead of to concentric zones and the spatial distribution of crime as originally terminologically and contextually ordained) was enough to make people like that thing (concept/term). People do not need to encounter an incentive or positive outcome while around the object; simply being exposed to the object would be enough to make people like it" [96]. The mere exposure effect explains why seeing the same advertisement multiple times could be more convincing than just seeing it once: that "as seen on TV" product may seem puerile the first time you hear about it, but after viewing it a few more times, you start to think about purchasing the product yourself. Basically, a person feels less uncertain about things (in this case 'terminology') they have come across before and makes them easier to interpret. This effect was in all probably most prevalent and applicable during the infancy of natural resource crime research when the meaning of the term 'environmental crime' was first wrested (subconsciously) from the niche connotation originally ascribed to it.

9.3. Dunning-Kruger Effect

"The Dunning-Kruger effect presents a substantial quandary. This effect speaks to a cognitive bias whereby people with limited knowledge or competence in a given intellectual or social domain (for example, natural resource crime/criminology) greatly overestimate their own knowledge or competence in that domain relative to objective criteria or to the performance of their peers or of people in general" [97]. For example, new researchers entering the field of natural resource crime research might not know much about the subject and its nomenclature and, therefore, not necessarily have the knowledge or skills to spot their own mistakes or knowledge gaps (in relation to natural resource crime/criminology terminology). Because of these blind spots, they adopt the circulating 'fashionable' terminology and cannot immediately see their oversight. They, therefore, assume that they are on the right track.

9.4. Cognitive Bias

"A cognitive bias is basically a systematic pattern of deviation from the norm or rationality in judgment [98]. Individuals create their own 'subjective reality' from their perception of the input. An individual's construction of reality, not the objective input, may dictate their behaviour in the world (hence the adoption of environmental crime as the go-to term for natural resource perturbation, and the snubbing of its actual embedded denotation within crime and criminality). Thus, cognitive biases may sometimes lead to perceptual distortion, inaccurate judgment, and illogical interpretation" [98]. Of interest here are anchoring bias,

confirmation bias and the backfire-effect. Like all cognitive biases, these biases take place subconsciously, and when a person is unaware that something is happening, it is challenging to discontinue it.

9.4.1. Anchoring Bias

"Anchoring bias is a pervasive cognitive bias that causes people to rely too heavily on information received early in the decision-making process [99]. Because this "anchoring" information is used as a point of reference, perception of the situation can become skewed (i.e., the perception that the term environmental crime is the gold-standard). Anchoring bias is one of the most robust effects in psychology. Many studies have confirmed its effects and shown that people can often become anchored by values that are not even relevant to the task at hand (for example, believing environmental crime to be an accurate moniker for natural resource crime/criminality research).

This theory relies on priming, another prevalent effect in psychology [99]. When people are exposed to a given concept, it is said to become primed, meaning that the areas of the brain related to that concept remain activated at some level [99]. This makes the concept more easily accessible, and more able to influence people's behaviour without their realizing. When we are setting plans, making estimates or doing research in a field, we interpret newer information from the reference point of our anchor, instead of seeing it objectively [99]. This could quite feasibly be the reason for more appropriate and doxic terms (conservation crime/criminology) being disregarded in favour of other, familiar terms (environmental/green/ecological/wildlife crime/criminology). The inability of people to make appropriate adjustments from a starting point in response to a final answer can lead people to make sub-optimal decisions" [99].

9.4.2. Confirmation Bias

"Confirmation bias is the tendency to search for or interpret information in a way that confirms a person's preconceptions, and to discredit information that does not support the initial opinion [100]. I submit that *confirmation bias* is a further segmental reason for the continued use, and even to some extent, the hybridization, of natural resource crime parlance. Confirmation bias occurs from the direct influence of desire or belief (not objective), for example, believing that 'environmental crime' is an accurate moniker for crime and criminality in the natural resource arena. When people would like a certain idea/concept to be true, they end up believing it to be true [100]. They are motivated by wishful thinking. This systematic error of reasoning leads the individual to stop gathering information when the evidence gathered so far confirms the views (prejudices) one would like to be true [100].

