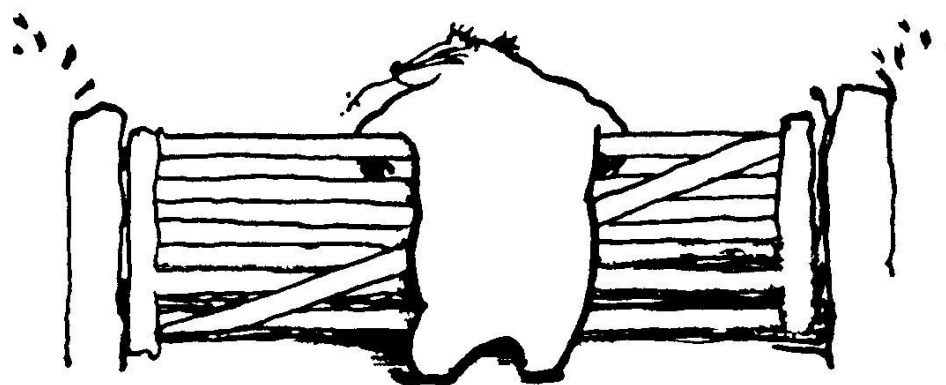


Recent advances in animal welfare science VIII



Scientific programme: Posters

UFAW Virtual Animal Welfare Conference

29th June -30th June 2021

#UFAW2021



Welcome to the Virtual UFAW Conference 2021

Welcome to UFAW's second online meeting. We are delighted that you can join us for what promises to be an exciting and engaging couple of days.

Switching to an online format has allowed us to reach a much larger and more global audience than we could at a face-to-face meeting, something we are incredibly excited about. We have attendees registered from at least 57 countries. The conference's scientific programme features our largest ever number of presentations exploring a huge range of animal welfare issues

The scientific poster programme comprises 119 posters. Links to access these can be found at the bottom of each abstract. Please use these to view the posters and leave comments for the authors to answer. You can also vote for the best poster - the winners and one lucky voter will win vouchers to spend on books from the [UFAW/Wiley-Blackwell Animal Welfare](#) book series.

We would like to thank all the participants for their contributions to the meeting.

Please help us keep these meetings free and open to all.

A special thank you goes to all those who, when registering, made a donation – thank you – your support is already making a difference. Spreading the message about animal welfare science as far and wide as possible is one of UFAW's key objectives. We make our meetings free to ensure access for those who could not otherwise attend. However, running our meetings is costly and involves an enormous effort from UFAW's staff. As a charity, supported entirely by donations, we can only keep meetings free and run our other activities with your support. If you are in a position to do so, please consider making a donation to make sure that we can continue to make our meetings free to attend for all.

We would like to thank our publishing partner Wiley-Blackwell for their support. As part of your registration for this meeting Wiley-Blackwell are offering a discount of 20% on all the books in the [UFAW/Wiley-Blackwell animal welfare book series](#) (use the code VBT66 when you order from www.wiley.com).

We look forward to a thought-provoking couple of days and we hope that you all have an informative and enjoyable meeting.

Huw Golledge, Stephen Wickens, Birte Nielsen and Liz Carter
UFAW Organising Committee

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Please join UFAW

UFAW is a membership society for all those who are interested in Animal Welfare Science. One of the best ways to support our work and stay up to date with our activities is to become a member of UFAW.

Membership currently costs just £30 or £10 for students .

ufaw.org.uk/membership



General Information

Organisers:

UFAW, the Universities Federation for Animal Welfare, is an UK based registered charity that works with the animal welfare science community worldwide to develop and promote improvements in the welfare of farm, companion, laboratory, captive wild animals and those with which we interact in the wild, through scientific and educational activity. To this end, UFAW:

- Promotes and supports developments in the science and technology that underpin advances in animal welfare, including the funding of research through its programme of [grants, awards and scholarships](#).
- Promotes education in animal care and welfare.
- Provides information, organises symposia, conferences and meetings, publishes books, videos, technical reports and the international quarterly scientific journal [Animal Welfare](#).
- Provides expert advice to governments and other organisations and helps to draft and amend laws and guidelines.
- Enlists the energies of animal keepers, scientists, veterinarians, lawyers and others who care about animals.

UFAW is an independent organisation, and throughout its history, its work has primarily been funded by [donations, subscriptions and legacies](#).

UFAW's philosophy: The importance of science to animal welfare:

Ensuring good welfare is about more than ensuring good health. Animal welfare is about the quality of animals' lives: their feelings. It is now widely agreed, although it is not yet possible to prove absolutely, that many species are sentient - they have the capacity to feel pain and distress, they can suffer and, conversely, be aware of pleasant feelings - and that this matters morally. But how do we assess, from the animal's point of view, what matters to them and how much?

