

”You don’t have the right to steal my life”: Exploring the harms of puppy farming on ex-breeding dogs[†]

JOHN WALLISS

Liverpool Hope University, UK

wallisj@hope.ac.uk

The last decade or so has witnessed a growing body of work within green criminology exploring forms of non-human animal abuse and harms involving companion animals. To date, however, comparably less attention has been paid to the puppy trade and the phenomena of commercial dog breeding facilities (or puppy mills/puppy farms). The aim of this article is to add to this literature by exploring the multiple harms of puppy farming, focusing on its impact on the breeding dogs themselves; specifically breeding bitches. Adopting a green criminological perspective and drawing on interviews with animal rescue staff, foster carers and those who have adopted ex-breeding dogs within the UK, the article explores the harms of puppy farming on their bodies and behaviours. Interviewees describe how ex-breeding dogs are physically worn out after a life of constant breeding and often suffer from a range of often serious medical issues. In addition, they were invariably emotionally shut down, exhibiting anxiety and phobic responses when confronted with new situations, people and sounds, as well as ones that recalled the conditions in which they were kept while in the puppy farm.

KEYWORDS: Dog; companion animal; puppy farm; puppy mill; commercial breeding establishment; green criminology

[†] The quote is from ‘Mark’ who runs an animal rescue centre. It came in response to a question asking him to try and put into words what he thought the dogs that he rescued would say if they could say anything: “You don’t have the right to steal my life. You don’t have the right to treat me like this”. All interviewees and their dogs are referred to via pseudonyms in the article.

Introduction

The last decade or so has witnessed a growing body of work within green criminology exploring forms of non-human animal abuse and harms involving companion animals. Moving away from previous work that focused on the impact of such abuse for human beings themselves – asking whether such abuse progressed to violence against humans or was part of a wider pattern of violence and criminal behaviour – this newer work explores, instead, the harms of such abuse for the companion animals themselves (see Arluke & Irvine 2017; Nurse 2013 and 2017; for a review of the earlier work see Linzey 2009). Specific research on particular forms of companion animal abuse has focused largely on the often interlinked topics of status/weapon dogs and dog fighting (Harding 2012; Harding & Nurse 2015; Hughes et al. 2011; Lawson 2017; Maher & Pierpoint 2011; Nurse 2021).

To date, however, comparably less attention has been paid to the puppy trade and the phenomena of commercial dog breeding facilities (or ‘puppy mills’/puppy farms). This is particularly noteworthy as not only have several recent surveys revealed that public perceptions of such facilities are largely negative (Bateson, 2010; Bir, 2016; 2017), but puppy farms are also the target of ongoing campaigns by major animal welfare charities (see International Fund for Animal Welfare 2012; Dogs Trust 2020; Eurogroup on Animals 2020). Research by Jennifer Maher and Tanya Wyatt has focused on the UK, and by extension mainland Europe, and explored rural-urban dynamics in the flow of puppies (Maher & Wyatt 2019) and the relationship between the trade and organised crime (Maher & Wyatt 2021). Both authors have also published a piece of ‘scoping research’ for the Scottish Government examining the nature, extent and value of legal and illegal puppy sales in the UK and what can be done to tackle the illegal trade in puppies and puppy farms (Wyatt, Maher & Biddle 2017). James Yeates and David Bowles (2017) have also published a chapter providing an overview of the breeding and selling of companion animals in England and Wales. Puppy farming is an especially pertinent form of animal abuse because, as has been widely recognised, the recent Covid lockdowns in the UK led to a boom in the sales of puppies, many of whom were bred in mainland Europe and then imported, often illegally, for sale in the UK (see Packer et al. 2021; Brand et al. 2022).

The aim of this article is to add to this literature by exploring the multiple harms of puppy farming, focusing on its impact on the breeding dogs themselves; specifically breeding bitches. While there is a body of literature within the fields of animal behaviour science that addresses this topic, this research is quantitative/experimental in na-

ture and thus, by extension, discusses the harms at a high level of abstraction. There is also, as yet, no consensus among these researchers over the question of whether or not commercial breeding produces negative outcomes for breeding dogs. Finally, the research in question is exclusively focused on the USA, and, as such, does not address the issue of puppy farms in Europe, specifically within the UK. Adopting a green criminological perspective and drawing on interviews with animal rescue staff, foster carers and those who have adopted ex-breeding dogs within the UK, the article will highlight the harms of puppy farming on their bodies and behaviours.

Green criminology provides a particularly useful approach for framing puppy farming for two main reasons. Primarily, it is concerned with harms, both legal and illegal, inflicted on non-human animals. In doing so, one strand of green criminology adopts an overtly species-justice perspective, rejecting the human-centric view that non-human animals and their concerns are inferior and secondary to humans and theirs (for discussions, see Beirne 1999; Beirne & South 2007; White & Heckenberg 2014). Whereas non-human animals are often considered as the 'property' of humans, a species justice perspective instead contends that, at the very least, humans have a duty of care towards non-human animals and, some would argue, that they should have rights comparable to humans (Nurse 2016; White & Heckenberg 2014). For example, in a recent article, Flynn and Hall (2017; see also Flynn, forthcoming), drawing on both green criminology and critical victimology perspectives, have argued persuasively that the remit of victimology should be extended to include nonhuman animals. With its focus on non-human animal harms and concern with species justice/non-human animals as victims, green criminology thus provides an ideal lens for framing puppy farming.

Puppy farming: an overview

Definitions and legislation (UK)

The terms 'commercial breeding establishment' (CBE), 'puppy farm', 'puppy factory', and 'puppy mill' are used interchangeably in the various discussions of the topic. Perhaps the clearest definition is provided by RSPCA Australia (2023, np), who define a puppy farm as "...an intensive dog breeding facility, operating under inadequate conditions". They then go on to highlight some of the animal welfare issues associated with puppy farms for both breeding dogs and puppies, such as a lack of basic essentials, including food, water and shelter; a lack of adequate housing; a lack of safety; a lack of general, preventative or veterinary care; a lack of genetic planning; and lasting

trauma for dogs that are kept and bred in such establishments. Although the public in various countries are increasingly wary, if not hostile, to puppy farms, as Wyatt, Maher and Briddle (2017) have observed in the UK, both experts and consumers often find it difficult to distinguish between such illegal and irresponsible breeding and that which is legally regulated. Such distinctions in the UK context are further confused by the importation of puppies both legally and illegally, as well as the large number of home ‘non-commercial’ and breeding clubs who breed small numbers of puppies for sale, sometimes in very poor conditions, but who do not require a licence to do so. Indeed, illicit dealers are known to set up ‘homes’, often rented Airbnb properties, complete with an unrelated lactating dog in order to give the appearance that a puppy comes from a legitimate source (Yeates & Bowles 2017; Maher & Wyatt 2019; Maher & Wyatt 2021). The line between puppy farming and licenced dog breeding in the UK context may thus be a blurred one.