Once we have formed a view, we embrace information that confirms that view while ignoring, or rejecting, information that casts doubt on it. Confirmation bias suggests that we don't perceive circumstances (or arguments to the contrary) objectively. We pick out those bits of data that make us feel good because they confirm our prejudices [100]. Thus, we

may (unintentionally) become prisoners of our assumptions. The problem with this is that it can lead to poor choices, an inability to listen to opposing views, or even contribute to ‘othering’ people who hold different opinions.

Generally, people are prone to believe what they want to believe. Seeking to confirm our beliefs comes naturally, while it feels strong and counterintuitive to look for evidence that contradicts our beliefs. This explains why opinions, and in this case skewed terminology, survive and propagate. Lending credence to this proposition, Francis Bacon (1561 – 1626) noted that”:

“The human understanding when it has once adopted an opinion ... draws all things else to support and agree with it. And though there be a greater number and weight of instances to be found on the other side, yet these it either neglects or despises, or else by some distinction sets aside or rejects” [101].

Consonant herewith, in his essay (1897) “What Is Art?” Russian novelist, Leo Tolstoy, wrote:

“I know that most men – not only those considered clever, but even those who are very clever, and capable of understanding most difficult scientific, mathematical, or philosophical problems – can very seldom discern even the simplest and most obvious truth if it be such as to oblige them to admit the falsity of conclusions they have formed, perhaps with much difficulty – conclusions of which they are proud, which they have taught to others, and on which they have built their lives” [102].

German philosopher, Arthur Schopenhauer, moreover, in the second volume of his “The World as Will and Representation” (1844), observed that “An adopted hypothesis gives us lynx-eyes for everything that confirms it and makes us blind to everything that contradicts it” [103]. The most important role of language is to broadcast information. Language should serve as effective communication. Usually we assume that the transmitted information is true. We (humans) are offended if we find out it is not [90]. Adding another segment to the reason/s for the continued broadcasting of ersatz natural resource crime/criminology terminology, is the fact that many ‘status authors’ (often without their knowledge) act as scholarly influencers to others entering the field of natural resource crime research.

9.4.3. Backfire Effect

Consonant with confirmation bias is the ‘backfire effect’. A backfire effect occurs when an evidence-based correction is presented to an individual and they report believing even more in the very misconception the correction is aiming to rectify [104]. For example, this effect can occur when a savant author’s impressive publication record might easily prime or persuade a ‘fresh’ author to imprint on, or adopt the (inaccurate) nomenclature employed by the more established and respected one, to summarily dismiss any viable alternatives and/or, even result in the hybridization of terms for the reasons expounded upon elsewhere in this article. (In such instances, creating hybrids may well be regarded as

easier than seeking actual solutions to the esoteric semantical quandary).

Such authors are then said to have been exposed to the ‘backfire effect’, (an illusory correlation/cognitive bias) [105]. In other words, these authors, given evidence against inaccurate terminologies, reject the evidence and believe even more strongly in the quasi-mentor’s ideology (the illusory superiority of certain terms) – they are reluctant to embrace facts that contradict their principal’s already held ideology, and their growing appreciation thereof [104]. Some authors may even accept the authority of certain people (academic influencers/mentors) and emphasise loyalty as more important than preventing (terminological) harm. Regrettably, alongside the previous calls for unity of terms, and sometimes painful adaptations, there has, albeit anecdotally, been a recurring tendency towards a kind of hysterical denial and the emphatic reassertion of the old myth of ‘environmental crime/criminology’ and related parlance sovereignty.

10. Precis and Discussion

“It is clear from the foregoing that the common lexicon used to describe the study of natural resource crime and criminality has, with the passage of time, developed many contours and permutations. These, often ‘off-piste’ versions, have, it is submitted, evolved and nested due to the lack of scientific register in this arena, and would ordinarily, in law, be excommunicated in terms of the ‘void-for-vagueness doctrine. In other words, they (vague/ambiguous terms) would be struck down or significantly limited in terms of significance [59]. The terms, hence, need to be collapsed if we are to unite behind a criminology that legitimately means to interrogate natural resource and associated Gaia issues, and not encumber this unique concept with subjective semantical tangents. Since considerable semantical disparity exists, and is being perpetuated, it could well be argued that this situation is reflective of the disconnectedness among criminological scholars’ ontology in relation to this semantical issue and/or field of study. Socrates, in calling attention to the difference between ambiguousness and goal in style in a sentence, declared that “one should call things by their own special names and not by vague general ones and avoid ambiguities, unless, you definitely desire to be ambiguous” [106]. Equally, it is argued that matters worded in a standardless way, or issues that lack conviction/precision, invite capricious or inequitable interpretation [107]. The phraseology used by contemporary society to refer to different issues can be regarded as decisive for society to identify with, and distinguish amongst, diverse entities/concepts/issues.

