

1 June 2010

BVA/BSAVA JOINT RESPONSE TO THE CONSULTATION ON DANGEROUS DOGS

- I. The British Veterinary Association (BVA) and the British Small Animal Veterinary Association (BSAVA) welcome the opportunity to comment on Defra's Consultation on Dangerous Dogs.
- II. The BVA is the national representative body for the veterinary profession in the United Kingdom and has over 12,000 members. Its primary aim is to protect and promote the interests of the veterinary profession in this country, and it therefore takes a keen interest in all issues affecting the veterinary profession, be they animal health, animal welfare, public health, regulatory issues or employment concerns.
- III. The BSAVA is the largest specialist division of the BVA and of the veterinary profession. It represents approximately 6,500 members, the majority of whom are in general practice and have an interest in the health and welfare of small animals, namely dogs and cats.
- IV. We recognise the complexity surrounding the issue of dangerous dogs. In the context of the recent tragic attacks on children and the increasing use of "status dogs" the BVA and BSAVA appreciate the challenge faced by the government in tackling this problem.
- V. We view the problems presented by dangerous dogs as predominantly a social issue; aggression in dogs is part of normal behaviour, but the manner in which a dog behaves is largely the result of its rearing and training. As such, we do not feel that breed-specific legislation is effective and would support a move in legislation to a "deed not breed" principle.
- VI. We welcome the intended revision of the Dangerous Dogs Act 1991 (DDA 1991) and believe that it is critical that careful consideration should be given to providing clear and effective legislation. Legislation will only be successful in addressing the current problems of aggressive and "status" dogs if there are also concurrent measures for effective enforcement.
- VII. We have sought to respond to areas of the consultation in line with our areas of expertise, and as such we have not provided answers to all of the questions posed. The BSAVA scientific committee have made a significant contribution to the response and have also provided a report of published work in this field. The report is attached to this response at Appendix A.

Option 1: An extension of criminal law (i.e. Section 3 of the 1991 Act) to all places, including private property.

1. Do you think that the Dangerous Dogs Act 1991 should be extended to cover all places, including private property where a dog is permitted to be? Why?

We support the extension of the Dangerous Dogs Act 1991 to cover all places including private property.

Evidence suggests that most incidences of human directed aggression in dogs occur within the home environment and towards family members or those known to the dog. For example, 62% of bite incidents in a survey in the Netherlands took place in non-public areas (Cornelissen and Hopster 2009). The recent tragic dog attacks on children have highlighted this.

Whilst we appreciate that extending dangerous dogs legislation to private property is a necessary measure, we believe that in the long-term, aggression shown by dogs towards their owners is better addressed by an educative approach. Legislative measures should work in conjunction with measures taken to educate the public about responsible pet ownership. Programmes such as [The Blue Dog](#) programme and the Kennel Club's [Safe and Sound](#) programme are a good example.

In broadening legislation to include private property, we believe that there should be some recognition of the complexity of this issue, and moderation shown towards dogs who respond with reasonable force to a legitimate threat such as an intruder.

Option 2: Additions or amendments to (including possible repeal) of Section 1 of the 1991 Act

4. Do you think that breed-specific legislation, in its current form, is effective in protecting the public from dangerous dogs? Why?

The BVA and BSAVA do not support breed-specific legislation. It should be noted that the Federation of Veterinarians of Europe also take this position¹. There is no evidence that the breed-specific legislation contained in Section 1 of the DDA 1991 has been effective in reducing the incidence of aggressive behaviour in dogs or bite-related injury. Injuries caused by the particular breeds defined as “dangerous” in the legislation, together with other “bull” or “fighting” types of breeds have gained particular attention from the media and public, since some injuries caused have been severe and in some cases have resulted in death. However, as discussed in the attached Scientific Report (section 2.2.2) there is no evidence from hospital bite injury reports, clinical veterinary data, comparative testing of different breeds, or survey of bite victims, that these breeds represent an increased risk of showing aggressive behaviour or causing bite injuries.

The variability in breeds identified as having increased risk for aggression across studies (Scientific Report, section 2.2.2), together with the greater consistency between studies in identifying environmental and human-behavioural factors, suggest that breed-specific legislation is not a rational approach. Furthermore, physical appearance is not always a reliable indicator of breed type as identified by DNA breed identification (Voith et al. 2009).

Defining particular breeds as “dangerous” is misleading from current evidence, but also tends to create the assumption in the public that aggression is related to breed type, and consequently that those breeds not listed are “not dangerous”. It also means that there are large numbers of dogs of

¹ http://www.fve.org/news/position_papers/animal_welfare/fve_00_039_dangerous_dogs.pdf

this physical type which are not a risk to the public, but which are subject to measures which are likely to impact on their welfare.

We believe that the manner in which a dog behaves is partly as a result of its inherited characteristics, but more importantly the rearing and training provided by the owner. As such, we feel that measures to address the problem of aggressive dogs should provide the tools to tackle irresponsible ownership before it becomes a problem. We would also suggest that research in to the genetic basis of risk factors for aggression in dogs be supported.

5. Do you think that breed-specific legislation should be extended to include other breeds or types of dogs? If yes, which?

The BVA and BSAVA do not support the extension of breed-specific legislation as there is no evidence to support such an extension of the original legislation.

6. If breed-specific legislation were extended to include other breeds or types of dogs, what is the evidence to justify doing so?

We are not aware of any evidence that would support including other breeds or types of dogs in breed-specific legislation.

7. Do you think that breed-specific legislation should be repealed? Why?

A considerable amount of resources have been involved in the enforcement of Section 1 of the DDA 1991 - the police, courts and in the housing of dogs pending trials and appeals. However, there is no evidence that this approach has influenced bite injuries. There is also no evidence that the particular breeds targeted by this legislation do pose a greater risk to public safety (see Scientific Report, section 2.2.2). Repealing this section of the Act would enable resources to be directed towards cases in which behavioural assessment does indicate that individual dogs represent a risk to public safety. Directing resources into accurate monitoring of aggressive incidences and education programmes would also be desirable.

