

DECONSTRUCTING THE POACHING PHENOMENON

*A Review of Typologies for Understanding Illegal Hunting*ERICA VON ESSEN*, HANS PETER HANSEN, HELENA NORDSTRÖM KÄLLSTRÖM,
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This review explores the way that the illegal hunting phenomenon has been framed by research. We demarcate three main approaches that have been used to deconstruct the crime. These include 'drivers of the deviance', 'profiling perpetrators' and 'categorizing the crime'. Disciplinary silo thinking on the part of prominent theories, an overreliance on either a micro or a macro perspective, and adherence to either an instrumental or normative perspective are identified as weaknesses in existing approaches. Based on these limitations in addressing sociopolitical dimensions of the phenomenon, we call for a more integrative understanding that moves illegal hunting from being approached as a 'crime' or 'deviance' to being seen as a political phenomenon driven by the concepts of defiance and radicalization.

Keywords: poaching, defiance, deviance, subculture, neutralization theory, illegal hunting

Introduction

Illegal hunting broadly refers to illegal taking of wildlife and wildlife resources (Musgrave *et al.* 1993; Eliason 2003; McSkimming and Berg 2008). Stigmatized as theft and animal cruelty or celebrated as rebellion against oppressive laws, the crime is a global concern for wildlife conservation, including endangered species (Manel *et al.* 2002; Gavin *et al.* 2010; Kaczensky *et al.* 2011; Ayling 2013). Responses to illegal hunting have resulted in long-term warfare between anti-poaching paramilitary units and local hunters in protected areas such as Kruger National Park in South Africa and Bandipur National Park in India. Research has shown that the clandestine and often community-sanctioned nature of the crime means that illegal hunting has regularly gone undetected (Thompson 1975; Green 1990; Eliason 2008; Crow *et al.* 2013; Gangaas *et al.* 2013). Public support for illegal hunting has additionally been shown to be increasing in sociopolitical contexts in which conservation policy is seen as unfair and lacking in legitimacy, such as Finland (Peltola *et al.* 2013).

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The severity of illegal hunting in terms of its implications for society and impact on biodiversity conservation may partially explain the rapid growth in models attempting to explain the crime. Literature attempting to explain illegal hunting has heretofore overwhelmingly imported rational choice and ‘opportunist’ models of behaviour from micro- and macroeconomics. It has also harnessed theories from criminology, social psychology and sociology. Following explanations enclosed by fairly rigid disciplinary boundaries, the resulting literature paints a fragmented picture of the phenomenon, as is the case with many crimes (Richerson *et al.* 1996). Common to the majority of the interpretations is an approach that labels the phenomenon as a crime or deviance to be rationalized on the level of the individual offender. We contend that this reductionist sketch of a complex phenomenon can pose a problem when creating countermeasures to address illegal hunting.

This review sets out to capture the diverse interpretations of the illegal hunting phenomenon across disciplines. Within the literature, we identify typologies, theories and models that attempt to deconstruct, explain and predict illegal hunting. We structure the review by first unpacking the terminology associated with illegal hunting, second, reviewing the three dominant approaches that have been used to explain illegal hunting and third discuss how less common approaches to studying the sociopolitical dimensions of illegal hunting (e.g. defiance, Sherman 1993) could contribute to developing a more holistic account of drivers. In addition to summarizing research on the phenomenon, we hope the discussion of less used defiance in combination with radicalization theory will help the field develop models for understanding illegal hunting that apply in contexts not driven primarily by individual and economic motives.

Approaching the crime, its perpetrators or their motivations?

Within existing literature, we demarcated three approaches for studying illegal hunting:

- (1) Drivers of the deviance
- (2) Profiling perpetrators
- (3) Categorizing the crime

A concession to be made is that the three approaches represent broadly conceived strategies and are rarely discrete in application. Studies mapping motivations for a crime, e.g. often make statements about the sort of individuals engaged in the deviant behaviour. Similarly, attempts at categorizing type of crime frequently comprise the violators’ reasons for hunting illegally. The first approach, which we term drivers of the deviance, has arguably been the most frequently deployed strategy in the literature (McSkimming and Berg 2008; Crow *et al.* 2013)

Typology through terminology

A convincing case can be made that a preliminary categorization of illegal hunting sometimes takes place on the level of the discourse used to frame the phenomenon. Crucially, the choice of term involves making a string of assumptions on key characteristics of the crime in a way that precludes full recovery of the evidence. ‘Poaching’, e.g. has connotations of theft and evokes images of ivory-hunting criminals in a way that the more neutral term of ‘unlawful hunting’ arguably does not. In Sweden, ‘*tjuvjakt*’, ‘*olaga*

jakt, '*olovlig jakt*', '*krypskytte*' (archaic), '*olaglig jakt*' and '*illegal jakt*' all frame the illegal taking of wildlife in different ways.

'*Tjuvjakt*' ('poaching' or 'theft-hunting') connotes elements of theft, dishonesty and depriving another of their share. Poaching, the English equivalent of '*tjuvjakt*', is derived from the Middle English word of 'pocchen', meaning enclosed in a bag. '*Krypskytte*', which appears more frequently in Danish, conveys intent on the part of the violator, who is ascribed characteristics of being sneaky, but also skilled. '*Olovlig jakt*' (unlawful hunting) describes hunting that falls short of legal statutes, perhaps because a deer was shot out of official deer hunting season or because one's hunting license had expired. '*Olaga jakt*' is chiefly seen in legal and archaic contexts. Finally, the largely interchangeable modern terms '*olaglig jakt*' and '*illegal jakt*' as they appear in Swedish best reflect the illegal hunting framing adopted in this review.

Drivers of the deviance

Within the drivers of the deviance approach, [Muth and Bowe's \(1998\)](#) comprehensive list of drivers for illegal hunting summarize much of the research. Recreational satisfaction, thrill killing, trophy poaching, gamesmanship, protection of self and property, commercial gain, household consumption, poaching as rebellion, poaching as a traditional right and disagreement with particular game and wildlife regulations are named as drivers to illegally hunt. Economic poaching, either for commercial gain or for household consumption, occupies a comparatively large place in illegal hunting literature ([Mancini et al. 2011](#)). Gamesmanship, leisure and the thrill of deviance as drivers are likewise explored by an increasing number of studies across different cultural terrains and historical epochs (e.g. [Thompson 1975](#); [Jones 1979](#); [Forsyth and Marckese 1993](#); [Manning 1993](#); [Forsyth et al. 1998](#), [Eliason 2004](#); [Osborne and Winstanley 2006](#); [Boglioli 2009](#)). In this context, the excitement is attributed to using acquired skills, engaging in cops-and-robbers interaction with gamekeepers and engaging in behaviour that is 'delightfully deviant'. Illegal hunting in this way enshrouds itself in the danger and seduction of being labelled an outlaw at odds with authorities ([Forsyth and Marckese 1993](#); [Jacoby 2001](#); [Filteau 2012](#)). The exhilaration of the crime has been linked the triggering of the radicalization of individuals in hunting contexts ([Curcione 1992](#); [Forsyth and Marckese 1993](#); [Woods et al. 2012](#)).

