

## **Comparisons of the Social Organisation and Seasonal Time-Budgets of Grass Kept Domesticated Horses & Wild or Feral Horses**

McDonald, Kirsty

*Publication date:*  
2007

*The re-use license for this item is:*  
CC BY-NC-ND

*This document version is the:*  
Peer reviewed version

**[Find this output at Hartpury Pure](#)**

*Citation for published version (APA):*  
McDonald, K. (2007). *Comparisons of the Social Organisation and Seasonal Time-Budgets of Grass Kept Domesticated Horses & Wild or Feral Horses*. Poster session presented at Student Animal Welfare Conference 2007.

# Comparisons of the Social Organisation & Seasonal Time-Budgets of Grass Kept Domesticated Horses & Wild or Feral Horses



K. McDonald

Hartpury College, The University of the West of England, Hartpury, Gloucestershire, GL19 3BE

## Introduction

Wild and feral horses exist in herds organised and controlled by a definite harem structure consisting of an alpha male and female, harem mares and a separate bachelor band of single stallions (Keiper and Receveur, 1992). The time-budgeted behaviour of the group has been observed to alter between seasons as the herd moves through-out their territory utilising the resources available. Little research has been undertaken into how this social structure and seasonal time-budget is affected by domestication in grass kept groups.

The aim of the study was to see whether the social structure seasonal time budgets has been affected by domestication within grass-kept groups of horses.



## Methods

- Five grass kept domesticated horses; 3 mares and 2 geldings; ages ranging from 3 to 28.
- Focal survey observations were made for two consecutive days in the November and repeated for three consecutive days in the April of the following year.
- Observations were made at three periods throughout the observation days; early morning, midday and late afternoon.
- Each horse watched individually for 10 minutes.
- Group observations were made for a further 10 minute period following the individual observation period.
- All activities were given a 4-second criterion.
- Statistically significant differences between the two seasonal observation periods were tested for using two-tailed Ttest calculations.

## Results

- Social structure observed was very similar to that reported for wild and feral horses.
- The group displayed an alpha male, an female, harem females (older and juvenile) and a bachelor male.
- A non-significant trend for decreased foraging time in November compared to April was observed ( $P>0.05$ ).
- Significantly more time was spent walking during April compared to the November observation period ( $p=0.05$ ).
- Significantly more time was spent standing alert during November compared to the April observation period ( $p=0.05$ ).
- Significantly more time was spent in recumbency (lateral and sternal) during April compared to the November observation period ( $p<0.05$ ).
- Significantly more time was spent in performing 'other' activities during November compared to the April observation period ( $p<0.05$ ).

