

# Animal Welfare

ISSN 0962-7286

## Volume 25 2016

# INDEX

Universities Federation for Animal Welfare  
The Old School, Brewhouse Hill, Wheathampstead, Herts AL4 8AN, UK  
Tel: +44 1582 831818 Fax: +44 1582 831414  
Email: [ufaw@ufaw.org.uk](mailto:ufaw@ufaw.org.uk) Web: [www.ufaw.org.uk](http://www.ufaw.org.uk)

## List of articles

## Volume 25 Issue 1

February 2016

<b>Tree cover and injurious feather-pecking.</b> <i>A Bright, R Gill and TH Willings</i>	1
<b>Population control in captive primates.</b> <i>PY Wallace, CS Asa, M Agnew and SM Cheyne</i>	7
<b>Croatian veterinary students and farm animal welfare.</b> <i>M Ostović, Ž Mesić, T Mikuš, K Matković and Ž Pavičić</i>	21
<b>Attitudes to injurious pecking.</b> <i>LJ Palczynski, H Buller, SL Lambton and CA Weeks</i>	29
<b>Theory of planned behaviour and kangaroo harvesters.</b> <i>TM Sharp and SR McLeod</i>	39
<b>Effects of analgesic drugs on broiler mobility.</b> <i>B Hothersall, G Caplen, RMA Parker, CJ Nicol, AE Waterman-Pearson, CA Weeks and JC Murrell</i>	55
<b>Hospital pens in Danish dairy herds.</b> <i>H Houe, PT Thomsen, C Amdi, MS Herskin, B Forkman and MB Jensen</i>	69
<b>Effect of carbon dioxide stunning in lambs.</b> <i>P Rodriguez, A Dalmau, X Manteca, H Litvan, EW Jensen and A Velarde</i>	73
<b>Stocking rate during argon euthanasia of pigs.</b> <i>KJ Fiedler, RL Parsons, LJ Sadler and ST Millman</i>	83
<b>Consumer attitudes to injurious pecking.</b> <i>RM Bennett, PJ Jones, CJ Nicol, RB Tranter and CA Weeks</i>	91
<b>Slaughter horse welfare during unloading.</b> <i>S Messori, EK Visser, M Buonanno, P Ferrari, S Barnard, M Borciani and N Ferri</i>	101
<b>Cat welfare and susceptibility to cliphthesia.</b> <i>V Nuti, C Cantile, A Gazzano, C Sighieri and C Mariti</i>	115
<b>Factors affecting animal welfare in veterinary clinics.</b> <i>LC Dawson, CE Dewey, EA Stone, MT Guerin and L Niel</i>	125
<b>Practical and theoretical evaluation of SWIM 1.0.</b> <i>O Folkedal, JM Pettersen, MBM Bracke, LH Stien, J Nilsson, C Martins, O Breck, PJ Midtlyng and T Kristiansen</i>	135
<b>Loading capacity of trotting Yonaguni ponies.</b> <i>A Matsuura, H Mano, M Irimajiri and K Hodate</i>	151

## Volume 25 Issue 2

May 2016

<b>Mirrors as primate enrichment.</b> <i>B de Groot and SM Cheyne</i>	163
<b>Lambs in pain show ear posture changes.</b> <i>MJ Guesgen, NJ Beausoleil, EO Minot, M Stewart, KJ Stafford and PCH Morel</i>	171
<b>Keel and foot injuries in Danish layers.</b> <i>AB Riber and LK Hinrichsen</i>	179
<b>Pigs use human-given cues to locate food.</b> <i>C Nawroth, M Ebersbach and E von Borell</i>	185
<b>Cattle welfare in Indonesian abattoirs.</b> <i>RE Doyle, GJ Coleman, DM McGill, M Reed, W Ramdani and PH Hemsworth</i>	191
<b>The welfare costs of civet coffee tourism.</b> <i>G Carder, H Proctor, J Schmidt-Burbach and N D'Cruze</i>	199
<b>Quantification of animal welfare dairy herds.</b> <i>ND Otten, T Rousing, H Houe, PT Thomsen and JT Sørensen</i>	207
<b>Rest stops and behaviour of transported cattle.</b> <i>M Ross, TM Widowski and DB Haley</i>	217
<b>Physiological responses to mechanical devices for killing poultry.</b> <i>JE Martin, DEF McKeegan, J Sparrey and V Sandilands</i>	227
<b>UK cage-free hen feather cover improvement.</b> <i>S Mullan, C Szmaragd, MD Cooper, JHM Wrathall, J Jamieson, A Bond, C Atkinson and DCJ Main</i>	243
<b>Improved welfare by strategic slaughter transportation modelling.</b> <i>N Håkansson, P Flisberg, B Algers, A Jonsson, M Rönnqvist and U Wennergren</i>	255
<b>Mink welfare differs between production periods.</b> <i>BIF Henriksen, JT Sørensen and SH Møller</i>	265
<b>Empathy in veterinary students.</b> <i>ES Colombo, A Pelosi and E Prato-Previde</i>	275
<b>Behavioural differences between pig tail types.</b> <i>MA Paoli, HP Lahrmann, T Jensen and RB D'Eath</i>	287

## Volume 25 Issue 3

August 2016

<b>Rehoming of rabbits in Sweden.</b> <i>L Ulfsdotter, A Lundberg and M Andersson</i>	303
<b>A survey of sow management at farrowing.</b> <i>SH Ison, S Jarvis and KMD Rutherford</i>	309
<b>Social science research on farm animal welfare.</b> <i>C Devitt, P Kelly, M Blake, A Hanlon and SJ More</i>	319
<b>Behavioural diversity in cheetahs.</b> <i>LJ Miller, CB Pisacane and GA Vicino</i>	325
<b>ECG in sheep.</b> <i>F Orford, EA Ford, SN Brown, J McKinstry, PJ Hadley, JA Lines, TG Knowles and SB Wotton</i>	331
<b>Pre-slaughter fasting and stress in rainbow trout.</b> <i>R Bermejo-Poza, J De la Fuente, C Pérez, S Lauzurica, E González de Chávarri, MT Diaz and M Villarreal</i>	339
<b>Captive-bolt shot placement in cattle.</b> <i>JN Gilliam, JK Shearer, RJ Bahr, S Crochlik, J Woods, J Hill, J Reynolds and JD Taylor</i>	347
<b>Animal welfare and food safety indicators in pigs.</b> <i>I Alpigiani, C Bacci, LJ Keeling, MD Salman, F Brindani, S Pongolini, PL Hitchens and S Bonardi</i>	355

