

# Number and length of whiskers in dormice

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## Abstract

Whiskers (vibrissae) are slender, curved and tapered hairs present in most mammals, which transmit vibrotactile information. In contrast to pelage hair, whiskers are longer and thicker and they possess highly innervated follicles. So called ‘whisking’, a symmetrical, cyclic movement of whiskers can be observed in some tactile specialists. It is used to scan the environment especially during locomotion and foraging. Animals showing the ability of whisking are mainly small, nocturnal and arboreal species like dormice. However, nearly everything we know about whiskers and whisking derives from just a handful of species, including laboratory rats and mice. Until now, information on whiskers and whisking in dormice has been scarce. We describe for the first time the number, length and arrangement of whiskers in the Garden Dormouse, the Edible Dormouse and the Hazel Dormouse.

We counted and measured macro- and micro-vibrissae of five cadavers of the three species and calculated median values for each species. Anatomical studies on whiskers provide data for comparative studies between different species. Moreover, knowledge about whiskers and whisker-use can guide us in designing enriched enclosures for captive mammals. This is especially useful for small, nocturnal species that use whiskers for orientation; including a range of textures and climbing frames in their enclosures is important.

## Keywords

Vibrissae, behaviour, morphology, Gliridae

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