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Research Team Year in review 2024

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Welcome from our Head of Research

It's been another busy year for the Dogs Trust Research Team, and we are thrilled to present this review looking back at some of our key work in 2024. Our findings continue to support Dogs Trust to deliver the best for dogs in our care, enhance our rehoming services and improve our support for dogs, owners and all dog lovers across the UK, and beyond. In 2024 we also stepped up a gear in taking our skills, findings and knowledge to the wider world, supporting other dog charities to enhance and evaluate their work, and presenting our work to the public and the dog science and welfare community. Our work on the longevity of dog breeds was picked up by the press worldwide, and we are continuing this work to explore the different lifespans of crossbreed dogs.

We were delighted to again attend New Scientist Live at the Excel in London, which saw over 26,000 people come through the door. We engaged with lots of people at our stand and presented two talks. We will be there again in 2025 and would love to see you!

Our Generation Pup study has now recruited more than 9300 dogs and should reach our goal of 10,000 in 2025. Valuable insights into the lives of dogs continue to be made, including the impact of training methods of puppies on subsequent behavioural issues, as highlighted in this review.

The National Dog Survey in 2024 was the largest ever. Importantly, this is allowing us to discover more ways that Dogs Trust can support owners and dogs in the UK.

In 2024, the Dogs Trust Behaviour Support Line celebrated its second birthday and supported over 8,000 people and their dogs. The Research Team has been working with the service to evaluate the great work being done and how we can continue to improve the help we give dog owners at times of difficulty. This is part of the expansion of our monitoring and evaluation activities, which is enabling us to really understand the impact of Dogs Trust's work to improve the lives of Dogs, and to ensure we have the greatest impact for dogs.

And to better understand those really tough times, our study of relinquishment has provided vital information about circumstances in which people have had to consider relinquishment, or even give up their dog, and the extra help that did, or could, enable them to keep their dog – again helping Dogs Trust to refine our services to help those in need.

As always, our work this year has only been possible because so many people have given their time to talk to us, complete our questionnaires or otherwise enable us to do the work we do. To each and every one of you, I give my thanks on behalf of the Research team and Dogs Trust.

There is so much more to tell you about, so please read on.



Rob Christley
Head of Research



2024: Research outputs in numbers



7

peer-reviewed papers published in scientific journals



14

presentations and posters to national and international audiences



35

internal reports produced to inform Dogs Trust's work



Summary of the Research Team's long-term projects



Generation Pup is a groundbreaking study of dog health, behaviour and welfare. Recruited as puppies, the dogs are followed throughout their lives. We hope to reach our recruitment target of **10,000 puppies** during 2025.



The UK pet dog population project provides insights into how many dogs are in the UK. In 2019, we estimated there were **12.6 million** owned and unowned dogs. We will replicate this study for data collected in 2024 to monitor changes in population over time, helping us understand shifts in breed popularity and their welfare implications.



The annual National Dog Survey (NDS) received over **400,000 responses**, our biggest response yet. Dogs, as beloved family members, bring joy, but their behaviour can sometimes pose challenges. The NDS informs our vital early intervention work to help dogs and owners live harmoniously.



The annual Stray Dog Survey has monitored dog-related services offered by UK local authorities (LAs) every year since 1997. In 2024 we estimated that a total of **36,965 dogs** were handled by LAs across the UK, an increase of **1,800** compared to 2023.



The Post Adoption Support (PAS) project collects data from support calls with Dogs Trust adopters, helping inform our work to support adopters and their dogs. In 2024 we focused on reported behavioural issues, advice acceptance and factors associated with returning dogs to our centres.



The Post Adoption Welfare Study (PAWS) tracks the health, behaviour and welfare of Dogs Trust adopted dogs throughout their lives. We currently have over **14,000 participants** helping us to understand how we can best support adopters and their dogs.

Our featured research:

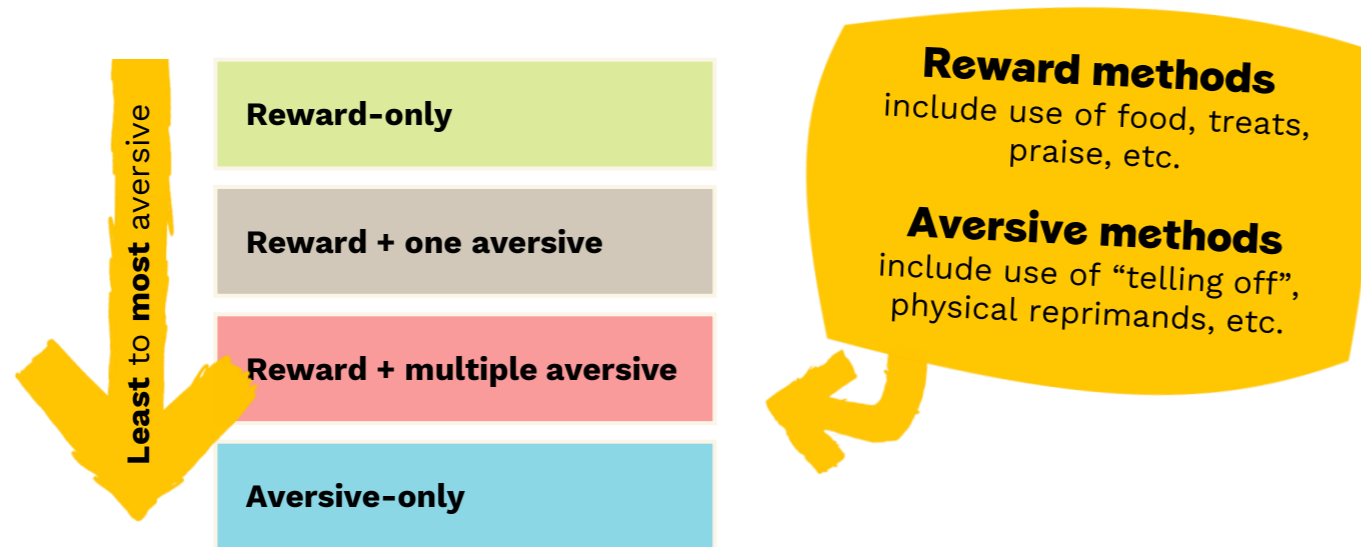
Association between training methods and owner-reported problem behaviours

In our **Generation Pup** study, we collect a wealth of data on dog health, behaviour and welfare throughout the lives of our recruited dogs. Here, we examined:

- Training methods owners reported using when their dogs were **12/16 weeks, 6 months, 9 months** and **1-year-old**.
- Whether the owner reported their dog displayed any behaviours that they found problematic.

4,781 dogs included in the analysis

Four types of training methods were explored



Problematic behaviour

For 1-year-old dogs, the most common problematic behaviours reported by their owners were:



Barking

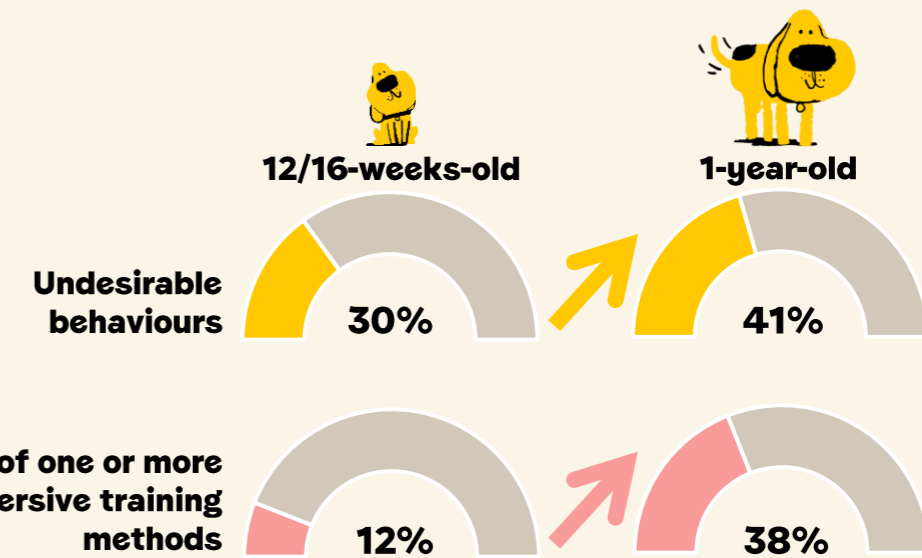


Jumping up

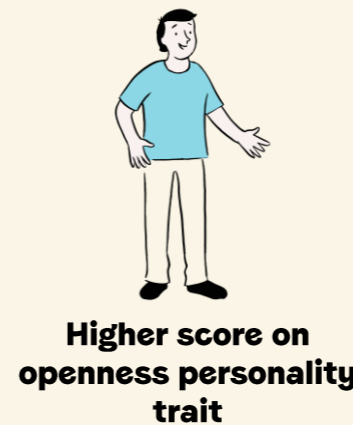


Pulling on lead

Changing to more aversive training methods was associated with higher odds of reporting problematic behaviours