Within the United Kingdom dog breeding is governed by several pieces of animal welfare legislation. Primarily, there is the Animal Welfare Act (2006) in England and Wales, and the related Animal Health and Welfare (Scotland) Act 2006 and Welfare of Animals Act (Northern Ireland) 2011. This legislation places a duty of care on people to ensure that they meet the welfare needs of their animals and prevent any ‘unnecessary suffering’. The Act, in turn, defines these needs as those for a suitable environment, a suitable diet, to be able to exhibit normal behaviour patterns, to be housed with, or apart from, other animals, and to be protected from pain, suffering, injury and disease. Clearly puppy farming as defined above contravenes this legislation both by failing to meet the needs of breeding dogs and their offspring, and in some cases causing their unnecessary suffering (for a detailed discussion of the Acts, see Nurse 2016 and Collinson 2018).

In addition, there is also specific legislation pertaining to the breeding and sale of dogs.¹ Those breeding/selling three or more litters of dogs in any twelve-month period and/or breeding and advertising the selling of dogs must have a licence to do so. Licenced breeders are expected to adhere to a number of conditions, such as maintaining clear records, displaying their licence in any advertisements, providing a suitable environment and diet, protecting breeding dogs and puppies from pain, suffering, injury

1 The pertinent legislation is: The Animal Welfare (Licensing of Activities Involving Animals) (England) Regulations 2018; The Animal Welfare (Breeding of Dogs) (Wales) Regulations; The Welfare of Animals (Dog Breeding Establishments and Miscellaneous Amendments) Regulations (Northern Ireland) 2013; The Animal Welfare (Licensing of Activities Involving Animals) (Scotland) Regulations 2021.

and disease, and also implementing a suitable socialisation and habituation programme for their puppies. Breeders must ensure that a dog is not mated if aged less than 12 months, does not give birth to more than one litter of puppies every 12 months, nor give birth to more than six litters in total. The licence should also clearly state the numbers of breeding dogs, stud dogs, and litters on the premises, as well as the number of other dogs present on the premises. Breeders who fail to maintain minimum standards can have their licence either suspended, varied or revoked and are also liable to a fine and/or up to six months imprisonment.

As noted above, puppy farming produces a number of harms for the breeding bitches themselves as well as for their offspring and society more broadly. Primarily, several studies have shown that puppies from puppy farms are more likely to exhibit a range of behavioural and health problems compared to those obtained from non-commercial breeders (see McMillan 2017 for a review). For example, in a recent study from the UK, Waulthier and Williams (2017) found that dogs bred on puppy farms were twice as likely to exhibit fear responses to strangers and other stimuli than other dogs, as well as being more likely to suffer from genetic disorders and infectious diseases, such as parvovirus. Next, there are the broader harms for owners and society more generally. These range from the pressure placed on rescues and charities to care for and attempt to find homes for dogs when they have reached the end of their breeding lives, through to the risk that diseases such as rabies may be (re)introduced to the UK dog population from puppies bred in overseas puppy farms and then imported into the country. There is also the risk that a lack of early socialisation will produce negative behavioural outcomes in dogs as they grow into adulthood. This is an especially pertinent issue as recent newspaper reports have made putative links between 'pandemic puppies' and an increase in the number of reported dog attacks (see Osborne 2021; Silverman 2023). There is also the consequent cost for the criminal justice system, local councils and, again, animal charities to deal with the aftermath of such attacks when they occur (Wyatt, Maher & Biddle, 2017). In some cases, puppy farms may inflict damage on the environment in which they are situated (see Gill 2013 for a discussion of one example). Finally, Maher and Wyatt (2019) have also drawn attention to the increasing involvement of organised criminal gangs from across the UK and Europe in puppy farming and the illegal importation of puppies. Criminal gangs are attracted to puppy farming, knowing that there is an extremely buoyant and lucrative market for puppies, and that both the risk of detection and possible penalties if they are caught are significantly smaller than for, for example, importing drugs or weapons into the country.

Literature review

Overall, there is a broad consensus within the animal behaviour literature that confining dogs in suboptimal conditions negatively affects their welfare. In particular, stressful situations are known to lead to the excretion of the stress hormone cortisol that primes a dog for a fight or flight reaction to their situation. In a study from the late 1990s, Beerda and colleagues (1999a; 1999b) found that dogs who were accustomed to spacious group housing, who were then socially and spatially restricted for a period of six weeks showed increased cortisol levels. This was particularly marked for bitches who, the authors concluded, appeared to not only be "...more susceptible to acute stress, but also to chronic housing stress" (Beerda et al 1999b, 252). The researchers also reported that the spatial and social restriction also produced a number of stress behaviours in the dogs such as a low posture, paw lifting, vocalising, repetitive behaviour and eating faeces. Indeed, there is even some evidence to show that stress may affect a dog's welfare at a fundamental level by reducing their lifespan. Thus, in a retrospective study with owners of deceased dogs, Dreschel (2010) found that fear of strangers independently and significantly predicted a decreased lifespan when all other variables were controlled for (equating to six months of reduced lifespan).

Two other pieces of research have reported high levels of fear responses in ex-breeding dogs as well as others with adverse histories. In an early piece of research, McMillan and his colleagues (2011), compared 1169 ex-breeding dogs with matched pairs in the USA and found that owners/fosterers of the former were significantly more likely to report both health (23.5%/16.6%) and behavioural (83.1%/56%) problems for their dogs. They were also significantly more likely than their matched pairs to display behaviours such as being nervous on stairs, urinating or defecating when left alone, staring intently at nothing visible, touch sensitivity and stranger directed aggression and fear. On this basis, the researchers concluded that "[t]he psychological state that most obviously distinguishes former CBE breeding dogs from typical pet dogs is fear", in particular an overly developed fight-or-flight mechanism, with the emphasis towards flight (McMillan et al 2011, 91). More recently, Buttner and Strasser (2022) found that dogs with adverse histories, all but one of whom came from either CBEs or unlicensed breeders, were significantly more likely to display higher cortisol levels than dogs who were in a rescue centre either after being discovered as strays or surrendered by their owners. They were also more likely to exhibit fearful behaviour and also engaged in significantly less affiliative behaviour with humans, such as sniffing, licking and accepting food.

