



The Political Dimensions of Illegal Wolf Hunting: Anti-Elitism, Lack of Trust in Institutions and Acceptance of Illegal Wolf Killing among Norwegian Hunters

Ketil Skogen*  and Olve Krange

Abstract

Qualitative studies have indicated that the illegal killing of wolves is often attributed a protest dimension. However, we have limited knowledge about the factors that impact this judgement. The present study investigates views on illegal wolf killing among Norwegian hunters and connects these views to background factors, hunting cultures, anti-elitism and the legitimacy of environmental institutions, probing the existence of a 'counterpublic' where killing wolves is seen as justified resistance. Only a minority tolerated the activity, but compared to other hunting-related offences, killing a wolf illegally was seen as 'not serious' by the largest group. Hunters with limited education, living in rural areas, and who were motivated by a 'tradition and stewardship' ethos when hunting, were more inclined to accept illegal killing. Anti-elitism and lack of trust in environmental institutions were even stronger predictors. We conclude that hunting-related issues are not among the prime drivers of support for illegal wolf hunting. Rather, it is typically part of a worldview that reflects a rural subaltern experience, comprising elements of cultural resistance. While the political dimension is not always articulated, overlooking it and treating illegal killing simply as 'crime' may stoke conflicts and fortify an understanding of power relations that already drives resistance.

Keywords

counterpublicist, illegal hunting, infrapolitics, legitimacy, Norway, resistance, wolves

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Sociologia Ruralis, Vol 0, Number 0, June 2020

DOI: 10.1111/soru.12309

Introduction

Environmental governance, such as natural resource management, depends on the legitimacy of the institutions that decide, implement, and enforce policies and regulations. If legitimacy is deficient, segments of the public will not feel obliged to comply and may resist through defiant acts. Some acts may be criminal in a legal sense, while others constitute more subdued forms of resistance. However, our knowledge about the relationship between non-compliance and the legitimacy of government is deficient: Should non-compliance in some cases be understood as a form of opposition or resistance with a political dimension?

In this article we take illegal wolf hunting as our case in order to investigate how the interpretation of illegal activities that jeopardise national environmental goals are related to legitimacy challenges facing government institutions in charge of wolf policy and management – and by extension the legitimacy of the ‘protection discourse’ with its social and political origins, as well as perceived power relations beyond wolf management and hunting regulations. We will do this by focusing on hunters’ views on illegal killing of wolves. We assume that a protest dimension may be present in segments of the hunting population even though very few actually kill wolves. We also expect differences in hunters’ views to be associated with more general worldviews, and not only related to e.g. grievances concerning the position of hunting in modern societies. By extension, we will touch upon the connections between acceptance of illegal killing and the broader (rural) anti-elite upheaval that receives so much attention today.

With the recovery of carnivore populations in Scandinavia, management has been challenged by defiant acts including illegal killing. This has led to severe difficulties, not just for effective management but also in terms of distrust between authorities and segments of the population in rural communities (Sjölander-Lindqvist *et al.* 2015; Eriksson 2017). This comprises various forms of contestation of policy and legislation, including threats, sabotage and conflicts within local communities, as recounted by wildlife biologists, field personnel from the Norwegian Nature Inspectorate (SNO) and the police, and reported in the media (e.g., Østlendingen 2010; Raumnnes 2017).

Illegal hunting

Illegal hunting¹ is a threat to Nordic carnivore populations, and thus to biodiversity conservation and management. Biologists estimate that illegal killing is an important cause of mortality and affects the conservation status of lynx, wolverines, brown bears and wolves in Norway and Sweden (Andrén *et al.* 2011; Liberg *et al.* 2011; Persson *et al.* 2011; Swensson *et al.* 2011; Rauset *et al.* 2016; Odden *et al.* 2018). Mortality caused by illegal hunting has received the most attention concerning wolves. It was estimated that about half of all wolf deaths were caused by illegal hunting from 1991 to 2006 (Liberg *et al.* 2011) and mortality from illegal killing is still very high (Liberg *et al.* 2020). News media regularly report that specific animals have gone missing in established wolf territories. While there may be several explanations for this, annual monitoring shows an area in the Swedish counties of Dalarna and Värmland with

prime wolf habitat where all wolves seem to disappear before they reproduce. This is known as the 'black hole' among biologists and managers (SVT 2019a, SVT 2019b).

Illegal hunting is considered a challenge to wildlife management worldwide. The phenomenon is extremely diverse, ranging from the military-style pursuit of megafauna for economic gain (Jasparro 2018) via illegal subsistence hunting (e.g., in protected areas in the Global South) to more trivial, sometimes traditional, transgressions in many parts of the world, including the North (Forsyth *et al.* 1998; Bell *et al.* 2007). These activities are culturally embedded and have political or protest dimensions to varying degrees and occur in very diverse societal contexts across the globe. For example, the economically motivated pursuit of species such as elephants and rhinos is often entangled in political struggles (Brennan and Kaur Kalsi 2015) and is met with increasing militarisation of law enforcement (Challender and MacMillan 2014), which may again be tied to conflicts between rural people and national authorities, and thus seen as a form not only of enforcement, but also oppression (Lunstrum 2014). Likewise, bushmeat hunting driven by poverty and retaliatory killing of e.g., crop-raiding animals is embedded in societal tensions at a more general level (Benjaminsen and Svarstad 2010; Duffy *et al.* 2016). The political dimensions are obvious. However, the situation in the South is very different from what we see in the Nordic countries. Political or protest aspects of illegal hunting – and the support for such hunting – will develop against a different background and find different expressions.

