On the Geometry of Speciesist Policing: The Federal Bureau of Investigation's Animal Cruelty Data

Piers Beirne
University of Southern Maine, United States
Michael J. Lynch
University of Southern Florida, United States

Abstract

This article contests the animal cruelty statistics newly collected and publicized in the US by the Federal Bureau of Investigation (FBI). In what follows, we (1) outline the inclusion of animal cruelty in the FBI's National Incident-Based Reporting System (NIBRS), 2016–2020; (2) analyze trends in animal cruelty cases reported in NIBRS; (3) identify key data validity, methodological and theoretical problems in NIBRS, especially with the FBI's attempt to generate knowledge of the link between animal cruelty and interpersonal violence; and (4) juxtapose the FBI's circumscribed concept of animal cruelty with the much more inclusive circle of compassion advanced by nonspeciesist and green criminology. We challenge illusions that the criminalization of animal cruelty is driven by a logic of benign inevitability, and ponder how the extension of compassion to a few favored species coexists with and even engenders de-civilizing countertrends, such as the immense abuse that occurs worldwide in the animal industrial complex. Therefore, we issue a call for the development of a nonspeciesist research program, both monocultural and cross-cultural, into the dynamics of the policing and surveillance of animal cruelty and animal abuse in a broad range of societies.

Introduction

In different cultures, places, and times, acts of cruelty between humans have been invested by criminal law with a multiplicity of meanings—such as a synonym of crudeness, tyranny, malice, and wartime atrocities, and as an antonym of courtesy, kindness, mercy, and compassion. Both in the past and today and in diverse societies around the world, a similarly broad range of cultural variation also exists in national and local state definitions of cruelty to animals. In our pro-animal analysis here, we contest the meaning of the animal cruelty statistics collected annually in the US by the Federal Bureau of Investigation (FBI) and publicized since 2016 in its National Incident-Based Reporting System (NIBRS).

While our focus here is police-based data in the US, we expect that at least some of our critical monocultural analysis also applies to other societies where state authorities are currently criminalizing and policing instances of "animal cruelty" and "animal abuse."

In the US, prominent animal protection organizations have offered glowing appraisals of the FBI's new data on animal cruelty. For example, the Animal Welfare Institute (AWI) exclaimed that "as data continues to flow in and more law enforcement agencies begin to report, it is becoming ever more possible to determine trends and obtain an accurate assessment of the occurrence of animal cruelty, where it is happening, and the characteristics of offenders" (2020). For its part, the American Society for the Prevention of Cruelty to Animals (ASPCA) stated: "we are grateful that … the FBI … has committed to treating animal cruelty-related crimes and enforcement with the seriousness that they deserve" (ASPCA 2016). Recently, the Humane Society of the United States (HSUS) said that "the data generated will help create a clearer picture of animal abuse and guide strategies for intervention and enforcement" (HSUS 2021).[1]

However, these and other such acclamations are far from persuasive. They offer no methodological or theoretical assessment of the FBI's police-based data. They exude optimism. They exhort. They are dust jacket brief and not a little obsequious. Surprisingly, perhaps, the FBI's efforts have thus far been greeted with a curious silence among scholars. Indeed, a search on November 2, 2021 of the SCOPUS, PubMeD, and Google Scholar databases for "FBI," "NIBRS," and "Animal Cruelty" yielded not a single citation. In trying to rectify this lacuna, we must express our sympathy with the tenor of a complaint made by C. Wright Mills, the revered author of *The Power Elite*, to E.P. Thompson, the social historian and nuclear abolitionist. In 1960, moments before he was scheduled to deliver an address on US policy toward Latin America, Wright Mills confessed in a letter to Thompson: "I have to do it: it's my god-damned duty, because nobody else will stand up and say shit out loud" (2000: 320).

Our argument proceeds as follows: (1) we outline the FBI's crime reporting policy in NIBRS and its inclusion of animal cruelty crimes therein; (2) we analyze trends in animal cruelty cases reported in NIBRS; (3) we identify key data validity, methodological and theoretical problems in NIBRS and in the FBI's calculations, especially with its attempt to generate new empirical knowledge of the link between animal cruelty and interpersonal violence; and (4) we problematize the key notions of "animal" and "cruelty," thereby setting the FBI's circumscribed concept of animal cruelty against the much more inclusive circle of compassion advanced by nonspeciesist criminology.

FBI Calculations of Animal Cruelty in NIBRS

Since 1930, the FBI has been under congressional mandate to calculate the types, incidence, and prevalence of serious crime in the US and to disseminate this knowledge to the polity, the media, and the public. During the past nine decades, the FBI has fulfilled this responsibility through the statistics it gathers and publicizes in its annual *Uniform Crime Reports* (UCR) and, more recently, through NIBRS. Foremost in these data has been empirical information about the incidence and prevalence of eight "Index" offenses: homicide, aggravated assault, sexual assault, robbery, burglary, larceny, motor vehicle theft, and arson. Through 2020, the FBI received data from crime reports submitted voluntarily from more than 18,000 federal, state, city, county, university/college, and "tribal" (i.e., Indigenous) law enforcement agencies. Currently, these agencies have jurisdiction over more than 337.5 million US inhabitants, or roughly 98.1% of the population, with relatively more coverage in urban than in rural areas.

At least since the mid-1970s, the FBI has expressed an interest in the relationship between animal cruelty and various forms of interpersonal violence (Addington and Randour 2012; Ascione 2001; Brantley, Lockwood and Church 2009; Arluke et al.; Lockwood and Church 1996; FBI 2005; Phillips and Lockwood 2013; Robinson and Clausen 2021). The FBI has expressed two overriding concerns in this regard. The first can be expressed with two deceptively simple questions. Prospectively, are children or adolescents who commit animal cruelty more likely subsequently to commit murder, rape, or partner abuse, for example? Retrospectively, are violent human adults more likely earlier to have engaged in animal abuse? Affirmative responses to these two questions have, in combination, been termed the progression thesis or the violence graduation hypothesis. Much research in this regard has been directed to the psychosocial characteristics of violent offenders such as serial murderers and rapists. The FBI's second concern has been whether animal abuse tends to covary with domestic violence, especially partner abuse and child abuse. The entire conundrum associated with these two issues is often popularly expressed in the mantra-like phrase "the Link" (for cautions on "Link" research, see Beirne 2004; Patterson-Kane and Piper 2009).[2]

The FBI's major interest has thus been less with animal cruelty *per se* and more with whether animal cruelty is a predictable sign of violent or otherwise problematic interhuman relationships. As such, while these questions are indisputably important, their discursive focus is inevitably anthropocentric and speciesist. Animals' master status in this discourse is that of human property; therefore, it is not surprising that crimes against animals appear only haphazardly in the UCR, buried in the catchall category "All Other Offenses" and adjacent to the larcenous "livestock, clothing and furs" and "office equipment and televisions stolen".