However, other studies by researchers from Purdue University, who have studied dogs currently housed within CBEs in the Midwest of the United States, have reached markedly different conclusions. In their research, dogs in CBEs were assessed via a three-step stranger approach and reactivity test wherein the researcher approached the kennel door and tossed a treat to the dog; opened the door and offered them a treat; before, finally, extending one hand toward them with a treat. At each stage, researchers recorded whether the dog took the treat as well as their general reaction to the situation. Across three studies between 57.3% and more than 98% of the dogs were assessed as green on the protocol, meaning that they exhibited non-fearful/affiliative responses (Bauer et al. 2017; Pritchett et al. 2021; Barnard et al. 2023). In addition, the Purdue researchers have also challenged the claim that the standard of canine care within CBEs is low, oftentimes bordering on passive neglect (see Yeates & Bowles 2017; Wyatt, Maher and Briddle 2017). Rather, they concluded, the dogs that they studied were in fact clean and physically in a good condition, with few exhibiting issues with their feet, toe nails, ears or teeth (Hurt 2016; Stella 2018a, 2018b; Barnard 2023).

Taken together, these findings have led the Purdue researchers to conclude that “[m]any assumptions about US [CB] facilities such as the lack of space, positive dog-human interactions, opportunities to exercise, and inadequate health care are not supported by empirical evidence and direct observations”. Going further, they also rejected “presumptions that all US CB kennels operate similarly and offer singularly low care and welfare standards, and that the conditions resemble those found in Europe and elsewhere” (Barnard et al. 2021, 2–3). Nevertheless, their results need to be treated with caution for two reasons. Primarily, not all of the findings of the stranger approach studies were as positive as those reported above, with Stella et al (2019) finding that over half of the dogs that they sampled exhibited fearful responses and that, as the experiment went on, those who initially exhibited non-fearful/affiliative responses started to exhibit fearful ones. However, without doubt the biggest issue with the Purdue research concerns the establishments that they sampled, which were all legal and registered with the United States Department of Agriculture (USDA), and which, as the authors acknowledge in the above quotation, are likely significantly better than those found in CBEs in ‘Europe and elsewhere’ (as well as within non-licensed/registered establishments within the US). Thus, Hurt (2016) observed how the CBEs within her sample all provided some form of tooth and ear care for their dogs, including adding a disinfectant and antiseptic, chlorhexidine, to their water, performing visual assessments, cleaning ears every two months, as well as consulting a veterinarian if they had concerns. Similarly, Barnard et al (2023) described how the breeders that

they sampled regularly provided exercise and enrichment opportunities for their dogs, including chews, different types of dog toys, as well as daily and/or weekly access to an outdoor exercise yard. While such a level of care for breeding dogs is to be welcomed, it is nevertheless debatable to what extent such breeders represent the norm within the United States or elsewhere (see Jones, 2010 for a discussion). Indeed, the researchers concede that the manner in which establishments were sampled, specifically “through referrals from other participating breeders or through contacts within their communities, breeder education meetings and organisations, and other outreach activities” likely excluded “...unlicensed breeders and those operating without any discernible regulatory oversight” (Barnard et al 2021, 2, 4). The latter, of course, would have been highly unwilling to allow researchers access to their facilities to report on the condition of the animals housed there. Nevertheless, the researchers argue that the former rather than the latter are more representative of United States breeders.

Methods

The analysis below is based on a series of interviews with twenty-one animal caretakers: seventeen females and three males, all but one of whom were based in the UK. They comprised animal rescue staff and foster carers with experience of caring for ex-breeding dogs from puppy farms, as well as those who have adopted ex-breeding dogs. As Arluke and Sanders have argued, it is essential that those who are invited to speak for non-human animals are able to not only draw on significant experience of “intimate interaction and empathic partaking of the perspective of the [non-human animal] other”, but are also committed to an “emancipatory involvement directed at easing the lot of animals in the myriad settings in which they interact with, and are dominated by, humans...” (Sanders & Arluke 1993, 384; Arluke & Sanders 1996, 54). The interviewees were thus ideally placed to ‘give voice’ to ex-breeding dogs, in the sense of speaking for them or on their behalf, as they were not only intimately involved with their companion animals, and often had extensive experience of caring for ex-breeding dogs, but they were also, crucially, committed to the welfare of ex-breeding dogs more broadly (Birke & Hockenfull 2012).

Interviewees were recruited through the author’s contacts at several UK animal rescues via a snowball sampling method, with interviewees recommending others they knew through their networks. Interviews all took place on Zoom, with each interview lasting between 30 minutes and an hour. Interviews were unstructured and conversational, allowing the interviewees to guide the discussion (Salmons 2022), and focused

on their background and experiences caring for ex-breeding dogs. While each interview was, as a reflection of its unstructured nature, different, each interviewee was asked the same question at the end of their interview: “If the ex-breeding dogs that you have cared for could speak, what do you think they would say?”. This was intended as a way of drawing together the various strands of the conversation and getting the interviewee to explicitly ‘speak for the animal’ (Sohljoo et al 2022), by re-expressing what they had already said from the perspective of the dogs themselves.

Extending on from the unstructured nature of the interviewees, a grounded theory thematic analysis approach was adopted as the method of analysis (Glaser and Strauss 2006). Once the interviews had been transcribed, they were read and key themes and sub-themes were identified and coded. The two dominant themes that came through in the interviews were, echoing the findings of McMillan (2011), descriptions of physical harms and behavioural harms. Within these were a number of sub-themes such as descriptions of dogs being physically worn out as a consequence of constant breeding, physical injuries, examples of dogs being emotionally shut down and/or exhibiting a heightened fear response. Finally, once a draft of the article had been completed, it was circulated to the interviewees so that they could confirm that the analysis reflected their own experiences and offer useful feedback.

On a final methodological note, the analysis below is focused exclusively on the harms of puppy farming for ex-breeding bitches and says nothing about the harms for either ex-studs or puppies born in puppy farms. This stems largely from the fact that breeding bitches are harmed in a far greater proportion to male stud dogs within the puppy farming trade. It is right, therefore, that they should be the focus of analysis and that they should be given a voice. On a practical level, it also reflects the fact that, stemming from this, the majority of the interviewees’ companion animals were bitches. A final reason for focusing just on bitches is that, while there are some overlaps in the harms inflicted on both sexes, each obviously encounters different, sex-specific ones. Rather than also attempting to describe the harms inflicted on studs, and thus possibly over-complicating the analysis, it was decided to discuss them instead in a future piece of research.