Ignorance of either conservation law or ecology has been identified as a driver by some scholars ([Blevins and Edwards 2009](#); [Raichev and Georgiev 2012](#)). Education is thereby often seen as the remedy ([Blevins and Edwards 2009](#)). There is however reason to be critical of such links, which operate on the often unhelpful premise of behaviours emerging from objective ecological understanding divorced from values. As has been illustrated by the research, illegal hunters are typically fully cognizant of game regulation but may only adhere to it in the presence of law enforcement ([Jacoby 2001](#)). Additionally, there is reason to believe that lack of knowledge functions above all as a conscious defence strategy adopted by a number of caught offenders in the indictment process ([Nurse 2011](#); [Filteau 2012](#)).

The instrumental perspective

The instrumental perspective, often referred to as the [Becker \(1968\)](#) and [Stigler \(1970\)](#) perspective, holds that individuals are driven by self-interest and respond to immediate

incentives and penalties associated with the crime. It is arguably the dominant premise to illegal hunting drivers in the literature (Forsyth and Marckese 1993; Crow *et al.* 2013). From the school of microeconomic behaviour, instrumental explanatory models of behaviour typically subscribe to Rational Choice Theory whereby the individual violator is driven by utility maximization (Clarke and Cornish 2001). The overwhelming reliance in the literature on instrumental economic theories is intuitive given the fact that illegal trading of wildlife is the third most valuable illegal market in the world after drugs and firearms (Ayling 2013).

The cost–benefit approach to explaining illegal hunting comprises a deterrence model of behaviour and situational crime prevention theory (Clarke 1995). Through cost–benefit, the threat, severity and immediacy of sanctions are weighed into the equation (Kuperan and Sutinen 1998; Sethi and Hilborn 2008; Messer 2010; Filteau 2012; Kahler and Gore 2012; Ayling 2013). Risk perceptions have recently been integrated into models from this school of thought (Kahler *et al.* 2013). Messer (2010)'s use of deterrence models led to the conclusion that extreme law enforcement measures (e.g. shoot-on-sight policies) may be needed when wages in society are low and the economic benefits of illegal hunting are high. Historically, however, it can be noted that harsh penal codes have created a cycle of progressively more violent retaliations between illegal hunters and the rest of society (e.g. Thompson 1975).

As a corrective to deterrence models, several scholars have highlighted how Rational Choice Theory may create a myopic view of illegal hunting, too focused on sanctions (Braithwaite 2004; Nurse 2011). Kuperan and Sutinen (1998) and Sutinen and Kuperan (1999), e.g. found in their illegal fishing case study that the sanctions associated with the crime were technically too lenient and should thereby promote illegal fishing. Yet the majority of fishermen in their study complied with harvest regulations, illustrating the limitation of the deterrence model and the microeconomic perspective. Scholars have attempted to address these limitations in part through a hierarchical approach that situates microeconomic models in their macroeconomic contexts. Such analyses have taken into account everything from the availability of legitimate employment, welfare state services and land use in poaching-prone communities to fluctuations in international markets (Jones 1979; Johannesen 2005; Warchol *et al.* 2003; Osborne and Winstanley 2006; Ayling 2013).

Opportunity theories from a new discipline of environmental criminology have typically explained illegal hunting on a micro level using the Routine Activity Approach (Cohen and Felson 1979). This approach focuses on the choice-structuring properties of different hunting crimes and in so doing situates the motivated offender with suitable targets and a lack of capable guardians (Eliason 2012). Crime Pattern Theory (Brantingham and Brantingham 1984) has been used to explain the illegal taking of wildlife resources through the encounters of offenders with targets of theft in offenders' activity nodes. Theories further refined to the context of illegal harvesting of wildlife resources include VIVA, which evaluates the animal's value, inertia, visibility and accessibility. The CRAVED theft framework (denoting the animal's concealability, removability, availability, value, enjoyability and disposability) has been successfully applied to parrot poaching in Mexico and to worldwide illegal fishing (Pires and Clarke 2012; Petrossian and Clarke 2014).

In contexts where acts of illegal hunting do not reflect the maximization of strictly economic gain, scholars have nuanced the instrumental perspective by accounting for

non-traditional measures of value. Wildlife and game value have therefore been captured with diverse measures including the status, virtue and symbolism associated with the hunted animal. Thompson (1975), e.g. described hunted deer as delicate emblemization of the owner's status, and Mancini *et al.* (2011) found harvested sea turtle meat was primarily a symbol of status and wealth within the local community.

The normative perspective

The normative perspective on drivers on illegal hunting focuses on the role of morals and socialization more than utility maximization. According to the normative perspective, an individual complies with game regulations to the degree that the law is perceived as appropriate in a general sense, legitimate in the procedural sense and consistent with their internalized norms. The relationship between norms and compliance in wildlife harvesting may thus provide recourse when traditional law enforcement methods (e.g. deterrence models) prove insufficient to deter crimes (Kuperan and Sutinen 1998; Kahler and Gore 2012). Social psychology has contributed to the normative perspective by categorizing drivers of illegal hunting in the following way: (1) explanations relating to socialization and (2) neutralization techniques used to rationalize deviant behaviour.

The research that has explained drivers to illegal hunting through socialization processes has tended to study the influence of cultures, subcultures and groups on behaviour (Green 1990; Curcione 1992; Forsyth and Marckese 1993; Eliason 2012). Declared as '*the most systematic and formalized explanation of defiant behaviour in the literature*' (Curcione 1992: 43), this perspective originates with Sutherland's (1947) differential association theory. In the case of illegal hunting, interactions with others and their broader environment socially condition the individual with both a set of practical techniques (such as hunting, trapping, hiding game, evading capture) and those values and psychological defence mechanisms that eliminate guilt associated with committing the crime (Curcione 1992; Eliason and Dodder 1999; Jones *et al.* 2008). When isolated from the dominant culture, pockets of traditionalism, defensive localism and rural holdover values often framed in opposition to 'urban outsiders' and game legislation may be perpetuated in such a way as to become a socially organized and patterned deviance, a so-called deviant subculture (Doolittle and Lightsey 1979; Brymer 1991; Forsyth and Marckese 1993).

Criminal psychology models provide another framework of drivers for illegal hunting. Drawing from Matza and Sykes' (1961) study of juvenile delinquency, neutralization theory coalesces *strain* theory (people under pressure are more likely to commit crimes) with *subcultural* theory (criminality emerges from subcultural values). In recent application of neutralization theory in the UK setting, Enticott (2011) demonstrated that farmers utilized a range of neutralization techniques to justify illegal badger killing as culling. Neutralization of the crime facilitated a process of episodic drifting from one value system to another. In the case of the farmers who culled the badgers, a state of ambiguity resulted from a simultaneous acceptance of standard social norms and the subterranean values associated with the 'shadow' value system, which was neutralized with justifications. There is still some debate about whether neutralizations instigate or merely justify deviances *ex post facto* (Forsyth and Evans 1998; Fritsche 2005;

Eliason 2008; Nurse 2011). The prevailing view appears to construe neutralization both as a verbal cognition directed to defend behavioural intentions in the motivational process for the crime as well as something taking place afterward to relieve cognitive dissonance. The dual nature of neutralization and its deployment across a range of contexts also suggests that it serves as a strategic defence tool by caught offenders as well as serving as a psychological mechanism for the individual. Neutralization techniques are largely learned behaviour within cultures, thereby forging a conceptual link between this theory and differential association theory (Curcione 1992; Filteau 2012).

