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ANIMAL WELFARE SCIENCE UPDATE

Issue 91 | October 2025

The aim of the animal welfare science update is to keep you informed of developments in animal welfare science relating to the work of the RSPCA. The update provides summaries of the most relevant scientific papers and reports viewed by the RSPCA Australia office in the past quarter.

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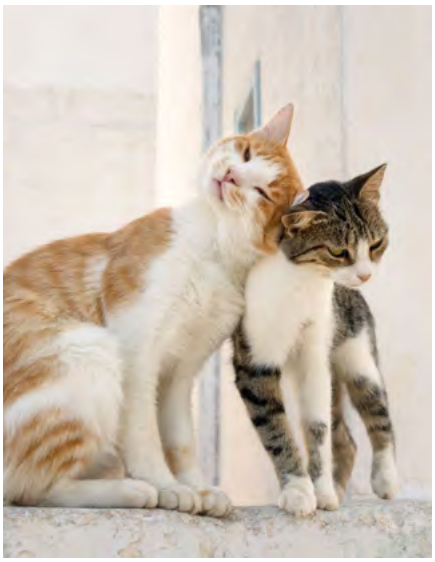
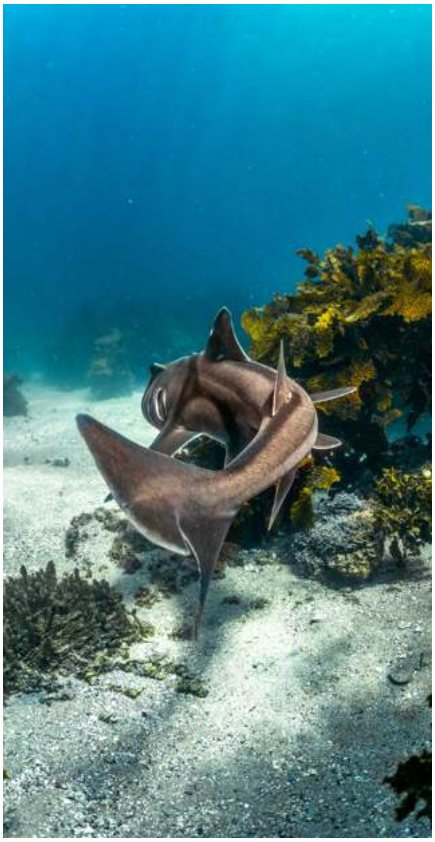
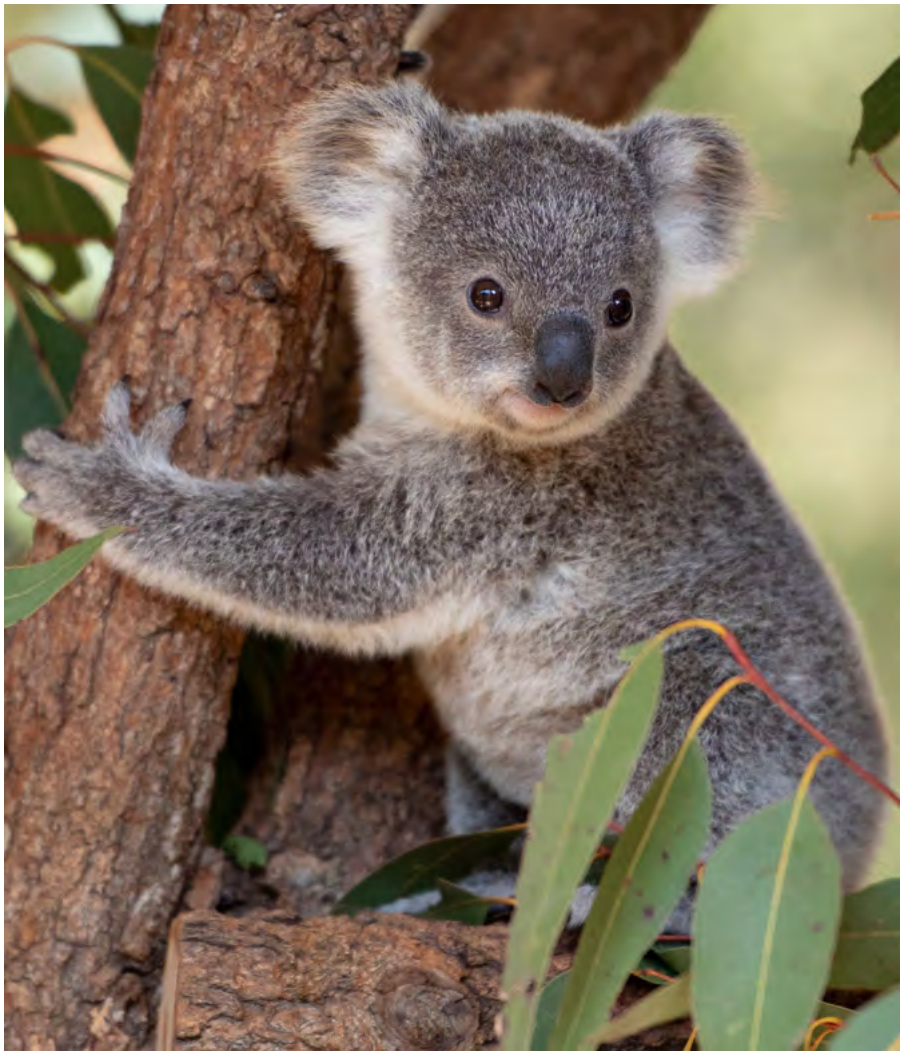
INCLUDED IN THIS UPDATE







ANIMAL WELFARE SEMINAR 2026

RSPCA Australia's Animal Welfare Seminar is an annual event - with much lively debate - bringing together key experts in animal welfare research.

Each year features a different theme, and provides a forum to explore pressing animal welfare issues through diverse perspectives.

Innovations in digital technology are rapidly emerging and expanding across the world.

In many industries, including farming and veterinary science, novel technologies are being implemented with the aim of addressing challenges such as welfare assessment, early detection of disease, and task automation. However, effective and ethical application of novel technology requires challenges and risks to be identified, in addition to the opportunities. There may be hidden costs to animals even when the intention is to improve their welfare.

The RSPCA Animal Welfare Seminar 2026 will explore how digital technology is being used to improve and safeguard animal welfare, and how risks can be identified and mitigated for the best outcomes as the digital age continues to expand and progress.

A recording of the presentations will be available on the website after the Seminar.

For more details visit ***https://www.rspca.org.au/learn/animal-welfare-seminar/***

COMPANION ANIMALS

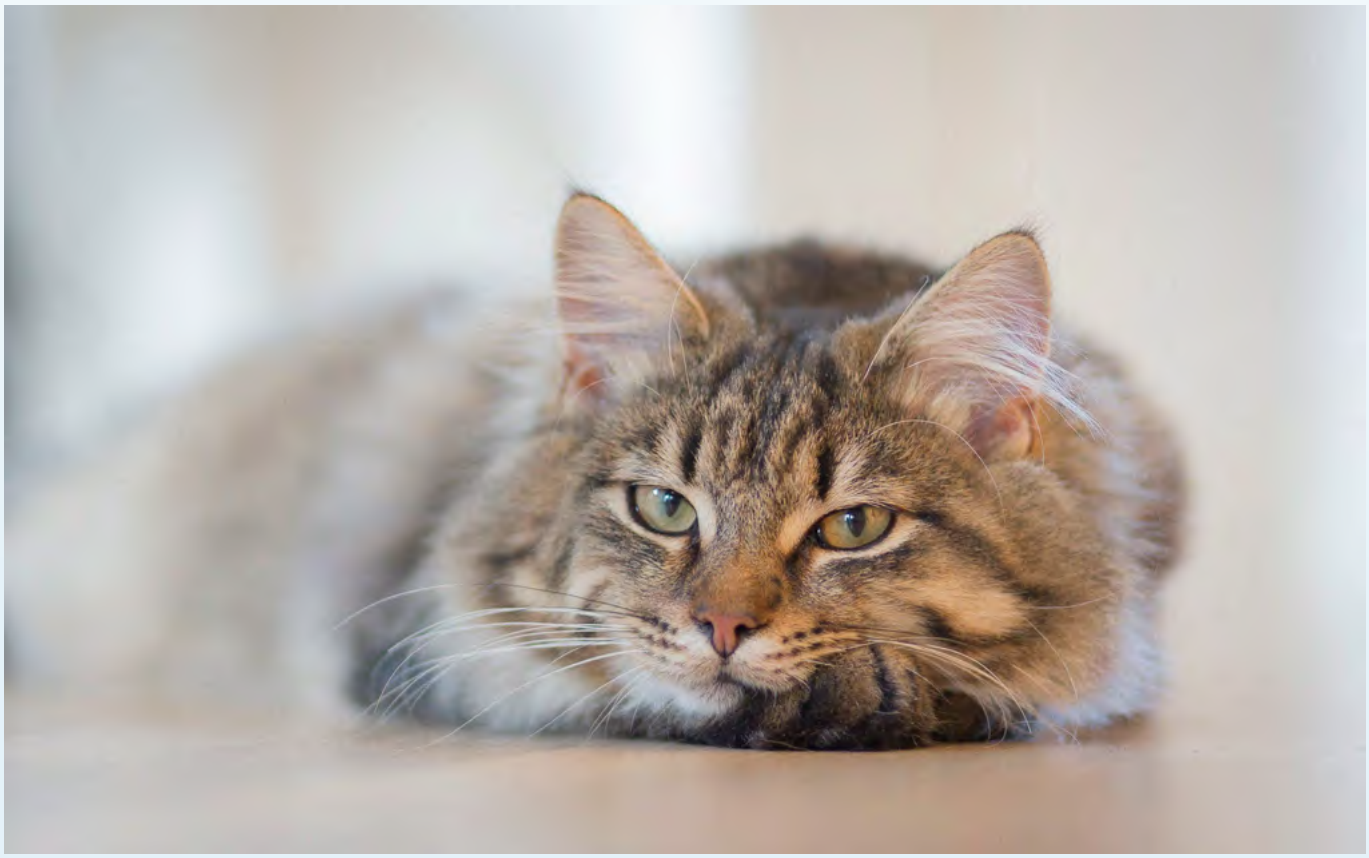
Cats' pain isn't always obvious, making objective pain assessment and appropriate pain relief vital

Surgical desexing of cats is a common procedure in veterinary practice, and whilst post-operative pain is known to impair wound healing, assessment of pain and provision of pain relief varies. Due to the difficulty in interpreting signs of pain in cats, several objective pain scoring systems exist, which are intended for use in veterinary practice to guide analgesic treatments. A 2024 survey of veterinarians and veterinary technicians in Ohio evaluated the degree of pain scoring system utilisation, analgesic use, and owner education about pain assessment post desexing surgery.

