MEASURING ANIMAL WELFARE AND APPLYING SCIENTIFIC ADVANCES - WHY IS IT STILL SO DIFFICULT?

UFAW International Symposium 27th-29th June 2017
Royal Holloway, University of London, Surrey, UK

List of posters

Poster session 1 on 27th June. Begins 13.20.
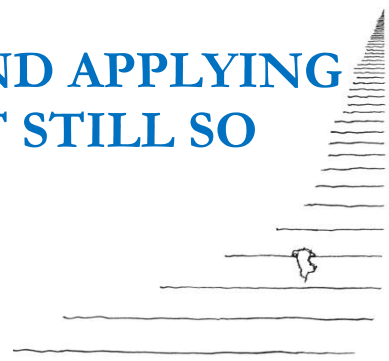Poster session 2 on 28th June. Begins at 13.20.
Poster session 3 on 29th June. Begins at 13.00.

Poster session

27th	**Addison IE and LH Thomas** (Veterinary Association for Wildlife Management, UK) Is there wild animal welfare? If so, when and what to worry about?
27th	**Anderson K, D O'Neill, H Zulch, R Meeson, D Sargan, D Brodbelt, J Summers and LM Collins** (Universities of Lincoln, Cambridge and Leeds, Royal Veterinary College, UK.) Epidemiology of canine osteoarthritis (OA) in the UK dog population as assessed at primary veterinary consultations
28th	**Arena L, GV Berteselli, S Messori and N Ferri** (Istituto Zooprofilattico Sperimentale di Abruzzo e Molise and University of Teramo, Italy) Development of a welfare assessment protocol for cats housed in rescue shelters. A preliminary study
27th	**Arndt SS and VC Goerlich-Jansson** (Utrecht University, The Netherlands) Assessing risks– which factors may affect animal welfare?
28th	**Autier-Dérian D** (Animal Welfare Consulting - Lyon, France) Quantitative and qualitative data go hand-in-hand
28th	**Autier-Dérian D, A Levieuge, E Fontaine, M Freulon, S Boue, C Quain, G Trombini and G Florence** (France Animal Welfare Consulting – Lyon and Service de Santé des Armées, France) Welfare assessment for military dogs
29th	**Bacon HJ, H Walters, V Vancia and N Waran** (University of Edinburgh, UK) Development of a robust canine welfare assessment for dogs in trap-neuter-return programmes
29th	**Baciadonna L and AG McElligott** (Queen Mary University of London, UK) Goats discriminate emotion-linked calls based on valence
27th	**Barnard S, DL Wells, PG Hepper and C Burani** (Queen's University Belfast, UK; Università degli Studi di Parma, Italy) Motor and structural lateralisation as measures of stress in dogs entering a kennel environment
27th	**Battini M, E Canali, F Dai, M Dalla Costa, C Dwyer, S Mattiello, M Minero and F Wemelsfelder** (Università degli Studi di Milano, Italy; SRUC, UK) The on-farm application of qualitative behaviour assessment to goats, sheep, donkeys and horses in the AWIN project
28th	**Baur Y, SJ Vick, A Weiss and HM Buchanan-Smith** (Universities of Stirling and Edinburgh, UK) An inter-disciplinary approach to measure positive welfare in captive gorillas
29th	**Bell LJ** (Myerscough College and Blackpool Zoo, UK) Can we use faecal corticosterone to measure the physiological stress response of transferred *panthera* in zoological collections? How stressful is transfer?

MEASURING ANIMAL WELFARE AND APPLYING SCIENTIFIC ADVANCES - WHY IS IT STILL SO DIFFICULT?