"Science informs, motivates and facilitates advances in animal welfare by providing a strong evidence base for changing attitudes and practices, and by creating practical and effective solutions to welfare problems."

UFAW promotes and supports a scientific approach aimed at finding ways to gain insight into what matters to animals, assessing their welfare and improving the quality of their lives through practical developments in all aspects of their care.

Change for the better depends on knowledge, understanding and practical solutions. UFAW believes that good science can inform, motivate and facilitate that change - whether through developments in legislation, professional 'best practice' or the actions of other organisations and individuals.

In promoting and supporting this scientific approach to improving welfare, UFAW's work is wide-ranging and undertaken with many other organisations and individuals - enlisting and informing the energies of animal keepers, scientists, veterinarians, lawyers and others who care about animals.

For more details visit: www.ufaw.org.uk



SCIENTIFIC PROGRAMME:

- List of posters**
- List of posters (by area of study)**
- Poster Abstracts**



List of posters:

87. **Polla EJ** (*Perth Zoo, Australia*)
[The importance of empirically assessing zoo animal enrichment programs to benefit animal welfare](#)
88. **Prasad S, R van Vliet and E Vasseur** (*McGill University, Canada*)
[Enrichment practices for nonhuman primates \(NHPS\) in laboratory settings: a systematic review](#)
89. **Ramos CP, YM Seddon, B Sullivan, L Maignel, F Fortin and J Brown** (*University of Saskatchewan, Prairie Swine Centre, Saskatoon, Canadian Centre for Swine Improvement Inc, Ottawa and Centre de Développement du Porc du Québec, Québec, Canada*)
[Survey of Canadian producers on factors related to sow mortality and culling](#)
90. **Ricci-Bonot C, D Mills, C Nicol and T Romero** (*Lincoln University and The Royal Veterinary College, UK*)
[Impact of substituted companion horse during stressful situations](#)
91. **Rodrigues MS and N Hanley** (*University of Glasgow, UK*)
[Disentangling farm animal health from farm animal welfare: A study on UK consumer preferences](#)
92. **Russell AL, LV Randall, N Bollard, J Kaler, J Gibbons and M Green** (*University of Nottingham and Agriculture and Horticulture Development Board, Kenilworth, UK*)
[A behavioural study to evaluate positive welfare in dairy cows](#)
93. **Sans ECO, MM Vale, FMC Vieira, ES Vismara and CFM Molento** (*Federal University of Paraná and Federal University of Technology (UTFPR), Paraná Brazil*)
[In-barn heterogeneity of broiler chicken welfare in two industrial house designs and two seasons in southern Brazilian subtropical climate](#)
94. **Santiago Gonzalez K, T Boswell and TV Smulders** (*Newcastle University, UK*)
[Hippocampal immediate-early gene induction and HPA-axis activation in response to acute stress in chickens](#)
95. **Schneidewind SJ, V Heizmann, A Lange and I Windschnurer** (*University of Veterinary Medicine Vienna, Austria*)
[Pet rat behaviour towards caretakers relates to housing conditions and human-animal interactions](#)
96. **Schuck-Paim C and WJ Alonso** (*The Welfare Metrics Project, Spain; Federal University of Santa Catarina, Brazil*)
[Quantifying the welfare of commercial layers in different indoor housing systems and the impact of the transition to cage-free housing](#)
97. **Seganfredo S, M De Santis, M Galardi, S Normando and L Contalbrigo** (*Istituto Zooprofilattico Sperimentale delle Venezie and University of Padova, Italy*)
[Donkeys in the classroom: Investigation of donkeys' learning capabilities through an operant conditioning](#)
98. **Smith A** (*Norecopa, Norway*)
[PREPARING, CARING, SHARING and FLAGGING: The scientific and welfare benefits of increased collaboration and transparency](#)
99. **Stamm FO, F Napolitano, CFM Molento, G De Rosa, AM Riviezz, M Carvalhal and M Zopollatto** (*Federal University of Paraná and Faculdade de Ensino Superior da Amazônia Reunida, Redenção, Brazil; Università degli Studi della Basilicata, Potenza and Università degli Studi di Napoli Federico II, Portici, Italy*)
[Opinion on the relevance of dairy buffalo welfare indicators according to experts, Brazilians and Italians respondents](#)
100. **Stamm FO, GOPA Pinto, GC Santos, VS Soriano, CFM Molento, JL Martinez, JFG Warth and M Zopollatto** (*Federal University of Paraná, Pontifical Catholic University of Paraná (PUCPR) and Paraná Rural Development Institute, Brazil*)
[Correlation between dairy buffalo neutrophil:lymphocyte ratio and selected welfare indicators](#)
101. **Tarakdjian J, K Capello, D Pasqualin, A Santini, G Cunial, A Scollo, A Mannelli, P Tomao, N Vonesch and G Di Martino** (*Istituto Zooprofilattico Sperimentale delle Venezie, Swivet Research, Reggio Emilia, University of Torino and Italian Workers' Compensation Authority (INAIL), Rome, Italy*)
[Can welfare-friendly practices reduce antimicrobial need in pig farming?](#)
102. **Tedds HL, S Sneddon, R Clubb, J Ollerton, E Iskhakov and WD McCormick** (*University of Northampton, RSPCA, Independent Researcher and Hartpury University, UK*)
[Classified information: What's lacking from online herpetofauna sales?](#)
103. **Thys M, M Valckx, S Vanden Berghe, L Vandaele, B Ampe and F Tuytens** (*Flanders Research Institute for Agriculture, Fisheries and Food, Belgium*)
[Effects of low stress stockmanship training on behaviour of stockpersons and dairy cows](#)
104. **Tivey E, J Martin, V Poon, S Brown, V Bishop, V Bombail, B Nielsen, A Lawrence and S Meddle** (*University of Edinburgh and SRUC, UK; INRA, Jouy-en-Josas, France*)
[Using the rat tickling model to investigate the neural correlates of positive affective states in female and male juvenile Wistar rats](#)
105. **Ugwu N, E Love, J Murrell, HR Whay, TG Knowles and J Hockenhull** (*University of Bristol, UK; National University of Ireland, Ireland*)
[Assessment of eye blink rate changes associated with disbudding in dairy calves](#)