160 veterinarians and 204 technicians responded to the online survey, and whilst nearly 100% of desexing patients were provided with pain relief, less than one quarter of all respondents reported perioperative use of a pain scoring system. 80% of female cats were discharged with pain relief medication to be administered at home, often for a longer duration, compared to just over half of male cats. Conversely, more male cats (37%) were treated with local anaesthetic at the surgical site compared to females (26%). Whilst three quarters of respondents reported educating owners about how to subjectively monitor their cat for pain, less than 10% encouraged owners to use objective pain scoring tools.

The authors highlight concern about the limited use of feline pain scoring in veterinary practice, especially in regards to the post-operative period when pre-operative analgesics and anaesthetics are wearing off and pain can be experienced by patients, impacting their welfare and healing. 41% of respondents indicated interest in the utilisation of pain scoring systems, so further research could explore barriers to the uptake of feline pain scoring in veterinary clinics. Additional research should aim for greater sample sizes that may be better generalised across the veterinary industry and investigate the impacts of pain scoring systems on the welfare of feline patients.

Basra G, Ballash G, Matusicky M, O'Neil K, Muñoz KA (2025) ***Survey study based on the assessment and management of pain in cats by veterinary professionals after elective sterilization procedures****. J Feline Med Surg 27(8) https://doi.org/10.1177/1098612X251347156*



The role of breeders in shaping a dog's future life

Breeders have a significant impact on the future lives of the dogs they breed and these dogs' owners through breeding dog selection, rearing, and socialisation practices. Decisions about which dogs to breed from can influence expression of heritable health conditions and temperament in future generations, and puppy interactions during the critical socialisation period before pups go to live with their owners can shape a puppy's future behaviour. A survey of dog breeders in Australia aimed to explore the objectives and perceptions of dog breeders relating to dog selection and puppy raising practices.

Two hundred complete survey responses were received via recruitment of participants through dog breeding forums and relevant social media groups between 2021 and 2023. Over half the respondents had greater than 16 years of breeding experience and owned three or fewer breeding dogs. The most commonly reported motivation for breeding was to improve the breed, with only 11% reporting that financial gain was a motivator. 97% of respondents performed some type of health screening, most commonly genetic testing, followed by hip and elbow screening. Behaviour was the most common motivator for breed selection, and three-quarters or more respondents would not breed from a dog that demonstrated aggression, fearfulness, or anxiety. 97% of respondents provided socialisation with humans multiple times daily, and over half followed a published socialisation protocol.

These results provide positive indications that breeders are motivated by improving their breed, consider health and temperament in their breeding decisions, and recognise their role in the future behaviour of pups they breed. The authors caution against generalising the findings, as most respondents were small-scale breeders and members of Dogs Australia, bound by its rules, regulations, and code of ethics. Further research should focus on recruiting more representative samples, including large-scale breeders and those not registered with Dogs Australia.

Dawson JK, Tepper DL, Ruby MB, Howell TJ, Bennett PC (2025) ***A quantitative exploration of Australian dog breeders' breeding goals, puppy rearing practices and approaches to socialisation****. Anim 15(5):2302*

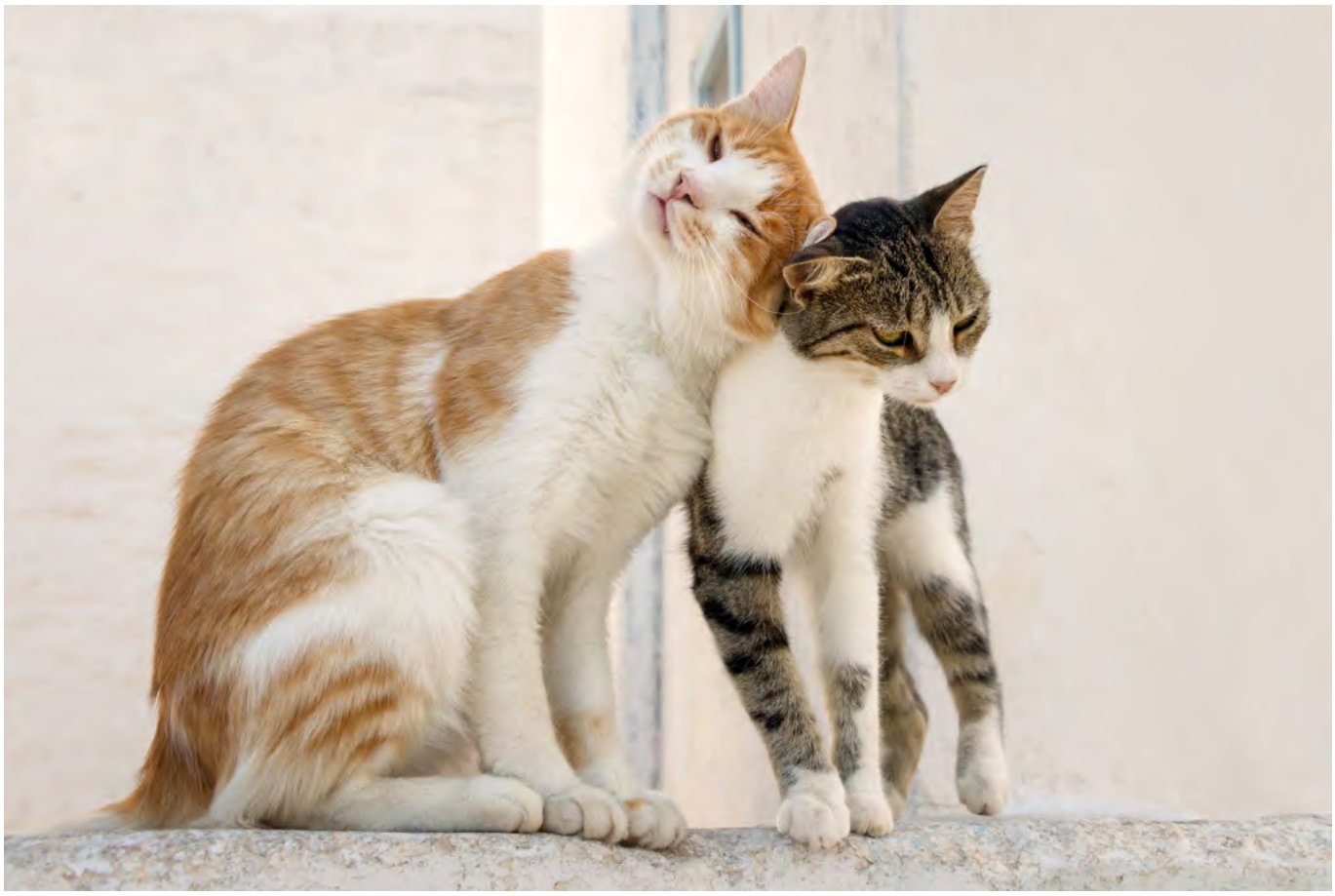
If a puppy goes to Puppy School, where does a kitten go? Exploring cat owner understanding of kitten socialisation

Throughout the sensitive socialisation period during early kittenhood, the feline brain experiences heightened neural plasticity (the brain's ability to respond to experiences by making new connections). Socialisation, involving interactions with people, other animals, and environmental stimuli, can create associations with these stimuli, shaping how kittens respond behaviourally throughout life. A survey of North American cat owners explored owners' understanding of kitten socialisation programs.

An online survey captured responses from 2238 participants, three-quarters of whom were women, most commonly owning one to two cats. The survey examined participant and pet demographics, experience with socialisation, and sources of information about socialisation. Three-quarters of respondents had acquired a cat from a shelter, with the majority aged between 10 weeks and one year old at acquisition. Less than 2% had participated in a kitten socialisation program, and approximately 30% were aware of the existence of such programs. Most participants reported not receiving thorough socialisation information from shelters, breeders, or pet stores, and the majority obtained information about socialisation from the internet. Half the respondents indicated interest in utilising a socialisation program in the future, and this was higher amongst those who reported behavioural challenges with their cat. The most common reasons for interest in socialisation programs were strengthening their bond with the cat and improving their cat's health; however, approximately 40% of respondents expressed concern about the risks of infectious disease.

These results demonstrate that interest in socialisation programs exists amongst cat owners. Provision of virtual socialisation classes may increase ease of access and reduce disease risks. Veterinarians should be educated about the importance of kitten socialisation and signpost owners to reputable online information sources. Future research is required to provide evidence-based content for kitten socialisation programs and to examine the impact of such programs on the future behaviour and welfare of pet cats.

Link JK, Moody CM (2025) ***Socialising kitties: A quantitative survey of US cat owner attitudes towards kitten and adult cat socialisation programmes****. Anim Welfare 34(e39):1–14*



Exploring the complexities of cat population management

Cat population management is a multifaceted challenge; potential solutions must consider both owned and unowned cats, root causes of overpopulation, and community contexts impacting perception of and behaviour towards cats. Cat overpopulation, impacts not only cat welfare, but also the environment and people through disease, nuisance behaviours, and wildlife predation. This review presents global evidence-based rationale towards enhancing the effectiveness of cat management within the UK.

Cat management strategies must incorporate targeted interventions for three interconnected cat subpopulations: owned cats, unowned cats, and shelter cats. Local cat population size will be determined by the local environment's 'carrying capacity', largely driven by food supply. Trap-neuter-release/rehome (TNR) and culling practices can be unsuccessful due to rebound repopulation when the food-to-cat ratio improves or through cat migration from neighbouring areas. Geographically varied cultural contexts impact the acceptability of various cat management strategies. For example, lethal control of unowned cats is considered necessary in some countries whereas lethal control is not considered a routine option in others, and neutering may be unacceptable in certain countries and cultures. Understanding community-specific perceptions of and behaviour towards cats is also crucial to enable targeted education about feeding of unowned cats, benefits of neutering, and expectations of pet ownership to reduce relinquishments and straying.

The review provides several evidence-based recommendations to enhance the success of cat management practices. Neutering will have the greatest impact if younger, female cats are targeted, and affordability and accessibility of neutering must be addressed to encourage uptake amongst the owned cat population. TNR programs must be long-term, with adequate intensity (up to 90% of females must be neutered), and should be paired with appropriate removal and rehoming to be most effective. However, rehoming through shelters should only be undertaken for cats who are amenable to a pet cat lifestyle to avoid shelter overpopulation, negative impacts on cat welfare, and impaired rehoming success.