As an alternative, the BVA and BSAVA would welcome new legislation that includes the compulsory microchipping and registration of all dogs, along with a system of dog control notices for out of control dogs and measures to educate the general public about responsible pet ownership.

9. Do you think repealing breed-specific legislation would have a financial impact upon other organisations, such as the police, court service and dog shelters? If yes, in what way?

Repealing this section of the act would enable resources to be directed towards those cases which represent a risk to the public. Whilst the consultation focuses on financial implications, it should be noted that changes to this act will also have important welfare consequences. Long term kennel housing of dogs is widely accepted to compromise their welfare (Taylor and Mills 2007).

Option 3: Repeal of the 1997 Dangerous Dogs Act to prevent any more dogs being added to the Index

10. Do you think that the exemption introduced by the 1997 amendment should be removed? Why?

The BVA and BSAVA do not believe that the exemption should be removed. Removing the exemption would result in the destruction of dogs which present no danger to the public, purely on

the basis of their type/breed. This is undesirable from an ethical perspective, and may also result in the long-term kennelling and compromised welfare of animals subject to appeal proceedings.

11. Do you think that the exemption should be kept, but with tighter restrictions? If yes, what sort of restrictions do you think should be added?

We are of the view that if breed-specific legislation is maintained, then the exemption should also be maintained. The process by which dogs are placed on the Index should be considered from an animal welfare perspective. For example, tattooing should be replaced with microchipping, dogs should not, by default, be kennel housed pending decisions about placing them on the Index but, following appropriate risk analysis, be maintained in their home.

12. Do you think that introducing an alternative monitoring system to the Index introduced by the 1997 amendment would improve the current situation regarding dangerous dogs? Which system would you consider best?

Changes to the monitoring or process of monitoring dogs on the Index are unlikely to have a significant impact on the efficacy of this legislation. Since there is no evidence that breed specific legislation has any value in controlling or even reducing dog bite injuries, more fundamental reform and evaluation is required.

Option 4: The introduction of Dog Control Notices

16. Do you think Dog Control Notices might be an effective preventative measure for tackling dogs which are not being properly controlled?

In principle, the BVA and BSAVA believe that Dog Control Notices may be a useful way forward, having the following potential advantages:

- Orders would be served immediately, avoiding the costs associated with prosecution, and the welfare consequences to dogs of kennelling post seizure.
- Orders could be specific to the circumstances of individual cases, with flexibility in the type of measures suggested and potentially the timescale over which measures should be applied.

However, there are some issues to consider with this approach:

- As discussed above multiple factors influence the behaviour of individual dogs, some or all of which may not be apparent to an enforcing officer serving an order.
- Such a system would only be effective and reasonable if enforcing officers had sufficient training to understand the principles of dog behaviour, such that appropriate cases are identified, and appropriate elements of control orders applied.

17. What sort of incidents do you think could be covered by Dog Control Notices?

We believe that the Control of Dogs (Scotland) Bill provides a good reference point for the sorts of incidents which could be covered by Dog Control Notices. However, in some circumstances, rather than the immediate serving of an order, it would be useful to have a similar system to that used for noise abatement orders, where owners are given warning(s) about the problem behaviours and

given the opportunity to take action to deal with the behaviours of their dog. Should this fail to resolve the problem, enforcing officers could serve a control notice.

18. Do you think the proposed remedial measures are appropriate or would you remove any of them? Why?

The BVA and BSAVA believe that in the long term, behavioural rehabilitation and training is likely to produce the best results. In the majority of cases, it would be appropriate for the notice to require the owner to seek advice, but there should be guidance as to whom the owners should approach. However, we appreciate that measures required for each case may vary considerably. Whilst muzzling is an option if the dog has been exhibiting aggression towards humans, keeping a dog muzzled or on a lead all the time in public is likely to reduce its ability to show a normal range of behaviours, and this measure should only be used where the risk of undesired behaviours remains during or despite rehabilitation training.

We note that the potential influence of neutering on behaviour is complex. Generally, behaviours such as aggression are a learned response to specific contexts rather than being related to sexual activity. We would therefore suggest that unless behavioural signs are related to specific phases of the oestrus cycle in females, or occurring in males at the onset of oestrus in females, neutering should only be ordered on the advice of an appropriately qualified behaviourist or a veterinary surgeon.

Confiscation and removal of dogs may be appropriate in cases where remaining in their current environment poses a risk to the dogs' welfare or where owners have failed to implement the requirements of control orders.

20. Do you think there should be an appeal process for all Dog Control Notices?

We believe that an appeals process should exist for all Dog Control Notices.

21. Who do you think should be responsible for Dog Control Notices, if they were to be introduced?

The BVA and BSAVA believe that local authorities should be responsible for Dog Control Notices.

22. Do you think enforcement authorities should have powers to ban dogs from certain areas on public safety grounds? Why?

We believe that enforcement authorities should have the powers to ban individual dogs, identified under the legislation, from certain areas on public safety grounds. However over-use of these powers could result in dogs being segregated from areas of public activity. Restricting contact between dogs and people, or isolating dogs to particular areas is ultimately likely to be counter-productive as dogs are more likely to show aggression when exposed to unexpected or unknown events.

Option 5: A requirement that all dogs be covered by third party insurance

24. Do you think that third-party insurance should be compulsory for all dog owners? Why?

We do not believe that third-party insurance should be compulsory for all dog owners as it will be viewed as a fine on the law abiding majority and will be ignored by the minority of owners whose dogs pose a risk.