UFAW International Symposium 27th-29th June 2017
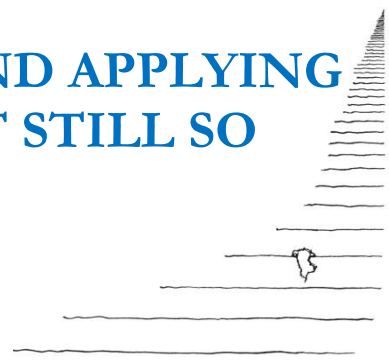**Royal Holloway, University of London, Surrey, UK**

Poster session

28th	**Berteselli GV, L Arena, F De Massis and P Dalla Villa** (Istituto Zooprofilattico Sperimentale di Abruzzo e Molise and Università di Teramo, Italy) Inter-observer agreement in dogs' welfare assessment in ten Italian long-term shelters
29th	**Bethell EJ** (Liverpool John Moores University, UK) Attention bias: A practical method for assessing 'psychological wellbeing' in non-human animals?
27th	**Blakeway SJ** (Sidmouth, UK) Keeping the discipline open: Inclusivity in animal welfare science
28th	**Brando S, L Tasker and HM Buchanan-Smith** (AnimalConcepts, The Netherlands; University of Stirling, UK) Using the 24/7 animal welfare approach to promote the welfare of cynomolgus macaques (*Macaca fascicularis*) housed in research and breeding establishments
29th	**Burani C, P Valsecchi, DL Wells and S Barnard** (Università degli Studi di Parma, Italy; Queen's University Belfast, UK) Bowl half full or half empty? Assessing affective state in shelter dogs
27th	**Busby D, SJ Rogers, C Bell and J Taylor** (Equine Behaviour and Training Association, UK; Epona TV, Denmark) Improving recognition of equine fear and stress (A barrier to welfare improvement)
27th	**Busby D, SJ Rogers SJ, B Hart and J White** (Human Behaviour Change for Animals, UK) The need to apply the science of human behaviour change to improve animal welfare
28th	**Bushby E, M Friel, A Wilkinson, S Cotter and LM Collins** (Universities of Lincoln and Leeds, Queen's University Belfast, UK) Investigating the impact of pregnancy on cognitive bias in pigs
29th	**Campos Luna IM, MC Leach, F Wemelsfelder, AL Miller and AR Beard** (Newcastle University and SRUC, UK) Qualitative behavioural assessment: Preliminary results of its application for assessing laboratory mouse welfare
29th	**Charlton GL, E Bleach, C Gauld, V Thorup and SM Rutter** (Harper Adams University and IceRobotics, UK) Using accelerometers for early detection of dairy cow lameness
28th	**Chincarini M, E Canali, N Ferri, M Mariscoli, M Minero, C Palestrini, L Qiu, A Torricelli and G Vignola** (Università degli Studi di Teramo and Milano, Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale', Politecnico di Milano and Consiglio Nazionale delle Ricerche, Italy) Functional near infrared spectroscopy in animal cognition: Potentials and limits
27th	**Chou J-Y, A Haigh, R D'Eath, D Sandercock, N Waran and K O'Driscoll** (Teagasc, Ireland; SRUC and University of Edinburgh, UK) Use of different wood types as enrichment to reduce tail biting in pigs managed on fully-slatted floors
27th	**Clegg ILK, HG Rödel, B Mercera, CE van Elk and F Delfour** (Université Paris 13 and Parc Astérix, France; Dolfinarium Harderwijk, The Netherlands) Animal-based welfare measures in zoos: The case of captive dolphins

MEASURING ANIMAL WELFARE AND APPLYING SCIENTIFIC ADVANCES - WHY IS IT STILL SO DIFFICULT?

UFAW International Symposium 27th-29th June 2017
Royal Holloway, University of London, Surrey, UK

Poster session

27th **Clegg ILK, HG Rödel, B Mercera, CE van Elk and F Delfour** (Université Paris 13 and Parc Astérix, France; Dolfinarium Harderwijk, The Netherlands)
Difficulties in interpreting the first indicators of positive welfare in dolphins

29th **Cooper J, A Vaughn, M Albentosa, H Hodges and L Chielo** (University of Lincoln,UK)
Using spatial dispersal patterns to assess value of space and quality of life in captive animals. Simple, robust tools for application in confined and unrestricted environments

29th **Cronin KA, EJ Bethell, SL Jacobson and SR Ross** (Lincoln Park Zoo, USA; Liverpool John Moores University, UK)
Measuring mood with minimal training: Latencies on a simple touchscreen task indicate mood in zoo-housed Japanese macaques (*Macaca fuscata*)

