African swine fever outbreak in wild boar in Sweden

Background In September 2023, the first Swedish case of African swine fever (ASF) in wild boar was discovered, just outside Fagersta. ASF is a contagious viral disease of domestic pig and wild boar, whose mortality rate can reach 100%. ASF is not a danger to human health, but it has devastating effects on pig populations and the farming economy. Extensive work with organized search efforts in the area was initiated to identify, remove and sample wildboar carcasses. As of December 12, a total of 83 carcasses have been identified, of which 62 were positive for ASF (https://www.sva.se/en/what-we-do/contagion-status/surveillance-of-african-swine-fever-asf/monitoring-of-african-swine-fever-asf/). All carcasses have coordinates, and all positive cases were found within a radius of 2.6 km. In addition, based on the putrefaction of each carcass, a time of death has been estimated.

Purpose Investigate the ASF outbreak to better understand the disease dynamics in the wild boar population and including the most likely time for introduction. This will involve epidemic modelling and spatial network modelling, simulations and statistical analysis of the empirical data set.

Advisor Tom Britton

Co-advisors Hyeyoung Kim and Stefan Widgren, Department of Disease Control and Epidemiology, National Veterinary Institute, Uppsala, Sweden.