Results

Physical harms

“She was such a sorry state of a dog, really, because she was just worn out” [Jenny]

By their very nature, puppy farms place severe demands on breeding bitches. Although puppy farms often dispose of them to animal rescues when they are around six or seven years of age, it is more than likely that they will have been bred more intensively and from an earlier age than the legislation permits (Yeates & Bowles 2017). As in the above quotation, interviewees routinely described how when they rescued or adopted an ex-breeding dog, she was often in a poor physical condition, physically worn out from a life of constant breeding exacerbated by little or no veterinary care (McMillan et al. 2011; Wyatt, Maher and Briddle 2017). This was manifested most often by them having what Jenny described as ‘...a really saggy belly’; an obvious sign of overbreeding and poor, if any, postpartum care. This, she observed, would cause her dog particular problems during walks, as “when [she] went over long grass it would bother her. You couldn’t walk over anything long as it was irritating her belly”. Likewise, Paula, discussing her dog, described how “her little teats were almost dragging on the floor”. However, in a number of cases, interviewees also described how their dogs also exhibited signs of severe suffering, again caused by excessive breeding and a lack of veterinary care. One interviewee with significant experience with ex-breeding dogs observed how a lot of them have had non-veterinarian episiotomies, and how the vagina of one dog in particular “had prolapsed outwards and then pushed against the urethra so that urine [was] constantly burning”. Consequently, “what should be very pink fresh skin inside was all necrotic and black”. Another related how her vet had diagnosed signs of a botched caesarean in her ex-breeding dog, “...where they obviously had just ripped the puppies out”. As Yeates and Bowles (2017) observe, this is one consequence of when breeders pay little or no attention to the selection of the mates and consequent size of the offspring on the anatomy of the mother, particularly on her pelvis.

In other cases, dogs showed signs of neglect, if not abuse, and/or suffered from chronic illnesses that had seemingly gone undiagnosed and untreated prior to them being rescued. David described how he had gone to an animal rescue to see one dog, but had found another there who had “...blood all over her back end, and a hole that had been cut in her ear that had been thrown out of a puppy farm”:

...you could put your finger right through the middle of it. All the middle of the ear was all cut away, and even the vet said "God knows! I don't really don't know what the hell they were doing". The only thing they could think of was a bull sort of thing, so that they can't get away while they are being bred.

Similarly, another dog had been abandoned by a breeder with lumps over her lower body, ostensibly symptoms of cancer. However, when she was inspected by a vet it was discovered that in fact she was pregnant with ten puppies; significantly more than the typical litter of one to four puppies for her particular breed. Not only was giving birth to so many puppies extremely dangerous – "...it very nearly killed her" – but she was then diagnosed with adhesions of the bowel. Such accounts of ex-breeding dogs suffering from potentially undiagnosed and untreated conditions when they were rescued were a common thread throughout the interviews Julia, for example, described how, her dog was severely overweight when she adopted her:

She was sort of like twice the size she should have been and they were trying to find out why because puppy farm dogs are notorious for not getting fed very well. And it turned out she had undiagnosed Cushing Disease, because probably she'd got bigger and bigger and they didn't care as long as the puppies were coming out of her. So, by the time she was rescued – or thrown out of the puppy farm – she weighed 17.6 kilos [severely overweight for a dog of their breed and age].

Similarly, when Alyson rescued her dog, she diagnosed with a rare disorder, Exocrine Pancreatic Insufficiency (or EPI):

...she has a pancreas in her body, but it's atrophied, there's just no function whatsoever, so she was not able to gain nutrition from any food that she was eating. It can obviously escalate, and her body would [then] start shutting down because her body was not getting any sort of nutrients. So that was diagnosed after I brought her home, but without doubt she has had that from birth and they bred from her.

These were particularly serious cases as, not only were the dogs in a great deal of discomfort, but also all three conditions are fatal without treatment.

Interviewees also described how their ex-breeding dogs also suffered with a variety of comparably less serious medical issues, although these, again, reflected a lifetime of little or no care for their welfare. Whereas the Perdue researchers reported that the ears of the dogs that they investigated were generally in a good condition, interviewees related how theirs suffered from a variety of ear conditions (including congenital

deafness) (Hurt 2016; Stella et al 2018b; Barnard et al. 2023). This was alongside other issues such as skin and fur conditions, hormonal alopecia, congenital heart murmurs, and a lack of strength in their back legs. However, the two predominant non-fatal medical issues reported by interviewees concerned their dogs' teeth and eyes. All of the interviewees described, again in contrast to the Perdue researchers, how their dogs had ongoing issues with their teeth including periodontal disease: issues that would have caused them a great deal of pain and discomfort prior to being rescued. This is an especially pertinent issue for ex-breeding dogs, whose ages are typically not known when they are received by animal rescues, as dental morphology and development provides a key means for estimating dog ages (see Van den Broeck 2020). Natalie described how the teeth of both her dogs were 'disgusting' when she adopted them:

The first time they gave [Ruby] dental treatment, they were going to take a couple of teeth out that were rotten because the teeth are never looked after. They were going to take two out, and I got a call from the vet, saying, 'sixteen have come out', because basically when they took one, the one on either side of it fell out. So, she has very few teeth and their breath is disgusting. [Freya, her other ex-breeding dog] hasn't got many teeth, and her teeth aren't that great either.

This state of affairs reflects both the poor diet and lack of dental care that these dogs have received prior to rescue. Caroline described how,

A lot of them get fed absolute crap, so never get any crunchy things that will clean the teeth, there's no nutritional value in the food, they are not getting the vitamins and minerals they need, and obviously never get veterinary intervention, so it never gets picked up...and a lot of them get fed things like out of date human food like pies, frozen pies...so it's obviously high calorie, high salt, high sugar, and no crunch or nutritional value whatsoever.

Her ex-breeding dog had to undergo emergency dental surgery when she was adopted to remove nine teeth that in some cases were completely rotten. While this partly reflected poor diet, the vet told her that they also suspected cruelty had played a role also: "They thought she'd been kicked in the face because there was no feeling in them. The nerves were all damaged...".

Several interviewees also reported that their ex-breeding dogs had eye issues, including becoming blind with cataracts. Such conditions had, again, typically not been treated before the dog in question had been rescued and, crucially, are often heritable. Thus, whether through ignorance or not, such conditions will have also been passed

into the numerous litters that each will have produced in her lifetime (Yeates & Bowles, 2017). One ex-breeding dog, Heidi, for example

has four different eye conditions. She has dry eye, which means her eyes don't produce tears, so I have to put drops in every day. She has nystagmus, where her eyeballs move like this all the time [imitates a random movement of the eye]. You can't really see it, because she's got dark brown eyes...she's got small eye, and that's through poor nutrition. So, her eyeballs aren't big enough. And she's got cataracts, so she's got four different eye conditions [Julia].

Likewise, One of Natalie's dogs had "...come out of the puppy farm totally blind", while the other, again, has dry eye, which requires seeing a specialist twice a year and administering eye drops every two hours throughout the entire day.