28th **Cruden J, O Burman and J Cooper** (GSK and University of Lincoln, UK)
A cage-base and environmental preference test for laboratory rabbits

28th **Czycholl I and J Krieter** (Christian-Albrechts-University, Germany)
Consistency of the Welfare Quality® assessment protocol for pigs during the fattening period

27th **Dale R, N Gillies, VV Vyazovskiy, M de Vos, P Flecknell and CE Bergmann** (University of Oxford and Newcastle University, UK)
Welfare assessments for non-human primates used in neuroscience research

28th **Davidson NB and JL Hurst** (University of Liverpool, UK)
Laughing rats: A novel pest control solution?

27th **Davis N and L Holmes** (Chester Zoo, UK)
Animal welfare assessment processes in zoological collections

29th **Doyle RE, S Hazel, JE Zemitis, CA Ralph, K Plush, RS Morrison, GM Cronin and C Lee** (Universities of Melbourne, Adelaide and Sydney, South Australian Research and Development Institute, Rivalea Australia and CSIRO, Australia)
Developing a rapidly learnt judgement bias test in a confined environment

28th **DuBois C, K Merkies, DB Haley, TJ DeVries and P Lawlis** (University of Guelph, Guelph, Canada)
Examining the usefulness of qualitative data to supplement an on-farm equine welfare assessment tool

28th **du Plessis EW, NJ Beausoleil, CF Bolwell and KJ Stafford** (Massey University, New Zealand)
Validation of a combined conditioned-place aversion and approach-avoidance paradigm for evaluating aversion in chickens

27th **Fernández-Lázaro G, E Alonso-García and X Manteca-Vilanova** (University of Alcalá and Universitat Autònoma de Barcelona, Spain)
Personality studies and training: Useful tools to asses emotions and promote positive welfare in primates? A review

MEASURING ANIMAL WELFARE AND APPLYING SCIENTIFIC ADVANCES - WHY IS IT STILL SO DIFFICULT?

UFAW International Symposium 27th-29th June 2017
Royal Holloway, University of London, Surrey, UK

Poster session

28th **Ferreira JM, IAS Olsson and AM Valentim** (Universidades do Porto and de Trás-os-Montes e Alto Douro, Portugal)
A less aversive anaesthetic to adult zebrafish

27th **Franco NH and IAS Olsson** (Universidade do Porto, Portugal)
Non-invasive infrared thermography for welfare assessment of laboratory rodents

28th **Green J and C Witham** (Newcastle University and Medical Research Council Center for Macaques, UK)
Filling in the gaps: considering nocturnal behaviour patterns in assessments of captive primate welfare

29th **L Greening, E Habershon, S Collop-Smith and T Ghaye** (Hartpury University Centre, UK)
Perceptions of positive equine welfare

29th **Hammerschmidt J and CFM Molento** (Federal University of Paraná, Brazil)
Protocol for expert report on animal welfare as support for court decisions in case of animal cruelty suspicion

27th **Harrison J, MLD Fallon and A Riach** (Askham Bryan College, UK)
The importance of access to outdoor space for domestic cats (*Felis catus*) in a rescue centre

28th **Hitchens PL, J Hultgren, J Frössling, U Emanuelson and LJ Keeling** (Swedish University of Agricultural Sciences and National Veterinary Institute, Sweden; University of Melbourne, Australia)
Improving animal welfare inspections by using epidemiological methods

29th **James C, LG Asher and J Wiseman** (University of Nottingham and Newcastle University, UK)
The impact of ultraviolet wavelengths on broiler chicken welfare indicators

28th **Kophamel S, M Martínez-Novoa and GA María** (University of Zaragoza, Spain)
The human-pet bond. From beginning to end. A Spanish survey

28th **Leung V, E Zhang and DSJ Pang** (Universities of Montréal and Saskatchewan, Canada)
Real-time application of the Rat Grimace Scale as a welfare refinement in laboratory rats

27th **Lima MLP, JA Negrao, T Grandin, AP Freitas and CCP Paz** (Instituto de Zootecnia and Universidade de São Paulo, Brazil; Colorado State University, USA)
Easy assessments to measure the welfare improvement in handling facilities of livestock farm

27th **Lima MLP, JA Negrao, T Grandin, AP Freitas and CCP Paz** (Instituto de Zootecnia and Universidade de São Paulo, Brazil; Colorado State University, USA)
What behaviour trait could be introduced to be used in a beef cattle experimental farm routine?