Neutralizations can be detected across a number of illegal hunting contexts, although they have not always been expressly articulated within Matza and Sykes' (1961) theory. For example, the 'others are worse', 'our own codes guide us' and 'we are good folk' justifications used by the illegal hunters in Forsyth and Marckese's (1993) study in the United States correspond to the neutralization techniques *condemnation of the condemners*, *appeal to higher loyalties* and *metaphor of the ledger*, respectively. The neutralization techniques *denial of the victim* and *denial of injury* were reflected in demarcating good and bad badgers and putting the latter out of their misery for their benefit and the benefit of the diseased, out-of-control population in Enticott's (2011) study. In so doing, offenders used defences of 'taking care of badgers' and in the process often ascribed negative characteristics to the animals, their appearances and behaviour. Evoking the same neutralizations in response to the ban on hunting wild animals with dogs following animal cruelty allegations in the United Kingdom, coursing enthusiasts contended that the quarry 'does not anticipate death' (Nurse 2011: 44). In the Swedish setting, illegal hunting of protected wolves has been neutralized by painting the wolf as a tainted immigrant from the east (as opposed to the 'traditional' and 'pure' Swedish wolves of the past) or a government-bred hybrid (Granolund 2013).

Summary of drivers of the deviance typologies

As a consequence of the fundamental division between the normative and instrumental perspectives within the drivers of the deviance approach, little research here provides integrated theories across disciplines. Notably, cost–benefit analyses fail to be situated in a context of norms and values. As precedent for calls for multidimensional models of motivation, Smith ambitiously sought a model of drivers that '...integrates economic theory and theories from social psychology, thereby accounting for morality, legitimacy and social influence in addition to the conventional costs and revenues associated with illegal behavior' (Smith 1759: 313) and whose absence is felt in discussions of drivers of illegal hunting. Lastly, explanations of illegal hunting drivers were also found to diverge along internal (e.g. utility maximization, CRAVED, neutralization of crime) and external lines (e.g. global markets, socialization within subcultures and values pertaining to industrialized culture at large), with only neutralization theory overcoming this division.

Of the drivers of the deviance approaches outlined above, neutralization theory may emerge as the most holistic perspective. Notably, it includes lenses at both the micro level and the macro level. The level of analysis afforded by discussing neutralizations in terms of 'condemnation of the condemners', 'appeal to higher loyalties' and 'metaphor of the ledger' take into account the marginalization experienced by offenders and highlight the precedence of life-world relationships and local ways of life above allegiance to authorities. It

can thereby be said to capture not only individual motivations but the cultural transmissions by which values are perpetuated in the offending subculture, while also politicizing acts of illegal hunting. Second, neutralization theory allows consideration of drivers that induce the less disenfranchised and otherwise law-abiding members of society to episodically engage in criminal activity (Curcione 1992) rather than dismiss these as criminal minds. The applicability of this theory has also been illustrated by the observation that neutralization has also been practiced by enforcement personnel in their selective (e.g. corrupt) arrest and prosecution of illegal hunters (Wellsmith 2011). The theory may have less value in contexts where the deviant behaviour is so deeply rooted that hunters do not recognize a disparity between their beliefs and their actions (Curcione 1992; Filteau 2012). It may also be less suited to settings where commercial poaching clearly dominates. Its neutralizations should, however, arguably be considered in conjunction with what may appear as thrill-seeking and gamesmanship so as to furnish them with a more multidimensional understanding of drivers.

Profiling perpetrators

The second approach to explaining illegal hunting has profiled the individuals committing the crime. No single perpetrator profile can be given today for illegal hunting given the wide range of both wildlife targets and types of offenses (McSkimming and Berg 2008; Ayling 2013). A US game warden observed: ‘Ten years ago it was your typical redneck, now it is everyone’ (Eliason 2004). Faced with this dilemma, scholars are looking to categorize an often diverse number of persons. A second dilemma is what criteria to use in this categorization. Scholars have predominantly profiled perpetrators using their motivations, their demographic attributes (which have limited inference) and their *modus operandi*. The *modus operandi* studies have often addressed the frequency of violations (e.g. opportunistic or one-time, occasional, chronic) and their degrees of premeditation and organization.

Blevins and Edwards (2009) provide the typology of ‘the back door poacher’, ‘the habitual or chronic poacher’, ‘the opportunist poacher’ and ‘the trophy poacher’. Eliason (2008) subscribes to the same typography but adds ‘the poacher who mixes up his schedule’ and ‘the quiet poacher’. A motive-grounded typology thus tends to demarcate between commercial or professional poachers and the non-commercial opportunistic poachers (Jones 1979; Musgrave *et al.* 1993; Pires and Clarke 2012). In a less binary perspective, Brymer (1991) identified local rural hunters, tourist hunters (including opportunistic and slob hunters), trophy hunters and market poachers, thereby categorizing illegal hunters on the basis of three criteria: geography, motivations and *modus operandi*.

Some research has positioned violators along a spectrum of criminal activity based on the severity and premeditation of crimes (Bessey 1984). Such considerations have engendered disagreement over whether illegal hunters are generally law-abiding citizens or linked to a range of criminal activities (Thompson 1975; Manning 1993; Archer 1999; Nurse 2011).

Good versus bad poachers

Social anthropologists have used the perspectives of law enforcement and local communities to explore the perceived acceptability of illegal hunters. These scholars found

that law enforcement officers and communities treat non-commercial, subsistence-driven illegal hunters differentially (Forsyth *et al.* 1998; Hampshire *et al.* 2004; Filteau 2012). This tolerance, however, generally decreases when endangered species or under-sized fish are involved (Curcione 1992; Forsyth *et al.* 1998). Illegal hunting by residents—often done in affiliation with intimate social groups and kin—has been deemed acceptable and even community-building (Colomy and Granfield 2010; Eliason 2012). Furthermore, failure on the part of law enforcement officers to differentiate between criminal-minded poachers and ‘*locals doing what they have always done*’ can precipitate real resentment in communities (Bell *et al.* 2007: 413).

Attributes of good poachers appear to include insider status (Jones 1979; Hampshire *et al.* 2004) and committing the crime as part of a social group. Second, attitudes appear contingent on the violators’ affiliation with other locals versus committing the crime in social isolation (Pendleton 1998). For example, in the marshes of Brière, France, and in the Mkuzi Game Reserve in South Africa, communities raised collective funds to pay bail and fines potentially incurred by community members who were prosecuted for poaching (Warchol and Johnson 2009; Mischi 2012). Aesthetics and fairness appear more important in fisheries contexts (Curcione 1992; Hampshire *et al.* 2004; Bell *et al.* 2007). Research on older acts of illegal hunting highlight an additional criterion for judging good and bad poachers rooted in the degree social justice is seen to characterize their criminal activity. For example, the poaching outlaws ‘the Blacks’ in eighteenth-century England may be located at the far end of Bessey’s (1984) spectrum of criminality in terms of the riotous and habitual conduct of their hunting violations. However, the relative acceptability of many outlaw gangs has been mediated by a moral distinction between illegal hunting and other criminal activity. The element of social protest against oppressive legal, class and ideological contexts that is seen to imbue such crimes, furthermore, can transform ordinary criminals into social bandit heroes standing up for justice, such as Robin Hood (Hobsbawm 1959).