Behavioural harms

"She is the most scared dog I've ever seen in my life, and she will never be a 'normal' dog. Never. To this day she is scared of literally everything." [Mark]

Interviewees related again and again, as in the above quotation, how their dog was 'scared of literally everything' when they first adopted or fostered them. Indeed, the behaviours that interviewees routinely described were identical to those that the Perdue researchers would assess as 'red' or fearful/avoidant on their protocol, such as fearful body language, flight, appearing frozen or catatonic, a crouched, slinking body posture, and/or trembling/shaking (see Bauer et al. 2017, table 3; Barnard et al. 2021, table 1). Emily observed how she was 'really shocked' by the 'amount of fear' that her dog displayed when she first adopted her: "You read about it, and you see words, and you hear it, but actually living with a dog that's so unusual in terms of what you expect a dog to be really shocked me...". Similarly, Rachel described how her dog "...just purely lived on fear":

Her eyes were dull and dead...as you came near her, you could always see she was looking for any way to run, to see where she could escape away...She very much had what they call 'learned helplessness': "do whatever you need to do to me, I'm not going to make any fuss, I'm not going to bark or anything, just get it over and done with"

While in many cases ex-breeding dogs would appear to overcome the fears and adopt more 'normal' behaviour, this is sadly not always the case. Julia, for example, described

how despite three years living in a loving home, her friend's ex-breeding dog, "...just sort of exists, really...she never really came back from her time in the puppy farm...". Similarly, Deanna described how her dog, who had recently died, was traumatised right until her death: "I had her for seven years, and she was terrified of me, of everything. All the way through". Indeed, as Mark, who runs an animal rescue, observed, in many cases ex-breeding dogs have "...no flight anymore. They have literally given up in life... They accept their fate".

This extreme fear response was manifested in a number of ways, all of which approximate those classified as 'fearful' on the protocol used by the Perdue researchers. Primarily, interviewees related how their dogs were reluctant to be handled, and in some cases that their skin would 'crawl' if touched. According to Paula, her dog "...tolerated being touched, but you could see her physically not flinch, but you could see her skin almost recoil from human touch, because it hadn't had a good connotation up to that stage". Likewise, Julia described how she called her dog "[Heidi] the Untouchable', because she just did not want to be touched", adding that she "...had [her] for six-and-a-half years, and she never wanted to be touched, even right to the end. She never came round". Indeed, three interviewees related how their dogs defecated with fear when they first attempted to pick them up, while, according to a third, her dog "would mess herself on walks" if they met other dogs or people.

Linked with this, interviewees also described how their dogs expressed fear by cowering and avoiding eye contact with humans. In particular, they frequently used the phrase 'shut down' to describe their dogs' behaviour: a phrase signifying a high degree of emotional disengagement from their surroundings in response to traumatic experiences. When Chloe first brought her dog home,

She wouldn't make eye contact. She was very shut down. She just sat and she sort of cowered in corners. I had a crate for her to go in, and she would sort of go in that and she just looked as if she wanted to apologise for her very existence.

One consequence of this is that ex-breeding dogs were sometimes described as minimising their emotions or being stoical, particularly when they were in pain. This, as several interviewees related, can make it both difficult for them to identify when their dogs are suffering from illness or pain:

All their emotions are minimalized... they don't show sickness or pain, which is really difficult for my vets because I can take [her other dog, Bonnie] in there, and they'll go. 'Oh, my God, she's got an ear infection!', but you wouldn't know, because

they can't see the point...attention is something that they don't want. We actually found [Freya] had gotten a thorn in her paw at one point. She was trundling along on the walk, and I said 'something's not quite right,' but you know my other dog would have been drama, [their] paw in the air, but she is kind of like, 'oh, yeah, it hurts. I'll get along with it'..." [Natalie].

Indeed, three interviewees drew comparisons between the shut down state of ex-breeding dogs and that of children who are victims of neglect. Drawing on four years of working with children in care Paula observed how, in her work she would

...come across some children that have been so neglected that they learn not to cry, because they know nobody is going to come, and I think it can be very similar with puppy farm dogs, in as much that if they bark or cry, they're not going to get what they need. They're more likely to be kicked or hit or pushed out of the way. So, I think when they are long term puppy farm dogs, I think they learn to just almost want to shrink into a corner, so they're not noticed.

In both cases, then, withdrawal from the world is a learned response to acute neglect.

As a reflection of their lack of socialisation and limited experiences prior to being rescued, ex-breeding dogs were described as expressing anxiety when confronted with new people, situations and, particularly, with unusual sounds (McMillan et al. 2011; Buttner & Strasser 2022). Vanessa recalled how, when she brought her ex-breeding dog home,

[she was] initially very overwhelmed by everything. All the noises, especially things like reflections on any kitchen appliances. They would see the reflection, and think it was another dog, and be frightened. Televisions and vacuum cleaners, all those sorts of things, they had just never come across them, so they would be careful [around them].

Hannah concurred, highlighting the huge and potentially terrifying changes that ex-breeding dogs go through, often within a period of just a few weeks, and of the importance of letting them 'just chill out' once they had been adopted:

...they are shoved in a cage in a van quite often, taken to the rescue centre and they are checked over by a vet. They are washed, spayed or neutered. That's all terrifying and that all happens within a few days...So they have all that to get over as well...in a few days they are sent somewhere else, and it's all too much for their tiny brains...Previous to that they could have just known a kennel for six, seven years, that's all they have known. They've not been outside, perhaps just seen one person

who has fed and cleaned them out. All of a sudden, there's a big, wide world, and they've never seen it and it's terrifying for them...

It is therefore not surprising that they often find the initial transition from breeding animal to family pet and life in their new home – the people, situations and sounds – overwhelming.

The final cluster of behavioural harms exhibited by ex-breeding dogs are phobias that seemingly stem directly from negative experiences during their life in a puppy farm. These, again, would appear to be relatively common, with interviewees describing certain recurring things triggering a heightened fear response in their companion animals. The most frequent trigger was feet, with interviewees describing their dog's preference to always follow behind their feet rather than being in front of them. Emma related how:

...my 'normal' dogs would never be scared of me walking behind them. They wouldn't give a care in the world. Whereas all of my puppy farm dogs, all three of them, they will not like it if you walk behind them. So, for example, if I were to walk up the stairs and leave the door open for them to run after me up the stairs, all the puppy farm dogs will want me to walk first up the stairs, whereas my normal dogs, they will go: they don't care if I'm behind them, if I'm just a step behind them, two steps behind them, they will not care. All the puppy farm dogs will wait for me to go upstairs first and then they will follow.

This arguably stems from experiences of being kicked while in a puppy farm. Indeed, Natalie described how her dog has adverse reactions to the sound of balls being kicked:

So, if we are in the park and she hears a football, [she goes] head down and she just wants to get away from it...the little boy next door, if he's kicking a ball, she will not go out in the garden at all. She refuses to go out. Or, if we are out in the summer, and he kicks the ball, she just runs straight into the house.

This, she speculates, stems from the fact that balls being kicked "can often sound like an animal being kicked". Linked to this, interviewees also described how their dogs were often scared of males; again, a state of affairs arguably reflecting previous negative experiences with males while in a puppy farm:

[Lilly] barked for about four months at my son, who was 6 foot 2, and he wore hoodies, and he was looming...as he would come down the stairs, she would just lose it and bark. She still loses it at my husband and my son as they come into the house [Rachel].