McDonald JL, Hodgson DJ, Roberts C, Finka L, Halls V, Foreman-Worsley R (2025) ***Domestic cat management in the UK: Learnings from a global perspective****. Front Vet Sci 12:1610123*

How use of accelerometers can accelerate our understanding of enrichment for dogs

For dogs housed in confinement, environmental enrichment is a key component of welfare improvement through enabling broadened behavioural repertoire and cognitive capacity. However, there is no standardised approach to measuring the success or welfare impact of various enrichment types, typically relying on subjective behavioural observations. Accelerometry coupled with machine learning is increasingly being used to objectively measure behaviour, and a study conducted at Massey University utilised a collar-mounted device to assess behavioural responses to three different enrichment types in dogs housed at a university facility.

Three pairs of dogs were rotated between three paddocks, in which they received either food, olfactory, or tactile (toy) enrichment daily over five consecutive days, with a four-day rest period before rotating to the next enrichment paddock. Accelerometer data was collected over a three-day baseline period and then continuously during the five-day enrichment periods. Video footage was used to measure the duration of interaction with enrichment items. Dogs had the greatest interaction with food enrichment, followed by olfactory and tactile, with tactile items receiving exponentially declining interaction. Time spent active was higher during the first hour of all enrichment and was the highest with food enrichment. Overall activity varied greatly between individual dogs; however, when the 'dog' effect was accounted for, overall time spent active was lower during all enrichment types compared to baseline.

Whilst there were some confounding variables, such as paddock location and size, which could be overcome in future research, this study supports accelerometry as a promising method to objectively measure changes in behaviour related to enrichment. Food enrichment appeared the most engaging, and results indicate that enrichment can lose novelty over time. Variation in results between dogs suggests that findings should be compared to each individual's 'normal' behaviour to interpret impacts of various enrichment types and develop individualised enrichment plans.

Redmond C, Draganova I, Corner-Thomas R, Thomas D, Andrews C (2025) ***Evaluating the effects of novel enrichment strategies on dog behaviour using collar-based accelerometers****. Pets 2(2):23*

Meeting our cats' needs; exploring the provision of the five pillars of a healthy feline environment amongst cat-owning households

Despite their popularity as pets (with 11 million in the United Kingdom), previous studies indicate that the welfare needs of many pet cats are not adequately met. This can lead to undesirable behaviours which may impair the owner-cat bond and contribute to relinquishment. A 2021 survey sought to explore how well the five pillars of a healthy feline environment are applied in UK cat-owning households. The five pillars consist of a safe place, allocation of multiple and separated key resources (such as food and litter trays), opportunities for play and predatory behaviour, consistent and positive human-cat interactions, and an environment that respects the feline sense of smell.

The survey was distributed on social media and received 565 complete responses; it consisted of 35 questions examining cat demographics and lifestyle, structured around the five pillars. 56% of homes had multiple cats, with more than three-quarters of these providing separate food bowls per cat, 30% having separate water bowls, and 83% providing the same number or fewer litter trays than the number of cats in the home. More than 50% of households reported using home fragrance devices, and two-thirds reported their cat demonstrated problem behaviour/s, with a greater likelihood of inappropriate urination and scratching occurring in multi-cat households. Fewer behaviour problems were reported by owners who provided more than 25 minutes of play with their cat daily.

The results indicate there is scope for improved cat owner education about the importance of adequate quantity of litter trays and food and water bowls, appropriate locations for food and water and the impact of home fragrances on cats, all of which may not align with owner preferences or convenience. Additionally, as many respondents sought information from veterinarians, the importance of veterinary education about cat behaviour is emphasised. Increased application of the five pillars in cat-owning homes will reduce stress, illness, and consequent problem behaviours, providing an overall positive benefit to cat welfare.

Taylor S, Mackie IM, Heath S, Paramasivam SJ (2025) ***Feline management practices and resource provision in the UK: A questionnaire-based study of 565 caregivers****. Vet Rec 197(3):e5561*

FARM ANIMALS

This theory has teeth! Exploring dental condition as an insight into sheep welfare

In prey species such as sheep, behavioural indicators of health compromise can be difficult to detect for some conditions, so physical indicators are often used to gain insights into health-related welfare states. A study undertaken in Australia explored associations between dental disease, age and body condition to better understand the welfare implications of dental disorders in sheep. This research fills a knowledge gap about the prevalence and impact of tooth wear on production and welfare of sheep.

Eight hundred and eighteen Dohne Merino ewes ranging from two to ten years of age were studied, selected from an extensive pastoral grazing flock in South Australia. Measurements and visual assessments of teeth and body condition scoring was undertaken during routine husbandry procedures. A scoring system based on the degree of dentine exposure compared to crown surface area was used, with the presence of enamel fractures, enamel wear, missing teeth, and gum inflammation also recorded. Results revealed a significant increase in incisor wear and reduced incisor length with increasing age and poorer body condition. A greater impact on body condition was observed when incisor wear had occurred in younger sheep.

Due to these correlations, the researchers conclude that incisor wear is an important indicator of sheep's ability to maintain body condition, with worn teeth likely impairing grazing ability and thus leading to inadequate nutrition. This has implications for sheep welfare due to the potential for adverse states such as hunger and impaired ability to withstand illness and injury. The authors acknowledge that the prevalence of dental wear may have been underestimated, as poorly productive sheep with suboptimal body condition may be culled from the flock through standard farm management procedures. Dental assessments may provide a useful welfare indicator and allow early identification of individual sheep at risk of welfare compromise via poor nutrition.

Holt AS, Langford FM (2025) ***Assessing the relationship between incisor wear, age, and body condition in Dohne Merino ewes (Ovis aries)****. Anim Welf 34(e53):1–11*

Starting early: Understanding behavioural development during the broiler's first week of life

Despite the first week of life making up 8-16% of the lifespan of the nine billion broiler chicks grown per year in the United States, relatively little is understood about their early behavioural development. To utilise behaviour as an indicator of welfare, knowledge of normal behaviour is required. As genetic selection progressively changes phenotype, and production systems evolve, alterations to 'normal' behaviour of broiler chicks must continue to be explored. A study conducted in the USA aimed to fill this knowledge gap.

The behaviours of nine randomly selected broiler chicks within an overall group of 75 Ross 308 chicks were monitored from one to seven days of age. Behaviours were coded using an ethogram adapted from previous research, consisting of 24 behaviours divided into seven types: active, resting, nutritive, comfort, explorative, social and play. Duration of each behaviour as a proportion of time recorded and behaviour sequences were identified. For example, after drinking, there was a 29% probability that a chick would sit and a 19% probability they would stand. Most behaviours followed a pattern of increasing or decreasing as chicks aged, for example, sleeping decreased linearly as age increased, in contrast to wing-flapping and scratching. Resting was the most prevalent behaviour overall and would occur most commonly at the conclusion of other behaviour sequences. Behaviours also demonstrated time-of-day patterns, for example, walking and running predominantly occurred during the morning.

The results of this study provide insight into the rapid and dynamic development of behaviours and expansion of behavioural repertoire in the early life of broiler chicks. Insight into the prevalence of resting behaviours indicates that housing systems should provide opportunities for undisturbed rest. To translate these findings into meaningful measures of welfare, further research should focus on the relationship between each behaviour and welfare, across larger sample sizes and various breeds.

Jackson A, Landers D, Bourassa D, Purswell J, Baker-Cook B (2025) ***Characterizing the development of normal behaviors in broiler chicks during early life****. Poult Sci 104(9):105436*

Where next with wearables? Validation is key to eliciting welfare improvements for dairy cattle

Numerous wearable sensors that measure cow behaviour are commercially available. Detection of variations from normal behaviour can be indicative of illness, injury or reproductive status. Remote herd-wide monitoring of these parameters via wearables can be beneficial for production and animal welfare alike. There is, however, variability in the methods used to validate wearables, relating to their reliability, accuracy and precision which impacts the environmental or production contexts that they may be applicable to.

A literature review was undertaken to explore the variety of validation methodologies for wearables and to assess these against the researcher's criteria for validity. This was defined as greater than 85% precision, reporting of reproducibility criteria and confirmed absence of bias. The scoping review identified 101 existing studies on 59 wearable devices used for dairy cattle. The most commonly measured behaviour by wearables was active behaviour (standing, walking, head movements), followed by consumption (eating or drinking) and resting. Of the studies reviewed, only 40% calculated precision and only 35% of those assessed bias. Only seven of the 59 commercially available wearables met the researcher's definition of validity based on the studies reviewed.

The authors emphasised the need for standardised reporting, methodology, and behavioural categorisation in validation studies of dairy cattle wearables. They recommend that studies report their statistical methods, calculate both precision and bias, and avoid labelling devices as valid in the absence of these measures. The authors also highlight the importance of results showing suboptimal validity still being published. Implementation of these recommendations would enable large-scale comparison across devices and informed decision-making by dairy farmers. Ultimately, the identification of valid wearable technologies that provide precise, reproducible, accurate, and unbiased data has the potential to enhance both dairy cattle productivity and cow welfare.

