

RESEARCH

YEAR IN REVIEW

2023



THE DONKEY
SANCTUARY



Learn about the research that The Donkey Sanctuary carried out and supported in 2023, and the difference this made to the lives of donkeys and their hybrids.



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FOREWORD



Our vision is a world where every donkey has a good quality of life, our mission is improving the lives of donkeys every day and our impact is that wherever we find a donkey in need we try to help.

Our research plays an integral part in our vision, mission and impact. Through the research projects which we conduct, collaborate on and commission we are constantly striving to reach and further improve the lives of donkeys and their hybrids

(mules and hinnies) globally. Increasing our knowledge base helps us to identify what constitutes a good quality of life and higher welfare standards, giving us greater awareness and fuelling our mission. Our published body of work is where we can share our newly gained information with others around the world who are also working with donkey welfare in mind.

2023 brought its own challenges to our work, and that of our collaborators.

The world was still recovering from the impact of the global COVID-19 pandemic and adjusting to new ways of working. Communication and working practices embraced the online ways of working that had become widespread by necessity during the pandemic. Increasing familiarity and access to online communication platforms, coupled with financial and environmental concerns meant that in many instances research practices shifted towards a more sustainable approach.

Collaborative working with partners situated in the location of interest became more common. The state of the global economy and the rising cost of living limited the availability of funding for research, and tightened the budgets where funding was available.

Yet despite these challenges, 2023 was a productive year for research at The Donkey Sanctuary and we are proud to share it with you here.