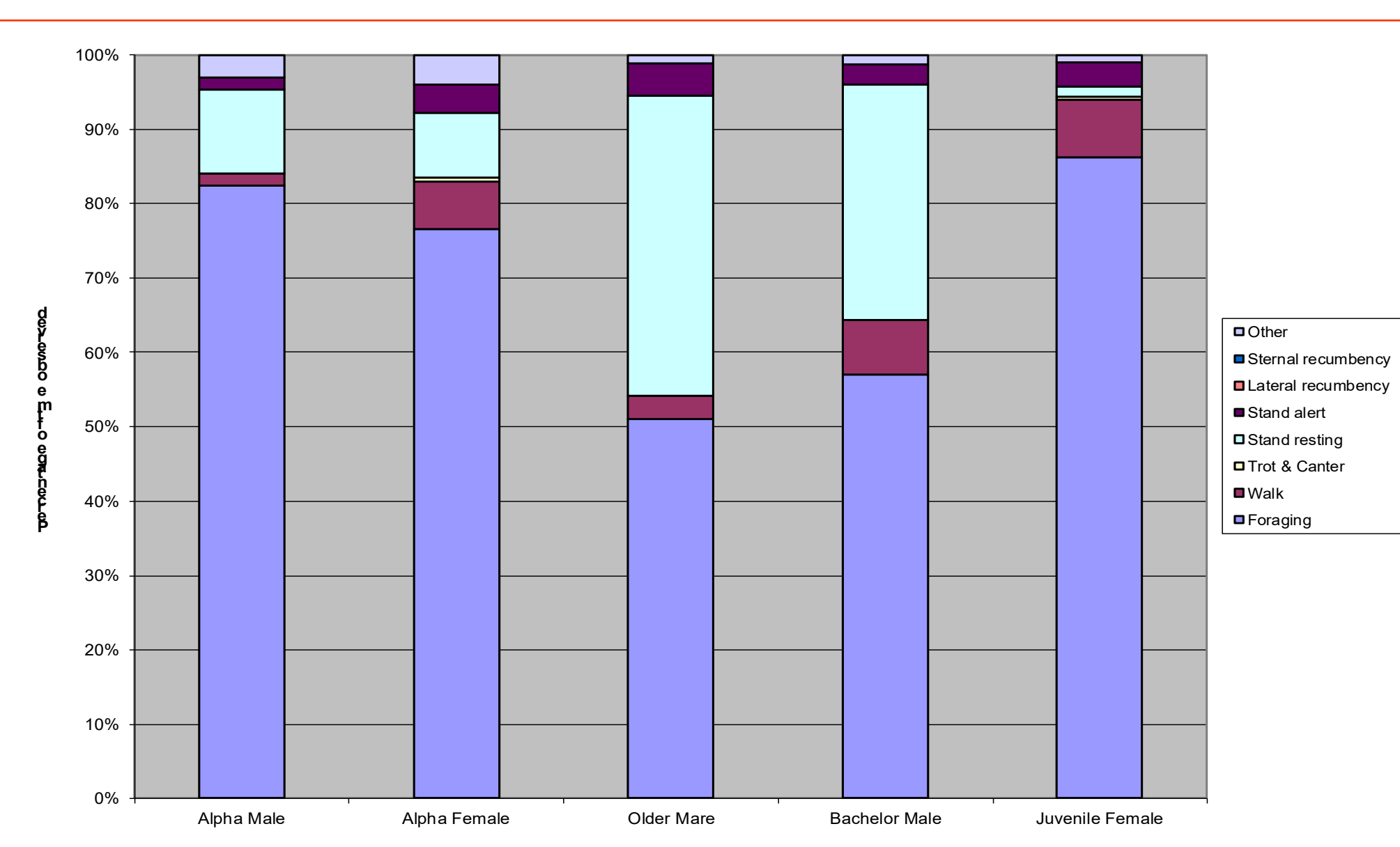


Figure 1: Mean time-budgets for behaviours observed in the November focal survey

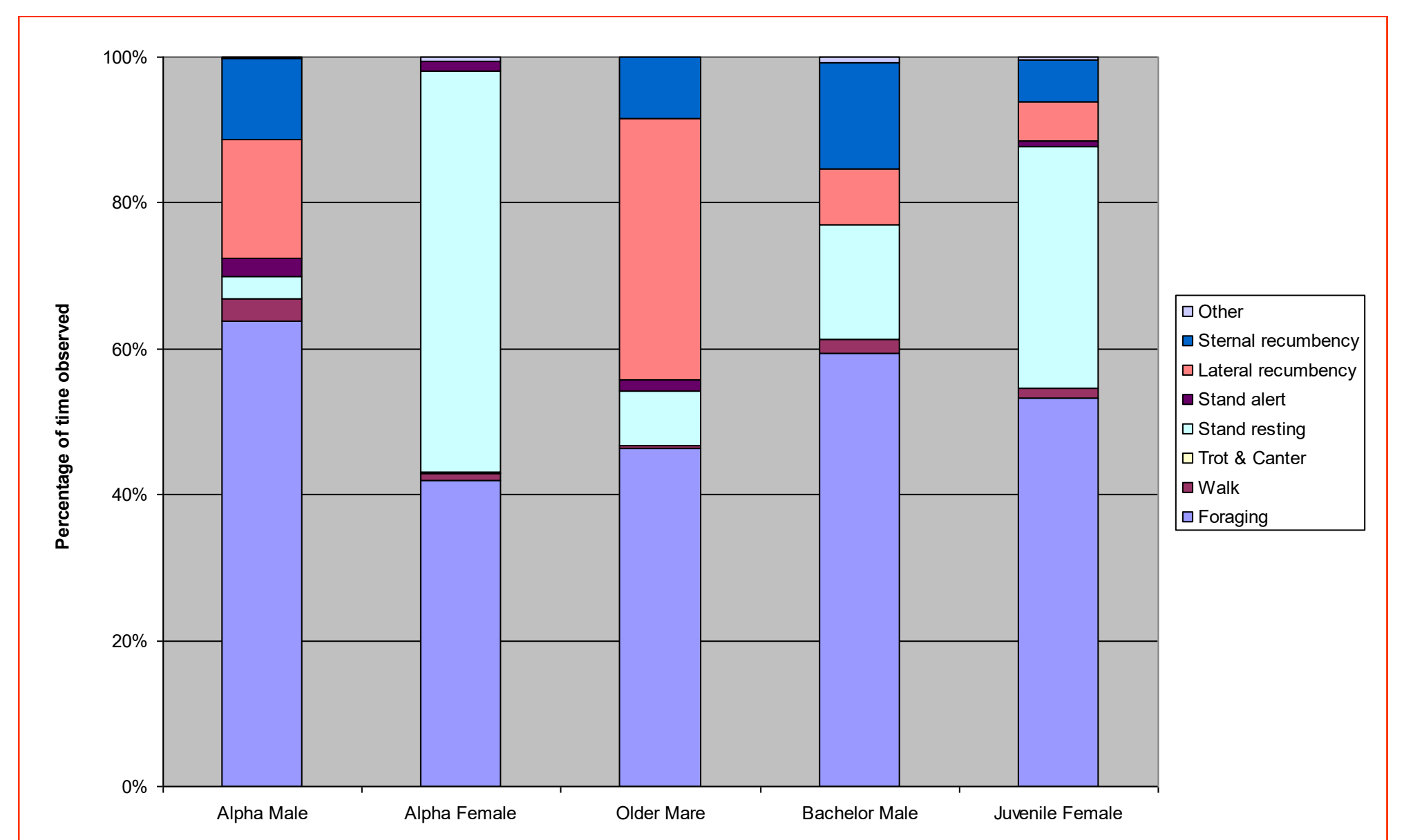


Figure 2: Mean time-budgets for behaviours observed in the April focal survey

## Conclusions

Significant differences in time-budget activities was identified between the November and April observation periods. These behavioural differences and the social organisation within the observed herd reflect those previously recorded for feral horses. These findings suggest that social interactions and facilities and resources available to the herd throughout the year continue to play an important role in domesticated horse welfare.