This was, however, not always the case, with Natalie describing how, although one of her dogs was “still anxious about men”, her other dog “has got an incredible relationship with my husband. She absolutely adores him.”

Other phobias are seemingly linked to the conditions in which the dogs were kept while in the puppy farm. This can include fear of torches, large bins, or being in a dog crate. Some interviewees also described how their dogs were scared of water, particularly from hosepipes:

Things like water seem to be a trigger. For example, if we put a hose in the garden, she will try and attack it... we think because that was how she was washed, she was basically put out in the yard and hosed.

[interviewer] So she associates the hose with being pulled out of the crate and hosed down?

Or even left in the crate we think...she will have a bowl of water obviously and things like that, but when it's coming out of a hose or a bucket or something like that, she's drawn to that and gets, not angry, but she tries to attack the water where it's coming from [Paul].

The most commonly encountered phobia was, however, a fear of thresholds. This was often associated with a fear of gates, particularly kissing gates, and even, in one case, clanging sounds such as those made by metal gates. As Emma recalled,

...doorways and puppy farms are just the worst situation...We literally just had to step away from the door frame and be nowhere to be seen so that she could literally run through...We have an open plan downstairs – living room, dining room, and then the kitchen – and she would never go into the kitchen. Whenever she went into the kitchen, because we have windows everywhere, she was always looking up and really being fearful of ‘what's there? Where's the danger?’

Interviewees offered two explanations for this ostensibly unusual phobia. The first was that dogs had been punished in the past for leaving where they had been kept. The second explanation, put forward by several interviewees, is that breeding dogs are sometimes held in doorways or wedged into the gap behind an open door to facilitate mating.

Conclusion

This article has sought to explore the harms of puppy farming for ex-breeding dogs. As the interviews with the animal caretakers have revealed, breeding dogs are routinely harmed in ways that affect both their physical wellbeing and their behaviour as a direct consequence of the neglect and, in some cases cruelty, that they received during their life in a puppy farm. Primarily, the animal caretakers described how their ex-breeding dogs were physically worn out – and, in some cases injured – as a consequence of a life of continual breeding with little or no veterinary care. They also described how their dogs suffered, often on an ongoing basis, from a range of medical issues that, again, had only been treated once they reached an animal rescue. These ranged from serious, and in some cases possibly fatal conditions, such as cataracts through to less serious, but nevertheless still painful, ones, such as skin infections and poor and damaged teeth. In addition, their companion animals were often emotionally shut down and ‘literally scared of everything’ when they were rescued; a state of affairs that in some cases they never recovered from. They also exhibited anxiety and phobic responses when confronted with new situations, people and sounds, as well as ones that recalled the conditions in which they were kept while in the puppy farm.

As such, the interviews challenge the findings of the Perdue researchers and add support to those of McMillan et al (2011) and Buttner and Strasser (2022), that ex-breeding dogs are more likely to both suffer from health issues and to exhibit fear responses than dogs with a different life history. The behaviours described above approximate those classified as ‘red’ or ‘fearful’ by the Perdue researchers, such as trembling or shaking, attempting to hide or escape, appearing catatonic and/or freezing. No doubt, the Perdue researchers would interpret such findings as being symptomatic of the ‘singularly low care and welfare standards’ found in commercial breeding establishments ‘in Europe and elsewhere’, and that those USDA-licensed facilities that they studied were more the norm, at least in the USA. However, it should be recalled that, as discussed previously, the breeding facilities in the UK are similarly licenced, and that under the conditions of their licence breeders are supposed to provide a suitable environment and diet and to protect breeding dogs and their offspring from pain, suffering, injury and disease. At the very least, then, the evidence from the interviews adds weight to claims made by critics of puppy farms that the legislation passed to protect animal welfare and breeding establishments is rarely enforced.

From a green criminology perspective, puppy farming would thus be considered as a form of illegal harm inflicted on non-human animals. While, as discussed above,

there are several pieces of legislation in the UK intended to promote animal welfare and the breeding of dogs within a context that promotes their welfare, the evidence from the interviews shows that some breeders are clearly not complying with this legislation. Rather, through a combination of active neglect and possibly active cruelty, breeding animals in puppy farms are being illegally harmed in the inter-related desire for profit and to meet the ongoing demand for puppies. It thus makes sense that debates in victimology should be extended to include non-human animals as victims of crime alongside human beings. Indeed, puppy farming is particularly worthy of attention from a green criminology perspective not only because of the numbers of dogs affected, significantly more than, for example, those involved in dog fighting, but because of the broader range of harms that it produces for their offspring and society more generally highlighted above.

The current research has focused exclusively on the multiple harms of puppy farming for ex-breeding bitches. Although interviews touched in places upon the harms inflicted upon both stud-dogs and puppies, neither were considered in the preceding analysis and therefore represent obvious avenues for future research. Those interviewees who had also rescued an ex-stud dog described how they exhibited a range of physical and behavioural issues, that while similar to ex-breeding bitches, were different in other ways. Similarly, future work could explore the impact of puppy farming on the puppies produced in such an environment, especially in the context of recent concerns of behavioural problems among 'pandemic puppies'. Finally, although ethical and practical issues are likely to preclude such research ever taking place, it would be fascinating to interview puppy farmers themselves. There is a long history of criminological research on how offenders rationalise their behaviour in terms of wider social norms – most notably the work of Sykes and Matza (1957) on 'techniques of neutralisation' – and it would be interesting to explore how those who run puppy farms make sense of and rationalise their behaviour.

References

- Arluke, Arnold and Leslie Irvine. 2017. "Physical cruelty of companion animals." In *The Palgrave International Handbook of Animal Abuse Studies*, edited by Jenny Maher, Harriet Pierpoint & Piers Beirne, 39–57. London: Palgrave Macmillan.
- Arluke, Arnold. and Clinton R. Sanders. 1996. *Regarding Animals*. Philadelphia, PA: Temple University Books.