<b>Halal stunning and slaughter of cattle.</b> <i>A Fuseini, TG Knowles, JA Lines, PJ Hadley and SB Wotton</i>	365
<b>Asian students' attitudes to transport and slaughter.</b> <i>RZ Ling, I Zulkifli, PN Lampang, DV Nhiem, Y Wang and CJC Phillips</i>	377
<b>Volume 25 Issue 4</b>	<b>November 2016</b>
<b>Technology for improving zoo animal welfare.</b> <i>JC Whitham and LJ Miller</i>	395
<b>Attitude of equestrians to sports horse welfare.</b> <i>C Ikinge and A Spiller</i>	411
<b>Harmless stress assessment in gilthead bream.</b> <i>M Herrera, J López and A Herves</i>	423
<b>Attitudes of beef producers to disbudding and pain.</b> <i>I Wikman, A-H Hokkanen, M Pastell, T Kauppinen, A Valros and L Hänninen</i>	429
<b>Welfare issues among pig farmers in Tanzania.</b> <i>UC Braae, M-L Penrith, HA Ngowi, F Lekule and MV Johansen</i>	439
<b>Reliability of the Welfare Quality® protocol.</b> <i>I Czycholl, C Kniese, K Büttner, E Grosse Beilage, L Schrader and J Krieter</i>	447
<b>Compliance with farm animal welfare legislation inspections.</b> <i>CCA Clark, R Crump, AL KilBride and LE Green</i>	461
<b>Euthanasia of goat kids.</b> <i>MA Sutherland, TJ Watson, CB Johnson and ST Millman</i>	471
<b>AWIN approach to horse welfare assessment.</b> <i>E Dalla Costa, F Dai, D Lebelt, P Scholz, S Barbieri, E Canali, AJ Zanella and M Minero</i>	481
<b>Stunning crustaceans with electricity prior to slaughter.</b> <i>B Roth and E Grimsbø</i>	489
<b>Standardising assessment of legislation compliance for pigs.</b> <i>B Hothersall, L Whistance, H Zedlacher, B Algers, E Andersson, M Bracke, V Courboulay, P Ferrari, C Leeb, S Mullan, J Nowicki, M-C Meunier-Salaün, T Schwarz, L Stadig and D Main</i>	499

## Author and subject index

<b>A</b>	
Abnormal behaviour	
- behavioural differences between pigs tail types .....	287
- mirrors as primate enrichment .....	163
<i>Acinonyx jubatus</i>	
- behavioural diversity in cheetahs .....	325
Adrenal activity	
- behavioural diversity in cheetahs .....	325
Africa	
- welfare issues among pig farmers in Tanzania .....	439
Aggregation mode;	
- quantification of animal welfare in dairy herds .....	207
<b>Agnew M</b> , see Wallace PY	
<b>Algers B</b> , see Håkansson N, see also Hothersall B	
<b>Alpigiani I, Bacci C, Keeling LJ, Salman MD, Brindani F, Pongolini S, Hitchens PL and Bonardi S</b>	
The associations between animal-based welfare measures and the presence of indicators of food safety in finishing pigs .....	355
<b>Amdi C</b> , see Houe H	
Analgesia	
- effect of analgesic drugs on broiler mobility .....	55
<b>Andersson E</b> , see Hothersall B	
<b>Andersson M</b> , see Ulfsdotter L	
Animal-based	
- AWIN approach to horse welfare assessment .....	481
Animal-based measures	
- animal welfare and food safety indicators in pigs .....	355
- quantification of animal welfare in dairy herds .....	207
- reliability of the Welfare Quality® protocol .....	447
Animal health code	
- <i>Welfare of Working Equids</i> (R) .....	512
Animal owner	
- rehoming of rabbits in Sweden .....	303
Animal seizure tracker	
- <i>RVC Pet Epilepsy Tracker App</i> (R) .....	157
Animal shelters	
- <i>Animal Behaviour for Shelter Veterinarians and Staff</i> (B) .....	392
Animal trade	
- <i>The Animal Trade</i> (B) .....	301
Animal welfare assessment	
- reliability of the Welfare Quality® protocol .....	447
<b>Animal welfare initiatives improve feather cover for cage-free laying hens in the UK</b> .....	243
<b>A preliminary approach on the stress assessment through harmless procedures in farmed seabream (<i>Sparus aurata</i>)</b> .....	423
Aquaculture	
- harmless stress assessment in gilthead bream .....	423
- practical and theoretical evaluation of SWIM 1.0 .....	135
<b>Are domestic pigs (<i>Sus scrofa domestica</i>) able to use complex human-given cues to find a hidden reward?</b> .....	185
<b>A review of population control methods in captive-housed primates</b> .....	7
Argon	
- stocking rate during argon euthanasia of pigs .....	83
<b>Asa CS</b> , see Wallace PY	
Asia	
- Asian students' attitudes to transport and slaughter .....	377
Asian dairy cows	
- <i>Cow Talk: Understanding Dairy Cow Behaviour to Improve Their Welfare on Asian Farms</i> (B) .....	391
Assessment	
- factors affecting animal welfare in veterinary clinics .....	125
<b>Assessment of aversion and unconsciousness during exposure to carbon dioxide at high concentration in lambs</b> .....	73

<b>A survey of animal welfare experts and practicing veterinarians to identify and explore key factors thought to influence canine and feline welfare in relation to veterinary care</b> .....	125
<b>A survey of sow management at farrowing in the UK</b> .....	309
Atlantic salmon	
- practical and theoretical evaluation of SWIM 1.0 .....	135
<b>Atkinson C</b> , see Mullan S	
<b>A tool for the evaluation of slaughter horse welfare during unloading</b> .....	101
Attitudes	
- Asian students' attitudes to transport and slaughter .....	377
- attitudes of beef producers to disbudding and pain .....	429
- Croatian veterinary students and farm animal welfare .....	21
- theory of planned behaviour and kangaroo harvesters .....	39
<b>Attitudes of beef producers to disbudding and perception of pain in cattle</b> .....	429
<b>Attitudes of students from south-east and east Asian countries to slaughter and transport of livestock</b> .....	377
<b>Attitudes of veterinary students in Croatia towards farm animal welfare</b> .....	21
Attitudes towards animals	
- attitudes of equestrians to sport horse welfare .....	411
Auditory-evoked potential	
- effect of carbon dioxide in lambs .....	73
Automated monitoring	
- technology for improving zoo animal welfare .....	395
<b>Availability and use of designated hospital pens in Danish dairy herds</b> .....	69
Aversion	
- effect of carbon dioxide in lambs .....	73
<b>Awareness concerning optimal pig production management and animal welfare among smallholder farmers in Tanzania</b> .....	439
<b>B</b>	
<b>Bacci C</b> , see Alpigiani I	
<b>Bahr RJ</b> , see Gilliam JN	
<b>Barbieri S</b> , see Dalla Costa E	
<b>Barnard S</b> , see Messori S	
<b>Beausoleil NJ</b> , see Guesgen MJ	
Beef cattle	
- rest stops and behaviour of transported animals .....	217
Beef producer	
- attitudes of beef producers to disbudding and pain .....	429
Behaviour	
- rehoming of rabbits in Sweden .....	303
- rest stops and behaviour of transported animals .....	217
- stocking rate during argon euthanasia of pigs .....	83
- technology for improving zoo animal welfare .....	395
<b>Behavioural differences between weaner pigs with intact and docked tails</b> .....	287
Behavioural diversity	
- behavioural diversity in cheetahs .....	325
<b>Bennett RM, Jones PJ, Nicol CJ, Tranter RB and Weeks CA</b> Consumer attitudes to injurious pecking in free-range egg production .....	91
<b>Bermejo-Poza R, De la Fuente J, Pérez C, Lauzurica S, González de Chávarri E, Diaz MT and Villarroel M</b> Reducing the effect of pre-slaughter fasting on the stress response of rainbow trout ( <i>Oncorhynchus mykiss</i> ) .....	339
<b>Blake M</b> , see Devitt C	
<b>Bonardi S</b> , see Alpigiani I	
<b>Bond A</b> , see Mullan S	
<b>Borciani M</b> , see Messori S	
<b>Braae UC, Penrith M-L, Ngowi HA, Lekule F and Johansen MV</b> Awareness concerning optimal pig production management and animal welfare among smallholder farmers in Tanzania .....	439
<b>Bracke MBM</b> , see Folkedal O, see also Hothersall B	
Brainstem	
- captive-bolt placement in cattle .....	347
<b>Breck O</b> , see Folkedal O	
<b>Bright A, Gill R and Willings TH</b> Tree cover and injurious feather-pecking in commercial flocks on free-range laying hens: a follow up.....	1

