A COMPARISON OF THE CLIMBING BEHAVIOUR OF GLIRULUS AND MUSCARDINUS

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Most Gliridae are adapted to arboreal habitats. The question investigated was if the Japanese dormouse *Glirulus japonicus* moves on horizontal branches more often in an upside down position than other dormice, e.g. *Muscardinus avellanarius*. Experimental tests were performed in a terrarium with 4 artificial branches each of 140 cm length. 5 food stations with 2 food items, one 5 cm below, the other one 5 cm above were presented on each branch. For acclimation, the animals could exploit the system during the first night. They were recorded by video during 3 hours at the beginning of the second night. The following data were analysed: 1) time spent moving on the branches versus 2) time spent moving under the branches, 3) the time spent on the ground, 4) time spent on other structures, 5) time spent eating and 6) the frequencies of food consumption in the upper or lower positions.

Glirulus moved more than 50% of the time in an upside down position below the branches while *Muscradinus* moves 99.5% of the time in a normal position on the branches. The hypothesis is discussed that the upside down position may be more stable on very small branches enabling *Glirulus* to exploit more peripheral parts of trees. The normal position limits the exploitation of tiny branches, but it may allow the animal to mix running and jumping behaviour. A tail of 83–95% in most Gliridae compared to a tail of only 65% of head-body length in *Glirulus* is in agreement with this interpretation.