- Barnard, Shanis, Hannah Flint, Traci Shreyer and Candace Croney. 2021. "Evaluation of an easy-to-use protocol for assessing behaviors of dogs retiring from commercial breeding kennels." *PLoS ONE* 16 (8) <https://doi.org/10.1371/journal.pone.0255883>
- Barnard, Shanis, Hannah Flint, Alessia Diana, Traci Shreyer, Aitor Arrazola, James Serpell and Candace Croney. 2023. "Management and behavioral factors associated with rehoming outcomes of dogs retired from commercial breeding kennels." *PLoS ONE* 18(3) <https://doi.org/10.1371/journal.pone.0282459>
- Bauer, Amy E., Mary Jordan, Monica Colon, Traci Shreyer and Candace Croney. 2017. "Evaluating FIDO: Developing and pilot testing the Field Instantaneous Dog Observation tool." *Pet Behaviour Science* 4:1–15. <https://doi.org/10.21071/pbs.v0i4.5766>
- Bateson, Patrick. 2010. *Independent Inquiry into Dog Breeding*. Cambridge: University of Cambridge. Available at <https://dogwellnet.com/files/file/308-independent-inquiry-into-dog-breeding-2010-patrick-bateson/> (accessed 16 September 2023)
- Beerda, Bonne, Matthijs B.H Schilder, Wilbert Bernadine, Jan A.R.A.M Van Hooff, Hans W De Vries and Jan. A. Mol. 1999a. "Chronic Stress in Dogs Subjected to Social and Spatial Restriction. I. Behavioral Responses." *Physiology & Behavior* 66 (2): 233–42.
- Beerda, Bonne, Matthijs B.H Schilder, Wilbert Bernadine, Jan A.R.A.M Van Hooff, Hans W De Vries and Jan. A. Mol. 1999b. "Chronic Stress in Dogs Subjected to Social and Spatial Restriction. II. Hormonal and Immunological Responses." *Physiology & Behavior* 66 (2): 243–254
- Beirne, Piers. 1999. "For a nonspeciesist criminology: animal abuse as an object of study." *Criminology* 37 (1): 117–48. <https://doi.org/10.1111/j.1745-9125.1999.tb00481.x>
- Beirne, Piers. and Nigel South. eds. 2007. *Issues in green criminology: Confronting harms against environments, humanity and other animals*. London: Routledge.
- Bir, Courtney, Candace Croney and Nicole J. Olynk Widmar. 2016. *Public perceptions of dog welfare, sourcing and breeding regulations*. West Lafayette, Indiana: Purdue University. Available at <https://vet.purdue.edu/CAWS/files/documents/20160602-public-perceptions-of-dog-welfare-sourcing-and-breeding-regulation.pdf> (accessed 16 September 2023)
- Bir, Courtney, Nicole J. Olynk Widmar and Candace Croney. 2017. "Stated preferences for dog characteristics and sources of acquisition." *Animals* 7 (8): 59. <https://doi.org/10.3390/ani7080059>
- Birke, Lynda. and Hockenull, Jo. 2012. "Introduction: On Investigating Human-Animal Relationships", In *Crossing Boundaries: Investigating Human-Animal Relationships*, edited by Lynda Birke and Jo Hockenull, 1–12, Leiden: Brill.

- Brand, Claire. L, Dan G. O'Neill, Zoe Belshaw, Camilla L. Pegram, Kim B. Stevens and Rowena M.A. Packer. 2022. "Pandemic Puppies: Demographic Characteristics, Health and Early Life Experiences of Puppies Acquired during the 2020 Phase of the COVID-19 Pandemic in the UK." *Animals* 12 (5): 629. <https://doi.org/10.3390/ani12050629>
- Buttner, Alicia Phillips and Rosemary Strasser. 2022. "Extreme life histories are associated with altered stress behaviour and cortisol levels in shelter dogs." *Applied Animal Behaviour Science* 257. <https://doi.org/10.1016/j.applanim.2022.105693>
- Collinson, Alice. 2018. "Legal Protection of Animals in the UK." Michigan State University Animal Legal & Historical Center. Available at <https://www.animallaw.info/article/legal-protection-animals-uk> (accessed 16 September 2023)
- Dogs Trust. 2020. Puppy Smuggling: Puppies still paying as Government delays. 2020. Available at: <https://www.dogstrust.org.uk/downloads/2020%20Puppy%20smuggling%20report.pdf> (accessed 16 September 2023)
- Dreschel, Nancy A. 2010. "The effects of fear and anxiety on health and lifespan in pet dogs." *Applied Animal Behaviour Science* 125 (3–4): 157–62. <https://doi.org/10.1016/j.applanim.2010.04.003>
- Eurogroup on Animals. 2020. The illegal pet trade: GAME OVER. Available at https://www.eurogroupforanimals.org/files/eurogroupforanimals/2020-09/Eurogroup%20Illegal%20pet%20trade%20report_v7_0.pdf (accessed 16 September 2023)
- Flynn, Melanie (forthcoming) "Proposing a nonhuman animal victimology.", In *Animals as crime victims: multidisciplinary implications of moving beyond the property paradigm*, edited by Lacey Levitt, David Rosengard and Jessica Rubin. Cheltenham: Edward Elgar Publishing
- Flynn, Melaine and Matthew Hall. 2017. "The case for a victimology of nonhuman animal harms." *Contemporary Justice Review* 20 (3): 299–318. <http://dx.doi.org/10.1080/10282580.2017.1348898>
- Gill, John A. 2013. "Environmental impacts of one puppy mill among many: a case history." Wellbeing Institute Studies Repository, Puppy Mills Collection. Available at https://www.wellbeingintlstudiesrepository.org/acwp_cdbpm/1 (accessed 15 September 2023)
- Glaser, Barney and Anselm L. Strauss. 2006 [1995]. *The discovery of grounded theory: strategies for qualitative research*. New Brunswick, NJ: Adline Transaction.
- Harding, Simon. 2012. *Unleashed: The phenomena of status dogs and weapon dogs*. Bristol: The Policy Press.
- Harding, Simon and Angus Nurse. 2015. *Analysis of UK Dog Fighting Laws and Offences*. Project Report. University of Middlesex. Available at <https://www.league.org>

uk/media/filer_public/1b/8a/1b8a205e-25d9-44b5-8b90-f80278d479c0/dog_fighting_report_2015_-_middlesex_university.pdf (accessed 15 September 2023)