OPINION ON THE RELEVANCE OF DAIRY BUFFALO WELFARE INDICATORS ACCORDING TO EXPERTS, BRAZILIANS AND ITALIANS RESPONDENTS

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Society's demand and knowledge contributes for the science of animal welfare. The aim of this study was to compare the opinion of different stakeholders on the relevance of indicators for a dairy buffalo welfare assessment protocol. A questionnaire elaborated with Google form online was answered by 26 experts on buffalo production and/or animal welfare, from 13 different countries in November and December 2019. Experts were asked to select the importance of 13 animal-based indicators for a buffalo welfare protocol (thin, severe lesions, iatrogenic abscesses, can be touched, overgrown claws, nasal discharge, lame, panting, vulvar or uterine prolapse, dirty flanks or upper hind legs, ocular discharge, nose rings, and broken horn), using a 5-point Likert-type scale (Not important; Mild important; Moderate important; Very important; Extremely important). If the sum of 'Very important' and 'Extremely important' indicators was equal or over 50% of the experts' responses, the indicator was included in the questionnaire for different stakeholders from Brazil (360 respondents) and Italy (111 respondents). Respondents, stratified according to their demographic background (country, gender, age, education, stakeholder category and frequency of buffalo products ingestion), were asked to rate in Likert-type scale, same as above, between December 2019 and July 2020, the indicators selected by the experts as the most important (the first nine previously listed). Ordinal logistic regression with stepwise selection was used to determine the influence of demographic background on the importance of indicators. Significant level was set at $p < 0.05$. There were differences on the opinion of respondents considering their country, gender, and stakeholder category. Brazilians attributed higher importance than Italians for eight indicators: thin (Odd ratio (OR)=0.230; Confidence interval (CI)=0.153-0.347), severe lesions (OR=0.491; CI=0.314-0.769), iatrogenic abscesses (OR=0.348; CI=0.223-0.544), overgrown claws (OR=0.525; CI=0.353-0.782), nasal discharge (OR=0.299; CI=0.200-0.449), lame (OR=0.613; CI=0.411-0.914), panting (OR=0.293; CI=0.191-0.450), and vulvar or uterine prolapse (OR=0.533; CI=0.351-0.811). Women also attributed higher importance than men for eight indicators: severe lesions (OR=0.609; CI=0.406-0.913), iatrogenic abscesses (OR=0.606; CI=0.405-0.906), can be touched (OR=0.409; CI=0.286-0.586), overgrown claws (OR=0.514; CI=0.355-0.744), nasal discharge (OR=0.432; CI=0.298-0.627), lame (OR=0.426; CI=0.293-0.619), panting (OR=0.445; CI=0.305-0.651), and vulvar or uterine prolapse (OR=0.590; CI=0.398-0.876). Consumers gave higher scores to iatrogenic abscesses (OR=2.283; CI=1.295-4.024) than academics. We conclude that there were several differences about the relevance of the selected welfare indicators according to country and gender, whereas a lower number or no differences were observed according to age, education, stakeholder category and frequency of buffalo products ingestion.

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