Scholars must guard against the original meaning of environmental crime (and others) being assimilated by the meaning of other terms through the process of secondary evolutionary development [1]. A respected division of meaning should exist in relation to crime nomenclature and meaning, and liminal terms, disseminating doubt, should be

purged from the discourse. In this regard it does, however, somewhat unnervingly, still seem that many authors patronizing flawed terminology, display an inability or unwillingness to ‘read the (semantical) room’. Tolerance for cryptic terms should gradually be replaced by more enthusiastic concern for the protection of nature/biodiversity and its vocabulary. The lack of a universal working definition results in challenges at the most basic level - being able to accurately record the extent of conservation crime incidents/impact through the collection of data.

The use of cascading/overlapping definitions also makes it difficult to cross-reference the data they compile. The lack of a common and agreed upon understanding of what constitutes crime in the natural resource remit, inherent in the absence of a tightly delineated concept, means that it becomes difficult to gauge the scope and costs of the phenomenon. As a result, there are ramifications in terms of countering this menace and developing sound and effective strategies to employ in this regard.

This article involves tracing the evolution and application of natural resource crime semantics and its vernacular, as well as engaging with the debate surrounding the use of atypical terms to refer to natural resource crime and criminality. Perhaps this contribution will be a first attempt to standardize fractured lexis and stimulate the solidification of the currently circulating ersatz idiom. Constant subscription to inaccurate natural resource crime terminology, and its compensation, is to attract (more) fissures. Lexical indecisiveness should, if possible, be resolved amiably, and redundant terminologies ousted cursorily. This dialectical issue is in dire need of reconciliation before it becomes even more jaundiced. As some food-for-thought, consider the crux of the issue, namely, that terminology is at risk, but terminology is the problem.

11. Conclusion

Having unpacked the semantical challenges being faced by the study of natural resource crime/criminality, a strong case emerges for elevating the term and definition *conservation crime/criminology* above others, and, importantly, for natural resource researchers to embrace a common environmental reality. “This definition/terminology may well inform new conversational and extra-discursive instruments where other demarcations have fallen short on the semantical grindstone. As Deleuze so frankly states, “criminology needs to come to grips with the role of language in framing and dealing with environmental problems” [3]. Until it does this – until criminology develops a critical understanding of how various discourses frame “harm” – it will continue to be an (unwitting) benefactor for the myriad of (often) disguised onslaughts being flung at the earth from minute to minute [3].

Lexical vacillation should ideally be resolved cordially, and defunct terminologies eliminated as a matter of priority. In ending this narrative, the words of Socrates provide much food for thought: “We all make mistakes, even if we are great philosophers. We just don’t expect to see them perpetuated”

[108]. The vernacular, and sometimes interchangeable, use of the term environmental, green, wildlife or ecological crime/criminology seems fashionable among criminological virtuoso’s, but regrettably does not auger well for environmental sustainability going forward. Convoluted modalities speciously pitch a very particular series of (biased) conceptions and serve to partition and enervate the criminological discourse. To define environmental, ecological or green criminology as the criminological study of natural resource and/or allied Gaia issues, is hence fundamentally flawed and imprudent.

“To treat the various general terminologies being pandered about (in relation to the study of natural resource crime and criminality), as if they were unqualified universals with no exceptions, would be to invest them with significance and rigor they were never intended to bear. Furthermore, by allowing these semantical artefacts to propagate, people will gradually come to have complete faith in them, indiscriminately mixing them up with those which are in fact true and evident. Since the term environmental criminology was framed, and has customarily been used to represent the study of crime patterns, the spatial distribution of crime and so forth, surely the sensible implication to be drawn is that the original use thereof to describe another preexisting criminological concept could lead to uncertainty and misunderstanding”. [1].