28th **Mackay AH, GM Cronin, M Singh, PJ Groves and D Phalen** (The University of Sydney, Australia)
A pilot study: A microbiological approach to understanding feather pecking in laying hens

28th **Martin JE and DEF McKeegan** (Universities of Edinburgh and Glasgow, UK)
The elusive boundary between consciousness and unconsciousness: Spectral analysis of EEG may hold the key

MEASURING ANIMAL WELFARE AND APPLYING SCIENTIFIC ADVANCES - WHY IS IT STILL SO DIFFICULT?

UFAW International Symposium 27th-29th June 2017
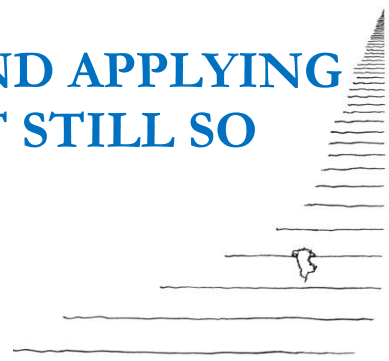**Royal Holloway, University of London, Surrey, UK**

Poster session

29th   **Martinez CA, P Szenczi, L Pérez, R Hudson, ME Morones and M de L Alonso** (Universidad Autónoma Metropolitana-Xochimilco, UATx, Universidad Nacional Autónoma de México and Unidad Médica Veterinaria de la Policía Montada de la CDMX, Mexico)
Evaluation of individual differences in the stress response to mother-young separation in the domestic horse

28th   **McLennan KM, MJ Corke and F Constantino-Casas** (Universities of Chester and Cambridge, UK)
Biomarkers of pain - separating pain from inflammation

29th   **Mondon M, R Merle and C Thöne-Reineke** (Freie Universität Berlin, Germany)
Systematic review on animal welfare indicators in dairy cattle to identify those of highest validity

27th   **Morgan K, A Wilkinson and J Cooper** (University of Lincoln, UK)
Public perceptions of feline characteristics in re-homing shelters and the impact these have on adoption success

29th   **Newell KJ, J Chitty and FM D Henson** (University of Cambridge and 'Smartbell', UK)
Use of real-time geo-location to remotely monitor locomotory behaviour as a potential proxy for well being in experimental sheep

28th   **Noble CE, LM Wiseman-Orr, AM Nolan, EM Scott and J Reid** (NewMetrica Ltd, University of Glasgow and Edinburgh Napier University, UK)
Validation of a feline generic health-related quality of life instrument with an add on module for osteoarthritis

29th   **O'Neill DG, JF Summers, DB Church and DC Brodbelt** (The Royal Veterinary College, UK)
Vetcompass: A new face for robust animal welfare research data

27th   **Oxley JA, CF Ellis, W McCormick and A McBride** (Romford, Moulton College and Universities of Northampton and Southampton, UK)
A survey of common rabbit handling methods and reasons for their use

27th   **Oxley JA and SA Gaines** (Romford and RSPCA, UK)
The welfare implications as a result of breed specific legislation in the UK

29th   **Perera BVP, JL Brown, C Thitaram, RPVJ Rajapakse and A Silva-Fletcher** (The Elephant Transit Home and University of Peradeniya, Sri Lanka; Smithsonian Conservation Biology Institute, USA; Chiang Mai University, Thailand; The Royal Veterinary College, UK)
Calves using faecal corticosteroid metabolites as indicator at the Elephant Transit Home, Sri Lanka

28th   **Reaney SJ, H Zulch and LM Collins** (University of Lincoln, UK)
Using pet owners in assessments about their pets personality and health status: Which human characteristics may influence responding

28th   **Reijgwart ML, NJ Schoemaker, MC Leach, CFM Hendriksen, M van der Meer, CM Vinke and YRA van Zeeland** (Institute for Translational Vaccinology, Utrecht University, The Netherlands; Newcastle University, UK)
Development and validation of a Ferret Grimace Scale (FGS)

MEASURING ANIMAL WELFARE AND APPLYING SCIENTIFIC ADVANCES - WHY IS IT STILL SO DIFFICULT?