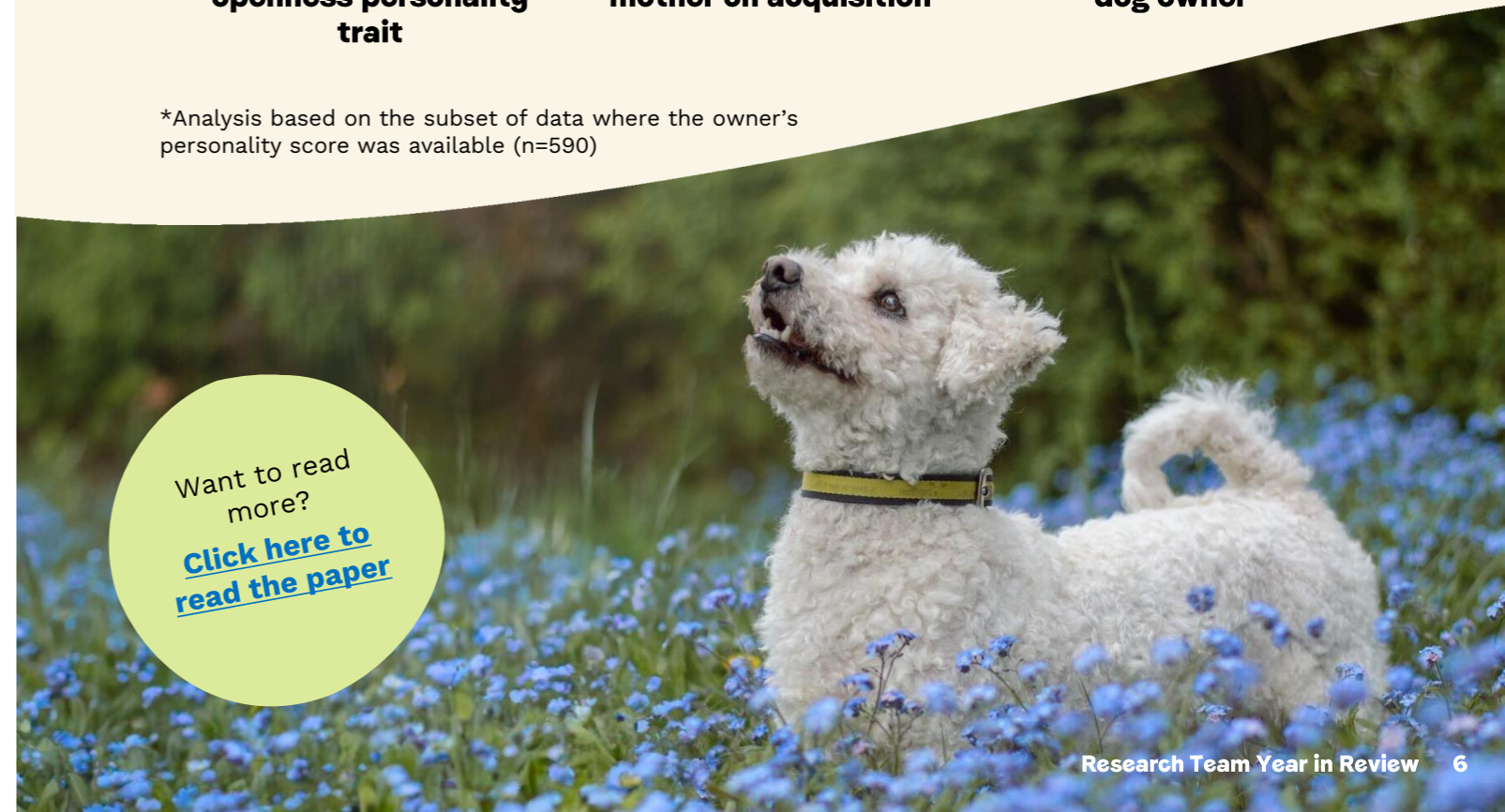


Increased risk of reporting problematic behaviour was also associated with*:



*Analysis based on the subset of data where the owner's personality score was available (n=590)

Want to read more?
[Click here to read the paper](#)