28. Do you think that requiring all dogs to be covered by third-party insurance could have a significant financial impact upon welfare organisations/dog homes? Why?

Some owners could potentially relinquish dogs for financial reasons. Overall the scheme would be a financial burden for owners, be difficult to enforce and would have little or no benefit in terms of reducing human directed aggression.

Option 6: a requirement that all dogs, or puppies, are microchipped

29. Do you think that all dogs should have to be microchipped? Why?

The BVA and BSAVA believe that compulsory microchipping should be put in place for all dogs, not only to reunite stray dogs with their owners, but also to help prevent puppy farming and to promote responsible ownership. As stated above, we believe that responsible ownership is key to resolving the issue of dangerous dogs. The BVA position on compulsory microchipping is attached to this response at Appendix B.

Permanent identification, particularly by microchip, has become increasingly common over the past decade. It has a number of advantages over the use of a collar and tag which are often left off or slip off and can easily be removed from stolen dogs. Permanent identification is effective at all times and is virtually impossible to alter or remove.

Any new legislation requiring compulsory microchipping should include a requirement to keep the information on a microchip and/or relevant database up to date with the current name and address of the owner. Owners should be issued with a certificate to show the details registered on the database. The format of the certificate should include a tear-off section to notify changes of ownership to the database.

30. Do you think that all puppies born after a specified date should have to be microchipped before they are one year old? Why?

The BVA and BSAVA consider that legislation should be put in place to require all dogs to be permanently identified by microchipping before the first change of ownership or at first veterinary examination, if earlier. This will ensure that a large proportion of dogs are microchipped.

31. How do you think such a requirement could be introduced and enforced?

The requirement could be introduced as part of a review of the Breeding and Sale of Dogs Act (currently under review at the Welsh Assembly Government).

32. Do you think that it should be compulsory for some specific breeds of dog to be microchipped? If so, why and which breeds?

We believe that compulsory microchipping should apply to all dogs.

33. Do you think that requiring all dogs to be microchipped will have a significant financial impact upon individual dog owners? Please provide evidence.

We do not believe that the costs of microchipping will have a significant financial impact upon dog owners. The one-off costs of microchipping are relatively low from around £15-£30, with some charities and practices offering discounts/free microchipping to certain groups of individuals.

Option 7: More effective enforcement of the existing law including a consolidation of existing statutes into one new updated Act

36. Do you think that all legislation relating to dangerous dogs should be consolidated into a single piece of legislation? Why?

It would be sensible to simplify the legislation in this area. However, the most important issue is the content of the legislation, and that any developments are based on current evidence and available expertise. In addition to moving away from breed-specific legislation as discussed earlier, a clearer understanding of the behaviour of dogs is required by those drafting the legislation. At present dogs are defined as “dangerous” if they frighten someone – hence a friendly dog that runs up to greet someone could be defined as “dangerous” if that person is frightened. Legislative reform should also further consider the range of options for owners prosecuted under the act – for example including the requirement to seek specialist advice in order to treat the aggressive behaviour, rather than relying on “controlling” it through restriction, muzzling or destruction.

Reform in this area should ensure that strict liability is removed. At present, contrary to other legislation, guilt is assumed for DDA cases, with the burden of proof of innocence lying with the defendant.

37. Do you think that more effective enforcement of current legislation would improve the current situation regarding dangerous dogs? Why?

No, there is no evidence that the current legislation is effective and it is not based on current evidence. Reform of legislation such that breed-specific sections are removed, and section 3 clarified would better utilise resources.

38. Do you think further training for police officers to become Dog Legislation Officers would improve the current situation regarding dangerous dogs?

Further training would be beneficial, but after revision of the current legislation. Attention should be given to the nature of the training, which should be up to date and evidence-based.

39. Does the government need to do more to raise public awareness of the existing law and what to do if you are aware of a possible breach?

The current law needs to be re-examined and revised as discussed earlier. Subsequent to this, education of the public would be very beneficial, particularly if this awareness included basic information on preventing the occurrence of aggression in owned dogs.

40. Do you think there are better ways for the Government to communicate with the public and dog owners, including owners of “status” dogs?

It is important for the government to realise that this is not a single issue. Dogs which show aggression to their owners in their own homes, dogs which represent a danger to the public in accessible places, and individuals who specifically keep dogs to intimidate others represent different problems, the risk factors are different, and the solutions should also be different.

The issue of “status dogs” and those animals kept for the purposes of intimidating others in inner city areas should be considered separately from the wider issue of the occurrence of aggression towards people by dogs. Whilst serious, the former is a specific situation arising from the behaviour of individual people who expose their dogs to environments and situations deliberately to create an

uninhibited aggressive response. Types of dogs selected by these individuals are those which are large, intimidating in appearance and which, by the nature of their size and jaw conformation, are likely to cause severe damage if aggression is shown. This does not mean that these breeds are “dangerous” – but that these individuals select such breeds for these characteristics and treat them in such a way to create aggressive behaviour. Whilst the perception of those working with such people and animals is inevitably that these dogs are “inherently vicious” a wider perspective reveals that it is the situation of these animals, not their breed, which results in the characteristics seen. The majority of dogs treated in such a way would show aggression. In this situation, the issue is clearly, therefore, not the dogs, but those who keep them and use them for this purpose. The behaviour of these individuals should be addressed with public order or antisocial behaviour legislation.

Secondly, there is a large problem of aggression occurring towards people by their own pet dogs. Although more research is required, hospital statistics, epidemiological studies and veterinary behaviour clinical data have identified possible risk factors for these occurrences. These are mainly human-related factors which may be best addressed in the long term through education rather than legislation. There is no evidence that the breeds listed under Section 1 DDA 1991 have an increased risk of showing aggression in this context.