Historically, redistribution of resources and punishment of oppressors have motivated illegal hunting as political action in many parts of the world (see Scott 1990). In some cases, illegal hunting may still be considered a 'crime of dissent', i.e., as a demonstration against marginalisation of lifestyles and livelihoods, as protest against particular (unfair) regulations, or an expression of distrust of authorities (Forsyth *et al.* 1998; Bell *et al.* 2007; Lowell 2009; Pohja-Mykrä and Kurki 2014). Mostly, however, these forms of hunting entail harvesting a resource illegally for some form of consumption (whether or not this has an essential subsistence aspect). Illegal hunting of regular game species, e.g., for meat, receives very little attention as a problem in the Nordic countries, and to our knowledge there are no official statistics and no research to reveal its extent. We take this to indicate that the problem is limited, as hunting rights in Nordic countries are private and a source of revenue for landowners. If extensive illegal hunting took place, hardly keep quiet about it. However, illegal hunting of large carnivores, and particularly wolves, has received much attention from law enforcement, politicians, media, management agencies, biologists, NGOs, and pro- and anti-wolf activists. Dead wolves are of no use to anybody, and you cannot have them taxidermised one that is illegally shot. Livestock loss to wolves is virtually non-existent in Finland and Sweden, and very limited in Norway (the two million Norwegian sheep are not where the wolves are). Therefore, informal livestock damage prevention cannot explain the considerable mortality caused by illegal killing.

We have very limited knowledge about who are engaged in illegal hunting. Few cases are investigated, and even fewer prosecuted. Research directly targeting people who are actively involved would be extremely demanding and has not been attempted. However, it seems likely that most illegal hunting is carried out by persons who are not part of criminal subcultures, but who are – more or less – integrated in their

communities, and who are not unanimously denounced by locals or by other hunters. This is borne out by prosecuted cases, and also by the direct and indirect support that has been expressed publicly (we return to this). Research has shown that quite a few people in areas with wolves express understanding for the activity and claim that they would never report it (Skogen *et al.* 2017).

von Essen interviewed a diverse group of Swedish hunters about their views on killing wolves illegally. She found that many had a strong feeling of disenfranchisement, both personally and on behalf of the 'hunting community', and felt that the services hunting provides (wildlife management, significant amounts of meat) were neglected. Many could clearly see illegal wolf hunting and other illegal acts as 'deliberative disobedience', i.e., as activities that – while clandestine by nature – are intended to send a message to authorities and powerful elites (von Essen *et al.* 2015; von Essen 2016).

In Norway, a high-profile case was prosecuted in the spring of 2015, following a large police operation where wolf hunting was investigated as organised crime, allowing police to use electronic surveillance, work under-cover, etc. The case went all the way to the Supreme Court, and in 2016 five men received substantial jail sentences (interestingly, none of them had any connection to farming or livestock). This stirred a huge controversy, where local politicians as well as members of parliament expressed what amounts to tolerance for illegal hunting as desperate acts of oppressed people. The political interpretations of the hunting itself as well as of the police operation showcase the embeddedness of illegal hunting and disagreements about large carnivores in deeper societal tensions. These concern not only natural resource management and land use regimes, but indeed the perceived unfairness in power relations between 'urban elites' and rural people (Eriksson 2017; Skogen *et al.* 2017; Skogen *et al.* 2018).

Hunting is a core issue in the conflict over wolves in the Nordic countries (Pohja-Mykrä and Kurki 2014; von Essen 2016; Skogen *et al.* 2017), and hunting organisations voice strong concerns. The core issues are wolf attacks, often lethal, on hunting dogs and effects of wolf predation on big game stocks, as well as lost revenue for landowners and hunting clubs. Hunters' organisations have been on the frontlines in order to reduce wolf population goals in Finland, Norway and – perhaps particularly – in Sweden. Also, court cases about illegal killing in all three countries have featured hunters, and hunters are obviously more prone to go hunting, also illegally, than other groups. They potentially have the motives (the core issues in the conflict related to hunting) and also the tools and methods. It is, however, important to keep in mind that hunters are a diverse group in several ways: Many Norwegian hunters are in favour of having wolves around, and 15 per cent of them are against *legal* hunting of wolves (Krange and Skogen 2018).

In the present study we aim to explore hunters' interpretations of illegal wolf hunting in a context of power and trust. Previous research in Nordic countries has touched upon this, but it has limitations in terms of explaining the protest dimensions of illegal hunting. Studies that have dealt explicitly with hunters' views have indeed explained support for such activity as part of an oppositional 'counterpublic', embedded in a collective sense of disenfranchisement and powerlessness. While

these contributions have substantially enhanced our understanding, they tend to see grievances and ensuing oppositional discourses as stemming from hunting-related or at least wolf management related issues: The value of hunting is not appreciated, hunting is regulated by ignorant people (e.g., von Essen 2016; von Essen and Tickle 2020). While such factors undoubtedly play a significant role in the formation of hunters' views, hunters are also part of other social constellations that surely affect their worldviews as much as anybody else's. There is also a tendency in this literature to treat hunters as belonging to a 'hunting community' seen as diversified only along hunting-related axes such as hunting methods, preferred prey, ethical orientation, etc. (von Essen *et al.* 2019). While also relevant, this is a too limited approach if we want to understand aspects of support for illegal hunting that we hypothesise to be part of a more general worldview – a worldview that is not likely to be shaped by experiences from the field of hunting only, perhaps not even primarily. Pohja-Mykrä and Kurki (2014) point out that other social networks than those related directly to hunting may unite around the acceptance of illegal killing. They studied male hunters and non-hunting women (family members) in three rural locations and found a widespread consensus that illegal killing was sometimes justified. It is probable that hunters' *perception* of acceptance for illegal hunting in the rural communities where they live, also outside family networks, constitute an important context for potential participation in such activities (whether or not the support is actually widespread²). Yet, studies that have situated views on wolf protection and nature conservation in a larger context of class, power and urban-rural relations have not concentrated on illegal hunting (see Sjölander-Lindqvist *et al.* 2015; Skogen *et al.* 2017; Eriksson 2017). Some papers discuss hunters and hunting culture, but illegal hunting is only dealt with tangentially (e.g., Kränge and Skogen 2011; Skogen *et al.* 2017). Furthermore, no studies have addressed the protest dimensions of views on illegal wolf hunting in larger representative samples in Scandinavia or elsewhere, as far as we know.

