

**Male – male social interactions in breeder and bachelor
groups of gorillas (*Gorilla gorilla*):
An indication of behavioural flexibility**

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Kirsten Pullen

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Abstract

The establishment of bachelor gorilla groups in captivity, along with the continued success of the captive breeding programme provides an opportunity for research on social interactions in two differing circumstances. This thesis focuses on male – male social interactions. Emphasis is placed on dominance and affiliative behaviours and gives indications of the level of behavioural flexibility within both breeder and bachelor gorilla groups.

Evaluation of behavioural diversity, to validate the use of multi-institutional research, confirms that behavioural phenomena, such as the effect of age class, are not masked by the potential confound of differing husbandry practices and enclosure design between institutions.

It was found that males in bachelor groups express significantly lower frequencies of both dominance and aggressive behaviours than males in breeder groups. A Relationship Quality Index (RQI, based on the ration of dominance to affiliative behaviours) was developed and again bachelor males exhibited a significantly lower RQI, indicating that bachelor males express a greater frequency of dominance behaviours than affiliative behaviours. This may have a direct impact on the social development of young males, and potentially their social competence in later life, a significant finding for the management of gorillas in captivity. In addition, it can be suggested that affiliative behaviours, which may work to repair damage to social bonds, may not be performed to the same extent in bachelor groups, suggesting that the ‘value’ of social bonds within a bachelor group may be reduced.

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