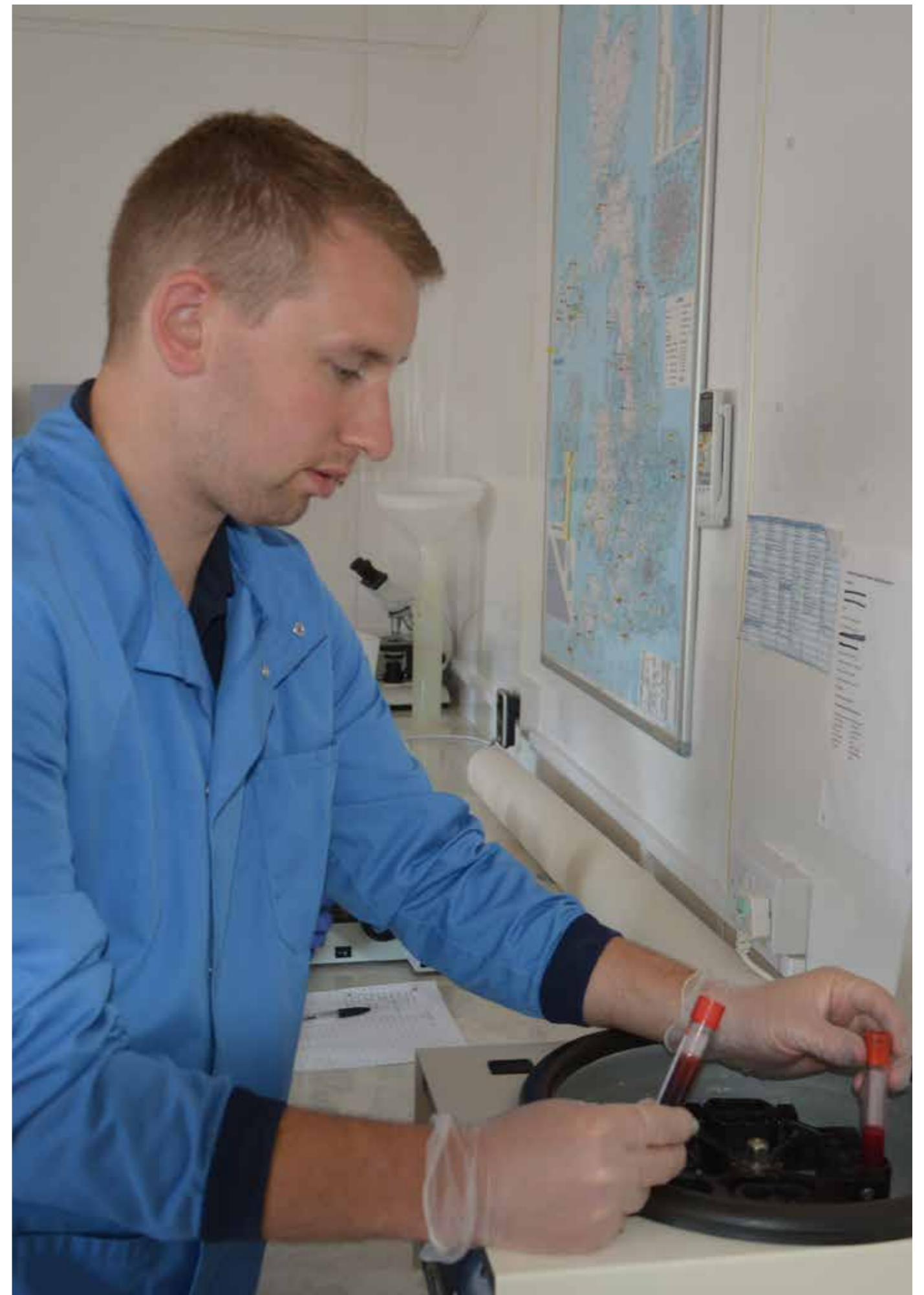
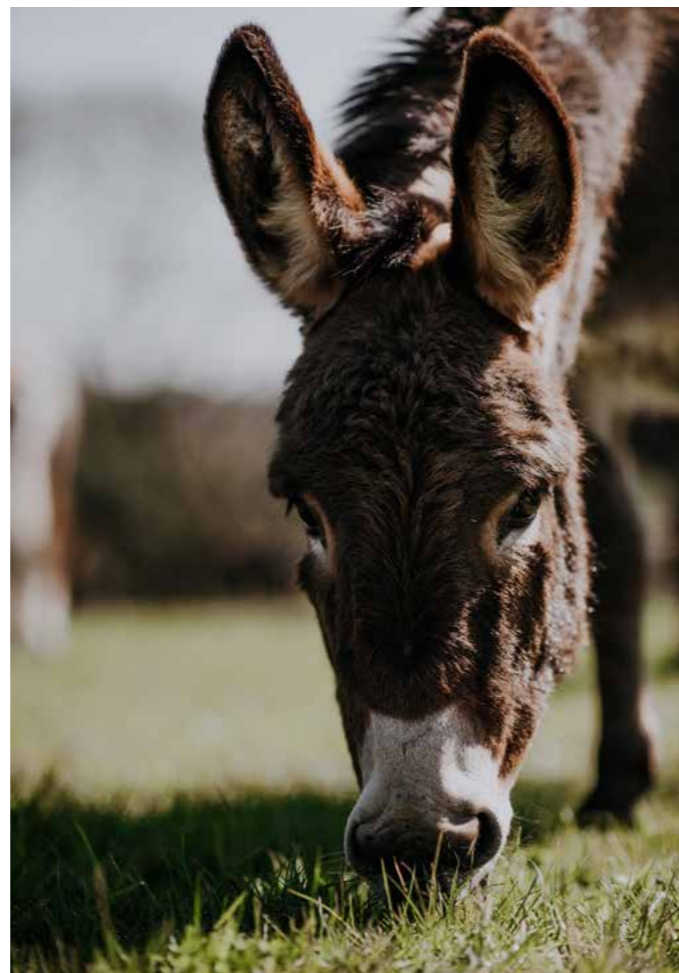




RESEARCH IN 2023

Research at The Donkey Sanctuary focuses solely on improving the health and welfare of donkeys and their hybrids worldwide. All our research is non-invasive (nothing we do will ever cause pain or distress to the animals involved) and aims to inform us of ways we can improve the lives of donkeys and their hybrids. Our research focus is broad and dynamic, and includes research focused on veterinary, welfare, socio-economic status of donkeys and their owners, the importance of donkeys and their hybrids to ecosystems and conservation, free-roaming donkeys, agriculture, production, dental health, harness and draught power, behaviour and wellbeing, physical health, physiology and morphology, and their value to communities in low and middle income countries.