Here we intend to take the analyses further in two steps: We will gauge the acceptance for illegal wolf hunting among Norwegian hunters, and search for connections between acceptance of illegal hunting and relevant aspects of broader worldviews. We will do it based on a fairly large representative sample. This is necessary not only to understand illegal hunting and its support, but reciprocally how acceptance of illegal hunting may be part of a (rural) wave of discontent, today often interpreted in the context of 'populism' (see Mamonova and Franquesa 2019). We will attempt to explain how certain views and interpretations may be concentrated in segments of the hunting population with particular characteristics; characteristics not mainly related to the ways they hunt or how they perceive hunting.

Legitimacy

We know that illegal hunting of large carnivores is not condemned by all but is instead tolerated and even supported in some circles. This raises the issue of the legitimacy of the institutions that develop and implement environmental policies generally and the large carnivore management regime specifically. If this legitimacy is deficient, then illegal hunting will not be considered criminal in a moral and political sense. This

means that 'crimes of dissent' will not only be seen as legitimate political resistance by those who commit them, but by some groups of hunters and segments of local communities, thus providing a climate for illegal hunting that may increase the likelihood of people getting involved and not least improve their ability to get away with it. It will also affect the conditions under which laws and regulations are enforced, by shutting off information, complicating investigations and probably impacting the motivation of enforcement personnel – often hunters themselves (see Larsson 2017, 2018).

Legitimacy can be thought of as the acceptability of power relations, i.e., that some have power over others (see Pattison 2010). Political legitimacy, then, is 'the belief of the rightfulness of the state, in its authority to issue commands, so that those commands are obeyed not simply out of fear of sanctions or self-interest, but because they are believed in some sense to have moral authority, because subjects believe they ought to obey' (Barker 1990, p. 11). This makes legitimacy a condition where citizens surrender authority to government based on a normative judgement that the relationship between them and the state is proper (Barker 1990).

Legitimacy, then, is dependent on a degree of trust in and identification with the political system (what Scharpf (1999) labelled 'input legitimacy'), but also on what citizens receive in return for compliance with government ('output legitimacy' (Scharpf 1999)). If the output is deemed deficient in areas that are important to people, and remains so over time, the input legitimacy (trust in institutions and in the political system) may suffer – either in a general sense or as regards particular sectors of policy.

Resistance

Lack of social and political recognition can lead to exclusion and marginalisation of individuals and groups, which again can lead to various reactions from apathy and anger to contempt for dominant norms, values, and regulations. In the current political climate, this is addressed for example by Arlie Hochschild in her thought-provoking book 'Strangers in Their Own Land' (2016).

The concept of *cultural resistance* (Krange and Skogen 2011; Skogen *et al.* 2017) takes as its point of departure a relation of power, and it denotes a situation where those in a subordinate position make use of cultural means to challenge domination. Hegemonic cultural forms and a hegemonic 'world-view' are met with various counter-interpretations that thrive in the background, but which are also – to varying degrees – taken out into the open. Scott (1990) writes that subordinate groups create hidden discourses that represent a critique of power spoken behind the backs of the dominant. He terms these discourses 'hidden transcripts'. While generally hidden from the powerful, they comprise interpretations that explicitly defy hegemonic discourses, and may also be exposed openly under benevolent circumstances. Cultural resistance is not necessarily launched against institutionalised power, and does not generally imply a desire for fundamental social change, but should be seen as a struggle for autonomy – as an attempt at clearing a space out of the reach of power, where one is the master of one's own life (Krange and Skogen 2011; Skogen *et al.* 2017). Hunting with all its social and cultural aspects is a crucial part of life for

many hunters, and may be seen as being in need of defence (i.e. resistance) against a mounting pressure from outside. Previous studies have shown that hunters who are sceptical towards wolves are often very dedicated to hunting as a way of life, see hunting as a staple element in local culture, and hold that hunting is essential in order to keep wildlife populations healthy, i.e., it is a necessary management tool (Krange and Skogen 2011; Skogen *et al.* 2017, but see also Fischer *et al.* 2013; von Essen 2016). They also tend to see hunting culture as being under attack from increasingly powerful social groups, and not valued for its contribution to wildlife management and thus conservation (von Essen and Tickle 2019). Hunting can emerge as a centrepiece in forms of cultural resistance that aim at upholding autonomy.

This aligns with current scholarly debates about populism, particularly in rural areas. Mamonova and Franquesa (2019) write that populism is a 'vague and malleable' concept but conclude that a core element is political mobilisation against a perceived illegitimate elite, tapping into existing grievances not least in the rural working class. These grievances may be explained in different ways (see Mamonova and Franquesa 2019), but in rural areas resource extraction policies and land management, including conservation, are often important issues (Mischi 2013; Kojola 2019). Anti-elitism is a core element in cultural resistance (Krange and Skogen 2011), and clearly also relates to the question of legitimacy.

Pursuing wolves illegally is taking things a step beyond cultural resistance and anti-elite views, yet it is not an obvious political manifestation. While the hunting itself may be understood as a more direct form of resistance (but also as an effort to alleviate a perceived problem for fellow hunters and local people) the hunting would be less likely to take place unless launched in an environment of more general or diffuse opposition.