In 2003, an effort began to encourage the FBI to collect and report data on animal cruelty in the UCR. As characterized by Addington and Randour (2012:1), who at the time were active as staff members of the AWI:

> The motivation for this change is two-fold. First, obtaining animal cruelty data would allow for annual estimates as well as identification of trends over time. Second, these data would be available to researchers, policymakers, and other stakeholders to promote a better understanding of animal cruelty and develop evidence-based policy.

Toward those two ends, Addington and Randour (2012) had a series of exchanges with FBI advisory committees and personnel from the FBI's Criminal Justice Information Services. These exchanges led to a proposal and, with input from the National Sheriffs' Association, the Association of Prosecuting Attorneys, the Animal Legal Defense Fund, the AWI, the National Animal Care and Control Association, the National Coalition on Violence Against Animals, and the National Academies of Sciences, Engineering, and Medicine (NASEM), on January 1, 2016, the FBI formally began to collect animal cruelty data under the aegis of NIBRS.

NIBRS is essentially a modified and far more detailed version of the UCR. In NIBRS, local agencies report data to the FBI on each single crime incident and arrest within 24 more (Group A) and 10 less (Group B) serious offense categories. Among these data are details about the time, date, place, and circumstances of a crime and information about the age, gender, and race of victims and offenders and the relationship between them, if any; the presence of guns or drugs; details of property loss; and whether hate/bias motivation was involved. NIBRS classifies animal cruelty both as a Group A offense and also as a "crime against society." Other Group A offenses include violent crimes such as homicide, aggravated assault, rape, and robbery, as well as a number of nonviolent crimes such as prostitution, burglary, bribery, embezzlement, fraud, vandalism, and drug violations.

A formidable hurdle facing NIBRS is to ensure that crime reports are consistent with an overarching definition of a specific crime (Bibel 2015). This task requires fitting a wide variety of definitions of a similar offense from 50 state and other legal jurisdictions into the global definition employed to create the universal database. This the FBI professes to have achieved through a standardized definition based on "statutes of criminal law … common-law definitions found in Black's Law Dictionary … [and those] Uniform Offense Classifications" (FBI 2021: 15). NIBRS defines animal cruelty as (FBI 2021: 16):

> Intentionally, knowingly, or recklessly taking an action that mistreats or kills any animal without just cause, such as torturing, tormenting, mutilation, maiming, poisoning, or abandonment. Included are instances of duty to provide care, e.g., shelter, food, water, care if sick or injured; transporting or confining an animal to fight with another; inflicting excessive or repeated unnecessary pain or suffering, e.g., uses objects to beat or torture an animal. This definition does not include proper maintenance of animals for show or sport; use of animals for food, lawful hunting, fishing, or trapping.

Further, the FBI divides animal cruelty into four categories of behavior to which agencies should adhere when reporting through NIBRS. Specifically, a reporting agency is required to enter at least one but no more than three of the following characterizations of the abuse incident:

1) simple/gross neglect: the failure of a person to provide for the needs of an animal (lack of food, water, shelter, grooming, or veterinary care);
2) intentional abuse and torture: the intentional act of harming an animal;
3) organized abuse: dogfighting and cockfighting;
4) animal sexual abuse.

We collected animal cruelty counts for 2016–2020 from NIBRS using the FBI website. These data include all known and reported animal cruelty cases sent to the FBI by each state or reporting agency in each state. As such, these data are considered the official count of crime in the US. As noted, this is problematic to the extent that NIBRS has not been fully implemented, and a significant portion of the US population is excluded from coverage—therefore, it is to be expected that the number of crimes reported in NIBRS would significantly under-represent the "real" volume of crime (McCormack, Pattavina and Tracy 2017). For each year, all crimes reported to NIBRS in each state were collected. The data were then sorted to locate the animal cruelty case reports, and those cases were counted annually in each state and then aggregated across states to compile the total count of reported animal cruelty incidents for the US in each year examined.

Table 1 displays the summary of NIBRS incident counts of animal cruelty reported by year from 2016 through 2020. Among these data are the annual number of animal cruelty incidents, the number of states reporting animal cruelty, reported incidents per state, the number of reporting agencies, the state with the highest number of reported incidents, and the state reporting the highest incident rate per 100,000 population.

Table 1: A summary of the FBI's animal cruelty incidents and rates from National Incident-Based Reporting System (NIBRS) 2016–2020*

	2016	2017	2018	2019	2020
No. Animal Cruelty Incidents	1156	3313	5287	10040	10985
No. States Reporting only in NIBRS	17	21	31	40	43
No. Agencies Reporting NIBRS data	6849	6998	7283	8497	9880
No. Agencies Reporting Animal Cruelty in NIBRS	n/a	722	1056	1721	n/a
Mean Incidents Per State	68	157.8	170.5	251	256
Most Incidents in a State (N)	506	952	1097	1395	1782
State with Highest Count	Delaware	Alabama	Delaware	Texas	Texas
Highest Rate/100,000	53.2	10.1	113.6	132.88	118.41
Highest Rate State	Delaware	Delaware	Colorado	Delaware	Delaware

*We created our entries in Table 1 by manipulating the FBI's own data in its Crime Data Explorer (FBI 2022).

Not all law enforcement agencies presently submit data to NIBRS. The UCR was supposed to have been retired and fully supplanted by NIBRS on January 1, 2021: however, as of that date, 18 states reported only NIBRS crime data and 30 others a combination of UCR and NIBRS data. Moreover, not all law enforcement agencies within each state that reports to NIBRS have updated their reporting practices to be consistent with NIBRS requirements. The FBI candidly acknowledges that existing data do not yet allow any solid generalizations about animal cruelty, given the limitations of NIBRS data (Addington 2007: 92).

Table 1 indicates that, in 2016, the first year of data collection, few cruelty incidents were reported. Between 2016 and 2020, the number of reported incidents grew by nearly a factor of 12. However, overall, the incident rate even in 2020 was quite small, and the number of reported animal cruelty cases in the US is but a small fraction of what would be expected, as we discuss below. In relative terms, the state reporting the most incidents annually over-reported those incidents relative to the size of its population. For example, in 2020 the population of Texas comprised 8.8% of the total US population, but it reported 16.8% of all cruelty incidents. This suggests either that (1) animal cruelty is higher in Texas than in other states, or (2) Texas over-reports animal cruelty relative to other states, or (3) other states under-report animal cruelty relative to Texas, or (4) all the conditions in (1–3) coexist. There is no way to determine which of these four outcomes occurs because the actual number of animal cruelty incidents is both unknown and unknowable.