**Brindani F**, see Alpigiani I

Broiler chicken

- effect of analgesic drugs on broiler mobility .....55

**Brown SN**, see Orford F

**Buller H**, see Palczynski LJ

**Buonanna M**, see Messori S

**Büttner K**, see Czycholl I

## C

**Classification of animal welfare on mink farms differs between three annual production periods** .....265

**Canali E**, see Dalla Costa E

**Cantile C**, see Nuti V

**Caplen G**, see Hothersall B

Captive-bolt

- captive-bolt placement in cattle .....347
- physiological responses to mechanical devices for killing poultry .....227

Captivity

- mirrors as primate enrichment .....163

Carbon dioxide

- effect of carbon dioxide in lambs .....73

**Carder G, Proctor H, Schmidt-Burbach J and D'Cruze N** The animal welfare implications of civet coffee tourism in Bali .....199

Cat

- cat welfare and susceptibility to clipthesia .....115
- factors affecting animal welfare in veterinary clinics .....125

Cattle

- captive-bolt placement in cattle .....347
- cattle welfare at Indonesian abattoirs .....191
- halal stunning and slaughter of cattle .....365
- improved welfare by strategic slaughter transportation modelling .....255

Cattle pain

- attitudes of beef producers to disbudding and pain .....429

Cervical dislocation

- physiological responses to mechanical devices for killing poultry .....227

Changing attitudes

- attitudes to injurious pecking .....29

Cheetah

- behavioural diversity in cheetahs .....325

**Cheyne SM**, see De Groot B, see Wallace PY

Circus animals

- *Wild Animals in Circuses* (R) .....511

**Clark CCA, Crump R, KilBride AL and Green LE** Farm membership of voluntary welfare schemes results in better compliance with animal welfare legislation in Great Britain .....461

Clipnosis

- cat welfare and susceptibility to clipthesia .....115

Clipthesia

- cat welfare and susceptibility to clipthesia .....115

**Coleman GJ**, see Doyle RE

**Colombo ES, Pelosi A and Prato-Previde E** Empathy towards animals and belief in animal-human-continuity in Italian veterinary students .....275

Commercial harvesting

- theory of planned behaviour and kangaroo harvesters .....39

Common palm civet

- the welfare costs of civet coffee tourism .....199

Companion animal

- factors affecting animal welfare in veterinary clinics .....125

**Comparison of animal welfare indices in dairy herds based on different sources of data** .....207

**Comparison of novel mechanical cervical dislocation and a modified captive bolt for on-farm killing of poultry on behavioural reflex responses and anatomical pathology** .....227

**Conducting sensitive social science research about on-farm animal welfare incidents: challenges and approaches** .....319

Consumer attitudes

- consumer attitudes to injurious pecking .....91

<b>Consumer attitudes to injurious pecking in free-range egg production</b> .....	91
Contraception	
- population control in captive primates .....	7
<b>Cooper MD</b> , see Mullan S	
Cortisol	
- pre-slaughter fasting and stress in rainbow trout .....	339
<b>Courboulay V</b> , see Hothersall B	
Cow welfare	
- <i>Cow Talk: Understanding Dairy Cow Behaviour to Improve Their Welfare on Asian Farms (B)</i> .....	391
Crab	
- stunning crustaceans with electricity prior to slaughter .....	489
Croatia	
- Croatian veterinary students and farm animal welfare .....	21
<b>Crochik S</b> , see Gilliam JN	
<b>Crump R</b> , see Clark CCA	
Crustacean	
- stunning crustaceans with electricity prior to slaughter .....	489
<b>Czycholl I, Kniese C, Büttner K, Grosse Beilage E, Schrader L and Krieter J</b> Test-retest reliability of the Welfare Quality® animal welfare assessment protocol for growing pigs .....	447
<b>D</b>	
<b>Dai F</b> , see Dalla Costa E	
Dairy cattle	
- hospital pens in Danish dairy herds .....	69
- quantification of animal welfare in dairy herds .....	207
<b>Dalla Costa E, Dai F, Lebelt D, Scholz P, Barbieri S, Canali E, Zanella AJ and Minero M</b> Welfare assessment of horses: the AWIN approach .....	481
<b>Dalmau A</b> , see Rodríguez P	
<b>Dawson LC, Dewey CE, Stone EA, Guerin MR and Niel L</b> A survey of animal welfare experts and practicing veterinarians to identify and explore key factors thought to influence canine and feline welfare in relation to veterinary care .....	125
<b>D’Cruze N</b> , see Carder G	
<b>D’Eath RB</b> , see Paoli MA	
<b>De Groot B and Cheyne SM</b> Does mirror enrichment improve primate well-being? .....	163
<b>De la Fuente J</b> , see Bermejo-Poza R	
Denmark	
- hospital pens in Danish dairy herds .....	69
<b>Devitt C, Kelly P, Blake M, Hanlon A and More SJ</b> Conducting sensitive social science research about on-farm animal welfare incidents: challenges and approaches .....	319
<b>Dewey CE</b> , see Dawson LC	
Diagnostic	
- practical and theoretical evaluation of SWIM 1.0 .....	135
<b>Diaz MT</b> , see Bermejo-Poza R	
Disbudding	
- attitudes of beef producers to disbudding and pain .....	429
Disease incidence	
- hospital pens in Danish dairy herds .....	69
<b>Does mirror enrichment improve primate well-being?</b> .....	163
Dog	
- factors affecting animal welfare in veterinary clinics .....	125
Domestic animal behaviour	
- <i>Domestic Animal Behaviour and Welfare, Fifth Edition (B)</i> .....	515
Domestic pigs	
- pigs use human-given cues to locate food .....	185
<b>Doyle RE, Coleman GJ, McGill DM, Reed M, Ramdani W and Hemsworth PH</b> Investigating the welfare, management and human-animal interactions of cattle in four Indonesian abattoirs .....	191
<b>E</b>	
Ear posture	
- lambs in pain show ear posture changes .....	171
<b>Ebersbach M</b> , see Nawroth C	
<b>Effect of carprofen, meloxicam and butorphanol on broiler chickens’ performance in mobility tests</b> .....	55