2023 brought challenges in terms of recovering from the impact of COVID but saw a welcome increase in the amount of fieldwork that we were able to do as well as working within a new paradigm seeing much more online collaboration. 2023 was an incredibly successful year for all of our research outputs, and we are delighted to share our 2023 research successes with you here. There are too many projects to list, but we have included as many as possible, present the research highlights, and demonstrate what this means for donkeys and their hybrids around the world.



RESEARCH IMPACT

Our research work is designed to create impact and support positive change for donkeys and their hybrids around the world. In many cases, our research work adds to the portfolio of evidence needed to create law or policy change for donkeys and their hybrids. It also helps inform care and management practices both for donkey populations globally and at our sanctuaries, allowing us to continually ensure that we are providing the best possible care to our resident animals.

Shining a spotlight on our key work from 2023



- We have improved the way we understand veterinary therapeutics in donkeys and their hybrids, which supports quicker diagnosis and treatment where necessary.



- Our donkey dental care research has helped us understand the relationships between dental health and management practices.



- Our work on the rare condition multisystemic eosinophilotropic disease (MEED) identified clinical signs of this disease in the donkey.



- Our international research has contributed valuable evidence to our portfolio, to help us advocate for better welfare for working equids around the world.



- Our work on belief in animal sentience found a valuable link between owner attitudes and equid welfare.



- Research was undertaken in the brick kilns of India, exploring the experience of indebted donkey owners, who are often migrant workers, and assessing the impacts of this working environment on the education of brick kiln workers' children.



- The welfare status of mountain mules in Nepal was also investigated and key themes for improvement identified.



- In a project designed to investigate logging methods using working equids, a new tool was developed to assess the force exerted by the equid to help report and provide guidance on acceptable energy expenditure.



- Our work around valuing donkeys has ranged from exploring patterns of representation and language use associated with donkeys to investigating the ways in which donkeys contribute to livelihoods in northern Ghana and central Ethiopia and the impact of donkey wellbeing on owners' lives.



RESEARCH AT THE DONKEY SANCTUARY

Research is important

Donkeys and horses are two completely distinct species, with different evolutionary histories, and differing care and welfare needs. For instance, donkeys are descended from the African Wild Ass, and evolved to survive in semi-arid, mountainous environments with sparse food sources and intermittent access to water, whereas horses evolved on the lush, open grasslands of central Asia and Europe, in much colder climates with

abundant food and water sources. Consequently, there are vast differences in the health and welfare needs of horses and donkeys. Research helps to investigate and provide evidence for these differences, to increase awareness and understanding that donkeys are a distinct species, with very different needs to horses, thereby helping to improve their care, husbandry and wellbeing.

DEVELOPING AN EVIDENCE BASE

The Donkey Sanctuary strives to base all our programmes and operations on the latest and best evidence available. We lead the way in developing and conducting the latest research focused on donkeys and their hybrids, and we aim to publish all our work in peer-reviewed, scientific journals to share our results and to educate others. We are centred around developing robust and relevant scientific evidence, to use this in evidence-based decision making, to improve not only the lives of donkeys and their hybrids, but also the lives of those who depend on them around the world. Our research programmes deliver evidence which can help shape global animal welfare and management policies, and which can be used to lobby government, commercial enterprises, the public



and other non-governmental organisations (NGOs) to create change for donkeys, their hybrids and people. Part of this also includes gathering baseline data for populations of donkeys and their hybrids around the world, so that we can implement continual and detailed monitoring of their health and welfare status.

