

The effect of environmental enrichment on play behaviour in white-lipped peccaries (*Tayassu pecari*)

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Abstract

*Herds of white-lipped peccary (*Tayassu pecari*) have historically been kept in captivity in order to replace stocks lost to hunting however the lack of knowledge regarding their species-typical behaviour remains an impediment to understanding their captive needs. Environmental enrichment has been suggested as an efficient way of decreasing aggression and apathy as well as increasing the expression of normal behavioural acts — such as play behaviour — which may, in turn, contribute to improved husbandry conditions. Therefore, the aims of this study were to describe play behaviour in this species and analyse the effects of environmental enrichment on such behaviour as well as on agonistic expression and inactivity. The occurrence of solitary and social play acts were recorded, as well as agonistic interactions and inactivity (resting positions) in two conditions (non-enriched and enriched with ball, hose and see-saw). This study included 24 captive peccaries three of which were juveniles, nine sub-adults and 12 adults, with a 1:1 sex ratio. The relationship between social dominance hierarchy and play behaviour was also analysed in each observational condition. Enrichment resulted in increased solitary and social acts of playing both in juvenile/sub-adult and adult peccaries. All the individuals played with the introduced objects and spent less time in resting positions throughout the enrichment phase. However, no decrease in agonistic interactions was observed and dominant individuals played more with the objects. Our study showed that environmental enrichment stimulated play behaviour in white-lipped peccaries as well as decreasing levels of inactivity; this may lead to improvements in the welfare of individuals in captive breeding centres.*

Keywords: animal welfare, captive breeding, endangered species, play behaviour, social behaviour, social dominance