Worldviews

We use the intuitively meaningful concept 'worldview' to denote a basic understanding of the world in its diverse aspects, that is, not restricted to any particular sphere. von Essen *et al.* (2019) introduce the term 'social world' (of hunting) as a conceptual framework for understanding not only the collective dimensions of hunting as a social phenomenon, but also its differentiation into 'sub-worlds', i.e., specialisation and diverging value orientations related to hunting. The literature where the concept is developed discusses social worlds as relatively self-contained. Struggles and fragmentation in the social worlds of arts and music (Strauss 1982) and scientific disciplines (Clarke and Star 2008) seem to occur because of internal dynamics, and this is also the main message from von Essen and Tickle (2019) regarding hunting. While arts and science, as well as hunting, may indeed be seen as 'universes of discourse' (Strauss 1982) at some level, we find the relative disconnection from societal mechanisms of a more general nature implied in the concept of social worlds to be a limitation.

Likewise, the term 'community' (e.g., hunting community, see Peterson *et al.* 2011; Kaltenborn *et al.* 2013) connotes the active construction of boundaries demarcating 'inside' and 'outside' of a (symbolic) collectivity (e.g., Cohen 1985). We think this too

leads us to think of hunting as a self-sufficient social constellation and disregards (or at least underplays) how hunters are embedded in societal structures and processes, and that differentiation also among hunters – as hunters – may stem from other spheres.

Numerous authors employ the term ‘worldview’ in the same way as we do, precisely to denote in a relatively general manner that basic perspectives on society and life in general are perceived, by individuals and groups, as a coherent whole (see Kearney 1984; Ingold 2000).

Research design

The first part of the analysis is exploratory as we map views on illegal wolf hunting among Norwegian hunters. First, we investigate how hunters rate the seriousness of this activity, and how they compare it to other hunting-related offences in that regard. We will thus quantify the acceptance of illegal wolf hunting among Norwegian hunters. We go on to ask hunters whether they think there is an element of protest, regardless of their own acceptance of the activity. We then move on to study the relationship between views on illegal wolf hunting and several external factors, including the background variables gender, age, level of education and place of residence on an urban-rural scale. We are also interested in whether hunters think they have wolves nearby, as this may influence their attitudes towards wolves, and potentially also towards illegal hunting. The next step is to include aspects of what we termed world-views. These are not directly connected to either illegal killing or wolves in general but tapping dimensions of our analytical building blocks. We will look at traditional hunting motives, and – crucially – at anti-elitism and degrees of trust in what we term environmental institutions. If we can find a political dimension in hunters’ acceptance of illegal killing (and if hunters tend to think of illegal killing as a form of protest), we may expect that the existence of such views will provide an important context for the actual killing. Furthermore, we will attempt to situate oppositional sentiments among hunters as part of a broader wave of discontent and opposition. To this end, we utilise the conceptual frameworks of legitimacy and resistance as discussed above. While we have no way to directly measure resistance, we still aim to lay the ground for a discussion of this aspect.

Material and methods

All Norwegian hunters are registered in a national public database (Jegerregisteret, ‘the hunter register’, maintained by the Brønnøysund Register Centre, a government agency). From this database a sample of 2400 was drawn. Data collection was done in technical cooperation with TNS Gallup Norway.³ After two reminders, postal and SMS, 852 hunters completed an online questionnaire, resulting in an acceptable response rate of 36 per cent. The sample was compared to official numbers regarding big-game and small-game hunters, and regarding hunters from each county (region). The response rate was somewhat higher among big-game hunters (38 per cent) compared to small-game hunters (30 per cent).⁴ There was some – apparently

unsystematic – variation in response rate between counties (from 28 to 41 per cent). Deviation from the hunter register's official numbers regarding age and gender was modest. Nevertheless, the sample is weighted for both these variables in the analyses. All analyses were performed using IBM SPSS Statistics version 26.

What hunters think about illegal wolf hunting

To set the stage for our investigation of the factors that affect hunters' views, we start with investigating how hunters rate the seriousness of different hunting-related offences. We presented the respondents with a selection of such offences, all technically illegal, and asked them to rate how serious they think these acts are: 'Shoot a wolf illegally', 'Leave weapon in car with bolt in place', 'Shoot a raptor illegally', 'Shoot a bear illegally', 'Continue hunting after quota is filled', 'Hunt while intoxicated' and 'Deliberately shoot wrong animal'. Answers were given on a five-point scale ranging from 'not serious at all' (1) to 'very serious' (5). 'Shoot a wolf illegally' is the variable we retain as dependent in bivariate and multivariate analyses. The hunters were also asked to respond to the following statement: 'Those who hunt wolves illegally do it as a protest against current carnivore policy'.⁵ Responses were measured on a five-point scale from 'totally disagree' (1) to 'totally agree' (5).

Factors potentially influencing attitudes towards illegal wolf hunting

We introduced four staple background variables (in sociological studies generally as well as in previous studies of opinions on large carnivores, see Skogen and Thrane 2008; Tangeland *et al.* 2010), namely gender, age, level of education and place of residence on a rural-urban scale. Gender is a simple dichotomous variable, while respondents were requested to place their age in a bracket on a 6-point scale ranging from 15–24 to 65+. We measured level of education on a 4-point scale, from primary education only to university education of four years or more. Place of residence (self-reported) was scored on a 7-point scale from 'small hamlet or scattered settlement' to 'Oslo' (Oslo being the only truly metropolitan municipality in Norway with close to 700 000 people).

Respondents were asked to report whether they believed they had wolves close to where they lived (without specifying 'close' or performing any control of the likelihood of them actually having wolves nearby). It is conceivable that having wolves nearby directly impacts hunters' attitudes because it could affect their own hunting (e.g., pose a threat to their dogs). As a factor in forming people's opinions, their beliefs are obviously more salient than a factual situation of which they are unaware. To avoid making the multivariate analysis unnecessarily complicated, the three response options 'yes', 'no' and 'don't know' were recoded into a dichotomous variable where 'don't know' was set to equal 'no'.