EXPERT COLLABORATION

The Donkey Sanctuary is the leading global organisation working to improve donkey and donkey hybrid health worldwide. We are fortunate enough to have some of the world's most knowledgeable donkey experts as part of our organisation and have an unparalleled level of collective expertise and experience. Nonetheless, we also seek to partner with leading academics at universities, and other specialists in government departments, NGOs or other external organisations. Through collaboration with global experts, we can increase the quality, reach and impact of our work, and ensure the outcomes create the most positive change for donkeys, hybrids and people. We are also proud to actively support and foster the next generation of donkey and hybrid experts, through supporting Masters and PhD level research to answer specific questions about the health and welfare of donkeys and their hybrids.

Our annual Reid Student Bursary for Donkey Welfare, which was first awarded in 2023, supports students registered on a degree programme in undertaking their own donkey focused research project.



EMPOWERING LOCAL EXPERTISE

The Donkey Sanctuary works with people from across the world with partnerships established in Africa, Asia, Europe and the Americas. We often seek to partner and collaborate with local researchers, since they are able to offer unique and valuable insights into the ways that donkeys and their hybrids are used and treated in their country. Harnessing local knowledge is a central theme of all of our global research, which helps our work to remain authentic to the context. Our approach here includes not only collaborating with leading academic experts across the globe, but also working closely with community-based expertise, for example Community-based Animal Health Workers (CAHWs), local equid users, owners, para-vets and other community members.

PUBLICATION

We aim to publish all of our research work in peer-reviewed, scientific journals. We will always strive to publish our work with open-access, so that it is freely available to anyone interested. This ensures that anyone with an interest in donkey or donkey hybrid health and welfare is not prevented from learning more due to economic constraints.

KEY RESEARCH PROJECTS

The next few pages highlight some of the key pieces of research we carried out or collaborated on, completed and published during 2023. A full list of all our 2023 publications can be found at the end of this booklet.

VETERINARY AND DENTAL RESEARCH

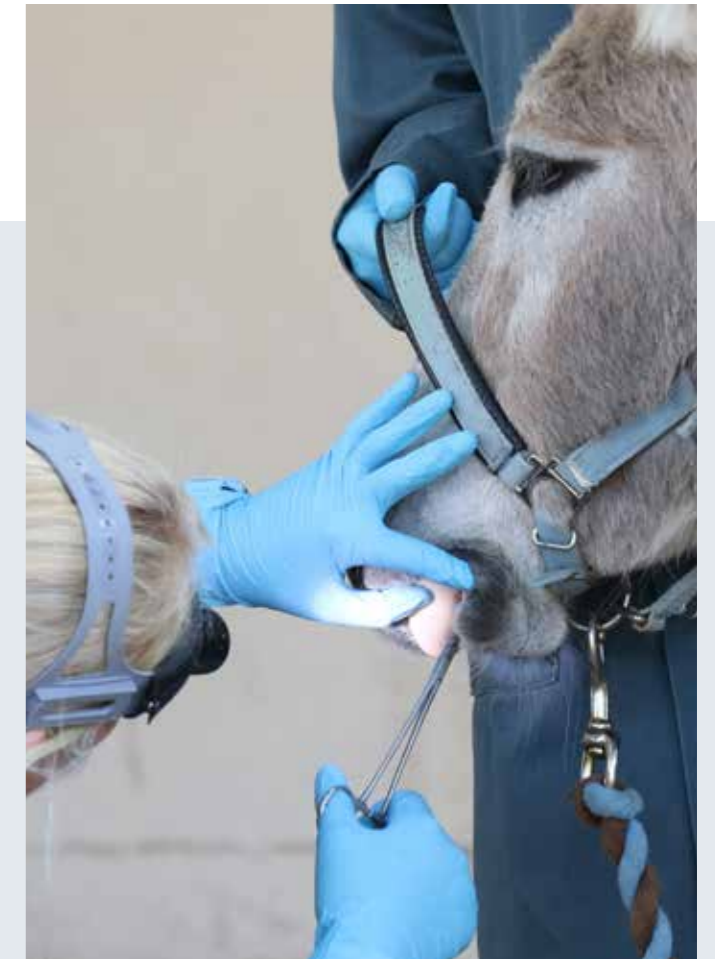
Therapeutics in veterinary care of the donkey

