EFFECT OF DIET COMPOSITION ON BODY CONDITION AND FAECAL CONSISTENCY IN CAPTIVE BUSH DOGS (SPEOTHOS VENATICUS)

Lucy Hardingham, BVMedSci(Hons)¹, Ellen S. Dierenfeld, MS, PhD^{2,3}, Curtis Wright, BSc(Hons)³; Lucy Haslam, BVMedSci(Hons)¹, Katherine Whitehouse-Tedd, PhD³, and Lisa Yon, PhD¹

¹School of Veterinary Medicine and Science, University of Nottingham, Sutton Bonington Campus, Leicestershire, LE12 5RD, UK.

²Ellen S. Dierenfeld, LLC, Animal Nutrition Consulting, 4736 Gatesbury Dr, St. Louis, MO 63128, USA.

³School of Animal, Rural, and Environmental Sciences, Nottingham Trent University, Brackenhurst Ln, Southwell, NG25 0QF, UK

Abstract

Nutrition is known to affect the health, growth, reproduction, behaviour and longevity of captive animals. However, knowledge of the wild bush dog (*Speothos venaticus*) diet is largely anecdotal and captive dietary studies are limited. A questionnaire was completed by 22 zoos, which provided information on the diet, body condition scores (BCS), and faecal scores for 92 individual bush dogs. Estimated caloric content of the diets was calculated.

Whole prey was offered by 78.95% of participating institutions. Out of 28 different food items offered, rat was the most common, offered at 9 zoos, followed by beef, chick and rabbit. Diarrhoea was prevalent (66.7%) across the 72 bush dogs for which data were received. No statistical significance was found between dietary items and faecal score, however undesirable faecal quality was observed post-ingestion of herbivorous prey, fruit and frozen food in some collections. There was wide variation in the calorie content of the diets studied (average 809kcal/day; range 257-1919kcal/day). Average BCS for healthy animals was 6/9 (range 3-9) and there was no correlation between calorie content and BCS. Subsequent proximate and mineral analysis of two diets revealed mineral deficiencies in both, when compared to the heaviest individuals. One diet, containing commercial dog food had fewer deficiencies and was associated with a lower prevalence of diarrhoea.

Obesity does not appear to be prevalent despite high calorie diets in some zoos. There is inconsistency in the diets of captive bush dogs and improved diet could result in improved welfare through a reduction in diarrhoea.