Lee A, Brause M, Foy D, Cantor MC (2025) ***Review: Establishing precision, bias, and reproducibility standards for dairy cattle behavior sensors****. Anim 19 (Suppl 2):101613*

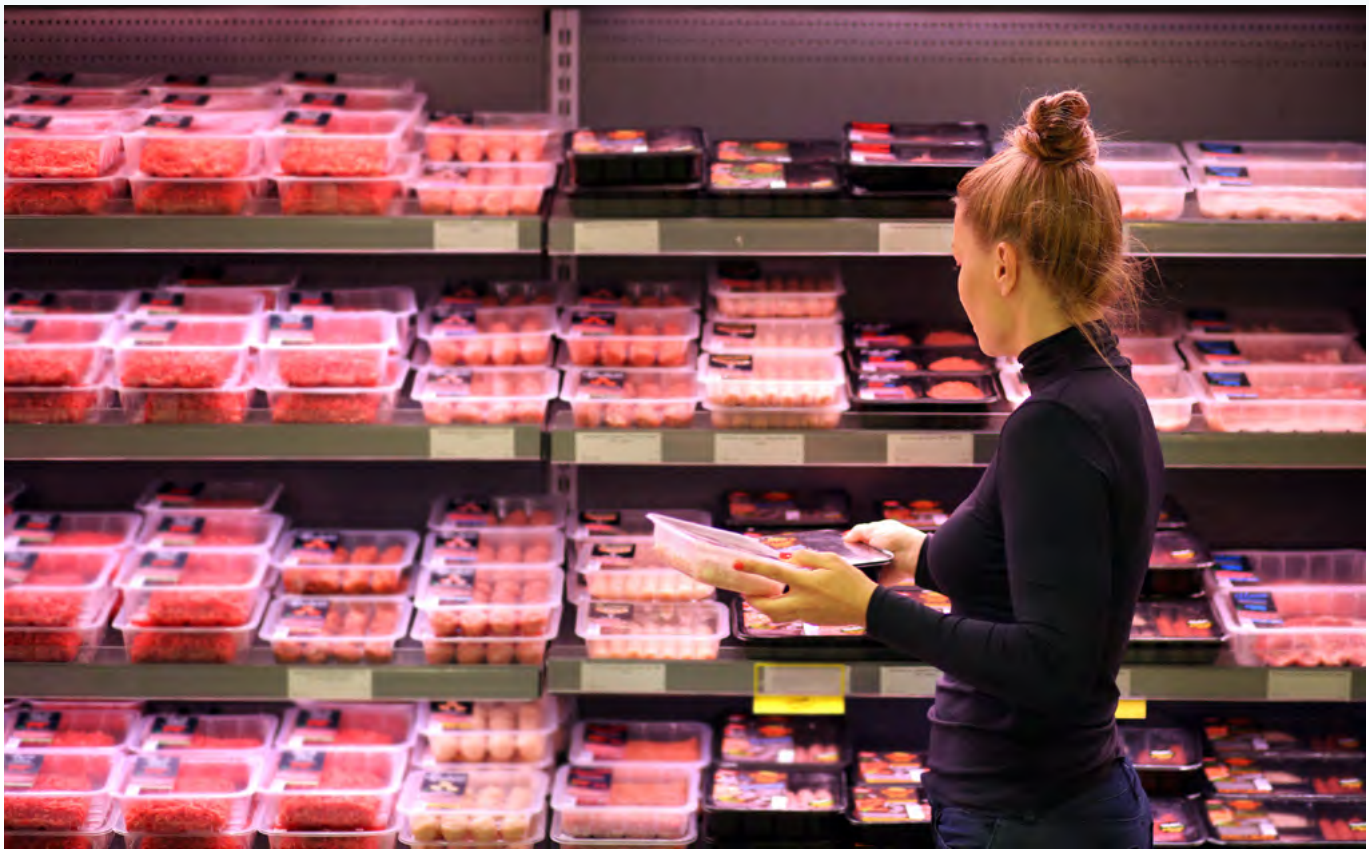
Germany and Italy are a case study for divergent trends in meat consumption

Meat consumption exceeds dietary requirements in high-income countries and farm animal production is a major contributor to greenhouse gas emissions. Increasing alternative protein sources in our diets has the potential to mitigate climate change; however, food choices are known to be driven by interactions between socio-economic, demographic, health and ethical factors. These considerations vary between countries and cultures, with health, animal welfare and environmental concerns identified as common drivers for reducing meat consumption. A study examines the differing factors influencing meat consumption trends since the 1980s in Germany, where consumption has declined, and in Italy, where it has increased.

Five hundred and eighty respondents from Germany and Italy participated in an online survey exploring the dietary choices, demographics and attitudes towards the environment of young adults. The General Ecological Behaviour scale was used to assign respondents an environmental attitude; a higher score indicating increasing concern for environmental matters. Distinct differences were identified between the two countries. Health was reported as the primary driver for reducing meat consumption in Italy, compared to animal welfare and environmental concerns in Germany, where there was a higher average environmental attitude, and this was the strongest predictor of reduced meat consumption across all respondents. In both countries, living with parents was associated with higher meat consumption and a minimal probability of following a vegan diet, with this effect stronger in Italy.

These findings align with previous research indicating that meat consumption reduction is being driven by enhanced environmental awareness, animal welfare, and human health. The results highlight significant cultural differences relating to family dynamics, which provide an opportunity for meat-reduction marketing and education strategies to be tailored by country or culture. The authors recommend further similar studies, with larger and more representative sample sizes, and the use of validated scales to further assess the impact of human health and animal welfare concerns on meat consumption.

Peri M, Trentinaglia MT, Adler M, Zanaboni AM, Baldi L (2025) ***Framing the meat consumption transition: A statistical learning approach to explore the factors shaping young adults' food choices in Germany and Italy****. Meat Sci 228:109899*



How pain impacts playtime: Exploring the impact of painful husbandry procedures on play in calves

It has been demonstrated that welfare compromise, such as pain, can impair play behaviour in calves. Calves typically endure painful experiences during routine husbandry, such as disbudding (removal of the horn buds). A Canadian study evaluated post-disbudding variations in play behaviours, and whether pessimism influenced play behaviour alterations. More pessimistic individuals were expected to have a more negative experience of pain.

Nineteen female Holstein calves had individual pessimism scores assigned at 25 days of age using a judgement bias test, and were disbudded at 45 days old under sedation and local anaesthetic. Play duration and type were recorded for 13 consecutive days, with disbudding occurring on the sixth day.

Three types of play were investigated: play-fighting (head-butting or pushing with the head), locomotor play (such as leaping, kicking or trotting) and parallel locomotor play (two or more calves engaging in locomotor play simultaneously). Play flighting decreased on the day of disbudding and remained below the pre-disbudding baseline. Locomotor play increased on disbudding day, whilst parallel locomotor play decreased, but all locomotor play trended above baseline for the seven days post disbudding. Pessimism resulted in a smaller increase in locomotor play, potentially due to a more negative experience or anticipation of pain.

The authors concluded that individual locomotor play may not be a sensitive indicator of pain, as it did not decrease on the day of disbudding. It was postulated that calves avoided play-fighting because head-contact was painful following disbudding and given that play-fighting did not recover to baseline levels within the study period, this may have motivated calves to compensate by increasing other play types. Further investigation is required into the welfare implications of reduced play-fighting, and whether or when this behaviour returns. Future studies should explore whether providing analgesia for disbudding reduces pain-related impacts on calf behaviour and welfare.

St John Wallis A, Held SDE, Mendl MT, von Keyserlingk MAG, Weary DM, Lecorps B (2025) ***Pain and pessimism affect calves' play behaviours post-disbudding****. Discov Anim 2:50 https://doi.org/10.1007/s44338-025-00105-7*

Exploring the lighting type preferences of broilers

The type, intensity and duration of lighting that meat chicken (broiler) chicks are exposed to impacts their behaviour and health. Improved physiological and production measures associated with the provision of UV-A light have been demonstrated however meat chicken preferences should be investigated and considered in any production system changes. A Dutch experimental design explored meat chicken behaviours and food consumption, in both fast and slow growing birds, with or without UV-A exposure.

One hundred and sixty-eight meat chickens, equally divided for sex and breed (Ross 308 fast-growing and Hubbard JA757 slow-growing) were housed in evenly mixed pens of six chicks and had either baseline (non UV-A) or UV-A and baseline light provided. Lights were located on one side of a partition in each pen. Chicks could move freely between pens. Location of chicks within the pens was recorded by an object detection model via video footage, and behaviours were scored by a trained observer and categorised as eating, drinking, active, standing, inactive, foraging or comfort behaviours. Feed intake was measured by repeated weighing of feeders. Findings indicated a slight preference for UV light in the first weeks of life, and higher food intake occurred under UV light during this 'starter' period. More drinking occurred with UV light, and Hubbard birds demonstrated more foraging in non-UV light. Minimal other influence of lighting on behaviour was ascertained. Likewise, breed did not appear to impart a lighting preference.

The results indicate that genetic selection for fast or slow growth does not appear to influence lighting preferences, rather, there appears to be individual variation between birds. Evidence for a definitive preference for UV-A over non-UV lighting was not identified, nor any significant influence of lighting type on behaviour or food intake. From this study it can be concluded that providing choice in lighting conditions could enable meat chickens to express varying preferences at different ages, times and for different behavioural outlets, which may offer welfare enhancements.

Van der Sluis M, van der Eijk JAJ, Bekhit R, te Beest DE, Gunnink H, Melis S, de Jong IC (2025) ***Ultraviolet light provisioning: preferences from the broilers' viewpoint****. Appl Anim Behav Sci 292:106759*

ANIMALS IN SPORT, ENTERTAINMENT, PERFORMANCE, RECREATION AND WORK

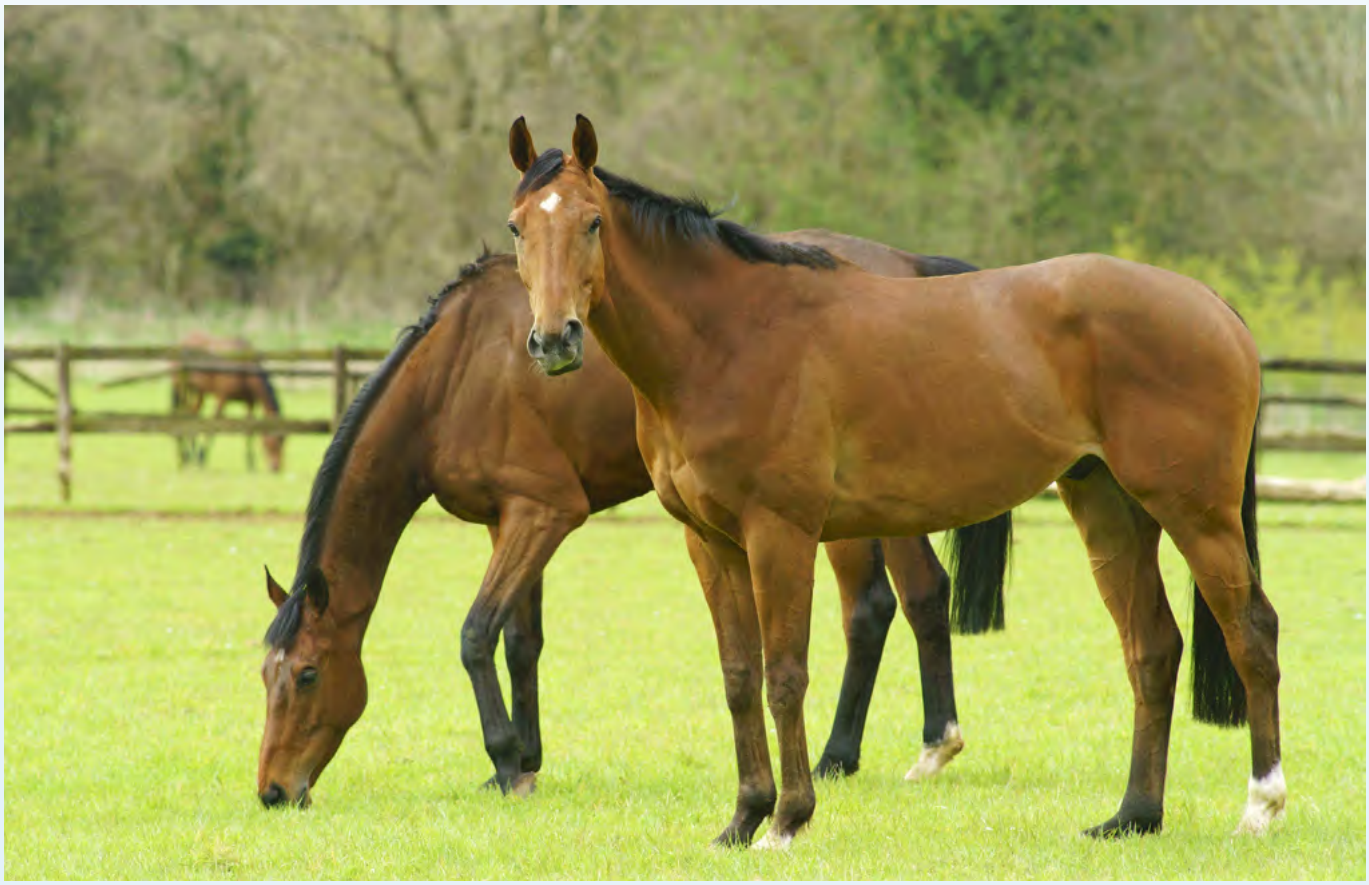
An assessment protocol for off-track welfare of racehorses