When motives of money and business with strangers enter the equation, however, illegal hunters have been shown to undergo a transformation in the eyes of local residents (Gunnarsdotter 2008; Colomy and Granfield 2010). Such offenders have been seen as having a contaminating effect on the hunting culture (Eliason 2004; Colomy and Granfield 2010; Eliason 2012). Gezelius (2004) attributes this to the differential moral status of money (morally perilous) and food (morally safe), and the danger inherent in relationships with strangers. The moral distinction between food and money relates to a distinction between greedy and moderate demands on the part of violators (Colomy and Granfield 2010). The above observations are substantiated by Schur’s (1971) and Curcione’s (1992) assertions that a deviant act alone does not determine crime, but its classification is contingent on the social reaction to the act and, furthermore, to the sanctioning agent’s relationship with the person committing it. This is particularly well exemplified in Colorado in the illegal shooting of Samson the elk by a commercial outsider and a subsequent outrage and condemnation of illegal hunters by the local community and media, which had previously turned a blind eye to poachers (Colomy and Granfield 2010).

Summary of profiling perpetrators

Profiling poachers has proven difficult because the same offenders can also take on different profiles over time, in different contexts, which many static typologies fail to

consider. Panel studies and historical studies may help address these challenges (Jones 1979; Osborne and Winstanley 2006). In this setting, however, one encounters the problem of diversity in many past poaching gangs, which were often an assorted mix of servants, tenants, villagers, former keepers, poachers-for-hire, carpenters, butchers, yeomen, adolescents and even gentlemen. Such compositions illustrate the vocational, age and class spread that characterize even the same bands of violators (Thompson 1975; Manning 1993).

The criticisms of the static nature of profiling as an approach to understanding illegal hunting are particularly salient given Brymer's (1991) and Ayling's (2013) observations that networks, individuals and subcultures affiliated with illegal hunting are in dialectical interaction with the dominant culture. Seen in this way, engaged in a co-evolution with society, illegal hunters prove flexible and adapt their modes of operations and technologies to perpetuate their crimes. For example, organized groups and networks from both historical and contemporary cases have changed everything from their members and targets to geographies to survive (Thompson 1975; Jones 1979; Archer 1999; Ayling 2013), robbing the 'profiling' approach to illegal hunting typologies of some credence.

Categorizing the crime

Categorizing forms of illegal hunting into types of crime is the approach that arguably requires the most holistic account of the crime. This is owing to the fact that the characteristics of the perpetrator and the overall context for the criminal act, which is in turn predicated upon motives, must be largely understood in order to ascribe the crime with a label. Some typologies have evaded this by being broad and descriptive in nature (e.g. 'premeditated and chronic' and 'an opportunistic crime of passion') but have therefore also had limited explanatory potential. More specific typologies of illegal hunting that constitute the three leading categorizations of types of crime in the literature include livelihood crime, folk crime and social protest, which are summarized below.

As livelihood crime

Livelihood crimes are seen as motivated by economic factors and are often attributed as the most prevalent acts of illegal hunting (Crow *et al.* 2013). Within this category, some livelihood poachers 'kill for the table' (Jacoby 2001) while others kill for commercial gain. Common to scholars using the latter to explain illegal hunting is a consideration paid to trading and markets, whether historic, local, domestic, regional, international or black (Thompson 1975; Warchol and Johnson 2009; Mancini *et al.* 2011). Furnishing a past perspective are Howkins' (1979) and Jones's (1979) characterizations of illegal hunting in eighteenth-century England as a crime of the poor and the working classes driven in part by unemployment rates and market fluctuations. Similar historical studies have framed illegal hunting as a 'scavenging crime', coinciding with food shortages, seasonality and indebtedness (Archer 1999; Osborne 2000). Although livelihood-based illegal hunting may be infused with multiple motivations and be pursued for the sake of custom and continuity of lifestyle, the general premise to this category is that they should be able to be approached as predominantly economic in nature.

As folk crime

'Folk crime' is the second type of illegal hunting that emerges in many typologies (e.g. Forsyth and Marckese 1993; Stretesky *et al.* 2010; Filteau 2012). A number of scholars treat folk crimes as relatively frequent violations that fail to seriously violate public or personal sentiments about morality (Muth and Bowe 1998). Folk crimes are often ascribed characteristics of custom and continuity (Forsyth *et al.* 1998). They are thus also less stigmatized and treated differentially to other crimes in the legal process (Jones 1979; Warchol and Johnson 2009). Community members have tended to treat folk criminals as morally superior to other criminals and commonly construe folk criminals as conventional community members (Thompson 1975; Jones 1979; Curcione 1992; Filteau 2012). The relatively low posture of folk crime may constitute a primary reason for the paucity of studies on illegal hunting and rural crime relative to other topics addressed within the criminology discipline (Eliason 2008; Nurse 2011; Crow *et al.* 2013). The under-reporting of violations may similarly be owed to the relegation of illegal hunting to an 'unharmful' folk crime status. The cumulative impacts of illegal hunting as a folk crime phenomenon, however, can have detrimental impact on ecosystems and should therefore not be dismissed as unworthy of study (McSkimming and Berg 2008; Stretesky *et al.* 2010).

As sociopolitical crime

Disillusionment with a sociopolitical context can position illegal hunting as a sociopolitical crime in some typologies. This context may include the perceived marginalization of lifestyles and livelihoods through game regulation and conservation policy, distrust of authority and enforcement, and unfairness or lack of procedural justice surrounding specific legislation (Bell *et al.* 2007; Filteau 2012; Nyrén 2012; Kahler *et al.* 2013). As testament to this, violating hunting law as a political message has occurred when new regulation infringes on customary rights of access and participation (Thompson 1975; Forsyth and Marckese 1993; Manning 1993). As Kahler and Gore (2012) posit, illegal hunting may serve as an '*act of social defiance, [and as a] symbolic protest of local natural resource management practice*' (p. 106).

The sociopolitical dimensions of illegal hunting have been succinctly captured in the concept of everyday resistance (Holmes 2007). Explicit resistance reflects the sole motive of protest and may take the form of killing an endangered animal and not harvesting its meat or body parts (Rogers 1974; Thompson 1975; Western 1994; Kull 2004). Implicit resistance typically entails continuing customary harvests after they are banned and has been termed 'continued livelihood practice as protest' (Holmes 2007). Such implicit resistance, moreover, provides some form of material gain as well as continuity of lifestyle (Neumann 1998; Woods *et al.* 2012). For example, illegal hunting gangs in eighteenth-century England could be classified as practicing both explicit and implicit resistance; they targeted aristocratic game parks both as outright protest to the exclusionary hunting and land privileges seized at the expense of customary rights (Jones 1979; Osborne and Winstanley 2006) and, in pure defiance, often left carcasses promptly on the ground. The activities, however, functioned as livelihood practice culling a deer population that otherwise overgrazed crops, and some deer were later be consumed, sold or traded (Rogers 1974; Thompson 1975; Manning 1993).

Illegal hunting as an act of social banditism and dispenser of popular justice constitutes another dimension within the category of sociopolitical crime and has been demonstrated in the English setting (Hobsbawm 1959; Thompson 1975; Manning 1993, Muth and Bowe 1998; Nyrén 2012). In their historiographies of illegal hunting in England (1485–1640 and 1723–1823) Manning (1993) and Thompson (1975) frame the crime as meting out popular justice to unpopular landlords. Their unpopularity stemmed from having encroached upon commons, having neglected to prevent their deer from damaging tenants' crops or otherwise failing to display neighbourliness and hospitality to the lower classes (Manning 1993). Nevertheless, Thompson (1975) is reluctant to label the Blacks social bandits in the heroic Robin Hood and Hobsbawmian sense of the term and situates their crimes somewhere between social banditism and broader agrarian rebellion.