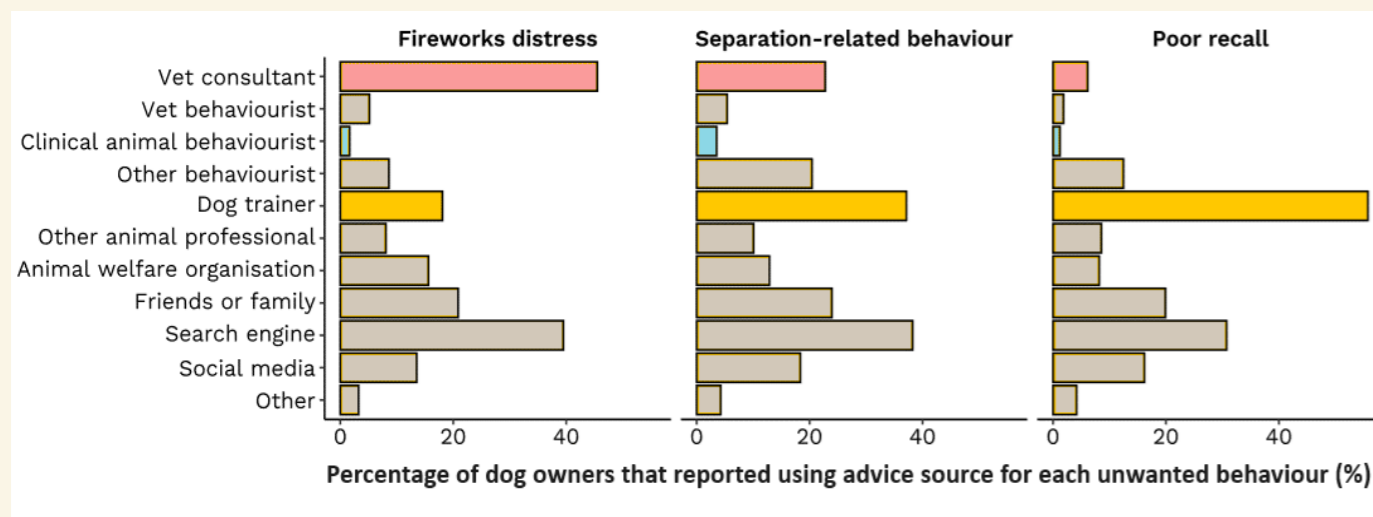


Our work on preventing problems

Understanding owner management of undesirable behaviour

In our 2024 **National Dog Survey**, the source of behaviour advice owners reported using varied depending on the undesirable behaviour reported. We found:

- A veterinary consultation was more common for fireworks distress (**50%**), trouble sleeping through the night (**36%**), and separation-related behaviours (**23%**).
- Seeking help from a dog trainer was more common for undesirable behaviour around other dogs (**52%**) or strangers (**48%**), and concerns about recall (**56%**) and loose-lead walking (**56%**).
- Very few respondents reported consulting a Clinical Animal Behaviourist (CAB). Even amongst dogs with separation-related anxiety, only **4%** of owners consulted a CAB.



The dog trainer/behaviourist professions are not regulated; there are no minimum qualifications required for someone to use these titles. Over **23,000** NDS respondents wanted to see stronger regulation of this sector.



Behavioural help and support

Attitudes towards behaviour medication

We explored attitudes of owners and veterinary professionals towards over-the-counter products and prescription-only medications in treating undesirable behaviours. Our qualitative analysis suggested:



- Over-the-counter products were often trialled before moving on to prescription-only medications by both owners and veterinary professionals.
- Prescription-only medications were generally perceived by owners as riskier, particularly in relation to side-effects, contraindication with other medications and overdose risks.
- Both types of behaviour medications were seen as imperfect, with variable success in solving the behaviour of concern.

Comparing the effectiveness of in-person and virtual behaviour consultations

Dogs Trust's Clinical Animal Behaviour (CAB) team provides in-person and virtual behaviour consultations for adopters struggling with their dogs' behaviours. We examined the impact of these consultations:

275 Adopters were surveyed

- The most discussed behaviours were those relating to aggression (**46%** of in-person and **45%** of virtual cases).
- Immediately after their consultation, most adopters scored the CAB service a whopping 10 out of 10 for satisfaction (**82%** of in-person and **76%** of virtual cases).
- Six months later, **76%** of adopters who received an in-person initial consultation and **71%** of virtual agreed that implementing the behaviourist's suggestions improved their dog's behaviour, with agreement defined as a score of 7 or higher on a scale from 0 (strongly disagree) to 10 (strongly agree).

Behaviour Support Line evaluation

Within the Research team we have a team dedicated to monitoring and evaluating the work that Dogs Trust does. Dogs Trust has a Behaviour Support Line which offers dog owners free expert advice on dog training and behaviour.



We have collaborated with the Behaviour Support Line team to create a Theory of Change (ToC) for the service. A ToC is a process which maps out how a programme intends to achieve its desired impact. This work helped to clarify goals and success indicators for the Behaviour Support Line, ensuring effective and focused assistance for dogs and owners. Additionally, a monitoring and evaluation process has been implemented, with the first internal evaluation underway.

Preventing problems **continued...**

Impact of fireworks on behaviour

In 2023, we investigated how standard fireworks impact dog behaviour, and in 2024 we expanded our work with the University of Salford's Acoustic Laboratory to examine how fireworks advertised as 'low-noise' may affect dogs.