Caution! The FBI's Animal Cruelty Data are not Objective Social Facts

Clearly, given the novelty of the NIBRS data above and their incomplete demographic coverage, the apparent trends in Table 1 do not necessarily demonstrate that the number of animal cruelty crimes increased after 2016. Rather, the higher number of reports might simply reflect the growing number of reporting states. Therein lies a humbling maxim: animal cruelty data do not speak for themselves. They are not objective facts that can somehow be understood apart from their social construction. Rather, they emerge from the complex quadrangular interactions of (1) designations by moral entrepreneurs, media, concerned citizens and others that given human–animal relationships are undesirable; (2) their subsequent criminalization by the state; (3) the perception by crime victims or crime witnesses—formally, "complainants" (often one and the same)—not only that a crime has occurred but also complainants' willingness to report it to police; and (4) the agreement by police that a crime has occurred and their willingness and efficiency to record it as such.

The interactions among (1–4) above are complex sociologically and immensely varied in their possible details and outcomes. Recall, first, that NIBRS defines animal cruelty as "*any* action that mistreats or kills *any* animal without just cause" [our italics]. A multitude of problems is concealed therein. As a definition, it might seem extremely inclusive—it is not. Some of its problems it shares with the measurement of all crimes in NIBRS; some are peculiar to animal cruelty crimes. The FBI's standardized definition of cruelty (FBI 2021: 3) artificially imposes an otherwise nonexistent uniformity upon the mishmash of 50 state animal cruelty statutes and other jurisdictions whose definitions, substantive content, and exclusions differ quite widely. Thus, some state anti-cruelty statutes refer to "any animal" or "every living creature." Others refer to the unsatisfactory "domestic[ated] or wild" animals or to the weirdly arcane "every living dumb creature" designation. Moreover, some states only include warm-blooded creatures, while others exclude fishes, birds, reptiles, wild animals not previously captured, crustacea, or mollusks. However, to put it bluntly—if, in a given jurisdiction, an act of animal cruelty has not been criminalized there, it will be neither submitted to nor recorded in NIBRS—hence dealing a blow to the NIBRS fiction of inclusivity.

Moreover, the reporting of animal cruelty differs in major respects from that of other crimes. Thus, while the signs of cruelty on animals' bodies may be visible to veterinarians and to those who staff animal shelters and humane societies, animals themselves cannot voice their complaints. In addition, the most frequent responders to complaints of animal cruelty and neglect are animal control officers (ACOs)—yet they are not empowered to enter their determinations in NIBRS. If ACOs decide a case resolution merits further action, then they must submit additional paperwork to traditional police or humane law enforcement. Moreover, a presently unknowable number of animal cruelty cases is concealed in the investigations of various state agencies that may not report or who are unable to report to NIBRS—among them Agriculture, Conservation, Drug Enforcement, Fire Marshal, Fisheries/Wildlife, Forestry, Natural Resources, Marine Resources, and Health/Social Services. In short, animal cruelty is likely among the least reported of all crimes.

NIBRS, Animal Cruelty, and Interhuman Violence

A key aim of the FBI's new data collection is to illuminate the relationship between animal cruelty and interhuman violence (IHV). (We use the term IHV because the conventional term "interpersonal violence" wrongly assumes that only humans can be persons.). However, is it successful? In addressing this question, we untangle its constituent parts into three further questions: Does NIBRS show that animal cruelty covaries with IHV? Does NIBRS show that animal cruelty tends to precede IHV in time? How accurate is the NIBRS count of animal cruelty incidents?

Does Animal Cruelty Covary with IHV?

Here, we need refer only to a recent study by Palais (2021), who had privileged access to NIBRS data files through her work at the AWI. She reported that, in 2018 and 2019, only 8% of animal cruelty incidents in NIBRS had other crimes associated with them. This is not a significant level of covariance.

Does Animal Cruelty Tend to Precede IHV in Time?

Whether any given incident of animal cruelty covaries with other crimes does not properly address the FBI's assumption of a movement ("progression") from the one crime type to the other. To evaluate the progression thesis, one needs a longitudinal dataset—that is, data containing information about all incidents and all types of offenders' harmful behavior over a lengthy period. In principle, those data would allow identification of offenders who had committed animal cruelty. One would then examine those offenders over time to see if they had committed other types of crime after they had committed animal cruelty, what those other crimes were, and whether they were crimes of IHV (e.g., homicides, sexual assaults and arguably, robberies)— if they were, some confirmation would indeed be lent to the progression thesis.

However, NIBRS has no answer to the question of whether animal cruelty tends to precede IHV. Its data do not permit longitudinal study because they do not track an offender over time.

How Accurate is the NIBRS Count of Animal Cruelty Incidents?

As noted in Table 1, NIBRS counted 10,985 animal cruelty cases in 2020. Given the levels of police department underreporting and the percentage of the US population covered by NIBRS, we estimate that if all non-reporting departments had reported in ways consistent with expectations (i.e., consistent with the information provided by reporting agencies or states), the number of animal cruelty cases reported to NIBRS in 2020 would have been 14,454. Let us call this number the "NIBRS complete coverage estimate for animal cruelty cases," or "NACE." We have reason to believe that NACE substantially underestimates the volume of animal cruelty incidents. This is reinforced by the estimates from several studies that count animal cruelty in ways similar to the methodological procedures in NIBRS.

Let us begin with the FBI's assumption that the covariation of animal cruelty and domestic violence is based not on anecdotal but on informative empirical research. Extant research on this link finds that somewhere between 25% and 86% of domestic violence cases also involve animal abuse and cruelty (Fitzgerald et al. 2021). Clearly, the enormous discrepancy in these estimates indicates that the animal cruelty–domestic violence link these data describe has not been represented in any precise or reliable manner.

Nevertheless, we can begin with this observation and use it to estimate the number of animal cruelty incidents in the US, given the number of domestic violence cases. Estimates of the annual number of domestic violence cases in the US vary greatly— that is, from three to ten million (see PCADV 2022). Using these figures, we estimate that if 25–86% of domestic violence cases in the US also involved animal cruelty, if there were (1) three million domestic violence cases, there were between 750,000 and 2.58 million animal cruelty incidents; and (2) ten million domestic violence cases, there were between 2.5 and

8.6 million animal cruelty incidents. These figures represent an enormous variation in the possible number of animal cruelty incidents, which range from 750,000 to 8.6 million. However, even at the low end of the estimate (750,000), these figures are much higher than the NACE estimate—that is, between 52 and 595 times higher.

