

6. Summary

A complex environment offers captive primates an increase in usable space and is considered a better enrichment than total enclosure size. Zoos have to cope with changing animal husbandry regulations and are urged to offer the animals environments promoting their species-appropriate behaviors within the natural behavioral variation of the species. An experiment consisting of the alternating appliance of three different additional enrichment structures in the long-tailed macaque (*Macaca fascicularis*) indoor enclosure in Zoo Basel was conducted to examine differences in social behaviors with regard to the enrichment structures. Additional influences of the prevailing weather conditions, zookeeper presence and the presence of additional behavioral enrichment devices were included as variables. The percentages of animals showing social behaviors were very similar in each enrichment treatment. The same was found for the number of aggressive animals per hour. Additional enrichment structures seemed not to lead to behavioral changes. Regarding the percentage of animals present in the observation room of the indoor enclosure and the influences of weather, zookeeper presence and the presence of additional behavioral enrichment devices, the percentage of animals present in the room was below 40%. Including the zookeepers knowledge on the long-tailed macaque group, it was concluded that the social behavior of the long-tailed macaques was mainly influenced by the age structure and inherent group dynamics as well as by changes in weather conditions and by the daily course of actions carried out by the different zookeepers. Overall, the behavior of the long-tailed macaques in Zoo Basel seemed to be within the range of variation, which is found in nature. The group is established for a quite a long time and the animals were adapted to the local climate. A variety of enrichment structures in the indoor and outdoor enclosure, which is occasionally changed by the zookeepers, offered the animals the possibility to show species-appropriate behaviors and a natural daily rhythm and constituted a feasible manageability for the zookeepers.