Finally, there is the issue of dogs who do pose a risk to people by being “dangerously out of control”. There is a place for a form of legislation to impose restrictions on the owners of such dogs (of any breed) who do not take actions to control or amend the behaviour of their dogs. This would be best achieved through the development of Control Orders, administered by Local Authorities. Central to the success of such a scheme would be the training of enforcement officers with information which is evidence based and up to date, and the utilisation of clinical behavioural expertise existing in the UK.

**BVA/BSAVA JOINT RESPONSE
TO THE CONSULTATION ON
DANGEROUS DOGS**

APPENDIX A

BSAVA Scientific Report on the Revision of Dangerous Dog Legislation

BSAVA scientific committee welcome the opportunity to provide evidence in response to the DEFRA consultation on Dangerous Dogs legislation. In this document we present some important background material about the occurrence of aggressive behaviour in dogs, and provide answers to the specific queries posed in the consultation document. There is considerable expertise on canine aggression in the UK, as well as a growing body of research evidence about risk factors, and we would argue that specific consideration of the reform of legislation should be conducted utilising these resources. We emphasise the importance of scientific knowledge and evidence in this document, and would encourage DEFRA take an evidence-based approach to the issue of canine aggression and dog bites.

1.0 Summary

It is apparent that the current Dangerous Dogs legislation is not sufficiently effective in protecting the public from dog bites and is in need of amendment. Scientific evidence does not support a breed-focused approach to legislation in this area. Section 1 of the Dangerous Dogs Act (DDA) 1991 has led to prosecutions based on physical appearance with no regard for behaviour or actual degree of risk posed by individual dogs to the public. Legislation based on 'deed not breed' (i.e. individual behaviour of animals, and degree of responsibility of owners) is suggested to have greater benefits in identifying and controlling animal-owner combinations which represent a risk to the public, and prevent the anomaly of court resource spent identifying physical 'type' rather than assessing behaviour.

The consultation document focuses on the risks posed by 'status' dogs in inner cities. Whilst being a considerable problem locally, these dogs represent a small minority of those showing human-directed aggression. Evidence suggests that the majority of dog bites result from dogs showing aggression to family members or other familiar people. There is also a population of dogs (of any breed) which show aggression to unfamiliar people and represent a risk to members of the public in public places. The risk factors leading to aggressive behaviour in dogs in these different circumstances are different. Thus, solutions for these different problems should be considered separately. Whilst public order offences may be suitable for those individuals in inner cities using dogs to threaten or intimidate others, this approach may not be considered suitable for reducing the aggression shown by dogs towards owners or family members. In the latter case, reduction of bite occurrence is more likely through education about dog behaviour and communication.

Any legislative reform should be mindful of animal welfare. For example, long term kennelling of dogs between seizure and prosecution of their owners is an animal welfare concern which should be addressed as part of the review process.

2.0 Background

Aggression directed towards people is the most common 'behaviour problem' referred to veterinary specialist clinics (Blackshaw 1991; Bamberger and Houpt, 2006). Although only a very small proportion of dog bites result in the death of victims (Sacks et al. 2000), the physical and psychological consequences of injuries (Calkins et al. 2000; Peters et al. 2004), and the financial consequences of bite injuries (Weiss et al. 1998) make human-directed aggression an important

public health concern. Gilchrist et al. (2008) have estimated that 15.8 bites occur per 1000 people in the USA, and a rate of 8.3 per 100 has been cited for the Netherlands (Cornelissen and Hopster 2009).

2.1 What causes aggression in dogs?

The occurrence of aggression in dogs is widely misunderstood by the general public, for example with the widespread belief that dogs show aggression vindictively (Bradshaw and Casey 2007) or to achieve a higher relative 'ranking' in an abstract hierarchy involving human and canine members of the family (Bradshaw et al. 2009). Historically, there has been a simplistic perception that dogs are either aggressive or non-aggressive, and that by identifying the 'bad' dogs in the population, injury from aggression can be prevented. However, understanding of behavioural development has developed considerably, and it is widely accepted that multiple factors contribute to the development of aggressive behaviour (De Keuster and Jung 2009). Although particular underlying characteristics, such as cognitive biases (Paul et al. 2005) appear to predispose to aggressive behaviour in dogs (unpublished data, University of Bristol), it is clear that these interact considerably with individuals' learning experiences in the development of discrete behavioural signs.

There are numerous citations suggesting that the majority of aggressive incidents occur to family members by owned dogs (e.g. Schalamon et al. 2006). Since aggression is essentially a learnt response shown by dogs to specific cues / combinations of cues and contexts, the factors leading to its occurrence will be unique in every case (Luescher and Reisner 2008). Dogs are capable of complex associative learning, and will both discriminate specific events that may constitute a risk to themselves and valued resources, and learn behavioural strategies which 'work' best to resolve situations of perceived threat. For example, a dog that is fearful of going outside because of firework phobia, may learn to show aggression specifically when owners try and force it outside to toilet last thing at night. The specific context in which an aggressive behaviour occurs towards familiar people, therefore, is likely to be related to specific individual learning experiences, and be unique to each case.

In contrast, aggression to unfamiliar people will commonly develop through limited experience of people from outside the family group. In particular, experiences during the early 'socialisation' or sensitive period for learning, influences the behavioural development of dogs (Jagoe and Serpell 1995). This type of aggressive behaviour may be general (i.e. all unfamiliar people), particular types of people (e.g. of one gender, or those wearing something unusual such as rucksacks on their back) or in specific circumstances (e.g. coming into the garden). Limited positive experience of a wide range of people, particularly in the early part of life, predisposes dogs to developing this type of behaviour (Appleby et al. 2002).