Horses and donkeys are often closely associated, but there is a difference in donkeys' basic physiological parameters compared to horses'. There is a limited amount of data to support therapeutic decisions and this article discusses the basics of therapeutics in donkeys to aid routine first opinion and referral practice in the UK. A limited number of medications are donkey specific, and it is not uncommon for donkeys to have little experience with handling, so careful consideration of administration appropriateness is required. This article provides essential information on therapeutics in donkey and donkey hybrid veterinary care.



Dental health and management practices of donkeys in the UK: What should we be considering?

The aim of this study was to identify relationships between dental health and current management of donkeys in the UK and to provide recommendations to improve practices to help donkey welfare. Dental disease is identified as the second most common clinical condition in donkeys. The results support the need for regular examinations by a suitably trained professional and highlight the importance of examining and caring for the donkey and hybrid's teeth at an earlier age to prevent problems arising. This study has helped to build on our current understanding of dental health and management practices of donkeys in the UK.



Multisystemic eosinophilic epitheliotropic disease in three donkeys

Multisystemic eosinophilic epitheliotropic disease (MEED) is a rare condition that affects multiple body systems in horses, including gastrointestinal tract, abdominal organs, skin and occasionally lungs. Clinically, in young horses, MEED commonly presents with weight loss and skin lesions. To our knowledge MEED had not been reported previously in donkeys. Our team worked to identify the clinical signs linked to the disease in donkeys. The study identified consistent clinical signs associated with the disease, such as fluctuating weight or chronic weight loss, skin lesions histologically consistent with exfoliative dermatitis, raised liver enzymes and peripheral eosinophilia. The study raises important awareness of the clinical signs associated with the disease in donkeys to vets and animal health professionals.





VALUING DONKEYS/ DONKEY STATUS RESEARCH

Invisible animals: Exploring public discourses to understand the contemporary status of donkeys in Britain

In Western literature and popular culture, donkeys are often represented negatively, with the animals portrayed as stupid, inept, and bad tempered. To understand whether such representations are reflected in contemporary understandings of donkeys, a digitised body of texts (a corpus) from contemporary (public-facing) news articles and (public-produced) social media posts about donkeys was constructed and analysed using quantitative and qualitative language analysis techniques drawn from corpus linguistics and discourse analysis.

Focus groups were then conducted with members of the public to gather insights and reflections on key patterns of representation in two key news texts identified in the linguistic analysis. This combined approach, which is novel in its application to animal welfare topics, revealed that donkeys are most commonly represented as figures of entertainment, ridicule, and as victims of hardship and suffering (i.e. animals in need). We argue that such representations can sideline, obscure and 'invisibilise' the real animals, leading to persistent



misunderstandings and false conceptions about donkeys, which are further perpetuated through language use and can be difficult to disrupt and change. These findings have important implications for animal welfare, education programs, and public communication about donkeys.

The value of donkeys to livelihood provision in northern Ghana

Increased demand for the supply of donkey hides for use in the Traditional Chinese Medicine e'jiao, is leading to a re-appraisal of donkeys' contributions to livelihoods across the world.

This research aimed to understand the utilitarian value donkeys provide to poor small holder farmers, especially women, in their efforts to make a living in two rural communities in northern Ghana. Donkeys are more important in people's lives than had previously been recognised and are highly valued by their owners for their help in reducing drudgery and the multi-functional services they offer.

Hiring out donkeys to generate income is a secondary role for people who own donkeys, especially women. However, for financial and cultural reasons the

way donkeys are kept results in the loss of a certain percentage of the animals to the donkey meat market, as well as the global hides trade. Increasing demand for donkey meat, coupled with increasing demand for donkeys for farming, is leading to donkey price inflation and theft of donkeys. This is putting pressure on the donkey population of neighbouring Burkina Faso and pricing resource-poor non-donkey owners out of the market.