In the light of this argument, those supporting, amongst others, the terms environmental/green/eco/wildlife crime/criminology (to describe the study of natural resource crime and criminality) appear to have failed to make prudent inferences and recognize the field’s focused parameters. Only when conservationists, criminologists and the criminal justice system cluster alike, recognize the distinctiveness of terminology and ensconce an unequivocal conservation crime/criminology glossary, can a crisp and more effective telemetry for the study of natural resource crime and criminality be developed, and its survival sustained. There needs to be congruity between words and actions, between words and ideas, and between ideas and deeds – if we are to seamlessly expand the frontiers of conservation crime/criminology. In the final analysis, we must not be overcome by terms, but overcome terms – *tout court*. Like all things in life, like the best of times and the worst of times, terminological incongruity must, at some point, conclude in this arena.

Disclosure Statement

The author declares that no competing interests exist.

References

- [1] Herbig, F. J. W. (2011). Informant application in South African conservation crime management: criminological affordances. *Acta Criminologica Southern African Journal of Criminology*, 24 (3): 98-113.

- [2] Moreto, W., & Pires, S. F. (2018). *Wildlife Crime: An Environmental Criminology and Crime Science Perspective*. Durham, Carolina Academic press.
- [3] Halsey, M. (2006). *Deleuze and environmental damage. Violence of the text*. England: Ashgate.
- [4] Herbig, F., & Joubert, S. (2006). Conservation crime semantics: Vision or vagary? *Acta Criminologica: Southern African Journal of Criminology*, 19 (3): 87–101.
- [5] Gibbs, C., & Boratto, R. (2017). Environmental Crime. Available at: <https://oxfordre.com/criminology/view/10.1093/acrefore/9780190264079.001.0001/acrefore-9780190264079-e-269>, accessed on 10 April, 2021.
- [6] White, R. D. (2008). *Crimes against nature: Environmental criminology and ecological justice*. Portland, OR: Willan Publishing.
- [7] Kripke, S. A. (2001). *Naming and necessity*. Twelfth printing. Cambridge, Massachusetts: Harvard University Press.
- [8] Burke, R. H. (2009). *An introduction to criminological theory* (Third edition). Portland Oregon: Willan.
- [9] Glass, D & Herbig, F. J. W. (2021). Mapping Matters: geoprofiling in South African serial rape investigation. *Crime, Law & Social Change* [Published online: 8 January 2021]. Available at: <https://doi.org/10.1007/s10611-020-09926-x>, accessed on 10 March, 2021.
- [10] South, N. (1998). A green field for criminology? A proposal for a perspective. *Theoretical Criminology*, 2 (2): 211-233.
- [11] Tabangin, D. R., Flores, J. C., & Emperador, N. F. (2008). Investigating Crime Hotspot Places and their Implication to Urban Environmental Design: A Geographic Visualization and Data Mining Approach. *International Journal of Computer, Electrical, Automation, Control and Information Engineering*, Volume 2: 154.
- [12] Wortley, R. K. & Mazerolle, L. G. (2011). *Environmental criminology and crime analysis*. Oxon: Routledge.
- [13] Verma, A. & Lodha, S. K. (2002). A typological representation of the criminal event. *Western Criminology Review*, 3 (2): 37-48.
- [14] Herbig, F. J. W. & Warchol, G. (2011). South African conservation crime and Routine Activities theory: A causal nexus? *Acta Criminologica Southern African Journal of Criminology*, 24 (2): 1-16.