In a contemporary setting, illegal hunting is increasingly being studied as a new social movement, characterized by adherence to non-material considerations including the defence of symbolic resources and the achievement of symbolic goals (Woods 2003; Mischi 2012). Moreover, in contested conservation programmes in Europe such as the Habitats Directive, disruptive rural action has been explicitly identified a new repertoire of contentious politics that has increasingly mobilized hunting social movements in opposition to present policies (Mischi 2012). Illegal hunting and sympathizers of illegal hunting may furthermore be encouraged to mobilize resistance through a process of radicalization. Beginning with negative sentiments or small protest acts conveying scepticism towards large carnivore conservation at the expense of livestock owners and hunting publics whose interests stand to suffer, attitudes have become increasingly favourable to illegal hunting as the legitimacy of authorities declines, particularly in the Nordic countries. In Sweden and Finland, the fact that trust levels in the ability of authorities to manage the carnivore and game situation are at an all-time low may help explain the host of defiant activities like boycotts, strikes, sabotage, threats and illegal hunting that is practiced by hunters and rural residents (see a recent survey of trust levels in Sweden by Ericsson *et al.* 2013). Woods *et al.* (2012) found this radicalization emerged from rural residents engaged in some sort of defiant activity, becoming '*increasingly hardened in their resolve and increasingly willing to move toward more radical forms of protest to fight their case*' (Woods *et al.* 2012: 579).

Summary of categorizing the crime

The cultural and social complexity of the illegal hunting phenomenon makes efforts to categorize the crime largely heuristic in nature. Boundaries between livelihood crimes, folk crimes and social crimes are rarely discrete. Implicit resistance and livelihood crimes merge when social and livelihood functions are similar in a society. It may be equally problematic to assess the attitudinal content of what appears a folk crime engaged in for thrill and tradition when it may function as continued livelihood practice as protest and thereby tip illegal hunting into the category of social crime (Holmes 2007). So-called folk outlaws, moreover, have at times been celebrated as cultural heroes and traditional members of a resistance of the region. This highlights the defiant content of what appears an everyday folk crime (see, e.g. Forsyth and Marckese 1993). Conversely, the 'Blacks', seeing themselves as dispensers of popular justice, still failed to elevate

themselves to hero status in history. In the case of Samson the elk shot by an economically motivated outsider in Colorado, media and local rural discourse transformed a livelihood crime into a message crime that offended the moral and natural order of the community and their relationship with wildlife. This suggests that categorizations are contingent on the social reaction to and aftermath of the crime as much as the perpetrator's motives. Perhaps this is what leads Jacoby to conclude that illegal hunting constitutes '*one of the most routine yet complex rural crimes*' (Jacoby 2001: 123), in most cases posing a distinct challenge to any neat categorization.

Illegal hunting as defiance as a way forward for sociopolitical crimes

A potential theoretical grounding for the above sociopolitical category of illegal hunting is criminology's defiance theory (Sherman 1993). Defiance comprises '*a cluster of actions and attitudes that include dissent, resistance, rebellion and civil disobedience*' (Nyqvist Potter 2012). The theory posits that stigmatizing and harshly treating individuals increases their likelihood of reoffending under the conditions of weak social bonds to the sanctioning society (Hirschi 1969) and an unjust penal code. In these circumstances, criminals bypass shame from the stigma and sanctions associated with breaking the law (e.g. through neutralization techniques) and become radicalized to stronger norm violation in the form of defiance. This defiance may be general, direct or indirect. In the illegal hunting context, the latter may be most frequently observed, as it refers to a crime against a target that represents the sanctioning agent, such as killing protected wildlife to protest the Endangered Species Act or the Habitats Directive (Peterson *et al.* 2002; Mischi 2008).

Defiance theory predicts sanctions perceived as unfair by way of harsh and disrespectful treatment from the sanctioning agent or by a lack of procedural fairness will result in a delegitimization of authorities and furtherance of crime (Tyler 1990; Braithwaite 2004). Importantly, procedural fairness and legitimacy in the illegal hunting context may be seen to extend beyond the mere indictment process of classical defiance theory. It should rather include interest groups' voice in formulating their own goals and those of conservation and game management agencies (Senecah 2004). Premised upon the understanding of the importance of the perceived fairness and legitimacy surrounding management processes, defiance theory may, e.g. be reflected in the inverse relationship between co-management of game species and illegal hunting in Finland¹ and the violent protests and bird massacre in the Brière Marshes of France following unfair regulation (Mischi 2008).

Illegal hunting in defiance theory highlights the limitations in the shoot-on-sight deterrence model that have been implemented to address economic poaching in

¹ During 2004–05, a public dialogue process on wolf management was implemented in rural Finland, involving approximately 2,000 citizens and 30 public meetings. During the period of the public dialogue process, the mortality rate of the Finnish wolf population decreased dramatically and no illegal hunting activities were detected. When it became clear in 2006 that the EU commission would not allow for the concerns and suggestions developed during the dialogue process to be incorporated in Finnish wolf management plans, the mortality rate of the wolf population increased again (according to personal communication with Kurki Sami, Director and Professor University of Helsinki, Ruralia Institute, 11 March 2014). Today, there is a high local support for wolf poaching in Finland (Pohja-Mykrä and Kurki, 2013).

many parts of the world. Seen through the lens of defiance, an overly punitive sanction in a management context with legitimacy deficit and weak social bonds between perpetrators and the sanctioning agent would violate the principle of proportionality and result in further loss of respect for authorities. The phenomenon of defiance has been observed numerous times in criminology (Pogarsky and Piquero 2003; Nurse 2011) but has yet to be explicitly articulated in illegal hunting scholarship (see Filteau 2012; Kahler and Gore 2012, for two times the concept has emerged). The applicability of defiance theory to the phenomenon is also directly evidenced by the fact that repeat illegal hunters who are caught, convicted and fined are not deterred in many parts of the world, and some even view their sentences as confirmations of society's misunderstanding of cultural identities (Nurse 2011).

Defiance theory may furthermore help partially explain both the local and large-scale illegal hunting in eighteenth- and nineteenth-century England. Hunters who were prosecuted for illegally harvesting the game of local gentry frequently retaliated by raiding the lands, killing the game and wounding the gamekeepers of those involved in the prosecution in a form of direct defiance (Rogers 1974; Thompson 1975, Broad 1988). Nationally, both the Black Act (1723) and the Poaching Prevention Act (1862) precipitated increased attacks on game reserves as general and indirect defiance (Thompson 1975; Broad 1988; Manning 1993). The stigma of sanctions associated with hunting crimes additionally often proved dehumanizing and difficult to accept (Thompson 1975). The death penalty for night hunting in nineteenth-century England, e.g. promoted a '*vicious spiral of violence*', where gangs fought their way out of trouble as a first resort (Archer 1999: 28). The weakened legitimacy of both penalty and process made the hunting public more apt to defy authority as well as more prone to rationalize their criminal behaviour by neutralization techniques.

Social anthropology and sociology studies provide additional support for framing illegal hunting within defiance theory. These include references to illegal hunting as an act of extremism that has sprung from a deviant subculture that actively reinforces an 'us' and 'them' orientation between the subcultural group and the rest of society (Rogers 1974; Brymer 1991; Forsyth and Marckese 1993; Pendleton 1998; Eliason 2003). Brymer (1991) and Mischi (2013) have attributed to defiant hunting subcultures a popular distrust of authority and class-based Euroscepticism, respectively. Taking these kernels of subcultural resistance and putting them in a theoretical frame of radicalization may further elucidate how defiance is operationalized in practice. Copes and Williams (2007) describe four main steps of radicalization reflected by shared feelings among informants in illegal hunting research: that it is special (*superiority*), that it has been mistreated and betrayed (*injustice*) that the government does not care about it (*distrust*), and that the ways of life in the subculture are in danger of extinction (*vulnerability*).

