

The effects of the enclosure and management on the behaviour of captive wolves

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Abstract

In order to further investigate the findings of Frézard and Le Pape (2003) and of Kreeger et al. (1996) among others, an investigation was conducted into the effects of certain factors of the physical and social environments on the behaviour of captive grey wolves (*Canis lupus*). Information was gathered concerning the environments and histories of wolves at six facilities in the UK. Behavioural data was collected from these wolves in the form of scan samples, continuous observations and map plots. This data was used to determine potential relationships between environmental factors and behavioural tendencies. It was found that more alert resting behaviour was observed more in higher density enclosures ($p=0.0007$). Wandering, or exploratory behaviour, tended to be observed more in enclosures with a more varied layout ($p=0.0025$). Resting and resting alert behaviours were both observed more in hand reared, more socialised wolves ($p=0.0108$ and $p=0.0129$ respectively) and trotting was observed more in pack reared, less socialised wolves ($p<0.0000$). Resting behaviour was observed more in packs housed at facilities with lower human visitor activity levels ($p=0.0050$) and trotting was observed to occur more in packs in facilities with higher human activity levels ($p<0.0000$). Pack cohesion, measured as mean distances between individual wolves, was found to be higher (i.e. mean distance decreased) in mixed-sex packs compared to single-sex packs ($p=0.018$). These results were found to concur with some previously published information and disagree with other information, due to the conflicting nature of published material on wolves, their behaviour in captivity, and welfare and its behavioural measurement (Mech & Boitani, 2003; Packard, 2003, Hosey et al., 2009; Morgan & Tromborg, 2007). This study suggested that further investigation into the relationship between socialisation and visitor-related stress levels in captive wolves may provide valuable information regarding this species and its captive welfare.