

Seroprevalence to *Brucella* spp. In wild boars of Campania region during the 2016-2017 hunting season

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Brucellosis is an infectious disease caused by members of the *Brucella* genus, undergoing to specific eradication plans worldwide in domestic ruminants. However, Brucellosis is frequently reported among wildlife populations in Europe and particularly in the Eurasian wild boar which population is in a progressive expansion throughout Europe in the last decades, raising concerns regarding the control of diseases in this species. Thus, in the present study we carried out a cross-sectional survey in wild boars in Campania region to assess the sero-prevalence against *Brucella* and to provide information on associated risk factors using both Rose Bengal Test (RBT) and a competitive enzyme-linked immunosorbent assay (cELISA) on 513 sera from hunter-killed wild boar sampled between 2016 and 2017 in Campania region, southern Italy. Our results demonstrated an apparent prevalence of 11,31% (95% CI 2,61-20,00%). Prevalence was significantly affected by the region of sampling but not by age or by sex of the animals. The relative sensitivity of the RBT versus the cELISA was 8.6% while the relative specificity was 96%. Results of the present study indicates a moderate sero-prevalence in wild boar, and then a wide exposure risk to *Brucella* spp in Campania region. *Brucella* presence in agroecosystem may have important implications not only for biodiversity conservation practice but also, and principally, for animal and human health. Finally could represent a growing risk of spillback to outdoor-farmed pig herds. However, further investigations are needed using bacterial isolation as well as PCR, to better characterize the responsible *Brucella* serotypes involved.