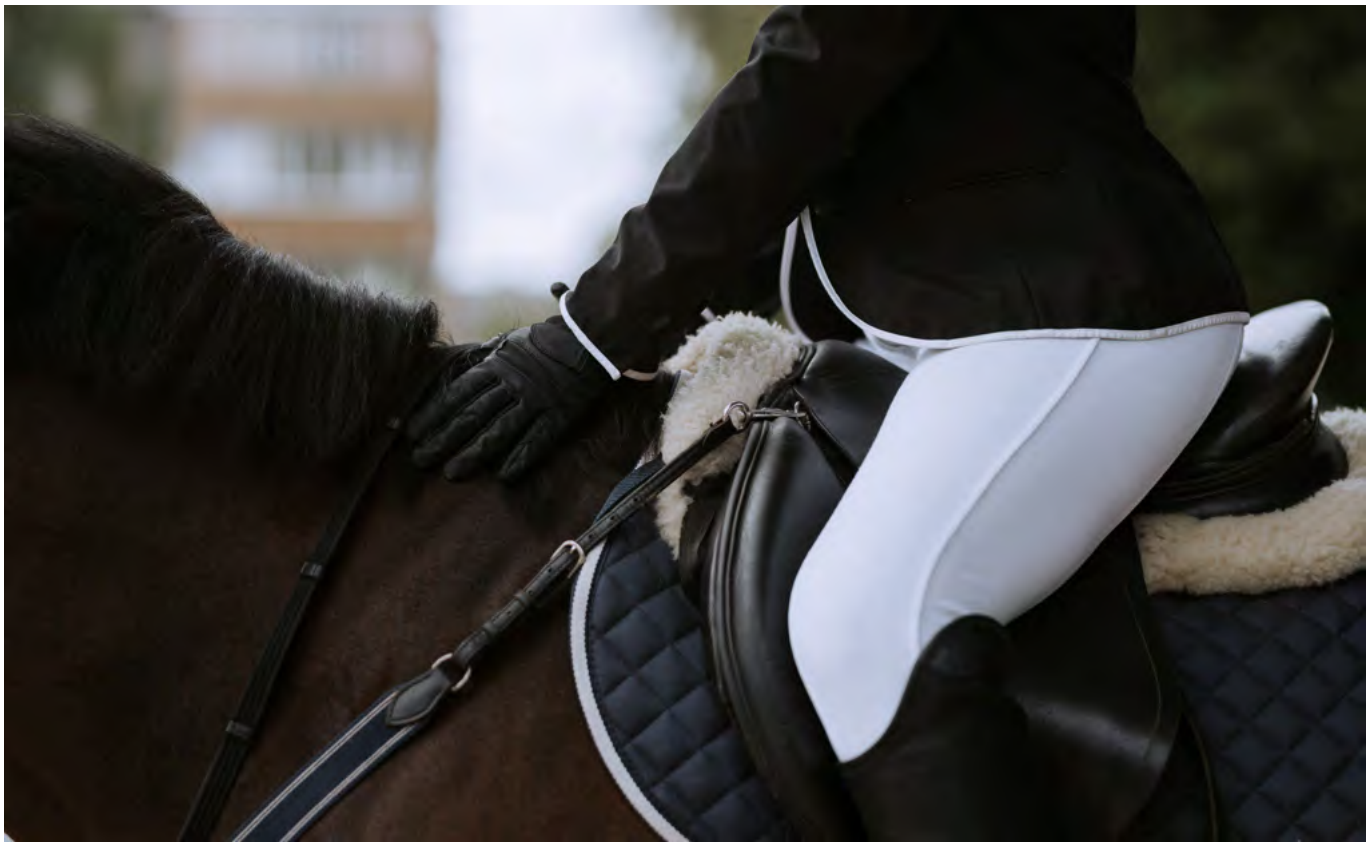
Horseracing is the second largest spectator sport in the United Kingdom; however, with growing social scrutiny on the welfare of racehorses comes increasing expectations for transparent monitoring of racehorse welfare. A study conducted on a representative sample of the 16000 racehorses in Great Britain revealed prevalence data on animal and resource-based welfare indicators of horses in their training stables and provides insight into methods for ongoing monitoring of their welfare.

Sixteen trained industry assessors performed a standardised assessment protocol on 737 racehorses across 74 stables in 2020. The assessment involved environmental observations, behavioural scan sampling against an ethogram and health indicators such as the presence of nose or eye discharge, mouth lesions and body condition score. 48% of horses had opportunities for physical social contact, and 27% were turned out (had access to open spaces such as paddocks) daily; however, nearly half were turned out less than weekly. 17% of horses in the study demonstrated stereotypic or abnormal behaviours. Symptoms indicating respiratory or eye diseases were present in 18% of horses, and a similar percentage had mouth lesions. 22% of horses were found to be outside the 'ideal' body condition score range.

When compared to similar previous studies, the findings for social contact and turnout were more favourable, whilst the prevalence of mouth lesions was less favourable and stereotypic behaviours were similar. The data from this study contributes towards a greater understanding of the baseline welfare of racehorses. Feedback from assessors identified several improvements to the assessment methodology, which can be utilised in future larger-scale and longitudinal studies to explore trends in racehorse welfare over time. Insights into the welfare of the wider racehorse population can be utilised to guide and monitor industry interventions aiming to enhance the lives of racehorses.

Annan R, Trigg L, Allen K, Hockenhull J, Valenchon M, Mullan S (2025) ***Welfare assessment of racehorses provides a baseline for continued monitoring****. Equine Vet J https://doi.org/10.1111/evj.14510*





Instrumentalisation, cognitive dissonance and enculturation: Exploring concepts influencing equestrians' perception of performance horse welfare

Within equestrian disciplines, horses are exposed to several practices that impair their welfare. The rate of improvement in welfare-compromising practices within the equestrian community appears to be lagging behind the growing concerns for animal welfare that exist within the general population. An exploratory qualitative study aimed to investigate attitudes and values that drive the way performance horses are handled and cared for.

Twenty-two participants within dressage, showjumping, hunting and eventing disciplines enrolled in a study advertised via social media and undertook semi-structured interviews exploring their attitudes towards horse welfare within their sport. Reflexive thematic analysis of the interview transcripts revealed five main themes. First, whilst participants demonstrated concern for horse welfare, they often reframed or trivialised welfare-compromising practices, such as lack of turnout, with the justification that the horses are generally well cared for. Secondly, a conflict was identified between the horse's job being seen to contribute to a 'good life' whilst simultaneously placing restrictions on behavioural freedom to 'be a horse' which is also considered a component of a 'good life'. Needing to do a job delineates the third theme of horse objectification, with their value being based on performance-enhancing traits. Instrumentalisation of horse care practices to support human desires, such as horse performance and social licence, was identified as the fourth theme. Finally, the equestrian culture appears to normalise welfare-compromising care and training practices and reject opinions of industry outsiders.

This study provides insight into human factors influencing how horse welfare is viewed and supported within the equestrian community. Cognitive dissonance may lead to uncomfortable feelings for equestrians, resulting from conflict between concern for horse welfare and enculturation of welfare-compromising practices. Leveraging the discomfort of cognitive dissonance may be a method to change attitudes and behaviours of some individuals within the industry and promote improvements to horse welfare.

Cheung E, Mills D, Ventura BA (2025) ***"But my horse is well cared for": A qualitative exploration of cognitive dissonance and enculturation in equestrian attitudes toward performance horses and their welfare****. Anim Welfare 34, e50:1–13*

ANIMALS IN RESEARCH AND TEACHING

Pathways to reduced animal use in research with New Approach Methodologies

Despite a long, well-established history of animal use in research for the development of human medicine, poor translatability between animal studies and human outcomes contributes to a high failure rate in clinical trials. Despite this and the existence of frameworks to reduce animal use in research, over 2.5 million animals continue to be used annually in the UK. Concerningly, the opinion that animals cannot be effectively replaced in research appears to be held by many researchers. A review of non-animal 'New Approach Methodologies' (NAMs) aims to explore the obstacles to the adoption of NAMs and provide recommendations to facilitate accelerated uptake.

Two main NAMs models exist: in vitro models involve hydrogels, spheroids and organoids that mimic tissue or organ environments, while in silico techniques use computer simulations on existing datasets to predict how new drugs may behave or drug toxicity. Concerns regarding NAMs include lack of reproducibility, reliability and standardisation due to their comparative newness. NAMs can replicate part of an organ but not the entire system or a being's function, and a lack of familiarity with the concept leads to researcher hesitation. Evidence also points to 'animal publication bias', whereby reviewers expect data from animal research, and relatively less funding is available for NAMs.