<b>Effects of stocking rate on measures of efficacy and welfare during argon gas euthanasia of weaned pigs</b> .....	83
Electrical stunning	
- ECG in sheep .....	331
<b>Electrical stunning of edible crabs (<i>Cancer pagurus</i>): from single experiments to commercial practice</b> .....	489
Electricity	
- stunning crustaceans with electricity prior to slaughter .....	489
Electrocardiogram	
- ECG in sheep .....	331
Electroencephalogram	
- euthanasia of goat kids .....	471
Emotion	
- lambs in pain show ear posture changes .....	171
Empathy	
- empathy in veterinary students .....	275
<b>Empathy towards animals and belief in animal-human-continuity in Italian veterinary students</b> .....	275
Enrichment	
- standardising assessment of legislation compliance for pigs .....	499
Epilepsy	
- RVC Pet Epilepsy Tracker App (R) .....	157
Equestrians	
- attitudes of equestrians to sport horse welfare .....	411
Equid welfare	
- <i>New Zealand Code of Welfare for Horses and Donkeys</i> (R) .....	297
Equine welfare	
- <i>Horses in Our Hands</i> (R) .....	513
- <i>Welfare of Working Equids</i> (R) .....	512
European attitudes to welfare	
- <i>Special Eurobarometer 442: European Commission Public Opinion Survey into 'Attitudes of Europeans Towards Animal Welfare'</i> (R) .....	389
Euthanasia	
- captive-bolt placement in cattle .....	347
- euthanasia of goat kids .....	471
- population control in captive primates .....	7
- stocking rate during argon euthanasia of pigs .....	83
<b>Evaluation of brainstem disruption following penetrating captive-bolt shot in isolated cattle herds: comparison of traditional and alternative shot-placement landmarks</b> .....	347
<b>Evaluation of the efficacy of a non-penetrating captive bolt to euthanase neonatal goats up to 48 hours of age</b> .....	471
Exporting animals	
- <i>The Animal Trade</i> (B) .....	301
<b>F</b>	
Faecal cortisol	
- harmless stress assessment in gilthead bream .....	423
Faecal glucocorticoid metabolites	
- behavioural diversity in cheetahs .....	325
<b>Factors influencing the attitude of equestrians towards sport horse welfare</b> .....	411
Farm	
- reliability of the Welfare Quality® protocol .....	447
Farm animals	
- compliance with farm animal welfare legislation inspections .....	461
- Croatian veterinary students and farm animal welfare .....	21
Farm animal welfare	
- <i>Different Approaches to Regulations: Moving to Non-Statutory Guidance for Farming Animal Welfare Codes in England</i> (R) .....	297
Farm assurance	
- UK cage-free hen feather cover improvement .....	243
<b>Farmer attitudes to injurious pecking in laying hens and to potential control strategies</b> .....	29
<b>Farm membership of voluntary welfare schemes results in better compliance with animal welfare legislation in Great Britain</b> .....	461



Farrowing	
- a survey of cow management in farrowing .....	309
Fasting	
- pre-slaughter fasting and stress in rainbow trout .....	339
Feather loss	
- UK cage-free hen feather cover improvement .....	243
Feed	
- welfare issues among pig farmers in Tanzania .....	439
Feed competition	
- rest stops and behaviour of transported animals .....	217
<b>Ferrari P</b> , see Hothersall B, see also Messori S	
<b>Ferri N</b> , see Messori S	
<b>Fiedler KJ, Parsons RL, Sadler LJ and Millman ST</b> Effects of stocking rate on measures of efficacy and welfare during argon gas euthanasia of weaned pigs .....	83
Finishing pigs	
- animal welfare and food safety indicators in pigs .....	355
<b>Flisberg P</b> , see Håkansson N	
<b>Folkedal O, Pettersen JM, Bracke MBM, Stien LH, Nilsson J, Martins C, Breck O, Midtlyng PJ and Kristiansen T</b> On-farm evaluation of the Salmon Welfare Index Model (SWIM 1.0): theoretical and practical considerations .....	135
Food safety	
- animal welfare and food safety indicators in pigs .....	355
- <i>Gracey's Meat Hygiene, Eleventh Edition</i> (B) .....	299
Foot injuries	
- keel and foot injuries in Danish layers .....	179
<b>Ford EA</b> , see Orford F	
<b>Forkman B</b> , see Houe H	
Free range	
- tree cover and injurious feather-pecking .....	1
Free-range layers	
- consumer attitudes to injurious pecking .....	91
<b>Fuseini A, Knowles TG, Lines JA, Hadley PJ and Wotton SB</b> The stunning and slaughter of cattle within the EU: a review of the current situation with regard to the halal market .....	365
Future developments	
- <i>Animal Welfare: Focusing on the Future</i> (B) .....	159
<b>G</b>	
Gait analysis	
- loading capacity of trotting Yonaguni ponies .....	151
<b>Gazzano A</b> , see Nuti V	
Gender difference	
- empathy in veterinary students .....	275
<b>Gill R</b> , see Bright A	
<b>Gilliam JN, Shearer JK, Bahr RJ, Crochik S, Woods J, Hill J, Reynolds J and Taylor JD</b> Evaluation of brainstem disruption following penetrating captive-bolt shot in isolated cattle herds: comparison of traditional and alternative shot-placement landmarks .....	347
Gilthead seabream	
- harmless stress assessment in gilthead bream .....	423
Global policy on welfare	
- <i>Animal Welfare: Focusing on the Future</i> (B) .....	159
Glycogen	
- pre-slaughter fasting and stress in rainbow trout .....	339
Goats	
- euthanasia of goat kids .....	471
<b>González de Chávarri E</b> , see Bermejo-Poza R	
Government legislation	
- compliance with farm animal welfare legislation inspections .....	461
<b>Grimsbø E</b> , see Roth B	
<b>Green LE</b> , see Clark CCA	
<b>Grosse Beilage E</b> , see Czycholl I	
<b>Guerin MT</b> , see Dawson LC	
<b>Guesgen MJ, Beausoleil NJ, Minot EO, Stewart M, Stafford KJ and Morel PCH</b> Lambs show changes in ear posture when experiencing pain .....	171