Other studies can also be employed to assess the accuracy of animal cruelty incidents reported in NIBRS. For example, using reported animal abuse and animal fighting and arrest data for the city of Chicago, Burchfield (2018; see also Hughes, Antonaccio and Botchkovar 2020) found a total of 670 animal cruelty incidents that resulted in 2,446 charges over a four-year period (2009–2012). In Chicago, then, there were annually, on average, 167.5 animal cruelty incidents and 611.5 animal cruelty charges during the study period (see also Burchfield 2016). Here, we note the number of incidents and charges because, following NIBRS rules, the number of charges ought to be reported to the FBI. From the Chicago data, we can estimate the rate of reported animal cruelty incidents as approximately 22.6/100,000 population. The similar NIBRS rate from our NACE estimate (N = 14,454) for the US produces an animal cruelty rate of 4.4/100,000, or only 1/5th the size of the estimate derived from the Chicago data.

While the data from Chicago may not be representative of all locations, they differ markedly from the NIBRS-derived estimate and are nearly 5.2 times higher. Politely put, this comparison with Chicago likely indicates that the number of animal cruelty cases reported to NIBRS underestimates the amount of animal cruelty.

In assessing the validity of NIBRS calculations, we can also delve into the large differential in animal cruelty rates across states (Fitzgerald et al. 2021; Reese, Vertalka and Richard 2020; White and Quick 2019). If there is a link between animal cruelty and IHV, then differences between the rates of these two violent crimes should not be extensive across states. In other words, were we to examine the correlation between rates of domestic violence and animal cruelty crimes reported in NIBRS by state, (1) these should be related and (2) there would be some proportionality between high and low reports of animal cruelty and IHV.

However, the FBI's data do not support those assumptions. For example, according to the UCR in 2018, the IHV rate varied from a low of 115/100,000 in Maine to a high of 867/100,000 in Alaska, with a mean of 379.4/100,000 across all states. These differences may result from any number of ecologically related factors—for example, differences in the etiology of violence, victim reporting tendencies, and tendencies of police departments to found complaints or accurately report violent crime. Nevertheless, the Maine–Alaska difference is 7.53 times, while the Alaska–US mean difference was 2.28 times.

How do those results compare with reported animal cruelty crimes? As shown in Table 1, the highest reported rate of animal cruelty in 2020 was 118.41/100,000 in Delaware. That figure was about 35 times higher than the average animal cruelty incident rate for the US.

Relative to differences in violent crimes against humans, this is an extremely large variation and requires explanation. For example, perhaps the variability in NIBRS animal cruelty offenses across states reflects a real difference in these crimes across places that is not associated with levels of IHV. This variability suggests not only that the people likely to engage in animal cruelty are spatially distributed and concentrated in different US states but also that those offenders are not distributed in the same way as those who commit crimes of IHV. For instance, while Delaware reported the highest rate of animal cruelty, it ranked 17 in IHV rates in 2018.

If this comparison of animal cruelty and IHV is valid, it could also mean either that animal cruelty violence and crimes of IHV must be explained in different ways or that the link between animal cruelty and IHV is tenuous and does not support FBI assumptions. However, this result may also be the outcome of the poor quality of NIBRS data and, more specifically, of the quality and validity of the animal cruelty count. Finally, it is also likely that for cultural, customary, and other reasons, different geographic locations are more or less sensitive to the discovery and reporting of animal cruelty and more or less energetic in the enforcing of animal cruelty laws.

Animal Cruelty and Victimhood in NIBRS: A Crime Against Society or a Crime Against Animals?

It should be unnecessary to say that cruelty is one among many forms of violence against animals. However, although NIBRS is careful to avoid categorizing acts of animal cruelty as crimes against property, it also fails to recognize such acts as violence against animals. While NIBRS categorizes violence against humans as "crimes against persons," it names and classifies acts of animal cruelty as "crimes against society." While such a classification might appear to be an improvement and forward-looking, even, it is unclear what the FBI means by "crimes against society" or by the distinction between these crimes and "crimes against persons." Perhaps, having debated the finer points of the philosophical literature on the nature of legal or other

personhood, "FBI management" (NASEM 2016: 43) has concluded that humans alone can be persons and that animals can only be property. Or perhaps the FBI recognizes animal cruelty as bad behavior but not, ultimately, as "real" crime.

Moreover, while the NIBRS User Manual states that "crimes against persons … are those offenses whose victims are always individuals" (FBI 2021: 9), not once does it state or even imply that an animal can be a crime victim. On the contrary, the only beings inscribed as the victims of animal cruelty are animal owners—that is, humans whose animal–property has been victimized by a "crime against society."

NIBRS identifies numerous aspects of human victim–offender relationships: their age, gender, and race; whether they were related to or otherwise knew each other; the presence of a weapon; and the time and location of the offense. However, other than the time and location of an animal cruelty incident, NIBRS provides no information on animal victims themselves—nothing on the relationship between human offenders and animal victims; on victim species; or on the duration, degree, or type of harm. NIBRS has data in abundance on homicide but none on theriocide. NIBRS documents hate crime, with offenders' motives duly categorized and enumerated, but it has nothing on misothery. Moreover, while NIBRS defines kidnapping as "[the] unlawful seizure, transportation, and/or detention of a person against his/her will," the FBI insists that the taking of another's [i.e., another human's - PB/ML] animal counts in NIBRS only as a larceny (FBI 2021: 36; see also Sollund 2019).

How NIBRS Constricts the Circle of Compassion

Clearly, before their juxtaposition can be approached and their merger assessed, speciesism must first be recognized and then pried away from each of the two elements comprising animal cruelty: "animal" and "cruelty." Accordingly, we now problematize the key notions of "animal" and "cruelty," thereby setting the FBI's narrow and restrictive concept of animal cruelty against the much more inclusive circle of compassion required by species justice (Nussbaum 2022; Tuttle 2014).

Conflicting Images of Animal Cruelty: The FBI and the Two Criminologies

We indicated in the introduction that definitions of animal cruelty can and often do vary enormously from one society to another and within any given society over time. Of course, similar variations are also present today, as indeed they are in the positive perceptions of NIBRS by leading animal protection organizations. Thus, the focus of NIBRS is variously indicated as statistics on the "occurrence of animal cruelty" (AWI), on "animal cruelty-related crimes" (ASPCA), and on "animal abuse" (HSUS). To a casual observer, these phrases might seem synonymous. However, they conceal major differences, both implicit and explicit, in the diameter of the respective circles of compassion advanced by their respective authors.