Discussion

Given the breadth of illegal hunting crimes, we do not wish to discredit the viability of any of the criminal predictions outlined above under drivers of the deviance or profiling perpetrators. A carefully assembled cost-benefit analysis, together with a criminological understanding of opportunity and a broader sociological sketch of the social environment of influence around the hunter, may go a long way towards revealing the

trigger for breaking hunting law. However, the majority of these approaches reveal little of the sociopolitical context that has placed what may often be law-abiding hunters in a position from which they can be triggered in the first place. The limitation of lacking context has been identified by the research and has resulted in scholars within the instrumental perspective situating of microeconomic variables in their macroeconomic contexts for a richer understanding.

We contend that rather than approach the radicalizing criminals, then, the setting and the legitimacy of legislation should be considered, including the interactions between these hunters and the rest of society. This will help orientate sociopolitically motivated crimes of illegal hunting to potentially being understood as symptoms of more fundamental problems in society rather than in the individuals, and which thereby induce what may be otherwise law-abiding citizens to break the law. Research addressing illegal hunting as a social phenomenon can therefore help explain how conflicts of loyalty and ambivalence to illegal acts occur even among authorities, as in the case of illegal wolf killings in Scandinavia.

Situating illegal hunting in defiance (Sherman 1993) and radicalization frameworks provides one socially focused means to explain illegal hunting as an act of extremism that results from the radicalization of a marginalized group. The foregoing subculture discussion suggested that a normative social world like a hunting subculture may undergo an intensification of its feelings of superiority, distrust, injustice and vulnerability in times of a legitimacy crisis, particularly when social bonds to the rest of society are weak. With increased threat to the survival of the subculture, perhaps as a result of increased large carnivore conservation at the expense of rural lifestyles as is presently the case in the Nordic countries, the subculture may begin to mobilize into something more contestatory, into rural politics.

To account for the interactions that take place between contentious hunters and the rest of society, defiance theory traces the stigmatization and procedural injustice of these subcultures to radicalization in the form of stronger norm violation. It thereby offers the opportunity to contextualize many studies of hunting violations in contexts where there is substantial scepticism and distrust among marginalized groups towards the ability of authorities to legislate game and conservation policy. Finally, use of neutralization techniques is crucial to this radicalization in allowing illegal hunters to justify their criminal behaviour based on perceived injustices and legitimacy deficits in the sociopolitical context. Given the increase of illegal hunters and support for the crime in both developing nations (e.g. India) and developed areas (notably Scandinavia), explanations of the phenomenon arguably need to move away from seeing it as a crime or deviance committed by a few individuals.

Conclusion

Illegal hunting represents an important yet epistemologically fragmented field of study that we have summarized as comprising of (1) drivers of the deviance, (2) profiling perpetrators and (3) categorizing the crime. Although each approach carries with it a unique set of tools for analysing illegal hunting, all are fraught with distinct limitations. This critical review considered limitations in addressing sociopolitical dimensions of illegal hunting that render a number of hunting crimes difficult to explain by use of

economic and opportunist models of behaviour. Notably, the drivers of the deviance approach were found to foster silo thinking through reliance on predictive models and theories. The irreconcilability of macro versus micro orientations provides one example of this silo thinking.

Of the theories reviewed, [Matza and Sykes' \(1961\)](#) neutralization theory emerged as the potentially most holistic channel for vesting depth in drivers that are not solely economically motivated. In contexts where economic drivers to illegally hunt are abundant, it is arguably still helpful to situate cost–benefit analyses within a normative terrain. The second approach, profiling perpetrators, was found typically reductionist with respect to static and discrete categorization of illegal hunters and would benefit from longitudinal ethnographic research in illegal hunting communities. Finally, categorizing the crime may be a fruitful approach to employ in an ad-hoc analysis of specific violations. The transferability of its typologies and their analytical utility are however limited given the dynamic nature of variables associated with categorization (e.g. attitudinal content, demographic attributes, context).

Finally, the review harnessed the references of illegal hunting as resistance, defiance and as a social movement to discuss the way forward to understanding its sociopolitical dimensions. We contended that defiance theory and associated models of radicalization may in this way help shift depictions of illegal hunting from a deviance of criminal minds to being seen as a growing phenomenon of rural defiance against illegitimate management regimes.

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REFERENCES

- ARCHER, J. (1999), 'Poaching Gangs and Violence: The Urban–Rural Divide in Nineteenth-Century Lancashire', *British Journal of Criminology*, 39: 25–38.
- AYLING, J. (2013), 'What Sustains Wildlife Crime? Rhino Horn Trading and the Resilience of Criminal Networks', *International Wildlife Law & Policy*, 16: 57–80.
- BECKER, G. (1968), 'Crime and Punishment: An Economic Approach', *Journal of Political Economy*, 76: 169–217.
- BELL, S., HAMPSHIRE, K. and TOPALIDOU, S. (2007), 'The Political Culture of Poaching: A Case Study from Northern Greece', *Biodiversity and Conservation*, 16: 399–418.
- BESSEY, K. M. (1984), 'Patterns of Involvement in Wildlife Crime: An Empirical Typology', *Human Dimensions in Wildlife Newsletter*, 3: 1–7.
- BLEVINS, K. and EDWARDS, T. (2009), 'Wildlife Crime', in J. Miller, ed., *21st Century Criminology: A Reference Handbook*, 557–64. Sage Publications.