Medical or physiological factors may also cause, or contribute to, the development of aggressive behaviour in individual dogs (Fatjo and Bowen 2009). Because of the multiple factors involved in the development of aggression, it is widely suggested that aggressive potential should be evaluated for dogs at the individual level (Collier 2006; Luescher and Reisner 2008; De Keuster and Jung 2009).

2.2 Risk factors for canine aggression

2.2.1 Types of study

Despite human-directed aggression being a serious public health issue, there has been limited systematic research into potential risk factors. Published studies have often utilised existing

populations in which inherent biases exist. Whilst these studies give some useful evidence, interpretations of such datasets should be made with some caution. Studies have broadly investigated four population types: victims of dog bites reported in hospitals; clinical populations of dogs whose owners seek advice for aggressive behaviour; surveys of the dog owning population; and standard testing of dogs' responses to challenging situations designed to elicit aggression.

Media attention has focussed on data from hospital statistics, with a reported increase in bite incidences (e.g. Emanuel 2010). However, these data only represent those cases of human-directed aggression in which victims have sought medical attention, which are a minority of cases (Baxter 1984; Chang et al. 1997; De Keuster et al. 2006; Morgan and Palmer 2007). In a survey of bite victims, Cornelissen and Hopster (2009) found that 62% of bites were not medically treated, and that owners bitten by their own dog were less likely to seek medical assistance. Large breed dogs and types easily recognised are likely to be over-represented in the hospital population (Overall and Love 2001), for example with German Shepherds being a breed found to have the highest risk in one study (Kahn et al. 2003). In hospital data, more bites appear to be inflicted on children (Matthews and Lattal 1994; Kahn et al. 2004), especially between 5 and 9 years of age (Kahn et al. 2003; Rosado et al. 2009), possibly because treatment is more likely to be necessary (Voelker 1997). Methods and rates of bite incident reporting have not been consistent over time in hospital data, making temporal comparisons difficult to interpret (i.e. the apparent increase in bite incidents may reflect differences in reporting rather than occurrence).

Aggressive behaviour accounts for a considerable proportion of the caseload of veterinary behaviourists (Fatjo et al. 2007). A wide range of breeds are reported to show aggressive behaviour in this context, with increased risks apparently varying between studies. This may occur because of population biases in such populations: referral populations, for example tend to have an over-represented proportion of pedigree as compared to cross breed animals. In contrast to hospital-based data, in a population of owners attending veterinary practices, aggression is reported to be more likely to occur towards adults (Guy et al. 2001a). However, dogs also appear to be most likely to bite a familiar person within the home environment (Patrick and O'Rourke 1998; Ozanne-Smith et al. 2001).

Additional valuable data is provided by surveys of dog bite victims. For example, Cornelissen and Hopster (2009) surveyed households in the Netherlands to identify cases of dog bites. In this population, there was no difference in risk between adults and children under 18 years, but most cases of aggression were again from owned or familiar dogs, a finding also recorded by O'Sullivan et al. (2008) in a survey of bite victims in Ireland.

Evidence is also available from studies investigating the use of standardised 'temperament tests' in which susceptibility to show aggression is putatively investigated (e.g. Kroll et al. 2004; Schöning and Bradshaw 2005; Planta and De Meester 2007). These studies also tend to have biased populations, as testing is often conducted on animals considered 'at risk', which have shown aggression, or which are of breeds considered 'dangerous' in the country of study.

2.2.2 Dog associated risk factors

Current evidence suggests that male dogs are more likely to show aggression than females (Bamburger and Houpt 2006; Fatjo et al. 2007; Reisner et al. 2007; Rosado et al. 2009), although Schöning and Bradshaw (2005) found that the male bias applied more to dog-dog than to dog-

human aggression. Breed characteristics of dogs showing aggression are variable between studies and are influenced by population biases and methods of measurement. For example, German Shepherd type dogs are cited as having a higher risk of causing bite injury in some hospital based datasets (e.g. Kahn et al. 2006; Rosado et al. 2009).

Variable results as to breed risk for aggression has been found in clinical and survey data. For example, in one study by Cornelissen and Hopster (2009), nine breed types had a bite risk index greater than one (Sheep and cattle dogs, Pinschers and Schnauzers, Terriers, Belgian shepherds, Bouvier des Flanders, Doberman, German Shepherds, Jack Russell terriers and Rottweilers). In contrast, Duffy et al. (2008) found a higher incidence of aggression in Dachshunds, Chihuahuas and Jack Russell terriers. In their clinical population, Fatjo et al. (2007) found an increased risk of aggression towards people in Cocker Spaniels, Catalan Sheepdogs, Belgian Shepherd and Beagle.

In a study conducted in Lower Saxony, Germany, screening temperament tests were used to compare dogs considered to be of 'dangerous' breed type with other breeds. No differences in test results were identified between eleven breeds (Schalke et al. 2008). Furthermore, no difference in test results was obtained when dogs of restricted breed types were compared with Golden Retrievers (Ott et al. 2008). These findings led to the withdrawal of breed specific legislation in Lower Saxony.

No evidence exists that the currently listed 'dangerous' breeds in DDA 1991 Section 1 show an increased frequency of biting behaviour as compared to other breeds (Collier 2006; Kuhne and Struwe 2006). As discussed in 2.1, the quality of the early environment of dogs is also an important factor in risk of undesired behaviour in adults. For example, Appleby et al. (2002) identified the importance of early environment as a risk factor for aggressive behaviour in a clinical population.