The authors of this review provide four pathways to increasing adoption of NAMs: improving knowledge within the sector through incorporating NAMs in academic curriculum, incentivising NAM use with enhanced funding, interdisciplinary collaboration, and standardisation of NAMs. Increasing adoption of NAMs in place of animal use in research has the potential to not only reduce costs and accelerate human medical advancement through greater translatability but also reduce reliance on animal use. To harness these benefits, further research, education and funding of New Approach Methodologies must be prioritised.

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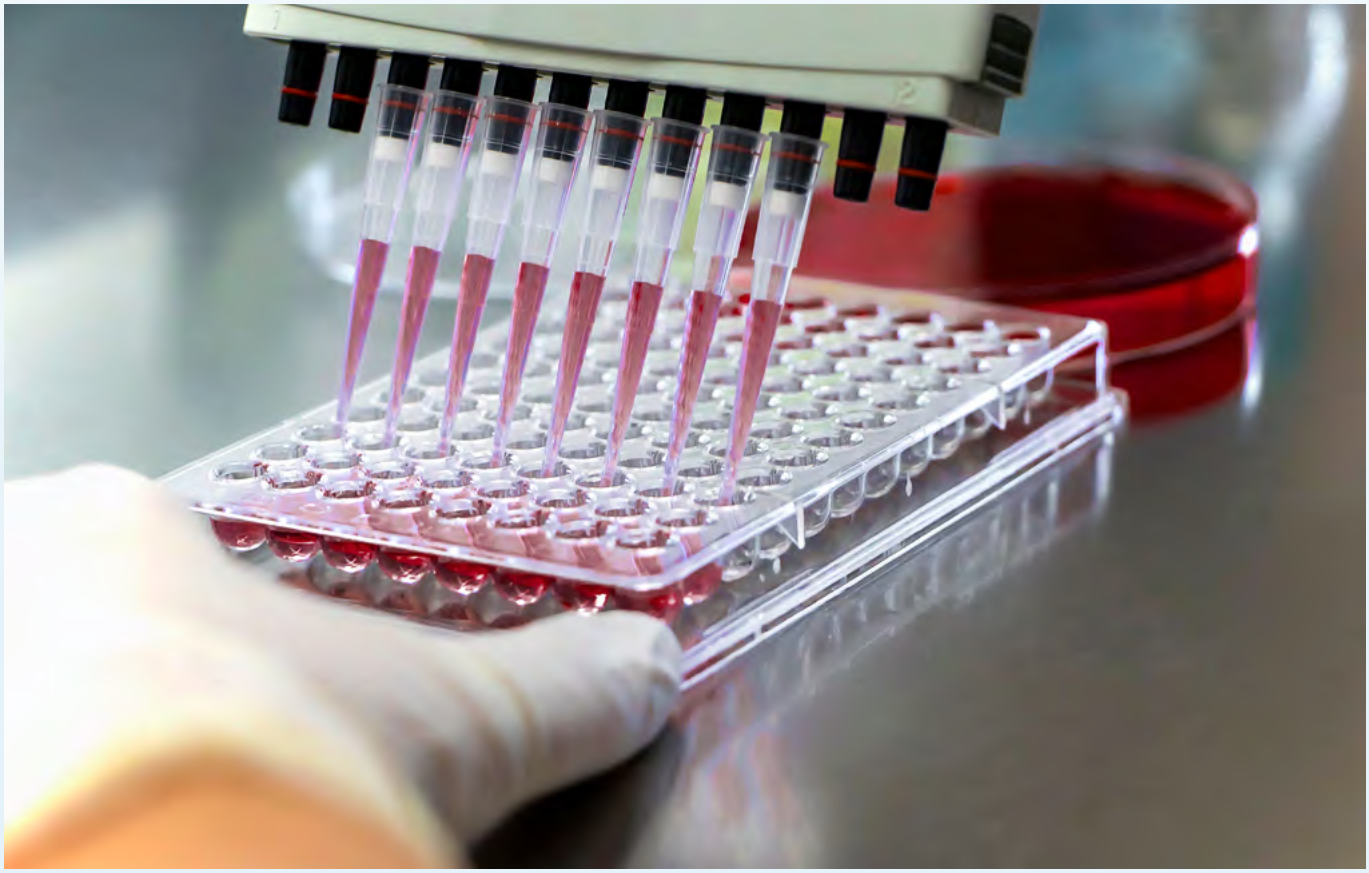

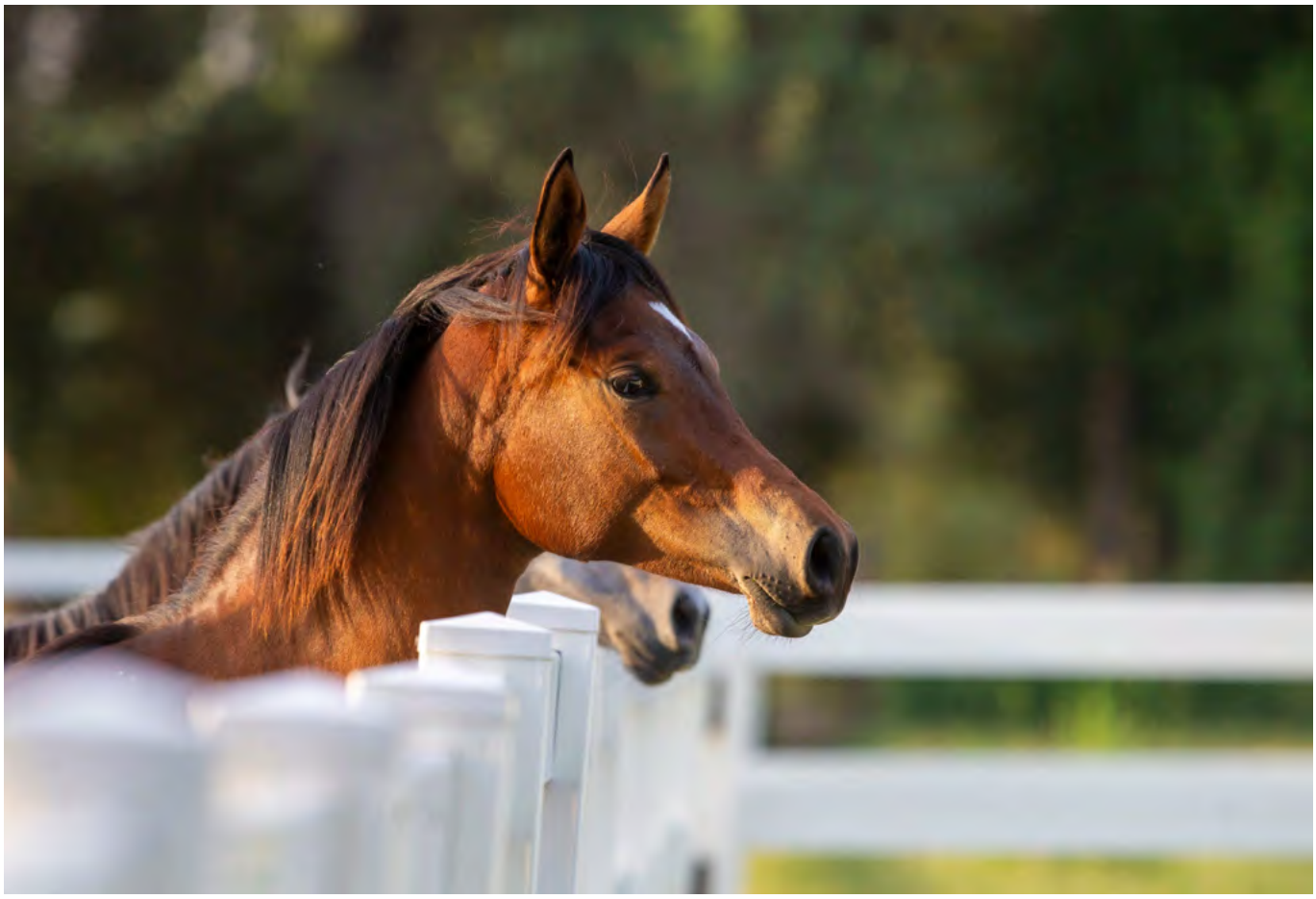

Cumulative use monitoring can protect the welfare of horses used in teaching

The use of horses in educational settings has been justified by the need for students to learn horse handling and care, so that future horses may benefit. The welfare of horses in teaching has largely been overlooked despite society's increasing interest in the welfare of race and performance horses. In response to staff concerns about horses demonstrating behavioural indicators of impaired welfare attributed to a 'burn-out' like state, a multidisciplinary group was formed at Charles Sturt University to implement and assess the impact of cumulative use monitoring for horses involved in research and teaching.

A rubric was created to score horse-human interactions by degree of intervention, duration, discomfort and invasiveness of interactions. The scoring system was retrospectively applied to 12281 horse-human interactions recorded at the university between 2019 and 2023. In 2023, a standard operating procedure was introduced requiring horse users to pre-emptively assess the impacts of intended interactions, and report individual horse-use scores to the Animal Ethics Committee monthly, with horses receiving a six-week break if they reached a 60-point cut-off. 74% of pre-2023 horse-human interactions were for research or education activities and horse-human interactions per month increased between 2019 and 2022, before decreasing in 2023 with the introduction of the new procedure.

In addition to a reduction in horse use, the introduction of proactive cumulative use monitoring has increased awareness amongst staff and students of the impacts of interactions on horse affective state and has enabled enhanced planning and pre-emptive revisions to teaching or research methodology to avoid over-use. Further research is expected to lead to evidence-based revisions to the scoring system and required rest periods based on validated welfare assessments. This system, once refined, has the potential to be adapted to other horse uses and species, to safeguard the wellbeing of animals in this often-overlooked field.

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WILD ANIMALS

Learnings from a decade of wildlife admissions to an RSPCA Wildlife Hospital

Wildlife admissions to veterinary hospitals offer insights into the prevalence and causes of wildlife injury and illness. As the human population is increasing, wildlife populations and diversity are in decline, which has significant consequences for ecosystems. As human-wildlife interactions increase, so too does the risk of anthropogenic risks to wildlife, such as motor vehicle accidents and injuries caused by dogs and cats. An Australian researcher aimed to use veterinary hospital admission data to identify the leading causes of and trends in wildlife harm.