- [15] Burke, R. H. (2014). *An introduction to criminological theory* (Fourth edition). Oxon: Routledge.
- [16] Wang, F. (2005). *Geographic information systems and crime analysis*. Hershey, PA: Idea Group Pub.
- [17] Cohen, L. & Felson, M. (1979). Social change and crime rate trends: a routine activities approach. *American Sociological Review*, 44: 588-608.
- [18] Rossmo, D. K. (1995). Place, space and police investigations: hunting serial violent criminals. In JE. Eck & DL. Weisburd (Eds). *Crime and place: crime prevention studies*, 4: 217-235.
- [19] Brantingham, P. J. & Brantingham, P. L. (1998). Environmental criminology: from theory to urban planning practice. *Studies on crime and crime prevention*, 7 (1): 31-60.
- [20] Wartell, J. & Gallagher, K. (2012). Translating environmental criminology theory into crime analysis practice. *Policing*, 6 (4): 377-387.
- [21] Wellsmith, M. (2011). Wildlife crime: the problems of enforcement. *European Journal on Criminal Policy and Research*, 17 (2): 125-148.
- [22] Bricknell, S. (2010), *Environmental Crime in Australia*, AIC Research and Public Policy Series 109, Australian Institute of Criminology.
- [23] Brisman, A. & South, N. (2013). A green-cultural criminology: An exploratory outline. *Crime, Media, Culture: An International Journal*, 9 (2): 115-135.
- [24] White, R. D. (2007). Green criminology and the pursuit of social and ecological justice. In P. Beirne & N. South (eds), *Issues in green criminology*. Cullompton, Devon, UK: Willan.
- [25] Herbig, F. J. W. (2008). Conservation crime: South African concerns and considerations from a criminological perspective. *Acta Criminologica Southern African Journal of Criminology*, 21 (3): 52-64.
- [26] Halsey, M. (2004). Against Green Criminology. *British Journal of Criminology*, 44 (6): 833-853.
- [27] South, N. (2014). Green Criminology: Reflections, Connections, Horizons. *International Journal for Crime Justice and Social Democracy*, 3 (2): 5-20.
- [28] Lynch, M. (2019). Green Criminology and Environmental Crime: Criminology That Matters in the Age of Global Ecological Collapse. *Journal of White-Collar and Corporate Crime*, 1 (1): 50-61.
- [29] Goyes, D. R. (2016). Green Activist Criminology and the Epistemologies of the South. *Critical Criminology*, 24 (3): 503-518.
- [30] Goyes, D. R. (2017). Green Criminology Before 'Green Criminology': Amnesia and Absences. *Critical Criminology*, 25 (1): 165-181.
- [31] Goyes, D. R. (2018). Green Criminology as Decolonial Tool: A Stereoscope of Environmental Harm. In: Carrington, K., Hogg, R., Scott, J. & Sozzo, M. *The Palgrave Handbook of Criminology and the Global South*. London: Palgrave Macmillan.
- [32] Goyes, D. R. (2019). *Southern Green Criminology: A Science to End Ecological Discrimination*. England, Emerald Publishing.
- [33] Sollund, R. (2015). 'Introduction: Critical green criminology – An agenda for change', In: R. Sollund (ed), *Green Harms and Crime: Critical Criminology in a Changing World*. London: Macmillan.
- [34] Sollund, R. (2016). Doing Green Critical Criminology with an Auto-Ethnographic, Feminist Approach. *Critical Criminology*, 25: 245-260.
- [35] Brisman, A. (2014). Of Theory and Meaning in Green Criminology. *International Journal for Crime, Justice and Social Democracy*, 3 (2): 21-34.
- [36] Lynch, M. J., & Stretesky, P. (2013). Green Criminology in the United States, In, *Issues in Green Criminology*. Cullompton: Willan Publishing: 270-291.