2.2.3 Human-associated risk factors

Multiple studies have identified that human-directed aggression is most likely to occur in the home from known or family dogs (e.g. Kahn et al. 2006; Rosado et al. 2009). The importance of human behaviour in the occurrence of dog bites and dog aggression has been highlighted in numerous studies. For example, Rosado et al. (2009) found that specific circumstances such as manipulating dogs in an aversive way (e.g. grabbing or restraining), or interference with fighting dogs to be a significant risk factor for bite injury. Cornelissen and Hopster (2009) found that 60% of bite victims had been interacting with the dog at the time of biting. Cullinan et al. (2004) found that the consistency of owners is a significant factor in the development of aggression. In a retrospective study, Reisner et al. (2007) identified that bites to children were more likely to be associated with children approaching or interacting with dogs, such as falling over them or stepping on them, or associated with dogs' food or toys. In a study examining hospital records of bite incidences, Bernado et al. (2000) suggested that in 65% of cases where children were bitten the incident was 'provoked' (i.e. the child was doing something to the dog). Similarly, Kahn et al. (2003) found that bites to children often occurred when children initiated interaction with dogs, particularly if unsupervised.

Lack of obedience training has been associated with aggression (Schöning and Bradshaw 2005) and with the wider occurrence of undesired behaviours (e.g. Bennett and Rohf 2007), although this link has not been found in other studies (e.g. Blackwell et al. 2008). Logically, increased obedience may aid owners in avoiding situations in which dogs have an established aggressive response (e.g.

calling them back when an unfamiliar person approaches), and may influence owners overall relationship with their dog. However, aggressive responses can develop regardless of obedience to specific cues in other contexts (De Keuster and Jung 2009). Furthermore, the type of training used by owners to achieve obedience may be a factor in development, with punishment-based techniques being associated with the occurrence of aggression (Blackwell et al. 2008; Herron et al. 2009) and undesired behaviours (Hiby et al. 2006).

2.3 Strategies for prevention of human-directed aggression in dogs

Strategies for reducing aggression have involved those focussing on educative programmes, and the use of legislation to control 'dangerous' dogs. Without comparable data at different time points, it is impossible to accurately determine the efficacy of breed specific legislation. However, there are no reports that dog bite injuries have been reduced by a breed specific approach in the countries in which this was adopted, and some hospital reports suggest an increasing number of bite injuries (Emanuel 2010). Some studies investigating validation of education programmes as methods of reducing the risk of human-directed aggression have been reported (Chapman et al. 2000; Spiegel 2000; De Keuster and Butcher 2008). For example, Meints and De Keuster (2009) found a significant change in the behaviour of young children in a potentially risky situation with a dog after watching the 'Blue Dog' education CD (www.thebluedog.org).

Prevention programmes have also focussed on reducing the risk of aggressive behaviour in dogs by ensuring adequate positive early experiences with people (Gazzano et al. 2008; Seksel 1997; Seksel 2008; Seksel et al. 1999).

2.4 Conclusions from evidence reviewed

Aggression in dogs is a common and serious problem. Whilst some studies have identified particular breeds as showing a higher risk of causing bite injury, or displaying aggression, there is a lack of consistency in findings between studies. No studies suggest an increased incidence of aggression or biting injury in breeds listed in the DDA 1991 Section 1, nor in other 'fighting' or 'bull' type breeds. Whilst pitbulls may be argued to cause considerable damage should they bite, there is no evidence from hospital data that this is any more the case than for any other large breed dogs, such as Mastiff or Rottweiler. The severity of bite should aggression occur is not considered to be a reasonable argument for breed specific legislation: such an argument is analogous to the suggestion that large cars should be banned because they could cause more damage if they hit a pedestrian.

Risk factors identified in studies in different populations have identified a number of human related factors as important risks for aggression and biting. Although comparable data is lacking, there has been no apparent decrease in the proportion of dogs showing aggressive behaviour in clinical populations, nor in hospital statistics for bite injuries since the introduction of the DDA in 1991. Some evidence for efficacy is available for altering the behaviour of both dogs and people through education programmes. Teaching children how to behave around dogs, and ensuring good socialisation of puppies, appear to reduce the risk of human directed aggression.

The existing evidence, therefore, does not support continuation of breed-specific legislation, but rather the investigation of alternative long term strategies for reducing the risk of bite injuries.

References

- Appleby, D. L., Bradshaw, J. W. S. & Casey, R. A. (2002) The relationship between problematic canine aggression and avoidance behaviour, and experience in the first six months of life. *Veterinary Record*, **150**, 434-438.
- Bamberger, M. and Houpt, K.A. (2006) Signalment factors, comorbidity, and trends in behavior diagnosis in dogs: 1,644 cases (1991-2001). *JAVMA*, **229**, 1591-1601.
- Baxter, D.N. (1984). The deleterious effects of dogs on human health: dog-associated injuries. *Community Medicine*, **6**, 29-36.
- Beck, A. and Jones, B. (1985). Unreported dog bites in children. *Public Health Report*, **100**, 315-321.
- Bennett, P.C. and Rohf, V.I. (2007). Owner-companion dog interactions: relationships between demographic variables and potentially problematic behaviours, training engagement and shared activities. *AABS* **102**, 65-84.
- Bernado, L.M., Gardner, M.J., O'Connor, J. and Amon, N. (2000). Dog bites in children treated in a paediatric emergency department. *Journal of the Society of Paediatric Nurses*, **5** (2), 87-95.
- Blackwell, E.J., Twells, C., Seawright, A. and Casey, R.A. (2008). The relationship between training methods and the occurrence of behaviour problems, as reported by owners, in a population of domestic dogs. *Journal of Veterinary Behavior: Clinical Applications and Research*.
- Bradshaw, J.W.S. and Casey, R.A.(2007). Anthropomorphism and anthropocentrism as influences in the quality of life of companion animals. *Animal Welfare*, **16**(S), 149-155.
- Calkins, C.M., Bensard, D.D., Patrick, D.A. and Karrer, F.M. (2001). Life threatening dog attacks: a devastating combination of penetrating and blunt injuries. *Journal of Pediatric Surgery*, **36**, 1115-1117.
- Chang, Y., McMahon, J., Hennon, D., LaPorte, R. and Coben, J. (1997). Dog bite incidence in the city of Pittsburgh: A capture-recapture approach. *American Journal of Public Health*, **87**, 1703-1705.
- Chapman, S., Cornwall, J., Righetti, J. and Sung, L. (2000). Preventing dog bites in children: randomised controlled trial of an educational intervention. *BMJ*, **320**, 1512-1513.
- Collier, S. (2006). Breed-specific legislation and the pit bull terrier: Are the laws justified? *Journal of Veterinary Behavior*, **1**, 17-22.
- Cornelissen, J.M.R. and Hopster, H. (2009). Dog bites in the Netherlands: A study of victims, injuries, circumstances and aggressors to support evaluation of breed specific legislation. *The Veterinary Journal*, doi: 10.1016/j.tvjl.2009.10.001
- Cullinan, P., Blackwell, E.J. and Casey, R.A. (2004). The relationship between owner consistency and 'problem' behaviours in dogs. Proceedings of the European Society for Veterinary Clinical Ethology, Cremona, Italy.
- De Keuster, T. and Jung, H. (2009). Aggression toward familiar people and animals. In: *BSAVA Manual of Canine and Feline Behavioural Medicine*, 2nd ed. Horwitz, D.F. and Mills, D.S. pp 182-210.
- De Keuster, T. and Butcher, R. (2008). Preventing dog bites: Risk factors in different cultural settings. *The Veterinary Journal*, doi: 10.1016/j.tvjl.2007.11.006