E'jiao has put the spotlight on the value of dead donkeys for the first time, especially to governments and middlemen.

This study shows that the value of live donkeys to subsistence farming households is substantial. It attempts to understand and document this value thoroughly,

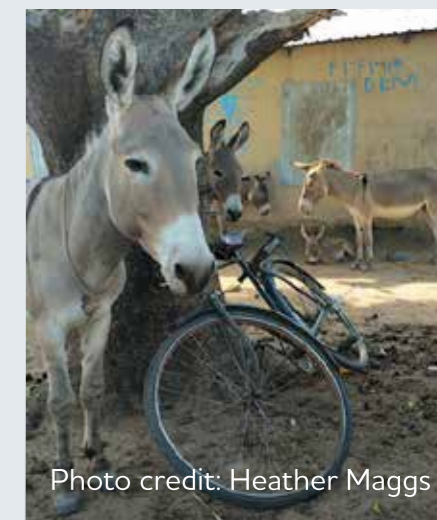


Photo credit: Heather Maggs



should the majority of donkeys in West Africa be rounded up and slaughtered for the value of their meat and skin instead.

Being with donkeys: Insights into the valuing and wellbeing of donkeys in central Ethiopia

This paper explores the interwoven lives of donkeys and the people who depend on them for their livelihoods in central Ethiopia. Drawing on data from 12 participatory workshops, insights were elicited into the ways human co-workers value and treat their donkey co-workers. Findings reveal working with donkeys can make the difference between destitution and modest survival, but societal perception of donkeys as low-status animals has an impact on their owners' lives and donkey wellbeing.

This research contributes empirical insights on the valuing of donkeys and enables a deepened understanding of human-donkey relations. Participatory Rural Appraisal (PRA) hopes to foster empowerment amongst participants as learning is regarded as two-way, whilst Appreciative Inquiry (AI) helps switch the focus towards discovering community strengths. Combining both in the methodology demonstrates how to formulate a compassionate and empathetic approach for exploring donkey value and wellbeing with marginalised groups.



Photo credits: Martha Geiger





WORKING EQUID WELFARE RESEARCH

Sustainability in NGO programming: A case study of working equid welfare organisations

The sustainability of NGO initiatives has become a criterion by which to judge the success of programming. This study explores the conditions needed to achieve sustainable change by focusing on a sector that has recently experienced this shift towards more sustainable, interdisciplinary programming: that of working equid (animal welfare) NGOs. Semi-structured, in-depth interviews with 32 NGO

staff working for 8 different animal welfare NGOs across 13 countries were conducted. Interviews covered potential barriers and avenues to success in producing sustainable working animal welfare improvements.

Thematic analysis revealed consistent themes across contexts and NGOs. Barriers to sustainability included lack of continuity, short funding

cycles and unpredictable external factors. Approaches perceived as creating sustainable outcomes, those recommended for future initiatives, were those tailored to local contexts, focused on changing human behaviour, worked with key community contacts, built capacity in local infrastructure, combined approaches, and had comprehensive exit strategies.

Belief in animal sentience and affective owner attitudes are linked to positive working equid welfare across six countries

Belief in animal sentience and the quality of human-animal relationships play a significant role in animal welfare. However, the link between an individual animal's welfare and the beliefs and emotional connection of the owner to the animal is understudied and focussed on single cultures, limiting generalisability. In this study, we explored potential links between owner attitude, beliefs in animal sentience, and working equid welfare across four continents. The general health status and body condition of equids belonging to owners with an affective (versus instrumental) perspective and those owners who believed that their equids could feel emotions, were significantly better.

Equids belonging to owners who believed that their animals could feel pain were also significantly less likely to be lame. Potential causal relationships found in the study can be used to inform future welfare initiatives by highlighting the importance



of the human–equid relationship and the role that beliefs regarding animal sentience play in influencing equid welfare.