<b>H</b>	
<b>Hadley PJ</b> , see Fuseini A, see also Orford F	
<b>Håkansson N, Flisberg P, Algers B, Jansson A, Rönnqvist M and Wennergren LJ</b> Improvement of animal welfare by strategic analysis and logistic optimisation of animal slaughter transportation .....	255
Halal	
- ECG in sheep .....	331
- halal stunning and slaughter of cattle .....	365
<b>Haley DB</b> , see Ross M	
Handling	
- cattle welfare at Indonesian abattoirs .....	191
<b>Hanlon A</b> , see Devitt C	
<b>Hänninen L</b> , see Wikman L	
<b>Hemsworth PH</b> see Doyle RE	
Hen	
- UK cage-free hen feather cover improvement .....	243
<b>Henriksen BF, Sørensen JT and Møller SH</b> Classification of animal welfare on mink farms differs between three annual production periods .....	265
Herd health scheme	
- compliance with farm animal welfare legislation inspections .....	461
<b>Herrera M, López J and Herves A</b> A preliminary approach on the stress assessment through harmless procedures in farmed seabream ( <i>Sparus aurata</i> ) .....	423
<b>Herskin MS</b> , see Houe H	
<b>Herves A</b> , see Herrera M	
<b>Hill J</b> , see Gilliam JN	
<b>Hinrichsen LK</b> , see Riber AB	
<b>Hitchens PL</b> , see Alpigiani I	
<b>Hodate K</b> , see Matsuura A	
<b>Hokkanen A-H</b> , see Wikman I	
Hoof/leg disorders	
- hospital pens in Danish dairy herds .....	69
Horse	
- attitudes of equestrians to sport horse welfare .....	411
- AWIN approach to horse welfare assessment .....	481
- loading capacity of trotting Yonaguni ponies .....	151
Horse owners	
- <i>Horses in Our Hands</i> (R) .....	513
Hospital pen	
- hospital pens in Danish dairy herds .....	69
<b>Hothersall B, Caplen G, Parker RMA, Nicol CJ, Waterman-Pearson AE, Weeks CA and Murrell JC</b> Effect of carprofen, meloxicam and butorphanol on broiler chickens' performance in mobility tests .....	55
<b>Hothersall B, Whistance L, Zedlacher H, Algers B, Andersson E, Bracke M, Courboulay V, Ferrari P, Leeb C, Mullan S, Nowicki J, Meunier-Salaün M-C, Schwarz T, Stadig L and Main D</b> Standardising the assessment of environmental enrichment and tail-docking legal requirements for finishing pigs in Europe .....	499
<b>Houe H</b> , see Otten ND	
<b>Houe H, Thomsen PT, Amdi C, Herskin MS, Forkman B and Jensen MB</b> Availability and use of designated hospital pens in Danish dairy herds .....	69
Housing of laboratory animals	
- <i>Comfortable Quarters for Laboratory Animals, Tenth Edition</i> (B) .....	515
Housing system	
- keel and foot injuries in Danish layers .....	179
Human-animal continuity	
- empathy in veterinary students .....	275
Human-animal interaction	
- cattle welfare at Indonesian abattoirs .....	191
- pigs use human-given cues to locate food .....	185
Human-animal relationship	
- attitudes of beef producers to disbudding and pain .....	429
Human-farm animal relations	
- social science research on farm animal welfare .....	319
Human-given cues	
- pigs use human-given cues to locate food .....	185

Husbandry	
- lambs in pain show ear posture changes .....	171
<b>I</b>	
<b>Ikinger C, Spiller A and Kayser M</b> Factors influencing the attitude of equestrians towards sport horse welfare ..	411
<b>Imirajiri M</b> , see Matsuura A	
<b>Improvement of animal welfare by strategic analysis and logistic optimisation of animal slaughter transportation</b> .....	255
Indicator	
- AWIN approach to horse welfare assessment .....	481
Industry	
- UK cage-free hen feather cover improvement .....	243
Injurious feather-pecking	
- tree cover and injurious feather-pecking .....	1
Injurious pecking	
- attitudes to injurious pecking .....	29
- consumer attitudes to injurious pecking .....	91
Insensibility	
- euthanasia of goat kids .....	471
Inspection	
- compliance with farm animal welfare legislation inspections .....	461
- standardising assessment of legislation compliance for pigs .....	499
Intact tail	
- behavioural differences between pigs tail types .....	287
<b>Investigating the welfare, management and human-animal interactions of cattle in four Indonesian abattoirs</b> .....	191
<b>Ison SH, Jarvis S and Rutherford KMD</b> A survey of sow management at farrowing in the UK .....	309
<b>J</b>	
<b>Jamieson J</b> , see Mullan S	
<b>Jansson A</b> , see Håkansson N	
<b>Jarvis S</b> , see Ison SH	
<b>Jensen EW</b> , see Rodríguez P	
<b>Jensen MB</b> , see Houe H	
<b>Jensen T</b> , see Paoli MA	
<b>Johansen MV</b> , see Braae UC	
<b>Johnson CB</b> , see Sutherland MA	
<b>Jones PJ</b> , see Bennett RM	
<b>K</b>	
Kangaroo	
- theory of planned behaviour and kangaroo harvesters .....	39
<b>Kangaroo harvesters and the euthanasia of orphaned young-at-foot: applying the theory of planned behaviour to an animal welfare issue</b> .....	39
<b>Kaappinen T</b> , see Wikman I	
<b>Kayser M</b> , see Ikinger C	
Keel bone damage	
- keel and foot injuries in Danish layers .....	179
<b>Keel bone damage and foot injuries in commercial laying hens in Denmark</b> .....	179
<b>Keeling LJ</b> , see Alpigliani I	
<b>Kelly P</b> , see Devitt C	
<b>KilBride AL</b> , see Clark CCA	
Killing	
- physiological responses to mechanical devices for killing poultry .....	227
<b>Kniese C</b> , see Czycholl I	
<b>Knowles TG</b> , see Fuseini A, see also Orford F	
Kopi Luwak	
- the welfare costs of civet coffee tourism .....	199
<b>Krieter J</b> , see Czycholl I	
<b>Kristiansen T</b> , see Folkedal O	

<b>L</b>	
Labelling system	
- mink welfare differs between production periods .....	265
Laboratory animal welfare	
- <i>Comfortable Quarters for Laboratory Animals, Tenth Edition</i> (B) .....	515
<b>Lahrman HP</b> , see Paoli MA	
Lamb	
- lambs in pain show ear posture changes .....	171
<b>Lambs show changes in ear posture when experiencing pain</b> .....	171
<b>Lambton SL</b> , see Palczynski LJ	
Lameness	
- effect of analgesic drugs on broiler mobility .....	55
<b>Lampang PN</b> , see Ling RZ	
<b>Lauzurica S</b> , see Bermejo-Poza R	
Laying hens	
- attitudes to injurious pecking .....	29
- keel and foot injuries in Danish layers .....	179
- tree cover and injurious feather-pecking .....	1
<b>Lebelt D</b> , see Dalla Costa E	
<b>Leeb C</b> , see Hothersall B	
Legislation	
- standardising assessment of legislation compliance for pigs .....	499
<b>Lekule F</b> , see Braae UC	
<b>Lines JA</b> , see Fuseini A, see also Orford F	
<b>Ling RZ, Zulkifli I, Lampang PN, Nhiem DV, Wang Y and Phillips CJC</b> Attitudes of students from south-east and east Asian countries to slaughter and transport of livestock .....	377
<b>Litvan H</b> , see Rodríguez P	
Live export	
- cattle welfare at Indonesian abattoirs .....	191
Livestock	
- Asian students' attitudes to transport and slaughter .....	377
Load	
- loading capacity of trotting Yonaguni ponies .....	151
Long journey	
- slaughter horse welfare during unloading .....	101
<b>López J</b> , see Herrera M	
<b>Lundberg A</b> , see Ulfsdotter L	
<b>M</b>	
<b>Main DCJ</b> , see Hothersall B, see also Mullan S	
<b>Mana H</b> , see Matsuura A	
Management strategies	
- attitudes to injurious pecking .....	29
- consumer attitudes to injurious pecking .....	91
Managing pigs	
- <i>Pigs: A Guide to Management, Second Edition</i> (B).....	159
<b>Mariti C</b> , see Nuti V	
<b>Martin JE, McKeegan DEF, Sparrey J and Sandilands V</b> Comparison of novel mechanical cervical dislocation and a modified captive bolt for on-farm killing of poultry on behavioural reflex responses and anatomical pathology .....	227
<b>Martins C</b> , see Folkedal O	
<b>Matković K</b> , see Ostovic M	
<b>Matsuura A, Mana H, Irimajiri M and Hodate K</b> Maximum permissible load for Yonaguni ponies (Japanese landrace horses) trotting over a short, straight course .....	151
<b>Maximum permissible load for Yonaguni ponies (Japanese landrace horses) trotting over a short, straight course</b> .....	151
<b>McGill DM</b> see Doyle RE	
<b>McKeegan DEF</b> , see Martin JE	
<b>McKinstry J</b> , see Orford F	
<b>McLeod SR</b> , see Sharp TM	
Measure	
- AWIN approach to horse welfare assessment .....	481