We presented respondents with a list of possible motives for hunting, and they were asked to state on a 5-point scale how strongly they agreed. Among the options were: 'Hunting is very important in my social circle', 'I hunt because wildlife populations must be managed', and 'I hunt because hunting is an important tradition'. With

the intention to create an index, we computed Cronbach's Alpha for these three items, arriving at $\text{Alpha} = 0.64$. This is not a high level of internal consistency, but acceptable given the low number of items. We, therefore, went on to construct the index as a mean score for the three items and named it 'Tradition and Stewardship'.⁶

Next, we needed to operationalise 'anti-elitism'. To this end, we selected some items from an instrument intended to tap what has been termed 'political alienation' (Eriksson 2016), or conversely political self-confidence, as well as anti-elitism. Here, we are most interested in the latter construct. The selected items were: 'The elites (top people in politics, business and public administration) determine how society develops over the heads of ordinary people', 'Politicians are mostly concerned with securing their own positions', 'Experts without practical experience decide too much in this country', 'Ordinary people are more honest than politicians' and 'Sound common sense is better than formal education'. They yield a Cronbach's Alpha at 0.84, indicating strong internal consistency. We, therefore, constructed the index as a mean score.

Finally, we introduced variables we have often used in previous research, and which always play an important role in predicting attitudes towards wolves as well as other environmental issues, namely confidence in environmental institutions. This ties directly to the legitimacy of these institutions. We use the term broadly, because the 'environmental segment' including government institutions, scientists and mainstream NGOs are often seen as a coherent whole (or as a monolithic conglomerate, depending on the perspective of the beholder) (see Skogen and Thrane 2008; Krange *et al.* 2019). Given that these collective actors adhere to shared (hegemonic) discourses about nature and also have extensive interaction, this understanding is clearly not unfounded. To construct an index, we included the Ministry of Climate and Environment, the Environment Agency, the Nature inspectorate (SNO, essentially a national ranger service), The Norwegian Society for the Conservation of Nature (large conservation NGO), wildlife biologists, climate scientists and – new for this study – police units that investigate wildlife crime. Respondents were asked to indicate their level of trust in these actors on a 5-point scale from 'very high trust' to 'no trust at all' when it comes to 'climate and environment issues', i.e., not directly related to either hunting, wolves, wildlife, or even conservation. The items have a Cronbach's Alpha of 0.87, indicating high internal consistency. The index was constructed as a mean score.

Results

What hunters think about illegal wolf hunting

We observe that 64.5 per cent of the hunters think shooting a wolf illegally is very serious (Table 1). If we include those who have scored 4 on the 5-point scale, we can conclude that 76.6 per cent see this act as serious. In the other end, we can see that 8.2 per cent scored 1, 'not serious at all'. Adding those who scored 2, we arrive at a percentage of 12.8 who do not think of shooting a wolf illegally as very serious. This may be seen as a small percentage, but the offence is formally a crime that carries

Table 1: *How serious do you think it is to shoot a wolf illegally? (Univariate distribution)*

	Number of respondents	Per cent
1 – Not serious at all	69	8.2
2	40	4.6
3	76	8.9
4	103	12.1
5 – Very serious	549	64.5
Don't know	14	1.7
Total	851	100.0

severe penalties. It is also a high priority for the police at the national and regional levels (if not necessarily for every local police unit, see Larsson (2017)). Against this background, the number of hunters who see such activity as relatively unproblematic is not insignificant.

How does illegal wolf killing compare to other hunting-related offences? In Table 2, these other offences are listed, and we have included respondents who scored either 1 or 2 on the 5-point scale, i.e. those who did not see the offence in question as particularly serious.

We note that shooting a wolf is clearly the activity that the largest percentage of hunters see as not serious (12.8 per cent, as we also observed in Table 1). Except for leaving a gun with the bolt in place (illegal in Norway), all other offences are seen as 'not serious' by a very small number of respondents. It is noteworthy that shooting a wolf illegally stands out from other offences, including killing bears and raptors. The second-most 'un-serious' offence, leaving the gun without dismantling it, is something that could happen by accident (forgot it, etc.), and there could be mitigating circumstances (nobody around, not loaded, etc.). Even though a big majority of hunters see killing wolves illegally as a serious offence, it is still in a league of its own compared to other intentional acts that are technically illegal.

Already here we get an indication that there is something about killing wolves that invites acceptance in some circles. But does this mean that it is commonly associated with opposition and lack of trust in authorities? Table 3 shows that more than half (51.4 per cent) agree more or less strongly with the statement 'Those who hunt wolves illegally do it as a protest against current carnivore policy'. Only 17 per cent disagree more or less strongly, while 17.9 per cent answered 'don't know'. Yet, we do not know exactly why hunters think illegal hunting is a form of protest. Hunters, who will often take an interest in hunting-related matters, have probably noticed that this aspect has been duly emphasised in the media. As mentioned, several politicians at the local and even national level have publicly stated that they understand that people become so desperate that they shoot wolves. Furthermore, some hunters probably have knowledge about such activities from their own networks, and also of the motives involved. Or they have at least heard rumours and have some knowledge of the suspected groups and what they stand for. When many hunters agree, and few deny, that wolf hunting has an element of protest, there is reason to believe that such an element is indeed present.