- 'Low-noise' fireworks are quieter and have different sound properties to standard ones.
- Simulations showed that replacing standard fireworks with 'low-noise' fireworks would result in dogs showing more relaxed behaviours and less fear-related behaviours. However, many dogs were still predicted to show ambiguous, over-arousal related behaviour, and re-directed behaviour.
- The study found that fear-related behaviour was mostly associated with the "boomy" aspect of fireworks sound and not just fireworks' loudness. Use of low-noise fireworks and designing fireworks to be less "boomy" is expected to increase the number of dogs showing relaxed behaviour.

Outreach

Pet Friendly Housing Pilot



We entered the 2nd year of our **3-year** Pet Friendly Housing Pilot in Scotland, working with social landlords to:

- 1) Assist them to provide pet friendly housing.
- 2) Address some of the barriers faced by pet owners in accessing and remaining in social housing.

We have partnered with Manor Estates Housing Association (MEHA) in Edinburgh and are helping them to become the UK's first pet friendly social landlord, as recognised by Dogs Trust. Together, we introduced a new, inclusive pet policy, a new pet permission form for tenants, and staff training.

We gathered pre-partnership baseline data from staff and tenants using surveys and interviews. Insights from the baseline found:

- The majority of staff and tenants understood the importance of pets and their associated benefits to owners.
- Staff and tenants were supportive of the partnership between MEHA and Dogs Trust. However, tenants expressed some uncertainty around whether staff would be well equipped to deal with pet related issues, and staff self-reported that knowledge of pet related issues could be improved – which affirmed the need for access to training and information from Dogs Trust.

Pet Friendly Housing Pilot is made possible thanks to players of the People's Postcode Lottery.

Our work on **rehoming and relinquishment**

Understanding the impact of relinquishment on owners

Many dogs are relinquished in the UK each year, but little is known about this experience from the perspective of dog owners.

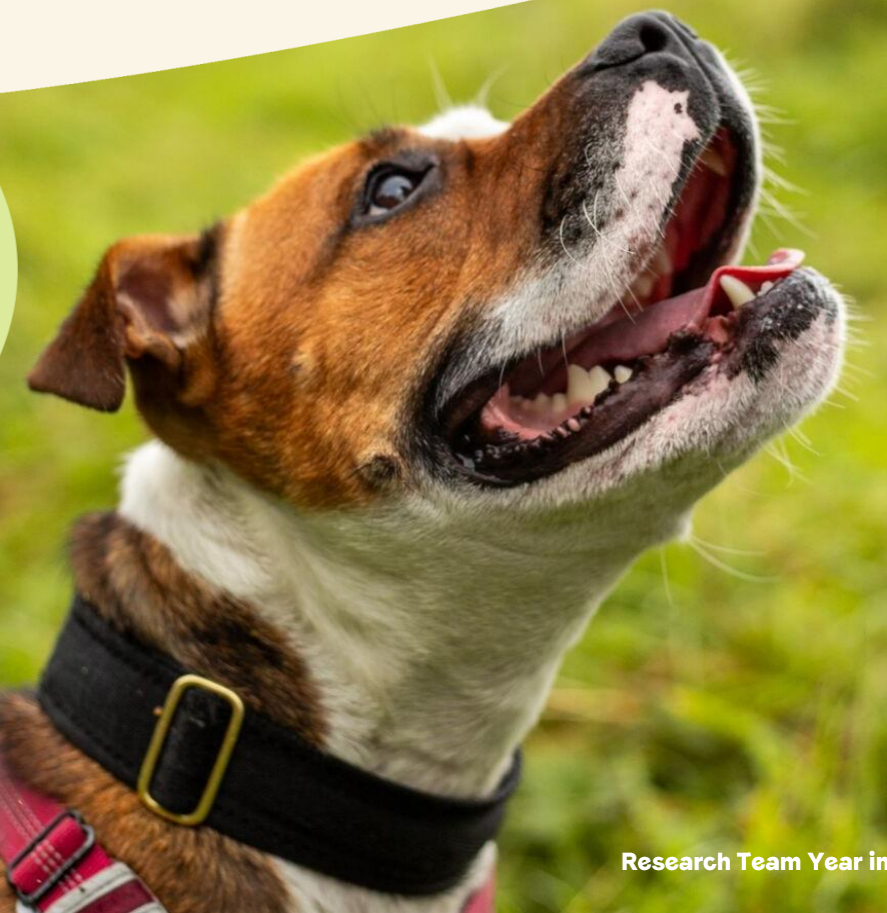
We interviewed **26** people (via telephone and video calls) who had relinquished a dog or considered doing so. We found:



- That owners relinquishing a dog (or considering this) may feel judged and isolated from others.
- The experience can threaten self-identity.
- To protect a positive sense of self owners engaged in moral work to (re)present themselves as "good" (i.e., "responsible") owners or "legitimate" relinquishers.

