

Health and Feeding in the Modern Zoo

March saw the From Feed the Birds to Do Not Feed the Animals team at Edinburgh Zoo for a workshop on Health and Feeding in the Modern Zoo. Thank you so much to Edinburgh Zoo for your incredible hospitality and all your efforts in organising the workshop with us. Thanks also to everyone who joined in, either in-person or on-line, to contribute to the discussion and share their experience and expertise.

Darren McGarry, Head of Collections at Edinburgh Zoo, gave everyone an incredible introduction to the zoo and the work it does especially with regard to keeping the animals it cares for in the best of physical and mental health. This was an excellent springboard to the first presentation and discussion session which focussed on primates (although we couldn't help talking about other animals too).

Oli Moore from the University of Exeter started things off with an in-depth look at aye-ayes and the intricate care they need in captivity to replicate the unique way they feed in the wild. Finding ways to simulate, and stimulate, the aye-aye's percussive foraging technique is an excellent example of how humans and animals work together to co-create animal spaces in zoos, and how humans work to meet animals' physical and behavioural needs.



Oli Moore presenting his research on human and aye-aye relations in modern zoos.

Alex Mullan from the University of Roehampton followed this with an examination of obesity in captive animals. In particular he related this to questions about health and contentment in captive animals, promoting interesting comparisons with obesity in humans and also with the contrasting problem of captive animals being underweight.

David Cooper from the National Museums of Scotland broadened the discussion even further into morphological changes that can occur in captive animals as compared to their wild counterparts as a result of differences between the diets of wild and captive animals. Historically these differences have been considerable, resulting in marked changes to skull shape. Modern knowledge is allowing zoos to replicate wild diets more closely which is reducing these differences which is beneficial for recent 'one plan' approach to conservation which views captive and wild animals as a single population. If the possibility exists for captive animals to be released into the wild it may be advantageous if what they are fed pre-release resembles what they will eat post-release as closely as possible.

This conversation continued with presentations from Nicola Bryson-Morrison from the University of Kent and Andrew Kitchener from the National Museums of Scotland. Nicola focussed on the proposed best practice guidelines for the feeding of primates in sanctuaries, discussing the challenges this could present but the benefits which following best practice offered. Similarly, Andrew's talked about skeletal and dental pathologies which could occur if captive animals were not fed appropriate diets, as has happened in the past.

The lunch break saw us sharing lunch with many members of Edinburgh Zoo's keeping team and a chance for Alex Mullan who has been carrying out ethnographic research at the zoo for the last 18 months to share more details of his research with those who have contributed to it. This was followed by an opportunity to explore the zoo, with eyes open for signs relating to animal feeding for us to think about in the afternoon session. This was opened by Angela Cassidy from the University of Exeter who talked about how zoos, and other organisations, engage with publics about animal feeding, the publics' (almost compulsive) desire to feed animals, and ways of approaching this. This human desire to feed animals, and the human desires apparent in how we feed animals, was continued by Amanda Fergusson from the Zoological Society of London who spoke about birthday cakes for zoo animals. She drew attention to the anthropomorphism involved in such feeding practices and even the fact that early versions of birthday cakes for zoo animals, especially chimps, were essentially human birthday cakes. She described how this has evolved so that cakes are now more species appropriate, to the point where birthday cakes now consist of the animals' normal diet moulded into a cake shape to satisfy anthropocentric desires.

Day two of the workshop started with a focus on cats, particularly wildcats. Virginia Thomas from the University of Exeter started things off with an overview of conservation feeding of wildcats, specifically feeding for release and how human and wildcat concerns shape this feeding. Helen Senn and David Barclay from Saving Wildcats gave us an in-depth insight into this with an explanation of the Saving Wildcats project which is breeding wildcats for release. They described the sophisticated breeding and pre-release centre, which is situated at Edinburgh Zoo's sister site – the Highland Wildlife Park. Plans are underway to release twenty wildcat kittens into the wild in June as part of efforts to restore the species which is critically

endangered in Scotland and extinct in England and Wales. The session was closed with an archaeological view of cats in Britain from Sean Doherty from the University of Exeter who challenged previously accepted theories about the histories of wild and domestic cats in Britain.

The next session focussed specifically on health and wellbeing in captive animals. Andrew Kitchener and Simon Girling, RZSS' Head Of Veterinary Services started the conversation with presentations about the need to meet behavioural, physical and nutritional needs when feeding captive animals. Andrew Kitchener illustrated this with a study of tiger feeding poles. This innovation in the feeding of captive big cats could present best practice in allowing tigers to display more of their natural feeding behaviours when pole fed as opposed to other methods of feeding. This was followed by a presentation from Amanda Fergusson on enriched feeding for health and welfare of zoo animals with an emphasis on how enriched feeding, if tailored to elicit specific behavioural responses can improve the ethological wellbeing of captive animals.



Hannah Britton (left) and Juliette Waterman conducting public engagement activities on zooarchaeology in Edinburgh Zoo's education centre.

These presentations prompted excellent discussion which continued into our final session which included our reflections and responses to the whole workshop. Despite the formal elements of the workshop concluding our activities continued over the next four days. The weekend saw two days of public engagement activities at Edinburgh Zoo and the Highland Wildlife Park from Hannah Britton, David Cooper, Gaia Mortier, Alex Mullan, Virginia Thomas and Juliette Waterman. Then, the following two days saw the first of our public art workshops to create a modern bestiary of animal feeding. There will be three more of these workshops with our other research partners and we look forward to seeing what's produced.



Artwork created by the project team for the modern bestiary project.