A retrospective study of wildlife admissions to the RSPCA Wildlife Hospital in Queensland over a 10-year period revealed a significant two-and-a-half-fold increase in the number of admissions between 2012 and 2022. Of the 227,600 cases studied, comprising 510 species, 17 of these species were endangered or vulnerable, including the koala, which experienced a 12-fold increase in admissions. 62% of admissions were birds, and 32% were mammals. 38% (86,000) of records had a cause for admission recorded, with the most common reason being 'orphaned', followed by 'motor vehicle accident', 'disease' and 'dog attack'. 60% of admissions resulted in the death of the patient; however, despite being the most common cause for admission, 'orphaned' animals had the greatest likelihood of a positive outcome. Anthropogenic causes for admission, such as electrocution, and dog or cat attacks, had high rates of mortality.

The results of this study provide insight into temporal and spatial trends in prevalence and causes of wildlife harm. Whilst improved data collection relating to cause of admission would strengthen future studies, these findings can be used to provide targeted local interventions in areas where certain causes of wildlife harm are more prevalent, such as vehicle strike deterrents, effective wildlife crossings and responsible pet ownership education campaigns.

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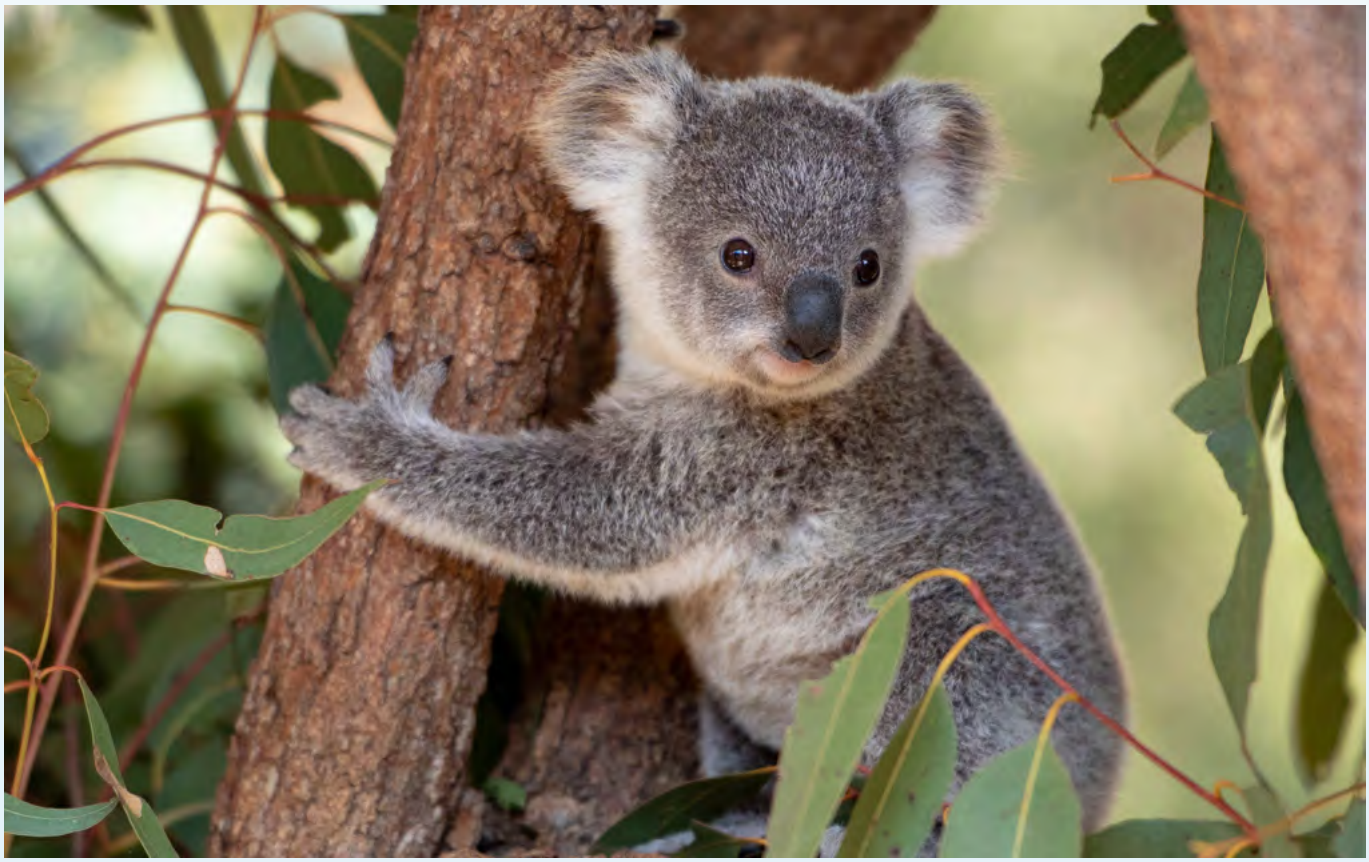

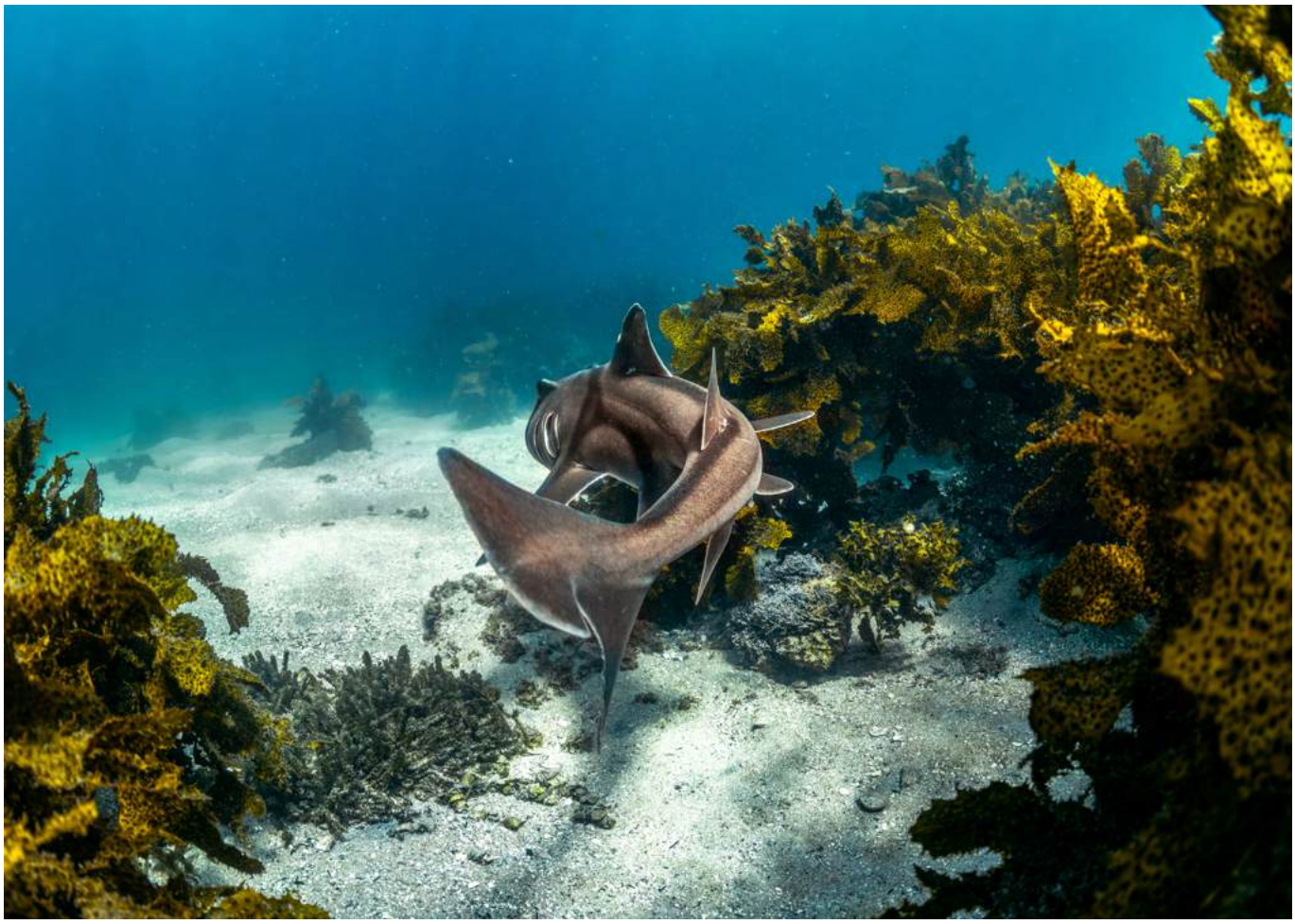

Improving welfare of surgical shark tagging; to suture or not suture?

Acoustic telemetry is a method used to remotely monitor the movements of aquatic species, with sharks being one of the most commonly monitored species. Tracking tags are often placed surgically through a small incision secured with sutures. Capture and handling required for tagging procedures, and the procedure itself, can cause distress. Ensuring that the methodologies used in wildlife research are conducted with minimal welfare impact to the animal is essential; however, there is limited scientific knowledge comparing the healing processes of sharks between various tagging procedures.

A study involving 12 wild-caught Port Jackson sharks studied under captivity at Flinders University aimed to compare healing and outcomes between sutured and non-sutured tagging procedures. Each shark received two incisions, one sutured and one non-sutured, with one incision having a tag placed. Wound healing, bacterial colonisation and indicators of physiological stress (blood glucose and lactate) were assessed throughout the 42-day study period. Sequential incision photos allowed for scoring of incision size, inflammation and swelling against existing criteria. Incision and control swabs for bacterial culture were taken weekly. There was no difference in overall healing or tag retention (100%) between sutured or non-sutured wounds. Blood glucose and lactate remained low and stable throughout the study. Non-sutured wounds had a greater rate of tissue protrusion but significantly less inflammation and bacterial colonisation.

These study results indicate that a non-suturing approach for internal tag placement may offer welfare benefits for sharks. These include reduced duration of procedure and reduced bacterial colonisation without impairing overall healing or tag retention. The study indicated that non-sutured wounds may be more prone to tissue protrusion, and this should be further explored. Studies with larger sample sizes, exploring bacterial types and other tag placement locations will also contribute to the ongoing reduction of the welfare impacts of tagging procedures for sharks.