Bonded labour and donkey ownership in the brick kilns of India: A need for reform of policy and practice

Slavery, in the form of 'debt-bondage', is rife in Indian brick kilns, where the enforcement of labour laws is poor. In this research we investigate the welfare of donkeys owned under conditions of debt-bondage, examine the links between owner and donkey behaviour, and outline the living conditions of both donkeys and humans working in the brick kilns of Gujarat, India. We then explore

the unique experience of debt-bondage by donkey owners, compare migration trends to those of non-donkey-owning workers and assess impacts on their children's education. The physical and behavioural conditions of donkeys reflected that of their owners, creating negative feedback loops and potentially reducing productivity. All donkey owners experienced debt-bondage and

were particularly vulnerable to unexpected financial loss. Donkey owners, unlike non-owners, migrated within their home state, enabling their children to attend school.

Our work highlights the need for policy reform within the brick-kiln industry to acknowledge the pivotal role of working donkeys in supporting human livelihoods.



The welfare and access to veterinary health services of mules working the mountain trails in the Gorkha region, Nepal

This study investigates the welfare status of mules distributing supplies in the Gorkha region of Nepal; a population of working equids which has been largely overlooked and under recorded. Mule body condition was found to be ideal in many cases, but their management was in most cases inappropriate; characterised by integumentary trauma from equipment use and inhumane handling, unsuitable dietary provision, and insufficient access to water. Owners in many cases were inexperienced, lacking in understanding or training in mule handling, management, husbandry, harnessing and behaviour. This difficult situation was compounded by inadequate access to suitably qualified, experienced veterinary professionals able to offer appropriate levels of support.

Organisations aiming to improve welfare in these remote

locations need a multifaceted approach where owners are collaborated with to improve the welfare of their own equids; in

addition, industry professionals are encouraged to improve training and provision within veterinary services.



May the force be with you: An investigation into logging methods using donkeys

Working equids represent major sources of energy worldwide and assume an increasingly important role in line with increasing requirements for sustainable energy. In this study, heart rate and force exerted were monitored while logging using three methods: direct pull, sled, and vehicles. A swingle tree incorporating a dynamometer and data logger was developed for this project, allowing continuous recording of forces. Results showed that vehicles are the best option for reducing the force exerted by donkeys. Affordability and skills needed to work with this technique, however, are important considerations.

Sleds represent a user-friendly solution; reducing the force needed when compared to direct pull, requiring less skills and equipment. The dynamometer proved an excellent method for force monitoring. Heart rate as a proxy measure for force didn't provide accurate data for lighter loads but with heavier logs, or methods that display greater force requirements, heart rate may be used as a proxy method for force, but further studies are needed.