- Hughes, Gordon, Jenny Maher and Claire Lawson. 2011. Status dogs, young people and criminalisation: towards a preventative strategy. Cardiff: University of Cardiff.
- Hurt, Moriah J. 2016. "Evaluating the physical welfare of dogs in commercial breeding facilities in the United States." Open Access Theses. 967. Available at https://docs.lib.purdue.edu/open_access_theses/967 (accessed 15 September 2023)
- International Fund for Animal Welfare. 2012. How much is that doggie on my browser? The truth behind online puppy sales. Available at <https://s3.amazonaws.com/ifaw-pantheon/sites/default/files/legacy/ifaw-report-how-much-is-that-doggie-on-my-browser.pdf> (accessed 15 September 2023)
- Jones, Sandra K. 2010. "Dealing dogs: can we strengthen weak laws in the dog industry?" *Rutgers Journal of Law and Public Policy* 7 (3): 442–80.
- Lawson, Claire, 2017. "Animal Fighting." In *The Palgrave International Handbook of Animal Abuse Studies*, edited by Jenny Maher, Harriet Pierpoint and Piers Beirne, 337–62. London: Palgrave Macmillan.
- Linzey, Andrew. 2009. *The link between animal abuse and human violence*. Eastbourne: Sussex Academic Press.
- Maher, Jenny and Harriet Pierpoint. 2011. "Friends, status symbols and weapons: the use of dogs by youth groups and youth gangs." *Crime, Law and Social Change* 55 (5): 405–20. <https://doi.org/10.1007/s10611-011-9294-5>
- Maher, Jenny and Tanya Wyatt. (2019) "Rural-urban dynamics in the UK illegal puppy trade: trafficking and trade in 'man's best friend'" *International Journal of Rural Law and Policy* 2: 1–20. <https://doi.org/10.5130/ijrlp.2.2019.6266>
- Maher, Jenny and Tanya Wyatt. 2021. "European illegal puppy trade and organised crime." *Trends in organized crime* 24: 506–25. <https://doi.org/10.1007/s12117-021-09429-8>
- Maher, Jenny, Tanya Wyatt and Paul Biddle. 2017. Scoping research on the sourcing of pet dogs from illegal importation and puppy farms 2016–2017. Report completed for the Scottish Government. Available at <https://www.gov.scot/binaries/content/documents/govscot/publications/research-and-analysis/2017/11/scoping-research-sourcing-pet-dogs-illegal-importation-puppy-farms-2016/documents/00527436-pdf/00527436-pdf/govscot%3Adocument/00527436.pdf> (accessed 15 September 2023)
- McMillan, Franklin D. 2017. "Behavioral and psychological outcomes for dogs sold as puppies through pet stores and/or born in commercial breeding establishments: current knowledge and putative causes" *Journal of Veterinary Behaviour* 19: 14–26. <https://doi.org/10.1016/j.jveb.2017.01.001>

- McMillan, Franklin D., Deborah L. Duffy and James A. Serpell. 2011. "Mental health of dogs formerly used as 'breeding stock' in commercial breeding establishments." *Applied Animal Behaviour Science* 135: 86–94. <https://doi.org/10.1016/j.applanim.2011.09.006>
- Nurse, Angus. 2013. *Animal harm: perspectives on why people harm and kill animals*. London: Routledge.
- Nurse, Angus. 2016. "Beyond the property debate: Animal welfare as a public good." *Contemporary Criminal Justice Review* 19 (2): 174–187. <https://doi.org/10.1080/10282580.2016.1169699>
- Nurse, Angus 2017. "Animal Neglect." In *The Palgrave International Handbook of Animal Abuse Studies*, edited by Jenny Maher, Harriet Pierpoint and Piers Beirne, 87–105. London: Palgrave Macmillan.
- Nurse, Angus. 2021. "Green Criminological perspectives on dog-fighting as organised masculinities-based animal harm." *Trends in organized crime* 24: 447–66. <https://doi.org/10.1007/s12117-021-09432-z>
- Packer, Rowena M.A., Claire L. Brand, Zoe Belshaw, Camilla Pelgram, Kim B. Stevens and Dan G. O'Neill. 2021. "Pandemic Puppies: Characterising Motivations and Behaviours of UK Owners Who Purchased Puppies during the 2020 COVID-19 Pandemic." *Animals* 11 (9): 2500. <https://doi.org/10.3390/ani11092500>
- Pritchett, Margaret., Shanis Barnard and Candace Croney. 2021. "Socialization in Commercial Breeding Kennels: The Use of Novel Stimuli to Measure Social and Non-Social Fear in Dogs." *Animals* 11: 890. <https://doi.org/10.3390/ani11030890>
- RSPCA Australia. 2023. "What is a puppy farm?". Available at <https://kb.rspca.org.au/knowledge-base/what-is-a-puppy-farm/> (accessed 15 September 2023)
- Sanders, Clinton R. and Arnold Arluke. 1993. "If lions could speak: investigating animal-human relationship and the perspectives of nonhuman others." *The Sociological Quarterly* 34 (3): 377–90. <https://doi.org/10.1111/j.1533-8525.1993.tb00117.x>
- Salmons, Janet. 2022. *Qualitative Online Interviews: Strategies, Design, and Skills*. London: Sage Publications Ltd.
- Silverman, Rosa. 2023. "Dangerous dogs are on the rise – so what can be done about them?" *The Telegraph*, January 18, 2023. <https://www.telegraph.co.uk/news/2023/01/18/why-time-bring-back-dog-licence/> (accessed 16 September 2023)
- Solhjo, Niloofar, Anne Goulding and Maja Kratalić. 2022. "Companion animal representation and voice in information behaviour research." *Library and Information Science Research* 44: 1–11 <https://doi.org/10.1016/j.lisr.2022.101198>
- Stella, Judith., Amy Bauer and Candace Croney. 1998a. "A cross-sectional study to es-

- timate prevalence of periodontal disease in a population of dogs (*Canis familiaris*) in commercial breeding facilities in Indiana and Illinois." *PLoS One* 13 (1) <https://doi.org/10.1371/journal.pone.0191395>
- Stella, Judith, Moriah Hurt, Amy Bauer, Paulo Gomes, Audrey Ruple, Alan Beck and Candace Croney. 1998b. "Does Flooring Substrate Impact Kennel and Dog Cleanliness in Commercial Breeding Facilities?" *Animals* 8 (4): 59. <https://doi.org/10.3390/ani8040059>
- Stella, Judith, Traci Shreyer, James Ha and Candace Croney. 2019. "Improving canine welfare in commercial breeding (CB) operations: Evaluating rehoming candidates." *Applied Animal Behaviour Science* 220. <https://doi.org/10.1016/j.applanim.2019.104861>
- Sykes, Gresham M. and David Matza. 1957. "Techniques of Neutralization: A Theory of Delinquency." *American Sociological Review* 22 (6), 664–70. <https://doi.org/10.2307/2089195>
- Usborne, Simon. 2021. "Dog-bite Britain: the problem with the pandemic puppy explosion." *The Guardian*, April 15, 2021. <https://www.theguardian.com/lifeandstyle/2021/apr/15/dog-bite-britain-the-problem-with-the-pandemic-puppy-explosion> (accessed 15 September 2023)
- Yeates, James and David Bowles. 2017. "Breeding and selling of companion animals." In *The Palgrave International Handbook of Animal Abuse Studies*, edited by Jenny Mather, Harriet Pierpoint and Piers Beirne, 15–38. London: Palgrave Macmillan.
- Wauthier, Laura and Joanne M. Williams. 2018. "Using the mini-C-BARQ to investigate the effects of puppy farming on dog behaviour" *Applied Animal Behaviour Science* 206: 75–86. <https://doi.org/10.1016/j.applanim.2018.05.024>
- White, Rob, and Diane Heckenberg. 2014. *Green criminology: An introduction to environmental harm*. London: Routledge.