Table 2: Offences seen as not particularly serious percentage that scored 1 ('Not serious at all') or 2 ('Not very serious')

	Shoot a wolf illegally	Leave weapon in car with bolt in place	Shoot a rap-tor illegally	Shoot a bear illegally	Continue after quota is filled	Hunt while intoxicated	Deliberately shoot wrong animal
Percentage	12.8	8.5	3.6	2.5	1.0	0.9	0.4
«not serious»	109	78	55	33	9	7	3
n							

Table 3: Responses to the statement 'Those who hunt wolves illegally do it as a protest against the authorities' carnivore policy' (univariate distribution)

	Number of respondents	Per cent
1 – Totally disagree	84	9.9
2	61	7.1
3	152	17.9
4	204	24.0
5 – Totally agree	233	27.4
Don't know	116	13.7
Total	851	100.0

As we already made clear, we cannot say anything about people who have actually hunted wolves. But 12.8 per cent of hunters state that doing so does not constitute a serious offence. Such a supportive or at least tolerant attitude is probably closely aligned with the motives held by those who hunt illegally and must be seen as a platform of consent from which the illegal activities are launched. Understanding the factors underlying such supportive views is important, and to that end we conducted a multivariate regression analysis. But first we will take a closer look at the bivariate effects of the variables we include in the multivariate regression.

Factors influencing attitudes towards illegal wolf hunting

First of all, we determined that the standard background variables gender and age were not associated with our dependent variable. This may be surprising given what we know about these variables and attitudes towards wolves in the general population

Table 4: Variables affecting opinion on seriousness of shooting a wolf illegally – bivariate OLS regressions

Independent variable:	B	S.E.
Place of residence: Rural-urban	.149***	.026
Education	.282***	.049
Wolves near place of residence	-.296***	.089
Hunting motive: Tradition & stewardship	-.197***	.046
Anti-elitism	-.392***	.052
Trust in environmental institutions	.676***	.048

Dependent variable: How serious do you think it is to shoot a wolf illegally?

Scale: 1 = Not serious at all, 5 = Very serious.

ns = not significant.

*p < 0.05; **p < 0.01; ***p < 0.001;

(see Tangeland *et al.* 2010; Krange *et al.* 2017), but our sample consists of hunters only and attitudes towards wolves is not the same as views on illegal hunting. As we can see in Table 4, level of education and place of residence did have effects on respondents' views. The more education a hunter has, the more he or she is inclined to see illegal killing as a serious offence. And hunters who live in small rural places are significantly less inclined to view it as serious, compared to those who live in more urban areas. Furthermore, having wolves close by was associated with a tendency to not consider illegal wolf hunting a serious offence (Table 4).

We then move on to variables that can be thought of as tapping 'attitude profiles'. This is not a theoretical concept, but a way to label survey instruments. We see these profiles as aspects of broader worldviews and we will treat them as such in our analysis. First, we will look at hunters' motives for hunting. As we see in Table 4, there is a significant negative relationship between the index for hunting motive labelled 'Tradition and stewardship' and the propensity to view illegal wolf hunting as a serious offence: Hunters who identify strongly with this motive are more inclined to condone illegal hunting. There is also a distinct relationship between the anti-elitism index and opinion on illegal wolf hunting. The higher the score on the anti-elitism index, the less propensity to see it as serious. Finally, there is a relatively strong effect of the index measuring trust in environmental institutions on propensity to view illegal wolf hunting as a serious offence: The higher the trust, the stronger likelihood of seeing it as serious.

Multivariate analysis

We move on to examine how the variables work in concert, using stepwise linear regression. In the first model, we introduce the three background variables presented in Table 4, namely place of residence on the rural-urban scale, level of education, and the (perceived) presence of wolves nearby. We observe in Table 5 that all these retain their statistical effect on the dependent variable. Also when controlling for the effect of the other two variables, hunters who live in rural areas are less inclined than their more urban counterparts to see illegal wolf hunting as serious, as are hunters with less education compared to those with more, and hunters who perceive that they have wolves nearby compared to those who do not think so.

In Table 4, we saw a significant effect of 'tradition and stewardship' as a motivation for hunting, in the sense that higher scores here were related to lower scores on the 'seriousness' variable. As mentioned, this is in line with previous findings from qualitative studies. However, when controlled for the three previously introduced variables, this effect disappears entirely (Table 5, model 2). A plausible interpretation is that this type of hunting motivation is connected to a rural social environment, and also more prevalent among hunters with less education. This is easily corroborated by simple correlation analyses, showing that Pearson's r is $-.24$ between this motivation and place of residence (rural to urban), and $-.21$ between the hunting motivation and level of education (low to high), both significant at the $p < .001$ level. The 'wolves nearby' variable is dichotomous (yes or no), and here r is $.10$ related to the hunting motivation variable, which indicates a weaker relationship (but still significant at the

Table 5: Variables affecting opinion on seriousness of shooting a wolf illegally – multivariate OLS regression

Independent variables	Dependent variable: How serious do you think it is to shoot a wolf illegally?			
	Modell 1	Modell 2	Modell 3	Modell 4
	B/SE	B/SE	B/SE	B/SE
Education	.214***/.058	.202**/.058	.100 ^{ns} /.062	.058 ^{ns} /.058
Place of residence – rural/urban	.111***/.030	.104**/.031	.088**/.031	.038 ^{ns} /.029
Wolves nearby	-.301**/.098	-.286**/.099	-.244*/.098	-.152 ^{ns} /.092
Hunting motive: Tradition & stewardship		-.029 ^{ns} /.022	-.008 ^{ns} /.022	.005 ^{ns} /.020
Anti-elitism			-.271***/.063	-.045 ^{ns} /.062
Trust in environmental institutions				.605***/.060
Constant	3.35	3.65	4.81	2.38
R ²	.071	.073	.099	.222
R ² change	.071	.003	.026	.123

Dependent variable: How serious do you think it is to shoot a wolf illegally?

Scale: 1 = Not serious at all, 5 = Very serious.

ns = not significant.

*p < 0.05; **p < 0.01; ***p < 0.001;

p < .01 level). This means that hunters who live near wolves, or who think they do, are more often motivated by ‘tradition and stewardship’ than hunters who do not. This is hardly a causal relationship, but probably has to do with the prevalent hunting culture in areas where wolves are likely to appear.