These findings may be used to inform messaging aimed at encouraging owners to reach out for support (e.g., for dog behaviour). For example, by using messages that seek to reaffirm an owner's positive sense of self.

Know someone who needs help with their dog's training or behaviour?
Contact our Behaviour Support Line for free expert advice.



Rehoming and relinquishment **continued...**

Investigating why some adoptions do not work out

The term Return to Kennel (RTK) is used to refer to dogs that have been adopted from Dogs Trust but have subsequently been returned to Dogs Trust by their adopters. In 2024, we released our initial findings from our **RTK study**, which described the population of dogs that had been RTK between 2018 and 2020.

13.9% of adoptions resulted in an RTK event (n=3,531/25,318)

Summarising demographic factors such as dog sex, age and size revealed that the highest return rates were associated with:



The majority of returns occurred within two weeks of adoption, and the most frequently cited reasons including 'unwanted dog behaviour' and owners feeling 'unwilling or unable to cope with the responsibility'.



Focusing on the literature

Being evidence-based means we use the latest scientific research to improve the welfare of dogs. Here are some recent scientific reviews conducted by the Research Team to support other organisations in improving the welfare of dogs in their care:

Dog Beds and Welfare



- Providing bedding in kennels can reduce the likelihood of skin and respiratory issues, eases joint pain, and insulates against the cold.
- Comfortable bedding improves sleep, which in turn can positively impact health, memory, and behaviour.
- Beds and sleeping platforms reduce stress and improve behaviour by giving dogs more choice about where they spend time and more control over their environment.



Noise Levels and Welfare

- Noise in kennels (e.g., barking) can cause stress and affect hearing.
- Kennel design can reduce noise with soundproofing and by limiting visual contact between dogs.
- Husbandry practices, like avoiding walking dogs past each other, pair/group housing, and using auditory enrichment can reduce barking and stress.



Our hot topic - Dog body language

4,133 surveys completed

Our **Perceptions of Dog Behaviour** survey asked members of the public to score dogs for nine emotional/motivational states based on body language in a series of videos. We compared these to answers given by dog behaviour experts.

- The emotions **“frustrated”** and **“bored”** were the most difficult for both experts and public to rate.
- Public participants rated videos of **playful / excited dogs** as easier to interpret than **nervous / stressed dogs**, and, for the latter, were more likely to say **“I am unsure”** instead of scoring.
- However, when participants **did** give a score, there was no difference in accuracy between playful / excited and nervous / stressed.
- The **more confident** public participants were in their ability to interpret dog behaviour, the **less accurately** they tended to score more difficult videos.

Does education about dog behaviour help the public interpret dog body language?

- Participants who learned about dog behaviour with a **mix of hands-on and theoretical sources interpreted videos more accurately** than those with only theoretical sources or those who selected none of the sources listed on the survey.
- Participants who learned about behaviour mostly through **hands-on sources** (e.g., attending dog training classes) **also did better** than those who selected no sources.

Our 2024 **National Dog Survey** also found that owners often appear over-confident in their ability to read dog body language:

- While **80%** of dog owners said that they were confident, only **24%** could accurately identify worried dogs needing space, using images presented.
- The most misinterpreted behaviour was the **“appeasement roll”** (dog on their back with tense body, tail tucked, and limbs held close). 76% didn't identify that this could mean a dog is worried and wants more space.
- The results showed a pattern consistent with the Dunning-Kruger effect: Owners **most confident** in their ability to read dog body language were **less likely** to correctly identify dog body language than those less confident.



Spreading the word about our work

To ensure our research is as far reaching as possible, it is important we disseminate our findings to fellow researchers and the wider community. During 2024, our team presented our research at both national and international conferences including:



Our team are already working hard preparing abstracts for conferences upcoming in 2025!