Such geometrical differences are also clearly visible in the two predominant perspectives on animal cruelty in the multidisciplinary field of criminology. One perspective lies at the interface of criminal justice and social psychology, with a smattering of symbolic interactionism, ethnography, and participant observation. Its focus, like that of NIBRS, is an individual offender in one-on-one situations of physical cruelty and neglect. The other is nonspeciesist criminology. Its focus is the sociological analysis of power and harm—especially the harmful effects of human exceptionalism on nonhuman animals, including cruelty.

In the former perspective, sensitivity is, in principle, displayed toward the variety of animal species on which cruelty might be inflicted (e.g., Arluke et al. 1999; Arluke and Irvine 2017; Merz-Perez and Heide 2005). In practice, however, the focus of attention here is companion animals, especially cats and dogs. In the most influential expositions of this perspective, the concept of cruelty has three main discursive qualities (Arkow and Lockwood 2016; Ascione and Shapiro 2009; Brewster and Reyes 2016; Gullone 2014; Randour and Gupta 2016). First, animal cruelty is seen as any act that causes unnecessary pain, suffering, or distress to and/or the death of an animal. Second, animal cruelty involves one-on-one intentional behavior on the part of an offender—that is, it is non-accidental behavior and can include neglect of a duty to care for an animal. As a corollary, animal cruelty is often seen to flow from the mental and characteriological abnormalities of offenders—or, in the American Psychiatric Association's classification, it is a diagnostic criterion for conduct disorder. Third, animal cruelty is socially unacceptable behavior and, as such—just like NIBRS—excludes culturally acceptable practices such as humane slaughter for food and animals variously used in scientific research, education, hunting, and so on.

The latter perspective—nonspeciesist criminology—has mostly been undertaken from the standpoints of animal rights, the ecofeminist ethic of care, and critical animal studies. Its research program on animal abuse and animal cruelty has developed as an integral aspect of green criminology and its broader ecological concerns (see e.g., Agnew 1998; Beirne 1999, 2018; Cazaux 1999; Fitzgerald 2019; Fitzgerald et al. 2021; Flynn and Hall 2017; Goyes and Sollund 2018; Lynch and Genco 2021; Maher 2021; Maher, Pierpoint and Beirne 2017; Nurse and Wyatt 2020; Sollund 2019; South and Brisman 2013; Stretesky, Long and Lynch 2014; White 2008). It has two chief discursive traits. First, it rejects the prejudice best described as a self-

interested denial of or silence toward the harms that humans inflict on members of other species. Its key concepts are to do with harm, exploitation, exclusion, abuse, pain, and suffering. As such, it is a counter-hegemonic perspective that explicitly seeks to decenter the human and to empower those voiceless creatures who are unable to resist or to protest the harms that humans routinely visit upon them. Second, nonspeciesist criminology is non-statist. In this, it has a strong commitment to the belief that its investigations must not be pre-given by whatever social behavior happens to be labeled as crime by state apparatuses such as criminal law and the criminal justice system, including the FBI and other police.

Predictably, between the psychosocial perspective and the more sociological bent of nonspeciesist criminology, there has been little confluence of intellectual interest, personnel, or published research. While the former focuses on animal cruelty and views it as unnecessary pain and as intentional and socially unacceptable behavior by individual offenders, the latter sees cruelty as but one among numerous forms of animal abuse that comprise the backbone of the animal industrial complex. Whereas the former views socially unacceptable behavior to animals as the moral compass of its findings, the latter problematizes the meaning of "socially unacceptable" harms. While one perspective seems eerily similar to the blinkered view of cruelty in NIBRS, the other explicitly challenges the fickle authority of legislators, courts, police, and public opinion.

Consider the FBI's (2022) finding in NIBRS that, in 2019, 75% of 10,040 animal cruelty incidents occurred in residences ("against pets"), 69% involved neglect, 28% intentional cruelty, and 1.1% sexual abuse. Although there are no NIBRS data on the species of animal victims, NIBRS figures suggest that a very high percentage of all cruelty incidents involves one-on-one actions by humans against just two species—cats and dogs—while barely 1% involve farmed animals. Consider also that by far the greatest number of animal abuse incidents in 2021 were the nearly 10 billion theriocides in factory farming in (United States Department of Agriculture 2021)—and the 14,574,839 animals used in scientific experimentation in 2015 (Taylor and Alvarez 2020).[3] Add to these incidents the theriocides and other harms sustained by animals in anthropogenic ecocide, wildlife trade, sport, hunting, fishing, and trapping—and the 10,000 or so incidents of animal cruelty annually registered in NIBRS is surely an undercount of colossal proportions.

A terminal difficulty with NIBRS data is that they are based on a legalistic definition of cruelty as the abuse of animals "without just cause." As Francione (2008: 119) rightly objects, anti-cruelty statutes focus our attention on considerations of "humane" treatment without revealing the normative assumptions that render that word meaningless in terms of the level of animal protection actually provided. But animal abuse can never be justified. Besides an act of self-defense, which actions would constitute animal abuse "with just cause"? What circle of compassion would reserve the great majority of its area for inclusion of abuse with just cause? We suggest that a more inclusive definition of animal abuse, including cruelty, is (Beirne 1999: 121):

> any act that contributes to the pain, suffering, or death of an animal or that otherwise threatens [her] welfare. Animal abuse may be physical, psychological or emotional; may involve active maltreatment or passive neglect or omission; and may be direct or indirect, intentional or unintentional.

Which Animals are Worthy of Protection from Abuse?

According to one estimate, there are 8.7 million species on planet Earth (Mora et al. 2011). Of these, the vast majority are animal species, with progressively lesser numbers of fungi, plants, and the single-celled protozoa. Which of these animal species is worthy of moral consideration and protection from abuse? By what calculus is their worth to be measured and by whom—by moral philosophers, for instance, or by lawmakers, police, or public opinion? Should the notion of animal cruelty be applicable only to those individual animal victims who display a given level of sentience? Who makes the grade? Who fails?

Charismatic megafauna would doubtless be placed atop most lists of moral consideration. Prominent among these megafaunae would be iconic species such as eagles, elephants, great apes, hippopotamuses, lions, giant pandas, tigers, whales, and wolves. Endangered species and those nearing extinction would probably have priority. But what of animals positioned further down the evolutionary and phylogenetic scales, such as arachnids and bivalves?

