

**10<sup>th</sup> European Zoo Nutrition Conference**  
**Marwell Zoo 17<sup>th</sup> -20<sup>th</sup> January 2019**

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**THURSDAY 17<sup>th</sup> January**

08.15/30 Arrival at Marwell Zoo.

Train departures to collect delegates from the main entrance at 8.15 and 8.30

09.00 EAZA Academy Workshop: *Meat and Fish Quality, nutrition and feed presentation* – Marwell Zoo  
[Pre-registration required]

09.00 Fish Quality; factors affecting quality and quality assessment

10.30 Break

11.00 Meat Quality: Factors affecting quality and quality assessment

13.00 Lunch Break

14.00 Meat and fish Nutrition

15.00 Break

15.30 Feed presentation

16.30 Workshop finished

18.00 Registration & Icebreaker – Marwell Hotel (until 20.00)

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**FRIDAY 18<sup>th</sup> January**

- 08.00 Registration – Marwell Hotel
- 08.50 Welcome & Opening Remarks
- 09.00 **EAZA Update**  
*David Williams-Mitchell*
- 09.30 **Vitamin D for Health in Humans & Animals – the Sunshine Superstar or just Media Hype!**  
*Susan Lanham-New\**
- 10.15 **UVB and Vitamin D3: If all our animals need full spectrum lighting, how can we provide it?**  
*Frances Baines\**
- 11.00 Break
- 11.30 **Factors associated with vitamin D status in primates**  
*Geert Janssens, Romy van Noije, Andrea Brenes Soto, Christine Kaandorp*
- 11.45 **Searching for potential nutritional causes of heart disease in apes - Micronutrient analysis in captive chimpanzees (*Pan troglodytes*)**  
*Matyas Liptovszky, Sophie Moittie, Phillipa Dobbs, Kerstin Baiker, Kate White, Devan Raindi, Wilhelm Stahl, Melissa Grant*
- 12.00 **Feeding practices in insectivorous mammal species**  
*Kerry Hunt*
- 12.15 **Nutritional analysis on captive aardvarks and separation solution of Termant using emulsifiers**  
*Hannah Davies, Jo Bond, Kerry Hunt*
- 12.30 Scientific poster pitches I
- 12.45 Lunch break
- 13.45 **Ten years of browse provision at ZSL London Zoo and ZSL Whipsnade Zoo: What have we learned and where are we going**  
*Sven Seiffert\**
- 14.30 **The effects of frozen storage on the chemical composition, fermentability and palatability of temperate browse in zoos**  
*Ellen van Herk, Martine Verheij, Anouk Fens, Thomas Bionda, Arun Idoe, Guido Bosch*
- 14.45 **Inconsistency with forage vitamin A and vitamin E analytics concerning for diet formulation**  
*Kimberly Ange-van Heugten, Jordan Wood, Larry Minter, Troy Tollefson*
- 15.00 Break (extended) - poster presentations
- 15.45 **Practical Raptor Nutrition - how, why and when it goes wrong and how to avoid the pitfalls**  
*Neil Forbes\**
- 16.30 **Differences in digestive traits between two Old World vultures**  
*Anika Daneel, Katherine Whitehouse-Tedd, Gerard Whitehouse-Tedd, Ellen Dierenfeld, Geert Janssens*
- 16.45 **Considering the behavioural consequences of feeding regimes: a case study on lesser flamingos (*Phoeniconaias minor*)**  
*Paul Rose, Laura Soole*
- 17.00 Sponsor pitches
- 17.15 Concluding Remarks & Thanks

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**SATURDAY 19<sup>th</sup> January**

- 08.00 Registration – Marwell Hotel
- 08.20 Zoo entry – Marwell Zoo
- 08.30 Welcome and organisation for zoo visit
- 09.00 Zoo visit - practical workstations
- 11.00 Break
- 11.30 Zoo visit - Zoo Tours
- 12.30 Lunch break
- 13.45 **The past, present and future of animal nutrition at Walt Disney World**  
*Shannon Livingston\**
- 14.30 **Feeding the roar and ending extinction – how zoo nutrition serves San Diego Zoo Global**  
*Andrea Fidgett\**
- 15.15 Scientific poster pitches II
- 15.30 Break (extended) - poster presentations
- 16.15 **Body condition scoring of Hermann's tortoises (*Testudo hermanni*) and comparison to known objective body condition measurements**  
*Angela Gimmel, Sabine Öfner, Annette Liesegang*
- 16.30 **Comparison of the nutritional content of the captive and wild diets of the Critically Endangered mountain chicken frog (*Leptodactylus fallax*) to improve its captive husbandry**  
*Stephanie Jayson, Amanda Ferguson, Matthias Goetz, Andrew Routh, Benjamin Tapley, Luke Harding, Christopher Michaels, Jeff Dawson*
- 16.45 **Why should a frog choose a prey that is not that nutritious? Facts and some theories**  
*Arturo Muñoz, Gabriel Callapa, Geert Janssens*
- 17.00 **Survey of feeding practices and nutrition of captive Aldabra giant tortoise (*Geochelone gigantea*) populations in EAZA institutions**  
*Daniel Harrold, Dr. Amy Plowman & Luke Harding*
- 18:00 Conference Dinner – Marwell Hotel

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**SUNDAY 20<sup>th</sup> January**