- [37] Stretesky, P. B., Long, M. A. & Lynch, M. J. (2013). *The treadmill of crime: Political economy and green criminology*. London: Routledge.
- [38] Lynch, M. (2013). Reflections on green criminology and its boundaries. In: South, N., & Brisman, A. (eds.). *Routledge International Handbook of Green Criminology*. Abingdon, Routledge, 43-47.
- [39] Lynch, M., & Stretesky, P. B. (2003). The Meaning of Green: Contrasting Criminological Perspectives. *Theoretical Criminology*, 7 (2): 217 - 238.
- [40] Barret, K. L., Lynch, M. J. & Stretesky, P. B. (2016). Green criminology and the reconceptualization of school violence: Comparing green school violence and traditional forms of school violence for school children. *Critical Criminology*, 24 (1): 19-37.
- [41] Lynch, M., & Stretesky, P. B. (2014). *Exploring green criminology: Toward a green revolution in criminology*. Surrey, Ashgate.
- [42] Beirne, P. & South, N. (2007). *Issues in Green Criminology: Confronting Harms Against Environments, Humanity and Other Animals*. Collumpton, Devon: Willan.
- [43] Beirne, P. & South, N. (2007). Approaching green criminology. In: Beirne, P. and South, N. (eds.). *Issues in green criminology*, (pp. xiii-xxii). Portland, OR: Willan.
- [44] Eman, K., Mesko, G. & Fields, C. B. (2009). Crimes against the environment: green criminology and research challenges in Slovenia. *Journal of Criminal Justice and Security* 11 (4): 574-592.
- [45] Anh, C. N. & Wyatt, T. (2013). A Green Criminological Exploration of Illegal Wildlife Trade in Vietnam. *Asian journal of Criminology*, 8 (2): 129-142.
- [46] White, R. (2014). Green Criminology. In: Bruinsma, G. and Weisburd, D. (eds.). *Encyclopedia of Criminology and Criminal Justice*. New York, NY: Springer.
- [47] Johnson, H., South, N. & Walters, R. (2016). The commodification and exploitation of fresh water: Property, human rights and green criminology. *International Journal Law, Crime and Justice*, 44 (2): 146-162.
- [48] Nurse, A. (2016). *An Introduction to Green Criminology and Environmental Justice*: London: Sage.
- [49] Lynch, M. J., Barrett, K. L., Stretesky, P. B., & Long, M. A. (2017). The neglect of quantitative research in green criminology and its consequences, *Critical Criminology*, 25, 183-198.
- [50] Boekhout van Solinge, T. (2020). *The Amazon Rainforest: A green criminological perspective*. London: Routledge.
- [51] Spapens, T., White, R. & Huisman, W (2018). *Environmental crime in a transnational context: Global issues in green enforcement and criminology*. Abingdon: Routledge.
- [52] Mol, H. (2016). Green Criminology and (Constructions of) Environmental Crime and Harm: A Review Essay. *Critical Criminology* 24: 145-150.
- [53] Spapens, T., White, R., Van Uhm, D., & Huisman, W. (2020). *Green Crimes and Dirty Money*. London: Routledge.
- [54] Heyes, A. & King, B. (2018). Understanding the Organization of Green Activism: Sociological and Economic Perspectives. *Organization & Environment*, 33 (1): 7-30.
- [55] White, R., & Heckenberg, D. (2014). *An introduction to the study of environmental harm*. New York: Routledge.
- [56] Eman, K., Mesko, G., Dobovsek, B. & Sotlar, A. (2013). Environmental crime and green criminology in South Eastern Europe - practice and research. *Crime, Law and Social Change*, 59 (1): 341-358.
- [57] Agnew, R. (1998). The causes of animal abuse: A Social-Psychological Analysis. *Theoretical Criminology*, 2 (2): 177-209.
- [58] Swanepoel, G. (1997). The illegal trade in rhino horn as an example of trade in an endangered species. *Acta Criminologica: Southern African Journal of Criminology*, 10 (2): 47-57.
- [59] Hessick, C. B. (2016). Vagueness Principles. *Arizona State Law Journal*, 48 (2): 1137-1168.
- [60] Boekhout van Solinge, T. (2008). Eco-Crime: The Tropical Timber Trade. In: Siegel, D. & Nelen, H. (eds.). *Organized Crime: Culture, Markets and Policies. Studies in Organized Crime*, Vol. 7. New York, NY: Springer.
- [61] Halsey, M. & White, R. (1998). Crime, Ecophilosophy and Environmental Harm. *Theoretical Criminology*, 2 (3): 345-371.
- [62] Walters, R. (2010). Eco-crime and air pollution. In: Brookman, F., Maguire, M., Pierpoint, H. & Bennett, T. (eds.). *Handbook on Crime*. London: Willan.
- [63] White, R. (2011). *Transnational Environmental Crime: Toward an Eco-Global Criminology*. London: Willan.
- [64] Brantingham, P. J. & Brantingham, P. L. (1981). *Introduction: The Dimensions of Crime, in Environmental Criminology*, Beverly Hills: Sage.
- [65] Van Heerden, T. J. (1988). *Introduction to Police Science*. Pretoria: UNISA.
- [66] Williams, F. & McShane, M. (2010). *Criminological theory* (5th edition). Upper Saddle River, NJ: Prentice Hall.
- [67] Aas, K. F. (2013). *Globalization and crime* (Second edition). Los Angeles: Sage.
- [68] Sollund, R. (2020). Wildlife Crime: A Crime of Hegemonic Masculinity? *Social Sciences*: 9 (6), 93.
- [69] Sollund, R. A. & Runhovde, S. R. (2020). Responses to Wildlife Crime in Post-Colonial Times: Who Fares Best? *British Journal of Criminology*, 60 (4): 1014-1032.
- [70] Burton, C., Devin, C. & Moreto, W. (2020). Wildlife Crime. In: Brisman, A. & South, N. (eds.). *Routledge International handbook of Green Criminology*. Abingdon: Routledge.
- [71] Nurse, A. (2015). *Policing Wildlife. Perspectives on the Enforcement of Wildlife Legislation*. London: Palgrave Macmillan.
- [72] Van Uhm, D. (2016). *The Illegal Wildlife Trade. Inside the World of Poachers, Smugglers and Traders*. New York, NY: Springer.
- [73] Stretesky, P. B. & McGarell, E. F. (2012). Wildlife crime and enforcement. *International Journal of Comparative and Applied Criminal Justice*, 36 (2): 81-82.