Near the apex of any ranking system of moral consideration would also be the dogs and cats and avian species whom we appoint as our companions ("pets"), who live with us in our houses, and whom we regard as family members. But would companion ferrets, mice, rats, and snakes also be on this list? If not, why not? And what of the wild animals who choose to live in our outhouses and under our porches, verandas, and decks, sometimes habitually, sometimes seasonally or otherwise episodically— among whom are ants, bats, birds, cockroaches, groundhogs, hedgehogs, porcupines, raccoons, rodents, skunks, squirrels, and snakes? When we do not view them as pests or vermin and hence as exterminable ("with just cause"), what consideration should these creatures be allotted? (In asking this question, we recognize that the duties we owe respectively to domesticated, feral, and wild dogs, for example—all of them members of the genus *Canis lupus familiaris*—might well be quite different.)

Moreover, what of feral animals who are either simultaneously semi-domesticated and semi-wild, or those wild animals who have at one time or another been domesticated—prominently among them feral cats, dogs, goats, and pigs?

Unfortunately, there are no neutral or objective standards according to which a rational and disinterested observer can deduce precisely which species and what harmful behavior should be deployed in concepts of animal abuse and animal cruelty. In animal rights theory, especially, it is unclear how much agreement would emerge on this issue. The most restrictive positive lies in Steven Wise's *Rattling the Cage* (2000). Wise proposed that consideration (i.e., for legal personhood) should be extended to roughly 10,000 surviving bonobos and 200,000 chimpanzees and, recently, with the Wise-directed Nonhuman Rights Project (NhRP), to several incarcerated chimpanzees and an elephant. The most radical positions are exemplified in Joan Dunayer's (2004) *Speciesism* and Richard Ryder's (2001) *Painism*. To Dunayer and other feminist advocates of an ethic of care the answer is: all animals with brains and nervous systems, including arachnids, crustaceans, earthworms, flatworms, insects, and mollusks, but excluding orthonectids, placozoans, rhombozoans, and sponges. To Ryder, the answer is all sentient animals—that is, those who can experience pain ("any form of suffering or negative experience, including fear, distress and boredom, as well as corporeal pain itself ... injustice, inequality and loss of liberty naturally cause pain" (p. 27).

In between these two outliers are Peter Singer's (1975) act-utilitarian ethics in *Animal Liberation* and Tom Regan's (1983) deontological rights advocacy in *The Case for Animal Rights*. To Singer, the likely answer is a dividing line between vertebrates and invertebrates—that is, somewhere between a shrimp and a mollusk. To Regan: all mammals, at least. But what of fishes, birds, and reptiles, for example? As Gary Francione points out (2008: 25; see also Haraway 2007; Maurizi 2022):

There is … no reason to conclude that being able to do calculus is better than being able to fly with only your wings, or to breathe underwater with only your gills. These characteristics may be relevant for some purposes, but they are not relevant to whether we make a being suffer or kill that being.

Conclusion

Prior to the formal introduction of animal cruelty incident counts in NIBRS, the FBI was a major sponsor of a two-volume report by NASEM (2016, 2018) on the future of crime statistics in the US. Lamenting that "even a cursory glance … suggest[s] … that there are numerous gaps in current coverage and knowledge of crimes by NIBRS" (2016: 7), NASEM proposed the creation of "a new 'group A' crime of animal abuse … [and] acts against the natural environment or against animals … [and] against public protected or prohibited species of fauna and flora" (2016: 126, 255). However, the FBI firmly rejected NASEM's proposal. Instead, it proceeded to deploy the exclusionary category of animal cruelty, limiting it to "any action that mistreats or kills any animal without just cause" (FBI 2021).

Problematizing the key concepts of "animal" and "cruelty" and setting them against NIBRS's notion of animal cruelty, we have demonstrated in this article that the FBI's circle of compassion inevitably extends only to a small handful of species—companion dogs and cats, and little else besides. Because animals' master status in NIBRS remains thinghood—that is, property that can be disposed of with "just cause"—we are far from persuaded that NIBRS's new statistics will advance the understanding of animal cruelty, let alone enlighten the FBI and other police on how to confront IHV.

Indeed, a central and quite unresolved issue for nonspeciesist and green criminology is how some harms to animals, including cruelty, are defined as both abusive and criminal, others as abusive but not criminal, and still others as neither abusive nor criminal (Beirne 1999; Hall 2014; Maher 2021). Yet even the most informative histories of this unfolding terrain imply that the criminalization of animal cruelty is driven by a logic of benign inevitability (e.g., Arkow 2021; Favre and Tsang 1993; *pace* Bargheer 2006; Gruen and Marceau 2022). The prime mover in this teleology is typically identified as the growth of compassion as it is manifest in newly enlightened nation-states and in increasingly sensibilized and humane citizenries. Against this rosy view, however, one must ponder how the extension of compassion to a few favored species coexists with or even engenders de-civilizing countertrends, seemingly worldwide, such as the immense and chiefly invisibilized abuse that occurs in the many sites of the animal industrial complex. Therefore, we issue a call for the development of a nonspeciesist research program in green criminology, both monocultural and cross-cultural, into the dynamics of animal cruelty and animal abuse in a broad range of societies.

Acknowledgements

Correspondence: Piers Beirne, Emeritus Professor of Sociology and Legal Studies at the University of Southern Maine, United States. beirne@maine.edu

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[1] Several leading members of the animal protection community met with President Trump in the Oval Office to as he signed into law the *Preventing Animal Cruelty and Torture Act* on 25 November 2019 (https://www.govinfo.gov/content/pkg/DCPD-201900823/pdf). Attendees who praised Trump included leaders of Animal Wellness Action. Big Dog Rescue, Humane Society of the United States, K9s for Warriors, and the National Animal Care and Control Association. See also the salutation by People for the Ethical Treatment of Animals (2019). On the palliative nature of the *"PACT"* Act see Marceau (2021).

[2] In concert with the Department of Homeland Security and the National Counterterrorism Center, the FBI has even recently suggested that animal cruelty is a warning signal – 'experimental aggression' - for future acts of ISIS-like terrorism (Joint Counterterrorism Assessment Team, 2018; see also Staton and Randour 2021).

[3] It is estimated that 10% of farmed animals die from abuse each year (Cassuto and Saville 2012) and that 95% of animals used in laboratories are excluded from the purview of the *Animal Welfare Act* (Frasch 2017), among them birds, rats, and mice.

References

Addington L (2007) Hot vs. cold cases: Examining time to clearance for homicides using NIBRS data. *Justice Research and Policy* 9(2): 87–112. https://doi.org/10.3818/JRP.9.2.2007.87

Addington L and Randour M (2012) *Animal cruelty crime statistics: Findings from a survey of state Uniform Crime Reporting programs.* Washington, DC: Animal Welfare Institute.