Meat hygiene	
- <i>Gracey's Meat Hygiene, Eleventh Edition</i> (B)	299
<b>Mesic Ž</b> , see Ostovic M	
<b>Messori S, Visser EK, Buonanna W, Ferrari P, Barnard S, Borciani M and Ferri N</b> A tool for the evaluation of slaughter horse welfare during unloading	101
<b>Meunier-Salaün M-C</b> , see Hothersall B	
<b>Midtløng PJ</b> , see Folkedal O	
<b>Mikuš T</b> , see Ostovic M	
<b>Miller LJ, Pisacane CB and Vicino GA</b> Relationship between behavioural diversity and faecal glucocorticoid metabolites: a case study with cheetahs ( <i>Acinonyx jubatus</i> )	325
<b>Miller LJ</b> , see Whitham JC	
<b>Millman ST</b> , see Fiedler KJ	
<b>Minero M</b> , see Dalla Costa E	
Mink production	
- mink welfare differs between production periods	265
<b>Minot EO</b> , see Guesgen MJ, see also Sutherland MA	
Mobile zoos	
- <i>Wild Animals in Circuses</i> (R)	511
Mobility	
- effect of analgesic drugs on broiler mobility	55
<b>Møller SH</b> , see Henriksen BF	
<b>More SJ</b> , see Devitt C	
<b>Morel PCH</b> , see Guesgen MJ	
<b>Mullan S</b> , see Hothersall B	
<b>Mullan S, Szmaragd C, Cooper MD, Wrathall JHM, Jamieson J, Bond A, Atkinson C and Main DCJ</b> Animal welfare initiatives improve feather cover for cage-free laying hens in the UK	243
<b>Murrell JC</b> , see Hothersall B	
<b>N</b>	
<b>Nawroth C, Ebersbach M and von Borrell E</b> Are domestic pigs ( <i>Sus scrofa domestica</i> ) able to use complex human-given cues to find a hidden reward?	185
New Zealand code of welfare	
- <i>New Zealand Code of Welfare for Horses and Donkeys</i> (R)	297
<b>Ngowi HA</b> , see Braae UC	
<b>Nhiem DV</b> , see Ling RZ	
<b>Nicol CJ</b> , see Bennett RM, see also Hothersall B	
<b>Niel L</b> , see Dawson LC	
<b>Nilsson J</b> , see Folkedal O	
Non-penetrating captive bolt	
- euthanasia of goat kids	471
<b>Nowicki J</b> , see Hothersall B	
<b>Nuti V, Cantile C, Gazzano A, Sighieri C and Mariti C</b> Pinch-induced behavioural inhibition ( <i>clipthesia</i> ) as a restraint method for cats during veterinary examinations: preliminary results on cat susceptibility and welfare	115
<b>O</b>	
Object choice paradigm	
- pigs use human-given cues to locate food	185
On-farm	
- AWIN approach to horse welfare assessment	481
<b>On-farm evaluation of the Salmon Welfare Index Model (SWIM 1.0): theoretical and practical considerations</b>	135
<b>Orford F, Ford EA, Brown SN, McKinstry J, Hadley PJ, Lines JA, Knowles TG and Wotton SB</b> The evaluation of two commercial electric sheep stunning systems: current applied and the effect on heart function	331
<b>Ostovic M, Mesic Ž, Mikuš T, Matković K and Pavičić Ž</b> Attitudes of veterinary students in Croatia towards farm animal welfare	21
<b>Otten ND, Rausing T, Houe H, Thorsen PT and Sørensen JT</b> Comparison of animal welfare indices in dairy herds based on different sources of data	207
<b>P</b>	
Pain	
- a survey of cow management in farrowing	309
- effect of analgesic drugs on broiler mobility	55

- lambs in pain show ear posture changes .....	171
<b>Palczynski LJ, Buller H, Lambton SL and Weeks CA</b> Farmer attitudes to injurious pecking in laying hens and to potential control strategies .....	29
<b>Paoli MA, Lahrmann HP, Jensen T and D'Eath RB</b> Behavioural differences between weaner pigs with intact and docked tails .....	287
<i>Paradoxurus hermaphroditus</i>	
- the welfare costs of civet coffee tourism .....	199
<b>Parker RMA</b> , see Hothersall B	
<b>Parsons RL</b> , see Fiedler KJ	
Partial Least Squares Equation Modelling	
- attitudes of equestrians to sport horse welfare .....	411
Participant recruitment	
- social science research on farm animal welfare .....	319
<b>Pastell M</b> , see Wikman I	
<b>Pavičić Ž</b> , see Ostovic M	
<b>Pelosi A</b> , see Colombo ES	
<b>Penrith M-L</b> , see Braae UC	
Perception	
- attitudes to injurious pecking .....	29
<b>Pérez C</b> , see Bermejo-Poza R	
Pet	
- rehoming of rabbits in Sweden .....	303
<b>Pettersen JM</b> , see Folkedal O	
<b>Phillips CJC</b> , see Ling RZ	
Physiology	
- technology for improving zoo animal welfare .....	395
Pig keeping	
- <i>Pigs: A Guide to Management, Second Edition (B)</i> .....	159
Pigs	
- a survey of sow management in farrowing .....	309
- behavioural differences between pigs tail types .....	287
- improved welfare by strategic slaughter transportation modelling .....	255
- reliability of the Welfare Quality® protocol .....	447
- standardising assessment of legislation compliance for pigs .....	499
- stocking rate during argon euthanasia of pigs .....	83
<b>Pinch-induced behavioural inhibition (cliphthesia) as a restraint method for cats during veterinary examinations: preliminary results on cat susceptibility and welfare</b> .....	115
<b>Pisacane CB</b> , see Miller LJ	
Plumage damage	
- tree cover and injurious feather-pecking .....	1
Pointing gesture	
- pigs use human-given cues to locate food .....	185
Policy	
- UK cage-free hen feather cover improvement .....	243
<b>Pongolini S</b> , see Alpigiani I	
Population management	
- population control in captive primates .....	7
Positive welfare	
- technology for improving zoo animal welfare .....	395
Poultry	
- physiological responses to mechanical devices for killing poultry .....	227
<b>Prato-Previde E</b> , see Colombo ES	
Primates	
- population control in captive primates .....	7
Private regulation	
- compliance with farm animal welfare legislation inspections .....	461
<b>Proctor H</b> , see Carder G	
Production system	
- keel and foot injuries in Danish layers .....	179
- welfare issues among pig farmers in Tanzania .....	439
Public survey	
- <i>Special Eurobarometer 442: European Commission Public Opinion Survey into 'Attitudes of Europeans Towards Animal Welfare' (R)</i> .....	389