In model three we introduce the anti-elitism index. This retains its significant effect, so that even when controlled for the other variables here, there is a tendency that hunters who are more ‘anti-elitist’ are less inclined to see illegal wolf hunting as serious. The effect of education is no longer significant. And the relationship between education and anti-elitism is indeed a strong one. Pearson’s *r* between these two variables is $-.46$ (unsurprisingly significant at the $p < .001$ level), indicating that there is very little anti-elitism (such as we have measured it) to be found among hunters with the highest level of education. Thus, the anti-elitism index can be said to absorb the effect of education.

In the final model, we include the index for trust in environmental institutions. This index has a strong effect on the dependent variable. A high level of trust remains

a strong predictor of seeing illegal wolf hunting as serious, whereas low trust conversely predicts seeing it as not very serious. Moreover, *all* other effects disappear. In line with what has previously been observed in studies of environmental attitudes, including attitudes towards wolves (Skogen and Thrane 2008; Krange and Skogen 2018; Krange *et al.* 2019), trust in the institutions and collective actors that share and manage a hegemonic discourse in the field of environmental policy and conservation appear to be part of a coherent worldview. The trust index captures attitudes akin to anti-elitism, but the institutions at hand are more directly related to the dependent variable and it is, therefore, not surprising that anti-elitism in this particular context is statistically absorbed by the trust index.

Discussion

We observe that killing a wolf stands out as the illegal (and clearly intentional) act that has the most acceptance among hunters. The acceptance is limited, but the difference when comparing to other hunting-related offences is still striking: for example, the percentage seeing it as 'not serious' is three times as high as the percentage viewing killing a bear in the same way. Already here we have indications that there is something about the wolf that sets it apart.

Presence of wolves in the neighbourhood, as perceived by the respondents themselves, does have an effect in a bivariate analysis, so the actual material impact – or risk of material impact – may be a factor. Wolves do pose a certain risk to hunting dogs and there may be competition for game between wolves and hunters in some areas (at least this is often claimed by hunters, see e.g., von Essen 2016; Skogen *et al.* 2017). The effect weakens gradually as new variables are entered, and it is no longer significant when trust in environmental institutions is introduced. Even this (perceived) material factor seems to be submerged in the attitude profiles. Hunters in areas where wolves are likely to appear are more inclined towards anti-elitism and a hunting motivation comprising tradition and stewardship than are other hunters. However, this probably has more to do with the culture of hunting in traditionally oriented segments of the rural population than with the presence of wolves in itself. Yet, wolf presence has a separate effect even controlling for rural place of residence, which means that having wolves nearby is associated with hunters' attitudes to illegal wolf hunting even in rural areas.

We cannot rule out that the presence of wolves drives some hunters towards anti-elitism and weakens their trust in environmental institutions. It may draw them into an anti-wolf discourse and make the corresponding negative views on authorities and 'elites' more immediately relevant to them. However, the strong bivariate effects of anti-elitism and particularly of (mis)trust in environmental institutions show that this is not the most pervasive causal direction. Reactions to wolf presence are more likely influenced by pre-existing attitude profiles, effectively parts of larger worldviews, than the other way around. In fact, a study using qualitative data (but not focusing on hunters in particular) indicated that reactions to wolves, even to actual encounters, are strongly affected not only by pre-existing attitudes to wolves, but also interpretations of urban-rural power relations (Skogen *et al.* 2018).

It seems clear that anti-elitism, particularly when funnelled through mistrust of environmental institutions, does play a significant part in shaping hunters' views. This anti-elitism is of a general nature, it does not only relate to conservation, regulation of hunting or wolf management. Yet, being a traditionally oriented hunter seems to dispose towards such an outlook as well. Traditional hunters, or more precisely hunters who score higher on the motivation index built around maintaining traditions and stewardship, are more prone to accept illegal wolf hunting than hunters for whom this motivation is less important. Again, this strengthens our impression of a coherent worldview, of which a particular hunting culture is an important element, and which contributes to acceptance of illegal wolf hunting as a form of resistance against perceived threats.

We observe in this study as in others (e.g., Tangeland *et al.* 2010) that wolves and wolf management stand out as substantially more controversial than other large carnivore species and their management. As has been thoroughly discussed elsewhere (e.g., Skogen *et al.* 2017), the fact that wolves affect hunters in ways that other species do not (killing hunting dogs) or to a much lesser degree (competing for big game) is one factor that accounts for the difference. This seems to similarly affect views on illegal killing of wolves, as compared to killing other species.

Seen in connection with the effects of rural place of residence and limited formal education, we discern a pattern where acceptance of illegal killing is part of a form of cultural resistance. By this we mean a defiance of hegemonic discourses, often subdued so that Scott's term 'infrapolitics' (Scott 1990) seems useful: the political dimension is there if we look closely, but it is not obvious on the surface. Similarly, the observation of a defiant 'counterpublic' in qualitative studies (von Essen *et al.* 2015; von Essen 2016) seems to receive support here, because expressing understanding for illegal killing in the context of distrust for environmental institutions, including research, and anti-elitism point in the same direction. Hunters themselves tend to see illegal wolf hunting as a form of protest. They seem to be aware of the existence among hunters of such a counterpublic, regardless of whether they see themselves as part of it.

Protection of large carnivores is perceived by some social groups as an expression of a changing land use regime, seen as threatening rural economic activities and traditional rural lifestyles (Sjölander-Lindqvist *et al.* 2015; Skogen *et al.* 2017). The back-curtain is economic decline, leading to depopulation and dismantling of private and public services in rural areas. This occurs in a time when a conservation ethos has achieved a dominant position in public discourse, and increasingly manifests itself in practical land management. Accordingly, opposing protection of large carnivores may be seen as defending the rural economy and rural culture against harmful outside forces.