LIST OF 2023 PUBLICATIONS

- **May the force be with you: An investigation into logging methods using donkeys.**
4 January 2023
Rodrigues, J. B., Garrett, C., Norris, S. L., Albuquerque, F., Queijo, L., Coelho, J. P., Cooke, F., and Judge, A. (2023). May the force be with you: an investigation into logging methods using donkeys. *Austral Journal of Veterinary Sciences* 55(1) 23–33.
doi.org/10.4067/S0719-81322023000100023
- **The welfare and access to veterinary health services of mules working the mountain trails in the Gorkha region, Nepal.**
4 January 2023
Watson, T., Kubasiewicz, L., Nye, C., Thapa, S., Chamberlain, N., and Burden, F. A. (2023). The welfare and access to veterinary health services of mules working the mountain trails in the Gorkha region, Nepal. *Austral Journal of Veterinary Sciences* 55(1) 9–22.
doi.org/10.4067/S0719-81322023000100009
- **Dental health and management practices of donkeys in the UK: What should we be considering?**
19 January 2023
Fernández, E. B., de Blas Giral, I., Lilly, G., Rodrigues, J. B. and Vázquez Bringas, F. J. (2023) Dental health and management practices of donkeys in the UK: What should we be considering? *Equine Veterinary Education* 35: 371–381.
doi.org/10.1111/eve.13758
- **Bonded labour and donkey ownership in the brick kilns of India: A need for reform of policy and practice.**
29 January 2023
Kubasiewicz, L. M., Watson, T., Nye, C., Chamberlain, N., Perumal, R. K., Saroja, R., Norris, S. L., Raw, Z. and Burden, F. A. (2023) Bonded labour and donkey ownership in the brick kilns of India: A need for reform of policy and practice. *Animal Welfare* 32(8) 11-1.
doi.org/10.1017/awf.2023.1
- **Therapeutics in veterinary care of the donkey.**
30 January 2023
Sullivan, R. and Vogel, P. (2023) Therapeutics in veterinary care of the donkey. *UK-Vet Equine* 7(1) 32-36
doi.org/10.12968/ukve.2023.7.1.32
- **Multisystemic eosinophilic epitheliotropic disease in three donkeys.**
13 February 2023
Paraschou, G., Vogel, P. E., Lee, A. M., Trawford, R. F. and Priestnall, S. L. (2023) Multisystemic eosinophilic epitheliotropic disease in three donkeys. *Journal of Comparative Pathology* 201: 105-108.
doi.org/10.1016/j.jcpa.2023.01.005
- **The value of donkeys to livelihood provision in northern Ghana.**
22 February 2023
Maggs, H. C., Ainslie, A., and Bennett, R., M. (2023) The value of donkeys to livelihood provision in northern Ghana. *PLOS ONE* 18(2): e0274337
doi.org/10.1371/journal.pone.0274337
- **Belief in animal sentience and affective owner attitudes are linked to positive working equid welfare across six countries.**
28 June 2023
Haddy, E., Burden, F., Raw, Z., Rodrigues, J. B., Zappi Bello, J. H., Brown, J., Kaminski, J. and Proops, L. (2023) Belief in Animal Sentience and Affective Owner Attitudes are linked to Positive Working Equid Welfare across Six Countries, *Journal of Applied Animal Welfare Science*
doi.org/10.1080/10888705.2023.2228029
- **Being with donkeys: insights into the valuing and wellbeing of donkeys in central Ethiopia.**
17 July 2023
Geiger, M., Hockenhull, J., Buller, H., Engida, G. T., Jemal Kedir, M., Goshu, L., Getachew, M., Banerjee†, A., Burden, F. A., and Whay, H. R. (2023) Being with Donkeys: Insights into the Valuing and Wellbeing of Donkeys in Central Ethiopia. *Society & Animals*
doi.org/10.1163/15685306-bja10134
- **Invisible animals: Exploring public discourses to understand the contemporary status of donkeys in Britain.**
5 October 2023
Clancy, C., McCloughlin, E. and Cooke, F. (2023) Invisible Animals: Exploring Public Discourses to Understand the Contemporary Status of Donkeys in Britain. *Anthrozoös* 36(6) 951-970.
doi.org/10.1080/08927936.2023.2248762
- **Sustainability in NGO programming: A case study of working equid welfare organizations.**
19 December 2023
Haddy, E., Brown, J., Burden, F., Raw, Z., Kaminski, J., and Proops, L. (2023) Sustainability in NGO Programming: A Case Study of Working Equid Welfare Organizations. *Sage Open* 13(4).
doi.org/10.1177/21582440231218523

OUR RESEARCH PARTNERS AND COLLABORATORS



Ethiopia



Nepal



Born Free Foundation (Ethiopia)



Eshet Children and Youth Development Organization
Addis Ababa (Ethiopia)



Polytechnic Institute of Bragança (Portugal)



Popular Autonomous University of Veracruz (Mexico)



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UK



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The Donkey Sanctuary was founded by Dr Elisabeth Svendsen MBE in 1969. The Donkey Sanctuary (registered charity number 264818) and its sole corporate trustee, The Donkey Sanctuary Trustee Limited (Company number 07328588), both have their registered office at Slade House Farm, Sidmouth, EX10 0NU. Linked charities: The Elisabeth Svendsen Trust for Children and Donkeys (EST); The International Donkey Protection Trust (IDPT).