<b>R</b>	
Rabbit	
- rehoming of rabbits in Sweden .....	303
Rainbow trout	
- pre-slaughter fasting and stress in rainbow trout .....	339
<b>Ramdani W</b> , see Doyle RE	
<b>Rausing T</b> , see Otten ND	
<b>Reducing the effect of pre-slaughter fasting on the stress response of rainbow trout (<i>Oncorhynchus mykiss</i>)</b> .....	339
<b>Reed M</b> see Doyle RE	
Reflexes	
- physiological responses to mechanical devices for killing poultry .....	227
Register data	
- quantification of animal welfare in dairy herds .....	207
Rehoming	
- rehoming of rabbits in Sweden .....	303
<b>Rehoming of pet rabbits (<i>Oryctolagus cuniculus</i>) in Sweden: an investigation of national advertisement</b> .....	303
Re-homing research animals	
- Advice Note 02/2015: Re-homing and Setting Free of Animals (R) .....	158
- UK Home Office Animals in Science Regulation Unit (ASRU) Advice Notes on Re-Use and Re-Homing of Animals Used in Research (R) .....	137
<b>Relationship between behavioural diversity and faecal glucocorticoid metabolites: a case study with cheetahs (<i>Acinonyx jubatus</i>)</b> .....	325
Resource-based measures	
- quantification of animal welfare in dairy herds .....	207
Rest stops	
- rest stops and behaviour of transported animals .....	217
Re-use of research animals	
- Advice Note 02/2015: Animals (Scientific Procedures) Act 1986: Use, Keeping Alive and Re-Use (R) .....	157
- UK Home Office Animals in Science Regulation Unit (ASRU) Advice Notes on Re-Use and Re-Homing of Animals Used in Research (R) .....	137
Reversible stunning	
- halal stunning and slaughter of cattle .....	365
<b>Reynolds J</b> , see Gilliam JN	
<b>Riber AB and Hinrichsen LK</b> Keel bone damage and foot injuries in commercial laying hens in Denmark .....	179
<b>Rodríguez P, Dalmau A, Manteca X, Litvan H, Jensen EW and Velarde A</b> Assessment of aversion and unconsciousness during exposure to carbon dioxide at high concentration in lambs .....	73
<b>Rönnqvist M</b> , see Håkansson N	
<b>Ross M, Widowski TM and Haley DB</b> The effects of feeding space on the behavioural responses of cattle during rest periods offered as part of long-distance transportation .....	217
<b>Roth B and Grimsbø E</b> Electrical stunning of edible crabs ( <i>Cancer pagurus</i> ): from single experiments to commercial practice .....	489
<b>Rutherford KMD</b> , see Ison SH	
<b>S</b>	
<b>Sadler LJ</b> , see Fiedler KJ	
<b>Salman MD</b> , see Alpigiani I	
<i>Salmonella enterica</i>	
- animal welfare and food safety indicators in pigs .....	355
<b>Sandilands V</b> , see Martin JE	
<b>Schmidt-Burbach J</b> , see Carder G	
<b>Scholz P</b> , see Dalla Costa E	
<b>Schrader L</b> , see Czycholl I	
<b>Schwarz T</b> , see Hothersall B	
Scruffing	
- cat welfare and susceptibility to clipthesia .....	115
Sea cage	
- practical and theoretical evaluation of SWIM 1.0 .....	135
Sea farm	
- harmless stress assessment in gilthead bream .....	423
Self-recognition	
- mirrors as primate enrichment .....	163

Semantic modelling	
- practical and theoretical evaluation of SWIM 1.0	135
Sensitive research	
- social science research on farm animal welfare	319
Setting animals free	
- <i>Advice Note 02/2015: Re-homing and Setting Free of Animals (R)</i>	158
<b>Sharp TM and McLeod SR</b> Kangaroo harvesters and the euthanasia of orphaned young-at-foot: applying the theory of planned behaviour to an animal welfare issue	39
<b>Shearer JK</b> , see Gilliam JN	
Sheep	
- ECG in sheep	331
- effect of carbon dioxide in lambs	73
Shelter behaviour	
- <i>Animal Behaviour for Shelter Veterinarians and Staff (B)</i>	392
Shot placement	
- captive-bolt placement in cattle	347
<b>Sighieri C</b> , see Nuti V	
Slaughter	
- Asian students' attitudes to transport and slaughter	377
- cattle welfare at Indonesian abattoirs	191
- halal stunning and slaughter of cattle	365
- stunning crustaceans with electricity prior to slaughter	489
Slaughter horse	
- slaughter horse welfare during unloading	101
Slaughterhouse	
- improved welfare by strategic slaughter transportation modelling	255
Slaughter transports	
- improved welfare by strategic slaughter transportation modelling	255
Social psychology	
- theory of planned behaviour and kangaroo harvesters	39
Social science	
- social science research on farm animal welfare	319
Solitary	
- mirrors as primate enrichment	163
<b>Sørensen JT</b> , see Henriksen BF, see also Otten ND	
Sow management	
- a survey of cow management in farrowing	309
<b>Sparrey J</b> , see Martin JE	
<b>Spiller A</b> , see Ikinge C	
Sport horse welfare	
- attitudes of equestrians to sport horse welfare	411
<b>Stadig L</b> , see Hothersall B	
<b>Stafford KJ</b> , see Guesgen MJ	
<b>Standardising the assessment of environmental enrichment and tail-docking legal requirements for finishing pigs in Europe</b>	499
<b>Stein LH</b> , see Folkedal O	
<b>Stewart M</b> , see Guesgen MJ	
Stocking density	
- welfare issues among pig farmers in Tanzania	439
Stocking rate	
- stocking rate during argon euthanasia of pigs	83
<b>Stone EA</b> , see Dawson LC	
Stress	
- harmless stress assessment in gilthead bream	423
- mirrors as primate enrichment	163
Stress response	
- pre-slaughter fasting and stress in rainbow trout	339
Stunning	
- effect of carbon dioxide in lambs	73
- halal stunning and slaughter of cattle	365
- stunning crustaceans with electricity prior to slaughter	489



