# Prevalence of Mycobacterium avium subsp. paratuberculosis infection in farmed deer in New Zealand

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Johne's disease, caused by *Mycobacterium avium* subsp*. paratuberculosis (Map),* has become a serious clinical problem in young farmed deer in New Zealand, and can lead to substantial economic losses for affected herds. A surveillance system, based on the detection of gross pathology typical of *Map* infection at post-mortem inspection, has been established by the industry to relay information back to herd-owners so that control measures may be implemented on affected farms. The system is based on identification of enlarged and/or granulomatous mesenteric lymph nodes, and has a high positive predictive value for *Map* infection. However, the true underlying herd and animal-level prevalence of infection is thought to be higher than clinical or pathological evidence alone can demonstrate. This study estimates the prevalence of infection in grossly normal mesenteric lymph nodes collected at four deer slaughter premises located in the southern and northern regions of the North and South islands of New Zealand. Mycobacterial culture and gross pathology data from 240 tissue samples from 60 slaughter lines will be analysed; combined with gross pathological findings, an estimate of national animal and herd-level prevalence will be possible. Risk factors for individual and herd-level infection will be evaluated, and the data will also contribute to establishing estimates of sensitivity and specificity of the surveillance system.