Our research in the media



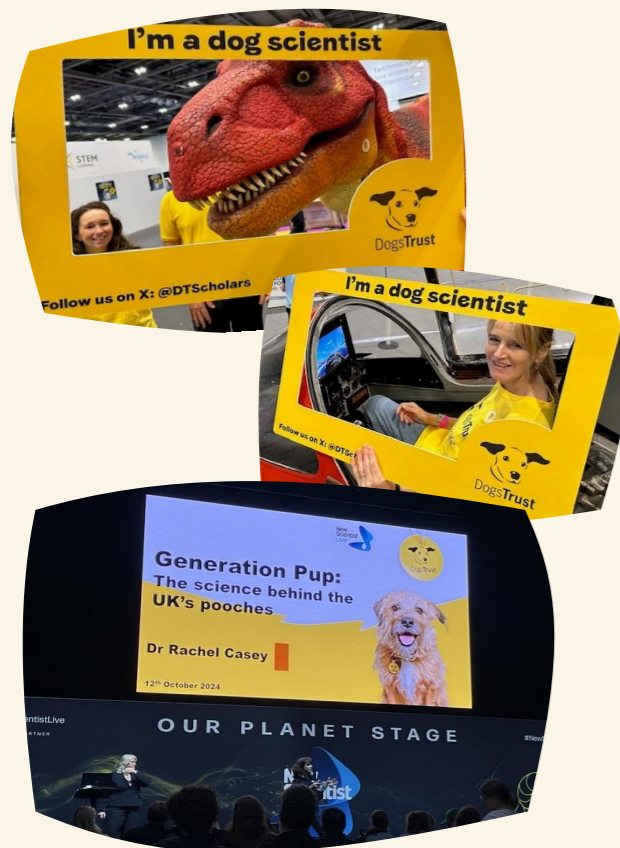
This year, our research around the longevity of dogs based on their breed made **headlines around the world!**

Using **18** data sources, including charities, vet groups, breed registries, and pet insurance companies – the study found that the median lifespan across all dogs was **12.5 years**, and that larger breeds and those with shorter faces (brachycephalic) have shorter life expectancies!

Our team

At New Scientist Live

In October 2024, the Research Team headed to London's ExCel Centre for the UK's largest science festival - New Scientist Live (NSL). With more than **26,000** people attending over three days, the event gave us a brilliant opportunity to engage in-person with the public about how Dogs Trust is leading the way among animal welfare organisations in ensuring our work is evidence-based.



We designed engaging activities to inform visitors about the data we collect and why this is important to us as an organisation. These included a “spin-the-wheel” quiz and interactive posters demonstrating data collection in action. Both were a huge hit with the visitors to our stand. We additionally showcased some of our research findings, including results on breed longevity and breed popularity.

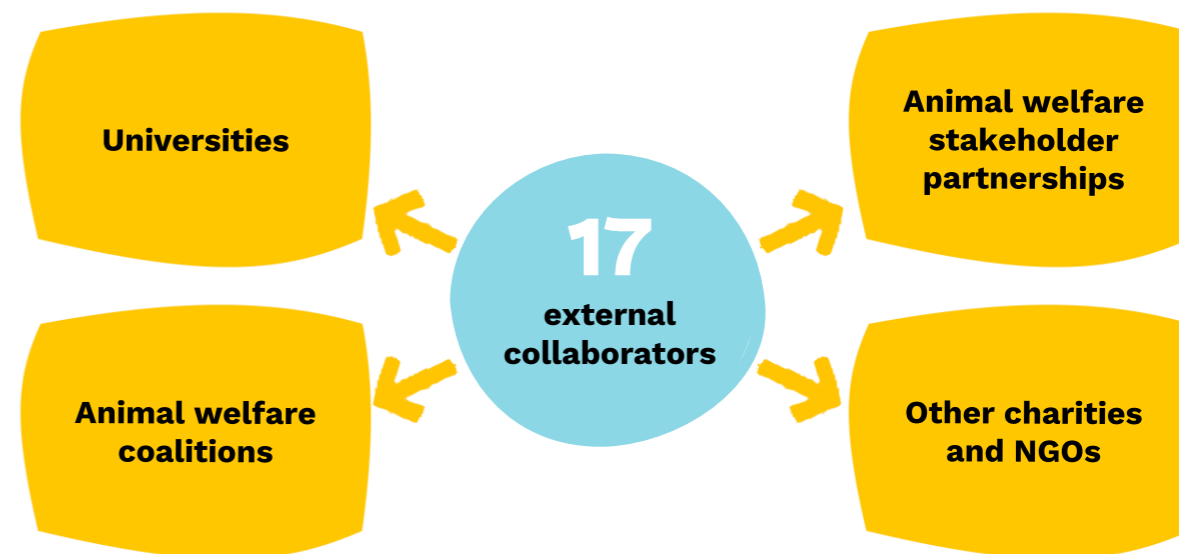
In 2022 and 2023 we attended with a stand, but this year (2024) was extra special as we were invited to give two plenary talks – Head of Research, Prof Rob Christley's “What the Pup?” featured findings from our National Dog Survey, whilst our Director Dr Rachel Casey talked about Generation Pup.

We're already making plans for attending NSL 2025 – so watch out for us next year if you're attending!

Collaborations with other researchers

We've had the pleasure of working and collaborating with a number of researchers and groups on a host of fascinating and insightful topics!

Who we have worked with:



We've also supported:



Interested in collaborating with us?



Watch this space!

In 2025 we will be...

Launching our next National Dog Survey, so get ready to celebrate the everyday joy of dogs with us. If you want to take part, please keep your eyes peeled for the new survey in May to June!