- 08.00 Registration – Marwell Hotel
- 08.45 **Fur, feathers and feeding poles<sup>1</sup> - how cats feed**  
*Graham Law\**
- 09.30 **Dual faecal consistency in captive tigers (*Panthera tigris*): more than just water content differences**  
*Karla Esparza, Jörg Steiner, Linda Penfold, Lara Metrione, Heidi Bissell, Ellen Dierenfeld, Katherine Whitehouse-Tedd, Jonathan Lidbury, Jan Suchodolski, Lisa Yon*
- 09.45 **Nutrient composition of diets consumed by wild European brown bears (*Ursus arctos arctos*): Insights for optimising current feeding strategies for captive bears**  
*Leen Verbist, Guido Bosch, Annelies De Cuyper, Sarah Depauw*
- 10.00 **Investigating the feeding hierarchy of long tailed chinchillas and degus within a shared enclosure**  
*Jordan Stevenson, Lauren Samet*
- 10.15 **The importance of nutrition in the preventative medicine of geriatric zoo animals**  
*Francis Cabana, Guillaume Douay, Abraham Mathew, Shangzhe Xie, Yaoprapa Mathura, Ali A. Ahmad, Yirui Heng, Charlene Yeong, Ellen Rasidi, Sonja Luz*
- 10.30 Break
- 11.00 **Food for thought: Keeper opinions on welfare and nutritional perspectives of fruit-free feeding in Primates**  
*Rebecca Hammerton, Kerry Hunt, Lisa Riley*
- 11.15 **Obesity management in equid species at Marwell Wildlife, including a case study on the presentation and treatment of laminitis in Przewalski Horses (*Equus ferus przewalskii*)**  
*Jackie Squires, Justine Shotton*
- 11.30 **Impact of starch and sugar addition into the diet on roughage intake by addax and Reeves's muntjac**  
*Marcin Przybyło, Sara Dander, Karolina Krawiec, Alina Kloska, Paweł Górka*
- 11.45 **An investigation into the effects of dietary alterations on the behaviour and daily food intake of giraffes at Paignton Zoo Environmental Park**  
*Louise Cox, Siobhan O'Regan, Daniel Harrol<sup>1</sup> & Amy Plowman*
- 12.00 **Weigh and see - the relationship of body mass and body condition scores in European zoo elephants**  
*Christian Schiffmann, Stefan Hoby, Jean-Michel Hatt & Marcus Clauss*
- 12.15 Concluding Remarks & Thanks
- 12.30 Lunch

\* Key note speaker

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POSTER PRESENTATIONS

Pitch I lot

- **Browse preference in bonobos**  
*Sarah Depauw, Geert Janssens, Jeroen Stevens, Guido Bosch*
- **Willow silage: what works and what doesn't?**  
*Sarah Depauw, Annick Boeykens, Jannes Van Houcke*
- **Determining nitrogen (protein) content of varying species of browse and herbage fed to western lowland gorillas (*Gorilla gorilla*) and bornean orangutans (*Pongo pygmaeus*) at Twycross Zoo**  
*Lydia Warren, Matyas Liptovszky, Clare Ellis, Gavin White*
- **Body mass fluctuations in adult zoo elephants - relationship with breeding status and molar progression**  
*Christian Schiffmann, Stefan Hoby, Jean-Michel Hatt, Daryl Codron & Marcus Clauss*
- **Difference in prey preference as cause for difference in husbandry? The wolf versus the jackal, a literature review**  
*Han Opsomer, Annelies De Cuyper, Marcus Clauss, Geert Janssens*
- **Investigating nutritional provision and any influence of dietary composition on behaviour in a commonly-housed parrot- a multi-zoo study on blue-and-gold macaws (*Ara ararauna*)**  
*Paul Rose, Leah Phillipson, Elaine McIlroy, Kerry Hunt*
- **African elephant (*Loxodonta africana*) serum glucose, serum insulin and fecal glucocorticoid concentration fluctuations over a 14-month period with differences between two laboratories for serum glucose**  
*Kimberly Ange-van Heugten, Jordan Wood, Troy Tollefson, Janine Brown, Larry Minter*
- **The effect of pellet size on the feeding behaviour of ring-tailed lemurs (*Lemur catta*) and red ruffed lemurs (*Varecia rubra*) at Paignton Zoo**  
*Jisri van Vliet, Amy Plowman*

Pitch II lot

- **The utility of dried blood spots for the assessment of avian Vitamin D3 status compared with plasma analysis**  
*Jenny Jaffe, Amanda Ferguson, Christopher Michaels*
- **Can herbal nutraceuticals benefit group housed rats used within zoos and exotic collections for school-group education?**  
*Lauren Samet, Wanda McCormick*
- **New developed soft feed pellets with insects for exotic animals**  
*Marleen Vrij, Joeke Nijboer*
- **Devising a hippopotamus (*Hippopotamus amphibious*) handrearing formula**  
*Barbara Henry, Michael Power, Michael Maslanka, Jenny Nollman*
- **Protocol for hand-rearing of flamingo chicks**  
*Clare Wylie, Cathrine Sauer, Wayne Mcleod, Andrew Owen, Mark Vercoe*
- **The challenges, opportunities and status of animal welfare research in zoos and aquaria**  
*Sally Binding, Holly Farmer, Laura Krusin, Katherine Cronin*
- **EAZA Animal Welfare Working Group**  
*Sally Binding, Graeme Dick, Lisa Holmes, Holly Farmer*

**Note: The programme will regularly be updated!**

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**Check the website!**