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MISCELLANEOUS

AI can learn to enhance animal welfare, but it needs to be taught well

Artificial intelligence (AI) can exceed human capability in the analysis of immense datasets which has the potential to deliver significant animal welfare improvement in the agricultural industry. Synergy of AI and automated farm monitoring systems can detect changes in welfare indicators such as behaviours, gait and cleanliness of farm animals remotely on an extensive scale. Numerous AI-driven welfare assessment tools are utilised in livestock farming, often having been developed in the absence of welfare scientist input. This leaves several uncertainties relating to validity, reliability and the quality of conclusions which can impair real-world applicability.

To assess welfare, AI systems such as large multimodal models must 'learn' from substantial datasets and gold-standards. If these datasets are of poor quality or examine non-validated welfare indicators, the quality of the outcomes will be compromised. At present, there is a scarcity of validated species-specific affective state indicators for farm animals, and many sensor technologies also lack validation. Likewise, further investigation is required to determine the most appropriate hardware and software for on-farm application of AI welfare assessment tools. Reliance on sensors and AI systems also poses a risk of reducing human-animal interactions, whilst humans ultimately still hold accountability for translating AI outcomes into real-world corrective actions. Similarly, the ethical principles within AI models should be made transparent, given that value-based and cultural variation exists on what constitutes 'good welfare' and the priority of welfare indicators.

In recognising the current limitations, the authors highlight that harnessing the potential benefits of AI-driven welfare assessment tools requires an interdisciplinary approach between farmers, veterinarians, corporations and welfare scientists. Welfare scientists have several roles in ensuring AI tools deliver appropriate outcomes, such as the development of standards for and validation of sensors and welfare indicators, and publishing quality datasets that can be used for effective training of AI models.

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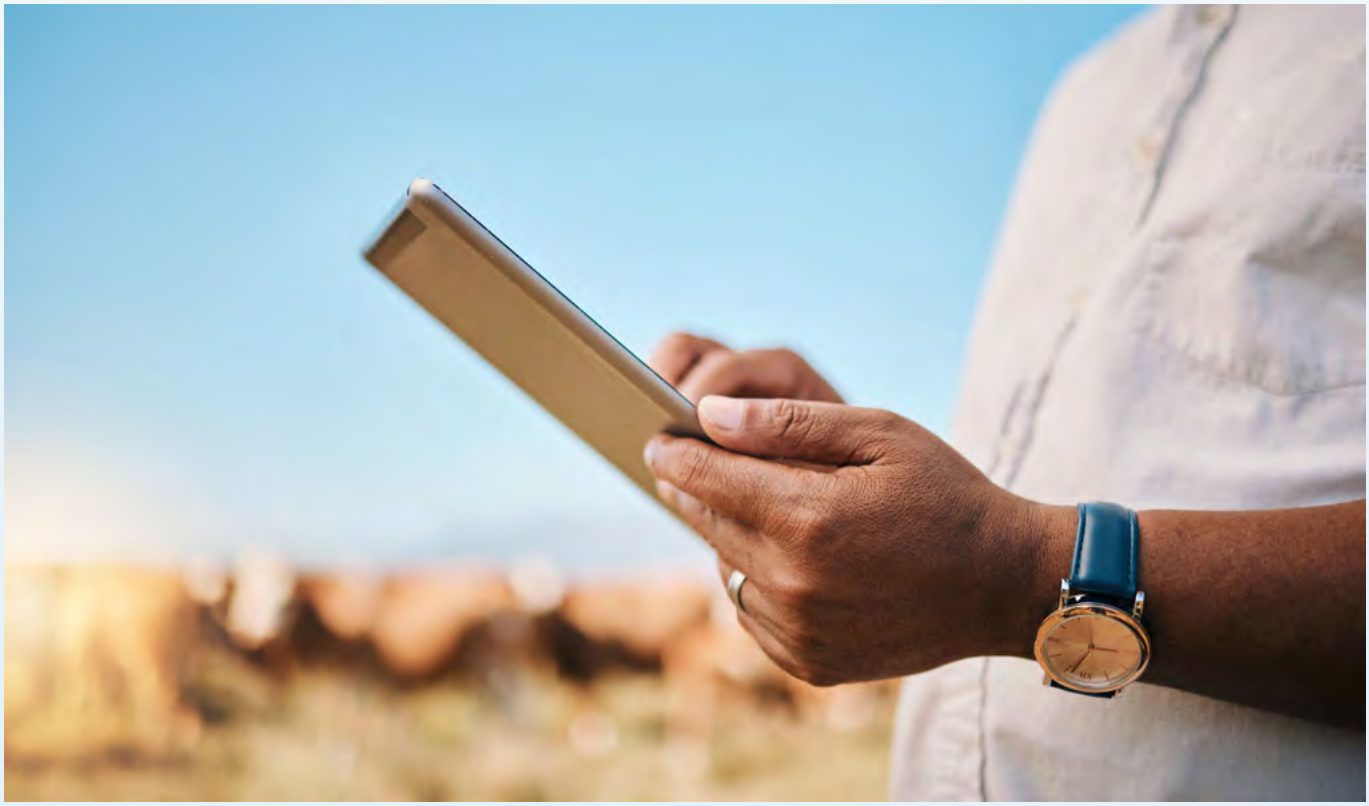

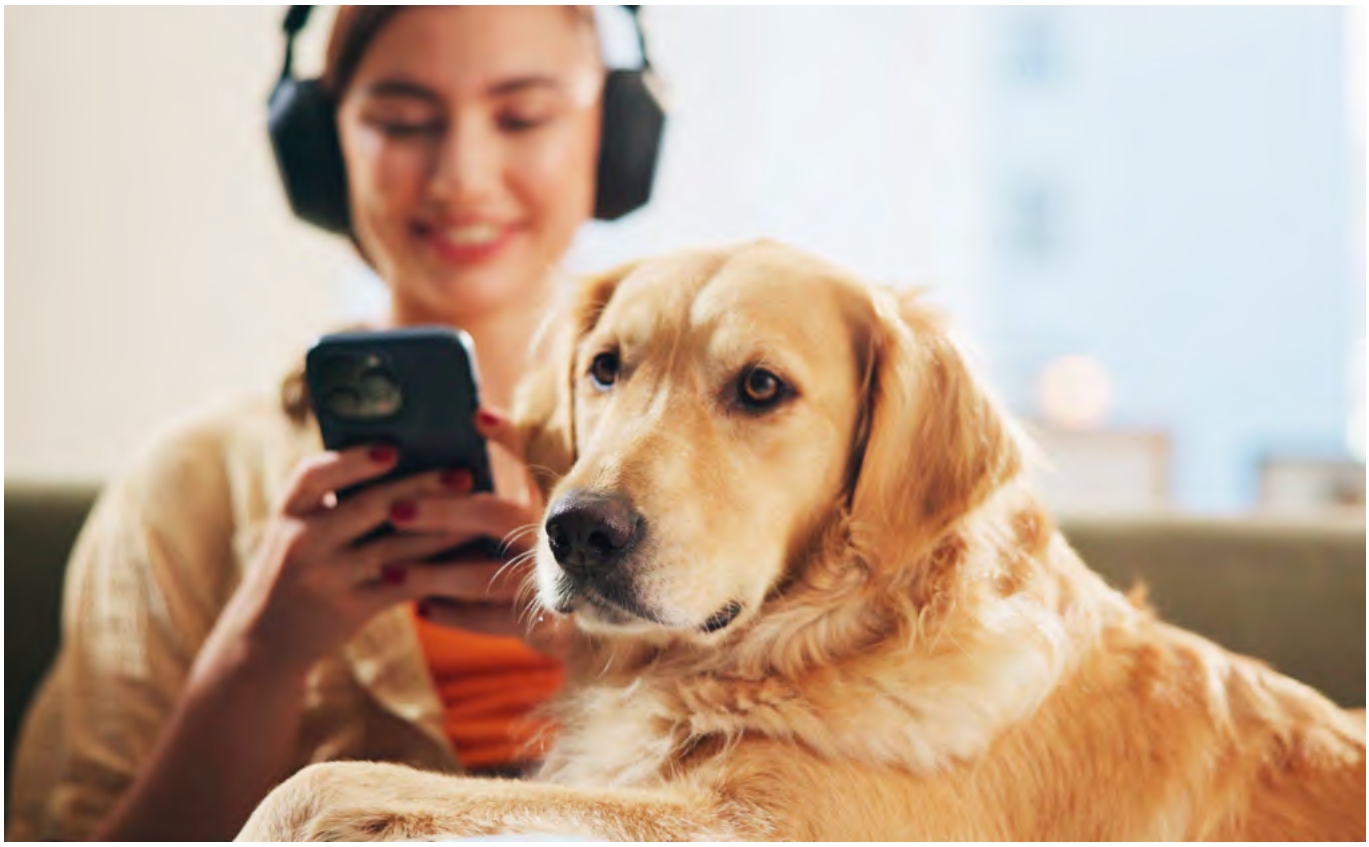

It's just not funny: Animal content in social media propagates suffering

Whilst consumption of animal content is almost universal amongst social media users, existing research indicates that some animal content depicts animals suffering in ways that may not be obvious to viewers. The popularity of animal content, including certain pet challenges (for example, the cat versus cheese challenge), can normalise animal distress or inappropriate handling. A German university study aimed to explore whether funny animal videos portray suffering and the types of welfare concerns depicted.

One hundred and sixty two suitable videos from Instagram, TikTok and YouTube identified for the study by use of search words and hashtags such as 'funny dog/cat video' or '#dogchallenge' were reviewed by a trained observer. Videos were assessed for evidence of welfare compromise, such as injury risk, suspected pain, stress or impairments including 'agony breeding characteristics' (for example, brachycephaly), and for human behaviours depicted, such as provocation, harassment, frightening, use of costumes, or inappropriate handling. Videos were additionally categorised as "challenge affecting animal welfare", "anthropomorphism" or "fun and entertainment". 82% of videos demonstrated animal stress reactions and 30% featured appeasement behaviours. 61% of videos studied were "challenges", with human harassments of pets and/or provocation observed in approximately one third of videos. More than 50% of videos featured animals with physical impairments due to poor breeding, unnecessary 'cosmetic' surgical procedures, or temporary behavioural restriction.

Concerningly, despite most videos depicting welfare compromise, over 90% also met pre-determined benchmarks for successful content (i.e. views:follower ratio). The popularity and success of pet social media content featuring welfare compromise is alarming due to the risk of desensitising audiences to animal suffering and normalisation of human behaviours that cause this, as well as enhancing the popularity of 'agony breeding characteristics'. The authors highlight the potential role of social media in popularising welfare compromise and call for greater education of the public about the signs pets display when distressed.

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