Agnew R (1998) The causes of animal abuse: A social-psychological analysis. *Theoretical Criminology* 2(2): 177–209. https://doi.org/10.1177/362480698002002003

American Society for the Prevention of Cruelty to Animals (2016) U.S. Justice Department now tracking animal cruelty nationwide. 12 January. https://www.aspca.org/news/us-justice-department-now-tracking-animal-cruelty-nationwide

Animal Welfare Institute (2020) *The animal cruelty reporting scorecard.* 3 April. https://awionline.org/content/animal-cruelty-reporting-scorecard

Arluke A and Irvine L (2017) Physical cruelty of companion animals. In Maher J, Pierpoint H and Beirne P (eds) *The Palgrave international handbook of animal abuse studies*: 39–57. London: Palgrave Macmillan.

Arluke A, Levin J, Luke C and Ascione F (1999) The relationship of animal abuse to violence and other forms of antisocial behavior. *Journal of Interpersonal Violence* 14(9): 963–975. https://doi.org/10.1177/088626099014009004

Arkow P (2021) "Humane criminology": An inclusive victimology protecting animals and people. *Social Sciences* 10: 335–356. https://doi.org10.3390/socsci10090335

Arkow P and Lockwood R (2016) Definitions of animal cruelty, abuse, and neglect. In M Brewster M and C Reyes C (eds) *Animal cruelty: A multidisciplinary approach to understanding*: 3–23. Durham: Carolina Academic Press.

Ascione F (2001) Animal abuse and youth violence. *Juvenile Justice Bulletin*. Washington, DC: Department of Justice. https://www.ncjrs.gov/pdffiles1/ojjdp/188677.pdf

Ascione F and Shapiro K (2009) People and animals, kindness and cruelty: Research directions and policy implications. *Journal of Social Issues* 65(3): 569–589. http://dx.doi.org/10.1111/j.1540-4560.2009.01614.x

Bargheer S (2006) The fools of the leisure class: Honor, ridicule, and the emergence of animal protection legislation in England, 1740–1840. *Archives Européennes de Sociologie* 47(1): 3–35. https://doi.org/10.1017/S0003975606000014

Beirne P (1999) For a nonspeciesist criminology: Animal abuse as an object of study. *Criminology* 37(1): 117–148. https://doi.org/10.1111/j.1745-9125.1999.tb00481.x

Beirne P (2004) From animal abuse to interhuman violence? A critical review of the progression thesis. *Society & Animals* 12(1): 39–65.

Beirne P, with Janssen J and O'Donnell I (2018) *Murdering animals: Writings on theriocide, homicide and nonspeciesist criminology.* London: Palgrave Macmillan.

Bibel D (2015) Considerations and cautions regarding NIBRS data: A view from the field. *Justice Research and Policy* 16(2): 185–194. https://doi.org/10.1177/1525107115623943

Brantley AC, Lockwood R and Church AW (2009) An FBI perspective on animal cruelty. In Linzey A (ed.) *The link between animal abuse and human violence*: 224–227. Sussex Academic Press.

Brewster M and Reyes C (eds) (2016) *Animal cruelty*: *A multidisciplinary approach to understanding.* Durham, NC: Carolina Academic Press.

Burchfield K (2016) The sociology of animal crime: An examination of incidents and arrests in Chicago. *Deviant Behavior* 3(4): 368–384. https://doi.org/10.1080/01639625.2015.1026769

Burchfield K (2018) The nature of animal crime: Scope and severity in Chicago. *Crime & Delinquency* 64(14): 1904–1924. https://doi.org/10.1177/0011128717719515

Cassuto D and S Saville (2012). Hot, crowded, and legal: A Look at industrial agriculture in the United States and Brazil. *Animal Law* 18: 185-205.

Cazaux G (1999) Beauty and the beast: Animal abuse from a non-speciesist criminological perspective. *Crime, Law and Social Change* 31(2): 105–125. https://doi.org/10.1023/A:1008347609286

Crist E (2019) *Abundant Earth: Towards an ecological civilization.* Chicago: University of Chicago Press.

Dunayer J (2004) *Speciesism.* Derwood, MD: Ryce Publishing.

Favre D and Tsang V (1993) The development of anti-cruelty laws during the 1800's. *Detroit College of Law Review* 1(5–6): 1–35.

Federal Bureau of Investigation (2005) *Report on the advantages and disadvantages of adding animal cruelty crimes as a separate crime category to the Uniform Crime Reporting program, as required by H.R. 108-792 and P.L. 108-447.* Washington, DC: Departments of Commerce, Justice and State, the Judiciary, and Related Agencies Appropriations Act.

Federal Bureau of Investigation (2021) *National Incident-Based Reporting System User Manual.* Washington, DC. https://bjs.ojp.gov/sites/g/files/xyckuh236/files/sarble/data_common/nibrs-user-manual-2021-1041521.pdf

Federal Bureau of Investigation (2022) *Crime Data Explorer* [*NIBRS*]. https://crime-data-explorer.fr.cloud.gov/pages/downloads

Fitzgerald A (2019) *Animal advocacy and environmentalism: Understanding and bridging the divide*. Cambridge, UK: Polity.

Fitzgerald A, Barrett B, Stevenson R and Fritz P (2021) Domestic violence and animal abuse. In Devaney J, Bradbury-Jones C, Macy R, Øverlien C and Holt S (eds) *The Routledge international handbook of domestic violence and abuse*: 325–339. New York: Routledge.

Flynn M and Hall M (2017) The case for a victimology of nonhuman animal harms. *Contemporary Justice Review* 20(3): 299–318. https://doi.org/1080/10282580.2017.1348898

Francione G (2008) *Animals as persons: Essays on the abolition of animal exploitation.* New York: Columbia University Press.

Frasch P (2017) Gaps in US animal welfare law for laboratory animals. *International Laboratory Animal Research Journal* 57(3): 285-292. https://doi.org/10.1093/ilar/ilw016

Goyes D and Sollund R (2018) Animal abuse, biotechnology and species justice. *Theoretical Criminology* 22(3): 363–383. https://doi.org/10.1177/1362480618787179

Gruen L and Marceau J (eds) (2022) *Carceral logics: Human incarceration and animal captivity*. Cambridge: Cambridge University Press.

Gullone E (2014) An evaluative review of theories related to animal cruelty. *Journal of Animal Ethics* 4(1): 37–57. https://www.jstor.org/stable/10.5406/janimalethics.4.1.0037

Hall M (2014) The roles and use of law in green criminology. *International Journal for Crime, Justice and Social Democracy* 3(2) 97–110. https://doi.org/10.5204/ijcjsd.v3i2.176

Haraway D (2007) *When species meet*. Minneapolis: University of Minnesota Press.