UFAW International Symposium 27th-29th June 2017
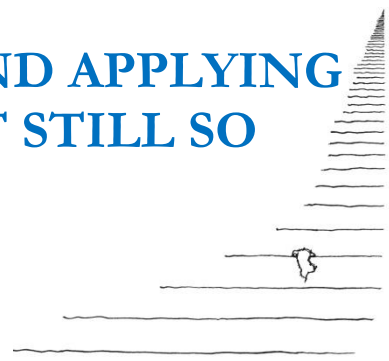**Royal Holloway, University of London, Surrey, UK**

Poster session

29th **Riemer S, L Assis, T Pike and DS Mills** (University of Bern, Switzerland; University of Lincoln, UK)
Are your ears burning when I'm not there? Distance monitoring of positive and negative affective states in dogs with infrared thermography

29th **Robbins JA, B Franks and MAG von Keyserlingk** (University of British Columbia, Canada)
More than a feeling: an empirical challenge for descriptive, mental-state accounts of animal happiness

27th **Rose PE, J Linscott, S Banks and R Cromie** (University of Exeter, Wildfowl and Wetland Trust, Sparsholt College Hampshire, UK)
Benchmarking positive welfare in commonly-housed zoo birds

28th **Sandri C, A Martini, S Normando, W Magnone, B Regaiolli and C Spiezio** (Parco Natura Viva – Garda Zoological Park and University of Padua, Italy)
Could animal behaviour and behavioural flexibility be measures of welfare of zoo animals: The case of a mixed-species exhibit of Watusi cattle in a safari park

27th **Schmitt O, LA Boyle, K O'Driscoll and EM Baxter** (Teagasc, Ireland; University of Edinburgh and SRUC, UK)
Assessment of the emotional state of pigs reared artificially or by a sow

27th **Scullion Hall LEM, S Robinson and HM Buchanan-Smith** (University of Stirling and AstraZeneca, UK)
Integrating measures of welfare in the laboratory-housed dog

27th **Sommerville R, M Upjohn, K Wells and A Thomas** (Brooke Action for Working Horses and Donkeys, UK)
From paper to practice: Collaboration as impetus for implementation of the latest animal welfare concepts

29th **Spence CE, M Osman and AG McElligott** (Queen Mary University of London, UK)
Public attitudes to animal sentience and welfare

28th **Spiezio C, C Vandelle, B Regaiolli and C Sandri** (Parco Natura Viva, Garda Zoological Park, Italy; University of Liège, Belgium)
How do we measure the effectiveness of environmental enrichment for zoo chimpanzees' welfare?

29th **Stirling J** (Edinburgh Napier University, UK)
Does the cage-trapping of corvids cause unnecessary suffering? A behavioural study of trapped magpies

28th **Stokes JE, DCJ Main, S Mullan, MJ Haskell, F Wemelsfelder and CM Dwyer** (University of Bristol, SRUC, UK)
Collaborative development of positive welfare indicators with dairy cattle and sheep farmers

27th **Stomp M, S Henry and M Hausberger** (Université de Rennes 1, France)
Are positive emotions reliable indicators of welfare in horses?

27th **Studer BHP, J Volstorf, MF Castanheira, JL Saraiva and P Arechavala-López** (fair-fish international association, Switzerland; Mediterranean Institute for Advanced Studies, Spain)
FishEthoScore - Assessment of fish species' potential for welfare in farming

MEASURING ANIMAL WELFARE AND APPLYING SCIENTIFIC ADVANCES - WHY IS IT STILL SO DIFFICULT?