Rolling out the 2025 Dogs Trust Stray Dog Survey, which will mark 28 consecutive years of tracking stray dog data and local authority dog warden services in the UK.

Evaluating our Pet Friendly Housing Pilot to see how our accreditation scheme has helped tackle some of the barriers to keeping dogs in social housing.

We're updating our UK pet dog population estimate. This initiative will monitor changes in dog demographics, including breed and age, on a local and national scale. By observing these shifts over time, we can better understand their impact on dog welfare and develop proactive solutions.



Exploring how owners navigate whether to relinquish or keep their dogs during difficult circumstances.

Evaluating the pilot roll out of interactive whiteboards at three of our rehoming centres: Snetterton, Cardiff and Manchester, which allow us to track and analyse exercise and feeding routines, among other aspects of canine care.

Evaluating the impact of changes to Dogs Trust's relinquishment and adoption processes designed to drive improvements to dogs' rehoming journeys.

Presenting our work at New Scientist Live again, with a stand and live Q&A session. We'd love to see you there!

... and much, much more!



Our 2024 publications

[Puppy socialisation experiences in relation to age and COVID-19 lockdown restrictions in the UK and ROI.](#)

Our Generation Pup study examined the impact of age and lockdown phases on puppy socialisation experiences, finding puppies under 19 weeks had more diverse socialisation experiences as they aged, with a notable decrease post-lockdown compared to pre-lockdown. For 6-month-old puppies, most had recent interactions with new adults, dogs, or children, regardless of lockdown phase, though in-home encounters with new adults were less frequent during lockdown. Contrary to expectations, puppies did not have fewer experiences during lockdown, but the quality and quantity of these experiences may have been affected.

[Longevity of companion dog breeds: those at risk from early death.](#)

Our large study of nearly 585,000 dogs in the UK looked at how lifespan varies among different types of dogs. Factors like whether dogs were purebred or mixed breed, their specific breed (out of 155), body size, sex, and head shape were all included in the analysis. We found that a dog's family tree can tell us a lot about how long it might live, due to how humans have bred dogs over time.

[Owner expectations and surprises of dog ownership experiences in the UK.](#)

We explored what surprises new dog owners and how reality compares to their expectations by analysing free-text responses from 2,000 owners and classified expectations from over 354,000 participants from our 2021 National Dog Survey. The results showed that while many aspects of dog ownership met expectations, some areas surprised owners. Vet costs were higher than expected for most (52%), as were initial buying/rehoming costs (33%) and the patience required (25%). However, damage to furniture and gardens was often less than anticipated. The study identified four main themes of surprise: the emotional bond with dogs, impacts on human health and wellbeing, understanding dog behaviour, and meeting ownership demands.

[UK dog owners' pre-acquisition information- and advice-seeking: a mixed methods study.](#)

Dogs are the most popular pets in the UK, but little is known about how people research before getting one. Using our Choosing My Dog study data, we explored this topic with both current and potential dog owners. Most people who did research relied on websites, family and friends, and online forums for information. They typically sought details about dog breeds, ownership requirements, and how to find a dog. While most felt they found the information they needed, some struggled with conflicting advice and identifying trustworthy sources.

[Estimation of the size, density, and demographic distribution of the UK pet dog population in 2019.](#)

This paper from our UK Pet Dog Population Project combined data from multiple sources, including breed registries, vets, insurers, and charities, to create a comprehensive dataset of UK pet dogs in 2019. Using advanced statistical modelling, we estimated there were about 12.64 million owned and unowned dogs in the UK that year.

[Association between training methods and owner-reported problem behaviours in dogs enrolled in the 'Generation Pup' longitudinal study in the UK.](#)

This study explored factors linked to owners reporting problem behaviours in dogs during their first year in our Generation Pup cohort. Using the study surveys, we analysed various factors including training methods, owner personality, and previous reports of problem behaviour. We found that dogs were more likely to have reported problems at 12 months if their owners had reported problems earlier, if owners switched to more harsh training methods, or if they were first-time dog owners. Not seeing the dog's mother when acquiring the puppy and owners scoring higher in the 'openness' personality trait were also associated with increased problem reporting.

[Canine separation-related behaviour at six months of age Dog, owner and early-life risk factors identified using the 'Generation Pup' longitudinal study.](#)

This study investigated factors influencing separation-related behaviours (SRBs) in dogs, using data from our Generation Pup study. Puppies were less likely to develop SRBs if they slept for at least 9 hours and were confined overnight before 16 weeks old. Incomplete house-training and using treats for training were associated with increased SRB risk. Owners who used punishment or fussed over puppies after separation also saw higher rates of SRBs. Factors like breed, sex, and source didn't significantly affect SRB occurrence.

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