- De Keuster, T., Lamoureux, J. and Kahn, A. (2006). Epidemiology of dog bites: A Belgian experience of canine behaviour and public health concerns. *The Veterinary Journal*, 172, 482-487.
- De Keuster, T., Moons, C. and De Cock, I. (2005). Dog bite prevention – how a Blue Dog can help. *European Journal of Companion Animal Practice*, 15, 137-139.
- Emanuel, S. (2010). Norwich Evening News. (<http://www.eveningnews24.co.uk/content/eveningnews24/norwich-news/story.aspx?brand=ENOnline&category=News&tBrand=enonline&tCategory=news&itemid=NOED03%20Jan%202010%2018%3A16%3A56%3A310>)
- Fatjo, J. and Bowen, J. (2009). Medical and metabolic influences on behavioural disorders. In: *BSAVA Manual of Canine and Feline Behavioural Medicine*, 2nd ed. Horwitz, D.F. and Mills, D.S. pp 1-9.
- Fatjo, J., Amat, M., Mariotti, V.M., de la Torre, J.L.R. and Manteca, X. (2007). Analysis of 1040 cases of canine aggression in a referral practice in Spain. *Journal of Veterinary Behavior*, 2, 158-165.
- Gazzano A, Mariti C, Alvares S, Cozzi A, Tognetti R and Sighieri C (2008). The prevention of undesirable behaviors in dogs: Effectiveness of veterinary behaviorists' advice given to puppy owners. *Journal of Veterinary Behavior-Clinical Applications and Research* 3, 125-133
- Gershman, K.A., Sacks, J.J. and Wright, J.C. (1994). Which dogs bite? A case-control study of risk factors. *Pediatrics*, 93, 913-917.
- Gilchrist, J., Sacks, J.J., White, D., Kresnow, M.J. (2008). Dog bites: still a problem? *Injury Prevention*, 14, 296-301.
- Guy, N.C., Luescher, U.A., Dohoo, S.E., Spangler, E., Miller, J.B., Dohoo, I.R. and Bate, L.A. (2001a). Demographic and aggressive characteristics of dogs in a general veterinary caseload. *Appl. Anim. Behav. Sci.*, 74, 15-28.
- Guy, N.C., Luescher, U.A., Dohoo, S.E., Spangler, E., Miller, J.B., Dohoo, I.R. and Bate, L.A. (2001b). A case series of biting dogs: characteristics of the dogs, their behaviour and their victims. *Appl. Anim. Behav. Sci.*, 74, 43-57.
- Harris, D., Imperato, P.J. and Oker, B. (1974). Dog bites as an unrecognized epidemic. *Bulletin of the New York Academy of Medicine*, 50, 981.
- Herron, M.E., Schofer, F.S., and Resiner, I.R., (2009). Survey of the use and outcome of confrontational and non-confrontational training methods in client-owned dogs showing undesired behaviors. *Appl. Anim. Behav. Sci.* 117, 47-54.
- Hiby EF, Rooney NJ and Bradshaw JWS (2004). Dog training methods: Their use, effectiveness and interaction with behaviour and welfare. *Animal Welfare* 13, 63-69
- Kahn, A., Bauche, P., and Lamoureux, J. (2003). Child victims of dog bites treated in emergency departments. *European Journal of Pediatrics*, 162, 254-258.
- Kahn, A., Robert, E., Piette, D., De Keuster, T. Lamoureux, J. and Levêque, A. (2004). Prevalence of dog bites in children. A telephone survey. *European Journal of Pediatrics*, 163, 424.

