

USE OF FARM BUILDINGS BY BADGERS (*MELES MELES*) AND ASSOCIATED RISKS OF BOVINE TB TRANSMISSION TO CATTLE.

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The extent of farm visits by badgers (*Meles meles*) and the consequent opportunities for transmission of *Mycobacterium bovis* (bovine TB) to cattle were investigated on dairy and beef farms at Woodchester Park, Gloucestershire, England. Home range use of infected and uninfected badgers was also compared. Two infected badgers were radio-tracked within social group territories containing cattle farms. The core activity areas of both badgers included farm buildings. One infected badger had two such core areas representing 17% of her active fixes. A third infected badger that could not be collared was also observed in farm buildings. Feed sheds, cattle sheds, slurry pits, cattle troughs, barns, haystacks and farmyards were used by at least 26 badgers for a range of food items. Visits were most frequent on dry nights, when farms provided alternative food sources to earthworms deep in the ground. Foraging at cattle feed accounted for 56% of visits. Within buildings badgers came into close proximity of sick, injured or pregnant cattle, and calves housed overnight. Badger faeces were found in cattle feed on troughs and on the ground, and both farms suffered herd breakdowns in the same year. Cattle trough climbing experiments revealed that badgers are capable of climbing up to 115cms, well beyond the current safety guideline of 80cms. These visits to farm buildings and facilities may constitute a serious risk of *M. bovis* transmission to cattle and other badgers. Where such visits occur, improvements to farm security and husbandry could be effective means of controlling badger to cattle transmission of bovine TB.

Zusammenfassung(??)

Résumé (??)