'Resistance' implies a relation of power, where subordinates challenge the powerful. The term is frequently used in ethnographic studies, but most contributions rely on a rather intuitive understanding of the term. For example, 'underlying elements of resistance' or 'undercurrents of resistance' might be mentioned (e.g. Lareau 2003; Evans 2006). Ortner (1995) noted that there has been a tendency to depict 'resistant' action as more coherent than is justified, since people's practices are normally

complex and marked by ambivalence and uncertainty. Not all practices or forms of knowledge that diverge from dominant culture or established expert knowledge can count as resistance. Attempting to establish a criterion for what can meaningfully be covered by the term, Fegan suggests that resistance must be part of the meaning that individuals attribute to their own actions (Fegan 1986). That means that most cultural expressions can contain resistance, if only people see their practices and knowledge as oppositional in the sense that they contain elements of conscious defiance against groups that claim superior insights and knowledge.

This is akin to what Fraser (1992) refers to as subaltern 'counterpublics', meaning that groups feeling politically excluded create 'sub-publics' opposed to the dominant discourses of society. The concept of counterpublic has been developed as a supplement to Habermas' 'public sphere' (Loehwing and Motter 2009). As von Essen *et al.* write about Swedish hunters; 'a counterpublic sphere was seen as a deterritorialised rallying point comprising the leftover interests by dominant society; in other words, disenfranchised, hidden or inarticulate voices in a public that is dominated by one narrow type of rationality' (2014, p. 5).

The strong effect of lacking trust in environmental institutions tells us that government institutions and the discourse on conservation they are associated with (wildlife biologists and a conservation NGO are included in the index) are facing a legitimacy challenge. This seems to be related to a deeper sense of disenfranchisement among some hunters, leading to the packaging of illegal wolf hunting as a form of – more or less – legitimate resistance against power that not only controls wolf management, but is also seen as underlying unfair urban-rural relations and advancing the interests of social segments branded as 'elites'. The links to perspectives that underpin much of the current populism literature (see e.g., Kojola 2019; Mamonova and Franquesa 2019).

This shows that treating breaches of environmental regulations primarily as criminal conduct that should be pursued by traditional means (policing and prosecution) will probably not be effective in the long term. Indeed, it is likely that increased surveillance and use of force from the authorities will stoke conflicts on the ground, as such actions might – and probably will – be seen as a confirmation of the understanding of power relations that the current resistance (the infrapolitics) is already embedded within (see also Skogen *et al.* 2018).

An important message from this study is also that hunters are diverse in their opinions on illegal killing of wolves, and only a minority sees it as defensible. They are equally diverse in their hunting motivations, and in their opinions on elites and powerful actors in the environmental field. Indeed, roughly the same factors that strongly influence a variety of environmental attitudes in the general population (including e.g. opinions on wolves and climate change, see Krange and Skogen 2018; Krange *et al.* 2019) also drive the views hunters hold on illegal killing of wolves. The diversity is such that it seems of little relevance to talk about a 'hunting community', despite the notoriety of such a notion in the public debate on large carnivore policy and the efforts by outspoken actors to depict hunters collectively as part of a resistance front against urban elites and the state.

Conflict of interest

None.

Data availability statement

Data available upon request.

Notes

* Corresponding author.

¹ Throughout the text we use 'illegal hunting' and 'illegal killing' interchangeably. As we explain under 'Sample and Method', the dependent variable in the analysis is centred on the phrase 'shooting a wolf illegally'. This act may be the result of hunting (deliberate and systematic pursuit) but may also be opportunistic (the chance came by accident). We see no reason to distinguish between these scenarios for our purpose here. The Norwegian language lacks a word for 'poaching', and this term is also mostly associated with material gains from illegal harvesting (of game, trees, or other resources). Such gains are irrelevant in the context of killing large Nordic carnivores illegally.

² This is a topic for the larger project 'Illegal hunting as a challenge to natural resource management and law enforcement: Contested legitimacy and resistance', which this study is a part of.

³ TNS Gallup Norway is a data collection company certified according to the standards ISO 9001:2008 and ISO 20252 (Sector standard). TNS Gallup always adheres to directives from The Norwegian Data Protection Authority and the Norwegian Centre for Research Data (NSD), and is audited annually according to the Sarbanes-Oxley directive. All participants in the present study are anonymous to the research team: No link to their identities exists.

⁴ In the context of the Norwegian hunter register 'big game' means moose, red deer, wild reindeer and roe deer.

⁵ The Norwegian 'rovdyr' is a very common word, with none of the scientific connotations of the English (even Latin) 'carnivore'. Maybe 'predator' would be a better translation, but the word 'carnivore' seems to dominate scholarly writing in English also when it concerns management and policy. Furthermore, there is no clear distinction between the concepts 'policy' and 'politics' in Norwegian. Therefore, the word 'rovdyrpolitikk', which means both 'carnivore policy' and 'carnivore politics', invites a connection to the political field. And carnivore protection and management are indeed highly politicised.

⁶ The Norwegian term used here was 'forvaltning', which is usually translated to 'management'. However, the Norwegian word also connotes 'stewardship' – for which there is no direct translation – so that it means both the formal management system and informal stewardship, e.g., performed by hunters.

Acknowledgement

This study is part of the larger project 'Illegal hunting as a challenge to natural resource management and law enforcement: contested legitimacy and resistance', funded by the Research Council of Norway, grant no. ES557926.

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Ketil Skogen*

Senior research Fellow, PhD

Norwegian Institute for Nature Research

Gaustadalléen 21

Oslo

0349

Norway

e-mail: ketil.skogen@nina.no

Olve Krange

Senior research Fellow, PhD
Norwegian Institute for Nature Research
Gaustadalléen 21
Oslo
0349
Norway