- Kuhe, F., and Struwe, R. (2006). Dangerous dogs in Berlin in comparison to the dog population – ways to reduce the dangerousness of dogs. *Berliner und Münchener Tierärztliche Wochenschrift*, 119, 445-455.
- Lakestani, N.N., Waran, N., Verga, M. and Phillips, C. (2005). Dog bites in children. *EJCAP*, 15, 133-135.
- Luescher, A.U. and Reisner, I.R. (2008). Canine aggression towards familiar people: a new look at an old problem. *Veterinary Clinics of North America: Small Animal Practice*, 38 (5), 1107-1130.
- Matthews, J.R. and Lattal, K.A. (1994). A behavioral analysis of dog bites to children. *Journal of Developmental and Behavioural Pediatrics*, 15, 44-52.
- Meints, K. and de Keuster, T. (2009). Brief Report: Don't Kiss a Sleeping Dog – The first assessment of “The Blue Dog” bite prevention programme. *Journal of Pediatric Psychology*, 34 (10), 1084-1090.
- Millot, J.,Filliatre, A., Cagnon, A., Eckerlin, A. and Montagner, H. (1988). Children and their pet dogs: how they communicate. *Behavioural Process*, 17, 1-15.
- Morgan, M. and Palmer, J. (2007). Dog bites. *British Medical Journal*, 334, 413-417.
- Ott, S.A., Schalke, E., von Gaertner, A.M. Hackbarth, H. and Mittmann, A. (2008). Is there a difference? Comparison of Golden Retrievers and dogs affected by breed specific legislation regarding aggressive behaviour. *Journal of Veterinary Behavior: Clinical Applications and Research*, 3, 134-140.
- Overall, K. and Love, M. (2001). Dog bites to humans: demography, epidemiology, injury and risk. *JAVMA*, 218, 1923-1934.
- Ozanne-Smith, J., Asby, K. and Stathakis, V. (2001). Dog bite and injury prevention: analysis, critical review, and research agenda. *Injury Prevention*, 7, 321-326.
- Patrick, G. and O'Rourke, K. (1998). Dog and cat bites: epidemiological analyses suggest different prevention strategies. *Public Health Reports*, 113, 252-257.
- Peters, V., Sottiaux, M., Appelboom, J. and Kahn, A. (2004). Posttraumatic stress disorder after dog bites in children. *Journal of Pediatrics*, 144, 121-122.
- Planta, J.U.P., and De Meester, R.H.W.M. (2007). Validity of the Socially Acceptable Behaviour (SAB) Test as a measure of aggression in dogs towards non-familiar humans. *Vlaams Diergeneeskundig Tijdschrift*, 76 (5), 359-368.
- Reisner, I.R., Shofer, F.S. and Nance, M.L. (2007). Behavioral assessment of child-directed canine aggression. *Injury Prevention*, 13, 348-351.
- Rosado, B., García-Belenguer, S., León, M. and Palacio, J. (2009). A comprehensive study of dog bites in Spain, 1995-2004. *The Veterinary Journal*, 179, 383-391.
- Schalmon, J., Ainoedhofer, H., Singer, G., Petnehazy, T., Mayr, J., Kiss, K. and Höllwarth, M.E. (2006). Analysis of dog bites in children who are younger than 17 years. *Pediatrics*, 117, 374-379.
- Schalke, E., Ott, S.A., von Gaertner, A.M., Hackbarth, H. and Mittmann, A. (2008). Is breed specific legislation justified? Study of the results of temperment test of Lower Saxony. *Journal of Veterinary Behavior: Clinical Applications and Research*, 3, 97-103.

Schöning, B. and Bradshaw, J.W.S. (2005). A behavioural test of aggression for adult dogs. *Proceedings of the 37th International DVG Meeting of Applied Ethology, Aktuelle Arbeiten zur Artgemeassen Tierhaltung 2005*, KTBL-Schrift 441. KTBL: Darmstadt, pp. 103-114.

Seksel, K. (1997). Puppy socialization classes. *Veterinary Clinics of North America-Small Animal Practice* 27: 465.

Seksel, K. (2008). Preventing behavior problems in puppies and kittens. *Veterinary Clinics of North America: Small Animal Practice* 38, 971-982.

Seksel, K., Mazurski, E.J. and Taylor, A. (1999) Puppy socialisation programs: Short and long term behavioural effects. *Applied Animal Behaviour Science* 62, 335-349.

Serpell, J. and Jagoe, J. (1995). Early experience and the development of behaviour In: J Serpell (eds) *The domestic dog: Its evolution, behaviour and interaction with people*. Cambridge University Press, Cambridge. 79-102.

Taylor, K.D. and Mills, D. S. (2007). The effect of the kennel environment on canine welfare: a critical review of experimental studies. *Animal Welfare*, 16, 435-447.

Voith, V.L., Ingram, E., Mitsouras, K. and Irizarry, K. (2009). Comparison of adoption agency breed identification and DNA breed identification of dogs. *Journal of Applied Animal Welfare Science*, 12, 253-262.

**BVA/BSAVA JOINT RESPONSE
TO THE CONSULTATION ON
DANGEROUS DOGS**

APPENDIX B

COMPULSORY MICROCHIPPING OF DOGS

1. In February 2009, the BVA called for the compulsory identification of all registered pedigree dogs to facilitate the reporting of hereditary health problems and surgical procedures resulting in conformation changes, and added that the introduction of a 'pet passport' database, which would be linked to a microchip, would allow information such as parentage, DNA and health test results to be known for a particular animal.¹
2. Permanent identification, particularly by microchip, has become increasingly common over the past decade, and is the most effective means of reuniting a stray dog with its owner. It has a number of advantages over the use of a collar and tag which are often left off or slip off. Collars can also be easily removed from stolen dogs. Permanent identification is effective at all times and is virtually impossible to alter or remove.
3. The veterinary profession promotes responsible pet ownership and can explain to owners the benefits of permanent identification for dogs. However the BVA considers that legislation should be put in place to require all dogs to be permanently identified before the first change of ownership or at first veterinary examination if earlier. Such identification should be through microchipping.
4. The new legislation should include a requirement to keep the information on a microchip and/or relevant database up to date with the current name and address of the owner. Owners should be issued with a certificate to show the details registered on the database. The format of the certificate should include a tear-off section to notify changes of ownership to the database.

¹ BVA submission to the Associate Parliamentary Group for Animal Welfare inquiry into health and welfare issues surrounding the breeding of pedigree dogs