- [74] Wellsmith, M. (2010). The applicability of crime prevention to problems of environmental harm: a consideration of illicit trade in endangered species. In *Global environmental harm. Criminological perspectives*, edited by R. D. White. Cullompton: Willan Publishing.
- [75] Mailley, J. & Clarke R. V. (2008). Environmental Criminology and Wildlife Crime. Environmental Criminology and Crime Analysis (ECCA) Symposium, Izmir, Turkey.
- [76] Zaitch, D., Boekhout van Solinge, T. & Muller, G. (2014). Harms, crimes and natural resource exploitation: A green criminological and human rights perspective on land-use change. In: Bavinck, M., Pellegrini, L. & Mostert, E. (eds.) *Conflicts over Natural resources in the Global South*. London: CRC Press.
- [77] South, N. (2007). The corporate colonization of nature: Bio-prospecting, biopiracy and the development of green criminology. In: Beirne, P. & South, N. (eds.) *Issues in Green Criminology: Confronting Harms against Environments, Humanity and Other Animals*. Collumpton: Willan.
- [78] Wilson, L. & Boratto, R. (2020). Conservation, wildlife crime, and tough-on-crime policies: Lessons from the criminological literature. *Biological Conservation*, 25 (1): 87-103.
- [79] Van Uhm, D. & Zaitch, D. (2021). Defaunation, wildlife exploitation and zoonotic diseases – A green criminological perspective. *Revue Internationale de Droit Pénal*, 87 (1): 323-340.
- [80] Carrabine, E., Cox, P., Fussey, P., Hobbs, D., South, N., Thiel, D., & Turton, J. (2014). *Criminology. A sociological introduction*. (3rd edition). New York, Routledge.
- [81] Duffy, R. (2010). *Nature Crime: How We're Getting Conservation Wrong*. Great Britain: TJ International Ltd.
- [82] Stanley, J. & Hylands, P. (2022). Hunting Crimes. *Rurality, Crime and Society*, 3 (1): 15-21.
- [83] United Nations Interregional Crime and Justice Research Institute (UNICRI). (2019). Available at: <http://www.unicri.us/topics/environmental/>, accessed 25 March 2021.
- [84] Gibbs, C., Gore, M. L., McGarell, E. F., & Rivers, L., III. (2009). Introducing conservation criminology: Towards interdisciplinary scholarship on environmental crimes and risks. *British Journal of Criminology*, 50 (1): 124-144.
- [85] Gore, M. L. (2017). *Conservation Criminology*. Sussex, Wiley Blackwell.
- [86] Eman, K., Mesko, G., Dobovsek, B., & Sotlar, A. (2013). Environmental crime and green criminology in South Eastern Europe—practice and research. *Crime, Law and Social Change* 95 (3).
- [87] Moeletsi, L. (2009). Conservation criminality and victimisation: a literature study. *Acta Criminologica (Special conference edition)*, No. 2: 42-56.
- [88] *Collins Concise Dictionary*. (2001). Fifth edition. Glasgow: Harper Collins Publishers.
- [89] Sockness, B. W. (2003}. The Forgotten Moralist: Friedrich Schleiermacher and the Science of Spirit. *The Harvard Theological Review*, 96 (3): 317-348). Available at: <https://www.jstor.org/stable/4151874>, accessed on 12 March 2021.
- [90] Blum, S. D. (2007). *Lies that Bind: Chinese Truth, Other Truths*. New York: Rowman & Littlefield, p 159-172.
- [91] Deleuze, G. (1990). *The logic of sense*. New York: Columbia University Press.