- BOGLIOLI, M. (2009), *A Matter of Life and Death: Hunting in Contemporary Vermont*. University of Massachusetts Press.
- BRAITHWAITE, J. (2004), 'Restorative Justice: Theories and Worries', *Resource Material Series*, 63: 47–56.
- BRANTINGHAM, P. J. and BRANTINGHAM, P. L. (1984), *Patterns in Crime*. Macmillan.
- BROAD, J. (1988), 'Whigs & Deer-Stealers in Other Guises: A Return to the Origins of the Black Act', *Past & Present*, 119: 56–72.
- BRYMER, R. (1991), 'The Emergence and Maintenance of a Deviant Sub-culture: The Case of Hunting/Poaching Subculture', *Anthropologica*, 33: 177–94.
- CLARKE, R. (1995), 'Situational Crime Prevention', *Journal of Crime and Justice*, 19: 91–150.
- CLARKE, R. and CORNISH, D. (2001), 'Rational Choice', in R. Paternoster and R. Bachman, eds, *Explaining Crime and Criminals: Essays in Contemporary Criminological Theory*, 23–42. Roxbury.
- COHEN, L. and FELSON, M. (1979), 'Social Change and Crime Rate Trends: A Routine Activity Approach', *American Sociological Review*, 44: 588–608.
- COLOMY, P. and GRANFIELD, R. (2010), 'Losing Samson - Nature, Crime and Boundaries', *The Sociological Quarterly*, 51: 355–85.
- COPE, H. and WILLIAMS, J. P. (2007). Techniques of Affirmation: Deviant Behavior, Moral Commitment, and Subcultural Identity. *Deviant Behavior*, 28: 247–72.
- CROW, M., O'CONNOR SHELLEY, T. and STRETESKY, P. (2013), 'Camouflage-Collar Crime: An Examination of Wildlife Crime and Characteristics of Offenders in Florida', *Journal of Deviant Behavior*, 34: 635–52.
- CURCIONE, N. (1992), 'Deviance as Delight: Party-Boat Poaching in Southern California', *Deviant Behavior*, 13: 33–57.
- DOOLITTLE, M. and LIGHTSEY, M. (1979), *Southern Woods-Burners: A Descriptive Analysis. Res. Pap. SO-151*. U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station.
- ELIASON, S. (2003), 'Illegal Hunting and Angling: The Neutralization of Wildlife Law Violations', *Journal of Society & Animals*, 11: 225–43.
- (2004), 'Accounts of Wildlife Law Violators: Motivations and Rationalizations', *Human Dimensions of Wildlife*, 9: 119–31.
- (2008), 'Wildlife Crime: Conservation Officers' Perceptions of Elusive Poachers', *Deviant Behavior*, 29: 111–28.
- (2012), 'Trophy Poaching: A Routine Activities Perspective', *Deviant Behavior*, 33: 72–87.
- ELIASON, S. and DODDER, R. (1999), 'Techniques of Neutralization Used by Deer Poachers in the Western U.S.: A Research Note', *Journal of Deviant Behavior*, 20: 233–52.
- ENTICOTT, G. (2011), 'Techniques of Neutralising Wildlife Crime in Rural England and Wales', *Journal of Rural Studies*, 27: 200–8.
- ERICSSON, G., SANDSTRÖM, C., KAGERVALL, A. and JOHANSSON, M. (2013), *Attityder till varg och vargförvaltning. Report 2013:1*. Department of Wildlife, Fish and Environmental Studies, Swedish University of Agricultural Sciences.
- FILTEAU, M. (2012), 'Deterring Defiance: 'Don't Give a Poacher a Reason to Poach'', *Journal of Rural Criminology*, 1: 236–55.
- FORSYTH, C. and EVANS, R. (1998), 'Dogmen - The Rationalization of Deviance', *Journal of Society & Animals*, 6: 203–18.
- FORSYTH, C. J., GRAMLING, R. and WOODDELL, G. (1998), 'The Game of Poaching: Folk Crimes in Southwest Louisiana', *Society & Natural Resources*, 11: 25–38.

- FORSYTH, C. and MARCKESE, T. A. (1993), 'Folk Outlaws: Vocabularies of Motives', *International Review of Modern Sociology*, 23: 17–31.
- FRITSCHKE, I. (2005), 'Predicting Deviant Behavior by Neutralization: Myths and Findings', *Journal of Deviant Behavior*, 5: 483–510.
- GANGAAS, K. E., KALTENBORN, B. P. and ANDREASSEN, H. P. (2013), 'Geo-Spatial Aspects of Acceptance of Illegal Hunting of Large Carnivores in Scandinavia', *PLoS ONE*, 8: e68849.
- GAVIN, M. C., SOLOMON, J. N. and BLANK, S. G. (2010), 'Measuring and Monitoring Illegal Use of Natural Resources', *Journal of Conservation Biology*, 24: 89–100.
- GEZELIUS, S. (2004), 'Food, Money and Morals - Compliance Among Natural Resource Harvesters', *Journal of Human Ecology*, 32: 615–34.
- GRANLUND, K. (2013), *Från gråvarg till hybrid. Vart försvann den äkta gråvargen? Kommer våra barn att minnas oss som den generation, som i sin naturvårdsfanatism utrotade den äkta vargen?* Infocentrum
- GREEN, G. S. (1990), 'Resurrecting Polygraph Validation of Self-Reported Crime Data: A Note on Research Method and Ethics Using the Deer Poacher', *Journal of Deviant Behavior*, 11: 131–7.
- GUNNARSDOTTER, Y. (2008), 'What Happens in a Rural Swedish Community When the Local Moose Hunt Meets Hunting Tourism?', in B. Lovelock, ed., *Tourism and the Consumption of Wildlife. Hunting, Shooting and Sport Fishing*, 182–95. Routledge.
- HAMPSHIRE, K., BELL, S. and WALLACE, G. (2004), 'Real Poachers and Predators - Shades of Meaning in Local Understandings of Threats to Fisheries', *Society & Natural Resources*, 14: 305–18.
- HIRSCHI, T. (1969), *Causes of Delinquency*. University of California Press.
- HOBBSAWM, E. (1959), *Primitive Rebels: Studies in Archaic Forms of Social Movement in the 19th and 20th Centuries*. WW Norton.
- HOLMES, G. (2007), 'Protection, Politics and Protest: Understanding Resistance to Conservation', *Conservation & Society*, 5: 184–201.
- HOWKINS, A. (1979), 'Economic Crime and Class Law: Poaching and the Game Laws, 1840–1880', in S. Burman and B. Harrell-Bond, eds, *The Imposition of Law*, 273–87. Academic Press
- JACOBY, K. (2001), *Crimes Against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation*. University of California Press.
- JOHANNESSEN, B. (2005), 'Wildlife Conservation Policies and Incentives to Hunt: An Empirical Analysis of Illegal Hunting in Western Serengeti, Tanzania', *Essays on the Economics of African Wildlife Utilization and Management*, 10: 271–292
- JONES, D. (1979), 'The Poacher: A Study in Victorian Crime and Protest', *Historical Journal*, 22: 825–60.
- JONES, J., ANDRIAMAROVOLOLONA, M. and HOCKLEY, N. (2008), 'The Importance of Taboos and Social Norms to Conservation in Madagascar', *Journal of Conservation Biology*, 22: 796–986.
- KACZENSKY, P., JERINA, K., JONOZOVIĆ, M., KROFEL, M., SKRBINSEK, T., RAUER, G., KOS, I. and GUTLEB, B. (2011), 'Illegal Killings May Hamper Brown Bear Recovery in the Eastern Alps', *Ursus*, 22: 37–46.
- KAHLER, J. and GORE, M. (2012), 'Beyond the Cooking Pot and Pocket Book: Factors Influencing Noncompliance with Wildlife Poaching Rules', *Comparative and Applied Criminal Justice*, 35: 1–18.