UFAW International Symposium 27th-29th June 2017
Royal Holloway, University of London, Surrey, UK

Poster session

28th   **Sutherland MA, GM Worth, M Stewart and KE Schütz** (AgResearch Ltd., LIC and InterAg, New Zealand)
Leaving no stone unturned: Assessing the welfare of calves reared on stones

29th   **Tamioso PR, A Boissy, X Boivin, H Chandèze, S Andanson, E Delval, CA Taconeli, GP Silva and CFM Molento** (Federal University of Paraná - UFPR, Brazil; Institut National de la Recherche Agronomique – INRA, France)
Behavioral responses of sheep submitted to human presence and brushing

29th   **Tanner N and A Marshall** (University of York and Flamingo Land Ltd., UK)
Influence of husbandry and enclosure design on the welfare of captive giraffes

28th   **Telkänranta H, A Koskela, S Somppi, MV Kujala, H Törnqvist, O Vainio and M Vainionpää** (University of Helsinki, Aalto University and Veterinary Clinic Askel, Finland; University of Bristol, UK)
Thermography reveals emotional arousal in rats encountering highly preferred food

27th   **Thorpe SKS, N Hanson, E Saunders, R Pietragello-Brown, C MacDonald, K Pullen and J Chappell** (University of Birmingham, Twycross Zoo and BIAZA, UK)
An enclosure design tool to enable zoos to create integrated, wild-type enclosures for Great apes

27th   **Ursinus WW, B Rietveld-Piepers, JH Bongers and THM Sijm** (Netherlands Food and Consumer Product Safety Authority, The Netherlands)
Animal welfare risk assessment of the food supply chain

28th   **Vandenabeele SP, RP Wilson and A Grogan** (Swansea University and Royal Society for the Prevention of Cruelty to Animals, UK)
New technology can help assess stress levels of animals

28th   **van der Laan JE, AS van der Wal, LM Bril, JAM van der Borg and CM Vinke** (Utrecht and Wageningen University and Research, The Netherlands)
Canine welfare monitoring: evaluating nocturnal activity as an indicator of adaptability of dogs to a shelter environment

29th   **van Rooijen J** (Wageningen, The Netherlands)
Answers to questions concerning the scientific study of animal welfare and suffering

27th   **Varner GE** (Texas A&M University, USA)
A utilitarian framework for categorizing and assessing welfare improvement strategies

28th   **Vogel CJ** (The Chamber of Experts, UK)
Examining the animal – the starting point of welfare assessment

28th   **Webber CE and PC Lee** (University of Stirling, UK)
Behavioural development and play in elephant calves

29th   **Wells DL, PG Hepper, ADS Milligan and S Barnard** (Queen's University Belfast, UK)
The value of paw preference as a measure of canine welfare

27th   **Westen HR** (World Horse Welfare, UK)
The ongoing horsemeat scandal

MEASURING ANIMAL WELFARE AND APPLYING SCIENTIFIC ADVANCES - WHY IS IT STILL SO DIFFICULT?

UFAW International Symposium 27th-29th June 2017
Royal Holloway, University of London, Surrey, UK

Poster session

29th **Williams CJA, LE James, W Joyce, C Taulbjerg, CAC Leite, MF Bertelsen and T Wang**
(Aarhus and Copenhagen Universities and Copenhagen Zoo, Denmark; Federal University of São Carlos, Brazil)
Assessing acute and post-operative welfare in reptiles: Case studies in snakes and terrapins

27th **Witham CL** (Newcastle University and MRC Centre for Macaques, UK).
Using automated video analysis to monitor social relationships in group-housed macaques

28th **Zhang E, V Leung and DSJ Pang** (Universities of Saskatchewan and Montréal, Canada)
The influence of rater training on reliability when using the Rat Grimace Scale

28th **Zhang Y and CJC Phillips** (University of Queensland, Australia)
Climatic influences on the mortality of sheep exported from Australia to the Middle East

28th **Zobel G and J Webster** (AgResearch Ltd. and Massey University, New Zealand)
"Farming by phone" - Is there a risk that increasing use of technology will erode our obligations to care for animals?