

In Ireland, the badger *Meles meles* L is a reservoir species for *Mycobacterium bovis* and, as such, contributes to the maintenance of bovine tuberculosis in cattle. A previous estimate of the badger population in the Republic was 200,000 badgers. In the current study, we obtained data on badger numbers from a large-scale badger removal project (the Four-Area project). The removal areas of the Four-Area Project were surrounded by barriers (either water or buffer areas where removals were also conducted) to prevent badger immigration. Within these areas, a grid of 0.25 km² was created within which we knew the badger numbers and habitat types (based on Corine data). Associations between badger numbers and habitat type were investigated using negative binomial modeling. Extrapolations from the model yielded an estimated badger population in the Republic of approximately 84,000 badgers. The implications of these findings are discussed.

Keywords Bovine tuberculosis surveys - Four area study - Estimated abundance - Extrapolations

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