- KAHLER, J., ROLOFF, G. and GORE, M. (2013), 'Poaching Risks in a Community-Based Natural Resource System', *Journal of Conservation Biology*, 27: 177–86.
- KULL, C. (2004), *Isle of Fire; the Political Ecology of Landscape Burning in Madagascar*. University of Chicago Press.
- KUPERAN, K. and SUTINEN, J. (1998), 'Blue Water Crime: Deterrence, Legitimacy, and Compliance in Fisheries', *Law & Society Review*, 32: 309–38.
- MANCINI, A., SENKO, J., BORQUEZ-REYES, R., GUZMAN POO, J., SEMINOFF, J. and KOCH, V. (2011), 'To Poach or Not to Poach an Endangered Species: Elucidating the Economic and Social Drivers Behind Illegal Sea Turtle Hunting in Baja California Sur, Mexico', *Journal of Human Ecology*, 39: 743–56.
- MANEL, S., BERTHIER, P. and LUIKART, G. (2002), 'Detecting Wildlife Poaching: Identifying the Origin of Individuals with Bayesian Assignment Tests and Multilocus Genotypes', *Journal of Conservation Biology*, 16: 650–9.
- MANNING, R. (1993), *Hunters and Poachers: A Social and Cultural History of Unlawful Hunting in England 1485–1640*. Oxford University Press.
- MATZA, D. and SYKES, G. (1961), 'Juvenile Delinquency and Subterranean Values', *American Sociological Review*, 26: 712–9.
- MCSKIMMING, M. and BERG, B. (2008), 'Motivations for Citizen Involvement in a Community Crime Prevention Initiative: Pennsylvania's TIP (Turn in a Poacher) Program', *Human Dimensions of Wildlife*, 11: 234–42.
- MESSER, K. (2010), 'Protecting Endangered Species: When Are Shoot-on-Sight Policies the Only Viable Option to Stop Poaching?' *Journal of Ecological Economics*, 69: 2334–40.
- MISCHI, J. (2008). 'Les militants ouvriers de la chasse. Éléments sur le rapport des classes populaires au politique', *Politix*, 83: 133–53.
- MISCHI, J. (2012), 'Contested Rural Activities: Class, Politics, and Shooting in the French Countryside', *Ethnography*, 14: 64–84.
- MUSGRAVE, R., PARKER, S. and WOLOK, M. (1993), 'The Status of Poaching in the United States: Are We Protecting Our Wildlife?' *Natural Resources*, 33: 977–1014.
- MUTH, R. M. and BOWE, J. F. (1998), 'Illegal Harvest of Renewable Natural Resources in North America: Toward a Typology of the Motivations for Poaching', *Society & Natural Resources*, 11: 9–24.
- NEUMANN, R. (1998), *Imposing Wilderness: Struggles Over Livelihood and Nature Preservation in Africa*. University of California Press.
- NURSE, A. (2011), 'Policing Wildlife: Perspectives on Criminality in Wildlife Crime', *Papers from the British Criminology Conference*, 11: 38–53.
- NYQVIST POTTER, N. (2012), 'Mad, Bad or Virtuous - The Moral, Cultural and Pathologizing Features of Defiance', *Journal of Theory Psychology*, 22: 23–45.
- NYRÉN, U. (2012), 'Rätt till jakt 1600–1789', doctoral dissertation, Gothenburg University.
- OSBORNE, H. (2000), 'The Seasonality of Nineteenth-Century Poaching', *The Agricultural History Review*, 48: 27–41.
- OSBORNE, H. and WINSTANLEY, M. (2006), 'Rural and Urban Poaching in Victorian England', *Journal of Rural History*, 2: 187–212.
- PELTOLA, T., RATAMÄKI, O. and PELLIKKA, J. (2013), 'Salametsästys ja oikeuttamisen yhteisölliset strategiat', in B. Teoksessa, B. Ismo, J. Jokinen, J. Kotilainen, N. NSchuurman and M. Sireni, eds, *Korpisosiologia(aa)*, 208–23. University Press of Eastern Finland.
- PENDLETON, M. (1998), 'Taking the Forest - The Shared Meaning of Tree Theft', *Society & Natural Resources*, 11: 39–50.

- PETERSON, M. N., PETERSON, T. R., PETERSON, M. J., LOPEZ, R. R. and SILVY, N. J. (2002), 'Cultural Conflict and the Endangered Florida Key Deer', *Journal of Wildlife Management*, 66: 947–68.
- PETROSSIAN, G. and CLARKE, R. (2014), 'Explaining and Controlling Illegal Commercial Fishing: An Application of the CRAVED Theft Model', *The British Journal of Criminology*, 54: 73–90.
- PIRES, S. and CLARKE, R. (2012), 'Are Parrots CRAVED - An Analysis of Parrot Poaching in Mexico', *Journal of Research in Crime and Delinquency*, 49: 122–46.
- POHJA-MYKRÄ, M. and KURKI, S. (2013), *Suurpetopoliittikka Kriisissä – Salakaadot Ja Yhteisön Tuki, Raportteja 98*. Ruralia-instituutti.
- POGARSKY, G. and PIQUERO, A. (2003), 'Can Punishment Encourage Offending? Investigating The "Resetting" Effect', *Journal of Research in Crime and Delinquency*, 40: 95–120.
- RAICHEV, E. and GEORGIEV, D. (2012), 'Hunters' Attitudes to Some Protected Mammals and Birds in Bulgaria', *Trakia Journal of Sciences*, 10: 48–51.
- RICHERSON, P., MULDER, M. and VILA, B. (1996), *Principles of Human Ecology*. Pearson Custom Publishing.
- ROGERS, P. (1974), 'The Waltham Blacks and the Black Act', *Historical Journal*, 17: 465–86.
- SCHUR, E. (1971), *Labeling Deviant Behavior: Its Sociological Implications*. Harper and Row.
- SENECAH, S. L. (2004), 'The Trinity of Voice: The Role of Practical Theory in Planning and Evaluating the Effectiveness of Environmental Participatory Processes', in S. P. Depoe, J. W. Delicath, and M. F. Aepli Eiseenbeer, eds. *Communication and Public Participation in Environmental Decision Making SUNY series in Communication Studies*, 13–33. State University of New York Press.
- SETHI, S. and HILBORN, R. (2008), 'Interactions Between Poaching and Management Policy Affect Marine Reserves as Conservation Tools', *Journal of Biological Conservation*, 141: 506–16.
- SHERMAN, L. (1993), 'Defiance, Deterrence, and Irrelevance: A Theory of the Criminal Sanction', *Journal of Research in Crime and Delinquency*, 30: 445–73.
- SMITH, A. (1759), *The Theory of Moral Sentiments*. A. M. Kelly.
- STIGLER, G. (1970), 'The Optimum Enforcement of Laws', *Journal of Political Economy*, 78: 526–36.
- STRETESKY, P., O'CONNOR SHELLEY, T. and CROW, M. (2010), 'Do Conservation Organizations Influence the Production of Natural Resource Violations?' *Organization & Environment*, 23: 398–416.
- SUTHERLAND, E. *Principles of Criminology*. 4th edn, J.B. Lippincott Company.
- SUTINEN, J. and KUPERAN, K. (1999), 'A Socio-Economic Theory of Regulatory Compliance', *International Journal of Social Economics*, 26: 174–93.
- THOMPSON, E. P. (1975), *Whigs and Hunters: The Origin of the Black Act*. Breviary Stuff Publications.
- TYLER, T. (1990), *Why People Obey the Law*. Yale University Press.
- WARDHOL, G. L. and JOHNSON, B. R. (2009). 'Wildlife crime in the game reserves of South Africa', *International Journal of Comparative and Applied Criminal Justice*, 33: 143–54.
- WARDHOL, G. L., ZUPAN, L. L. and CLACK, W. (2003), 'Transnational Criminality: An Analysis of the Illegal Wildlife Market in South Africa', *International Criminal Justice Review*, 13: 1–27.
- WELLSMITH, M. (2011), 'Wildlife Crime: The Problems of Enforcement', *European Journal on Criminal Policy and Research*, 17: 125–48.

- WESTERN, D. (1994), 'Ecosystem Conservation and Rural Development: The Case of Amboseli', in D. Western, R. Wright and S. Strum, eds, *Natural Connections: Perspectives in Community-Based Conservation*, 15–52. Covelo Island Press.
- WOODS, M. (2003), 'Deconstructing Rural Protest - The Emergence of a New Social Movement', *Rural Studies*, 3: 309–25.
- WOODS, M., ANDERS, J. and GUILBERT, S. (2012), 'The Country(side) Is Angry': Emotion and Explanation in Protest Mobilization', *Journal of Social & Cultural Geography*, 13: 567–85.