- [92] Kahn, P. H., Weiss, T. (2017). The importance of children interacting with big nature. *Children, Youth, and Environments*, 27: 7-24.
- [93] Levin, P. S., Gray, S. A., Mollman, C. & Stier, A. C. (2021). Perception and Conflict in Conservation: The Rashomon Effect. *BioScience*, 71 (1): 64-72.
- [94] Barnett, J. (2000). Destabilizing the environment: Conflict thesis. *Review of International Studies*, 26: 271-288.
- [95] Redpath, S. M., Young, J., Evely, A., Adams, W. M., Sutherland, W. J., Whitehouse, S., Amar, A., Lambert, R. A., Linnell, D. C., Watt, A., & Gutierrez, R. J. (2013). Understanding and managing conservation conflicts. *Trends in Ecology and Evolution*, 28: 100-109.
- [96] Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monographs*, 9 (2): 1-27.
- [97] Coutinho, M. V. C., Thomas, J., Alsuwaidi, A. S. M., & Couchman, J. J. (2021). Dunning-Kruger Effect: Intuitive Errors Predict Overconfidence on the Cognitive Reflection Test. Available at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.603225/full>, accessed on 20 February, 2022.
- [98] Berthet, V. (2022). The Impact of Cognitive Biases on Professionals' Decision-Making: A Review of Four Occupational Areas, Available at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.802439/full>, accessed on 20 April, 2022).
- [99] Lieder, F., Griffiths, T. L., Huys, Q. J. M., & Goodman, N. D. (2018). The anchoring bias reflects rational use of cognitive resources. *Psychonomic Bulletin & Review*, 25: 322-349.
- [100] Nickerson, R. S. (1998). Confirmation Bias: A Ubiquitous Phenomenon in Many Guises. *Review of General Psychology*, 2 (2): 175-220, available at: <https://doi.org/10.1037/1089-2680.2.2.175>, accessed on 17 November 2020.
- [101] Bacon, F. (1620). *Novum Organum*. Reprinted in Burt, E. A. (ed). *The English Philosophers from Bacon to Mill*, New York, Random House, p 36.
- [102] Jahn, G. R. (1975). The Aesthetic Theory of Leo Tolstoy's What Is Art? *The Journal of Aesthetics and Art Criticism*, 34 (1): 59-65, available at: <https://www.jstor.org/stable/428645>, accessed on 18 March 2021.
- [103] Schopenhauer, A. (2011) [1844] Carus, D. & Aquilla, R. E. (eds). *The World as Will and Presentation*, 2, New York: Routledge, 246.
- [104] Lewandowsky, S., Ecker, U. K. H., Seifert, C. M., Schwarz, N., & Cook, J. (2012). Misinformation and Its Correction: Continued Influence and Successful Debiasing. Available at: <https://journals.sagepub.com/doi/full/10.1177/1529100612451018>, accessed on 10 February, 2022.
- [105] The Backfire Effect: Why Facts Don't Always Change Minds. (2020). Available at: <https://effectiviology.com/backfire-effect-facts-dont-change-minds/>, accessed on 22 February, 2021.

- [106] Roberts, W. R. (1924). *Rhetoric, by Aristotle 350 B. C. E.* Kindle e-Book. www.amazon.com/KindleBooks/b?node=154606011, accessed on 12 December 2020.
- [107] Legal Information Institute (LII). (2019). Clarity in Criminal Statutes: The Void-for-Vagueness Doctrine. Available at: <https://www.law.cornell.edu/constitution-conan/amendment-14/section-1/clarity-in-criminal-statutes-the-void-for-vagueness-doctrine>, accessed on 27 February 2021.
- [108] Strathern, P. (2012). *Socrates. Philosophy in an hour*. London: Harper Collins Press.