Survey	
- a survey of cow management in farrowing .....	309
- Croatian veterinary students and farm animal welfare .....	21
Surplus stock	
- population control in captive primates .....	7
<b>Sutherland MA, Watson TJ, Johnson CB and Millman ST</b> Evaluation of the efficacy of a non-penetrating captive bolt to euthanase neonatal goats up to 48 hours of age .....	471
Symmetry	
- loading capacity of trotting Yonaguni ponies .....	151
<b>Szmaragd C</b> , see Mullan S	
<b>T</b>	
Tail-biting	
- behavioural differences between pigs tail types .....	287
Tail-docking	
- behavioural differences between pigs tail types .....	287
- standardising assessment of legislation compliance for pigs .....	499
<b>Taylor JD</b> , see Gilliam JN	
Technology	
- technology for improving zoo animal welfare .....	395
Test-retest reliability	
- reliability of the Welfare Quality® protocol .....	447
<b>Test-retest reliability of the Welfare Quality® animal welfare assessment protocol for growing pigs</b> ..	447
<b>The animal welfare implications of civet coffee tourism in Bali</b> .....	199
<b>The associations between animal-based welfare measures and the presence of indicators of food safety in finishing pigs</b> .....	355
<b>The effects of feeding space on the behavioural responses of cattle during rest periods offered as part of long-distance transportation</b> .....	217
<b>The evaluation of two commercial electric sheep stunning systems: current applied and the effect on heart function</b> .....	331
Theory of planned behaviour	
- theory of planned behaviour and kangaroo harvesters .....	39
The Republic of Ireland	
- social science research on farm animal welfare .....	319
<b>The stunning and slaughter of cattle within the EU: a review of the current situation with regard to the halal market</b> .....	365
<b>Thomsen PT</b> , see Houe H, see also Otten ND	
Transport	
- Asian students' attitudes to transport and slaughter .....	377
- rest stops and behaviour of transported animals .....	217
- slaughter horse welfare during unloading .....	101
Transportation logistics	
- improved welfare by strategic slaughter transportation modelling .....	255
<b>Tranter RB</b> , see Bennett RM	
Tree cover	
- tree cover and injurious feather-pecking .....	1
<b>Tree cover and injurious feather-pecking in commercial flocks on free-range laying hens: a follow up</b> .....	1
<b>U</b>	
<b>Ulfsdotter L, Lundberg A and Andersson M</b> Rehoming of pet rabbits ( <i>Oryctolagus cuniculus</i> ) in Sweden: an investigation of national advertisement .....	303
<b>Using technology to monitor and improve zoo animal welfare</b> .....	395
<b>V</b>	
<b>Valros A</b> , see Wikman I	
<b>Velarde A</b> , see Rodríguez P	
Veterinary examination	
- cat welfare and susceptibility to clipthnesia .....	115
Veterinary medicine	
- empathy in veterinary students .....	275
Veterinary practice	
- factors affecting animal welfare in veterinary clinics .....	125

Veterinary students	
- Croatian veterinary students and farm animal welfare .....	21
- empathy in veterinary students .....	275
<b>Vicino GA</b> , see Miller LJ	
<b>Villaroel M</b>	
<b>Visser EK</b> , see Messori S	
Voltage current	
- ECG in sheep .....	331
<b>Von Burrell E</b> , see Nawroth C	
<b>W</b>	
<b>Wallace PY, Asa CS, Agnew M and Cheyne SM</b> A review of population control methods in captive-housed primates .....	7
<b>Wang Y</b> , see Ling RZ	
Water	
- welfare issues among pig farmers in Tanzania .....	439
<b>Waterman-Pearson AE</b> , see Hothersall B	
<b>Watson TJ</b> , see Sutherland MA	
<b>Weeks CA</b> , see Bennett RM, see also Hothersall B, see also Palczynski LJ	
Weight	
- loading capacity of trotting Yonaguni ponies .....	151
Welfare assessment	
- mink welfare differs between production periods .....	265
- slaughter horse welfare during unloading .....	101
- the welfare costs of civet coffee tourism .....	199
<b>Welfare assessment of horses: the AWIN approach</b> .....	481
Welfare codes	
- <i>Different Approaches to Regulations: Moving to Non-Statutory Guidance for Farming Animal Welfare Codes in England</i> (R) .....	297
Welfare indicators	
- slaughter horse welfare during unloading .....	101
Welfare of domestic animals	
- <i>Domestic Animal Behaviour and Welfare, Fifth Edition</i> (B) .....	515
Welfare of research animals	
- <i>Advice Note 02/2015: Animals (Scientific Procedures) Act 1986: Use, Keeping Alive and Re-Use</i> (R) .....	157
Welfare Quality®	
- reliability of the Welfare Quality® protocol .....	447
Welfare score	
- mink welfare differs between production periods .....	265
WelFur	
- mink welfare differs between production periods .....	265
<b>Wennergren LJ</b> , see Håkansson N	
<b>Whistance L</b> , see Hothersall B	
<b>Whitham JC and Miller LJ</b> Using technology to monitor and improve zoo animal welfare .....	395
<b>Widowski TM</b> , see Ross M	
<b>Wikman I, Hokkanen A-H, Pastell M, Kauppinen T, Valros A and Hänninen L</b> Attitudes of beef producers to disbudding and perception of pain in cattle .....	429
Wildlife tourism	
- the welfare costs of civet coffee tourism .....	199
Willingness to pay	
- consumer attitudes to injurious pecking .....	91
<b>Willings TH</b> , see Bright A	
<b>Woods J</b> , see Gilliam JN	
<b>Wotton SB</b> , see Fuseini A, see also Orford F	
<b>Wrathall JHM</b> , see Mullan S	
<b>Y</b>	
<i>Yersinia enterocolitica</i>	
- animal welfare and food safety indicators in pigs .....	355
<b>Z</b>	
<b>Zanella AJ</b> , see Dalla Costa E	
<b>Zedlacher H</b> , see Hothersall B	

**Zulkifli I**, see Ling RZ

### Reports and comments index

Advice Note 02/2015: <i>Animals (Scientific Procedures) Act 1986: Use, Keeping Alive and Re-use</i> (www.gov.uk publication).....	157
Advice Note 02/2015: <i>Animals (Scientific Procedures) Act 1986: Re-homing and Setting Free of Animals. Animals in Science Regulation Unit</i> (www.gov.uk publication).....	158
<i>Code of Welfare: Horses and Donkeys</i> (NAWAC publication) .....	297
<i>European Commission Public Opinion</i> (European Commission publication) .....	389
<i>Government Response on the Reform of Farm Animal Welfare Codes</i> (Defra publication) .....	297
<i>Horses in Our Hands</i> (World Horse Welfare and Bristol Equine Welfare Project publication) .....	513
<i>OIE Terrestrial Animal Health Code, Volume I: Section 7 Animal Welfare, Chapter 7.12 Welfare of Working Equids</i> (World Organisation for Animal Health publication) .....	512
<i>RVC Pet Epilepsy Tracker, App for Android and Apple Devices</i> (RVC App).....	157
<i>The Welfare of Wild Animals in Travelling Circuses</i> (Welsh Government publication) .....	511
<i>Wild Animals in Travelling Circuses</i> (Circus Working Group publication) .....	511

### Book and CD-ROM reviews index

<b>Benyon N</b> 2014 <i>Pigs: A Guide to Management, Second Edition</i> .....	159
<b>Broom DM and Fraser AF</b> 2015 <i>Domestic Animal Behaviour and Welfare, Fifth Edition</i> .....	515
<b>Collins DS and Huey RJ</b> 2015 <i>Gracey's Meat Hygiene, Eleventh Edition</i> .....	299
<b>Liss C, Litwak K, Tilford D and Reinhardt V</b> 2015 <i>Comfortable Quarters for Laboratory Animals, Tenth Edition</i> .....	515
<b>Mellor DJ and Bayvel ACD</b> 2014 <i>Animal Welfare: Focusing on the Future</i> .....	159
<b>Moran J and Doyle R</b> 2015 <i>Cow Talk: Understanding Dairy Cow Behaviour to Improve Their Welfare on Asian Farms</i> ....	391
<b>Phillips CJC</b> 2015 <i>The Animal Trade</i> .....	301
<b>Weiss E, Mohan-Gibbons H and Zawistowski S</b> 2015 <i>Animal Behaviour for Shelter Veterinarians and Staff</i> .....	392