

## Research Article

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**Corresponding author:** Anthony David Fox;  
Email: [tfo@ecos.au.dk](mailto:tfo@ecos.au.dk)

# Zero *Salmonella* prevalence found in common starlings *Sturnus vulgaris* captured in Danish cattle sheds on farms infected with *Salmonella enterica* Dublin

Malene Budde<sup>1</sup>, Betina B. Tvistholm<sup>1</sup>, Henning Heldbjerg<sup>2</sup>, Erik Rattenborg<sup>1</sup> and Anthony David Fox<sup>2</sup> 

<sup>1</sup>SEGES Innovation P/S, Animal Health and Welfare, Cattle Livestock, Aarhus N, Denmark and <sup>2</sup>Department of Ecoscience, Aarhus University, Aarhus C, Denmark

## Abstract

*Salmonella enterica* serovar Dublin is host-specific to cattle, causing severe symptoms and economically impacting milk herds. Despite an eradication programme in Denmark, levels of infection have not decreased and suspicion has fallen on the common starling *Sturnus vulgaris* as a potential vector between herds. The number of breeding starlings in Denmark declined by 60% between 1976 and 2015, a trend correlated with decreases in the number of cattle grazing outside. Ironically, more starlings are now coming into Danish cattle sheds to feed on maize silage outside the breeding season, so it is increasingly important to understand the role of starlings in dispersing *Salmonella* between cattle herds. We caught and tested 394 different starlings at seven separate dairy farms infected with *Salmonella* Dublin by swabbing breast feathers, legs, feet and undertail coverts as well as taking faecal samples at these and four other infected farms. We found no trace of the pathogen, indicating that starlings are highly unlikely to be significant in spreading *Salmonella* Dublin between Danish cattle herds. We recommend investigating alternative contacts that may occur between herds as the cause of disease spread.