Hughes L, Antonaccio O and Botchkovar E (2020) The crime of animal abuse in two nonwestern cities: Prevalence, perpetrators, and pathways. *Journal of Quantitative Criminology* 36(1): 67–94. https://doi.org/10.1007/s10940-019-09417-w

Humane Society of the United States (2021) *Animal cruelty facts and stats*. https://www.humanesociety.org/resources/animal-cruelty-facts-and-stats

Joint Counterterrorism Assessment Team (2018). *Animal Cruelty: A Possible Warning Behavior for Terrorism and Other Premeditated Violence against Humans Which Needs Reporting and Further Vetting*. Washington, DC. https://www.sheriffs.org/sites/default/files/First%20Responders%20Toolbox%20Animal%20Cruelty.pdf

Lockwood R and Church A (1996) Deadly serious: An FBI perspective on animal cruelty. *Humane Society of the United States News* Fall: 1–4.

Lynch M and Genco L (2021) Cruelty against animals' welfare (CAAW) violations: A study of Animal Welfare Act and Horse Welfare Act enforcement actions in the US, 2010–2014. *Sociological Spectrum* 41(3): 255–272. https://doi.org/10.1080/02732173.2021.1893239

Maher J (2021) Documenting harm to the voiceless: Researching animal abuse. In Davies P, Leighton P and Wyatt T (eds) *The Palgrave handbook of social harm*: 167–195. London: Palgrave Macmillan.

Maher, J, Pierpoint H and Beirne P (eds) (2017) *The Palgrave international handbook of animal abuse studies*. London: Palgrave Macmillan.

Marceau J (2021) Palliative animal law: The war on animal cruelty. *Harvard Law Review* 134(March): 250–262. https://harvardlawreview.org/2021/03/palliative-animal-law-the-war-on-animal-cruelty

Maurizi M (2022) *Beyond nature: Animal liberation, marxism, and critical theory*. Boston: Brill.

McCormack P, Pattavina A and Tracy P (2017) Assessing the coverage and representativeness of the National Incident-Based Reporting System. *Crime & Delinquency* 63(4): 493–516. https://doi.org/10.1177/0011128717694595

Merz-Perez L and Heide K (2005) *Animal cruelty: Pathway to violence against people*. Walnut Creek, CA: Altamira Press.

Mills C (1960, 2000) To E. Thompson. In Mills K with Mills P (eds) *C. Wright Mills: Letters and Autobiographical Writings*: 320. Berkeley: University of California Press.

Mora C, Tittensor D, Adl S, Simpson A and Worm B (2011) How many species are there on Earth and in the ocean? *PLOS Biology* 9(8): e1001127. https://doi.org/10.1371/journal.pbio.1001127

National Academies of Sciences, Engineering, and Medicine (2016) *Modernizing crime statistics: Report 1: Defining and classifying crime*. Washington, DC: The National Academies Press. https://doi.org/10.17226/23492

National Academies of Sciences, Engineering, and Medicine (2018) *Modernizing crime statistics: Report 2: New systems for measuring crime*. Washington, DC: National Academies Press. https://doi.org/10.17226/25035

Nurse A and Wyatt T (2020) *Wildlife criminology*. Bristol, UK: Bristol University Press.

Nussbaum M (2022) *Justice for animals: Our collective responsibility*. New York: Simon & Schuster.

Palais J (2021) Using the National Incident-Based Reporting System (NIBRS) to study animal cruelty: Preliminary results (2016–2019). *Social Science* 10(10): 378. https://doi.org/10.3390/socsci10100378

Patterson-Kane E and Piper H (2009) Animal abuse as a sentinel for human violence: A critique. *Journal of Social Issues* 65(3): 589–614. https://psycnet.apa.org/doi/10.1111/j.1540-4560.2009.01615.x

Pennsylvania Coalition Against Domestic Violence (2021) Pennsylvania's lethality assessment program. https://www.pcadv.org/about-abuse/domestic-violence-statistics/

People for the Ethical Treatment of Animals (2019) Animal abuse now a federal offense after passage of PACT Act/Great News: President Trump signs National Animal Cruelty Act into Law! https://www.peta.org/blog/pact-act-signed-into-law

Phillips A and Lockwood R (2013) *Investigating and prosecuting animal abuse: A guidebook on safer communities, safer families and being an effective voice for animal victims.* Arlington, VA: National District Attorneys Association.

Randour and Gupta M (2016) Psychological theories of animal cruelty. In Brewster M and Reyes C (eds) *Animal cruelty: A multidisciplinary approach to understanding*: 355–375. Durham, UK: Carolina Academic Press.

Reese L, Vertalka J and Richard C (2020) Animal cruelty and neighborhood conditions. *Animals* 10(11): 2095–2107. https://doi.org/10.3390%2Fani10112095

Regan T (1983) *The case for animal rights*. Berkeley: University of California Press.

Robinson C and Clausen V (2021) The link between animal cruelty and human violence. *FBI Law Enforcement Bulletin* 10(August). https://leb.fbi.gov/articles/featured-articles/the-link-between-animal-cruelty-and-human-violence

Ryder R (2001) *Painism: A modern morality*. London, UK: Centaur Press.

Singer P (1975) *Animal liberation*. New York: Avon.

Sollund R (2019) *The crimes of wildlife trafficking: Issues of justice, legality and morality.* London, UK: Routledge.

South N and Brisman A (eds) (2013) *Routledge international handbook of green criminology*. London, UK: Routledge.

Staton K and Randour M (2021) The links between animal cruelty, terrorism and violence: What you can do about it. *PRI Management Group* July. https://policerecordsmanagement.com/2021/06/29/the-link-between-animal-cruelty-terrorism-and-violence-and-nibrs

Stretesky P, Long M and Lynch M (2014) *The treadmill of crime: Political economy and green criminology*. New York: Routledge.

Taylor K and Alvarez L (2020) An estimate of the number of animals used for scientific purposes worldwide in 2015. *Alternatives to Laboratory Animals* 47(5–6): 196–213. https://doi.org/10.1177/0261192919899853

Tuttle W (ed.) (2014) *Circles of compassion: Essays connecting issues of justice.* Danvers, MA: Vegan Publishers.

United States Department of Agriculture (2021) Livestock slaughter. *Agricultural Statistics Board*. https://www.nass.usda.gov/Publications/Todays_Reports/reports/lstk0921.pdf

White G and Quick L (2019) Animal cruelty, domestic violence, and social disorganization in a suburban setting. *Deviant Behavior* 40(8): 930–941. https://doi.org/10.1080/01639625.2018.1445442

White R (2008) *Crimes against nature: Environmental criminology and ecological justice.* Cullompton, UK: Willan.

Wise S (2000) *Rattling the cage: Toward legal rights* for *animals*. Cambridge, MA: Perseus.