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A space-time analysis of *Mycoplasma bovis* in Denmark

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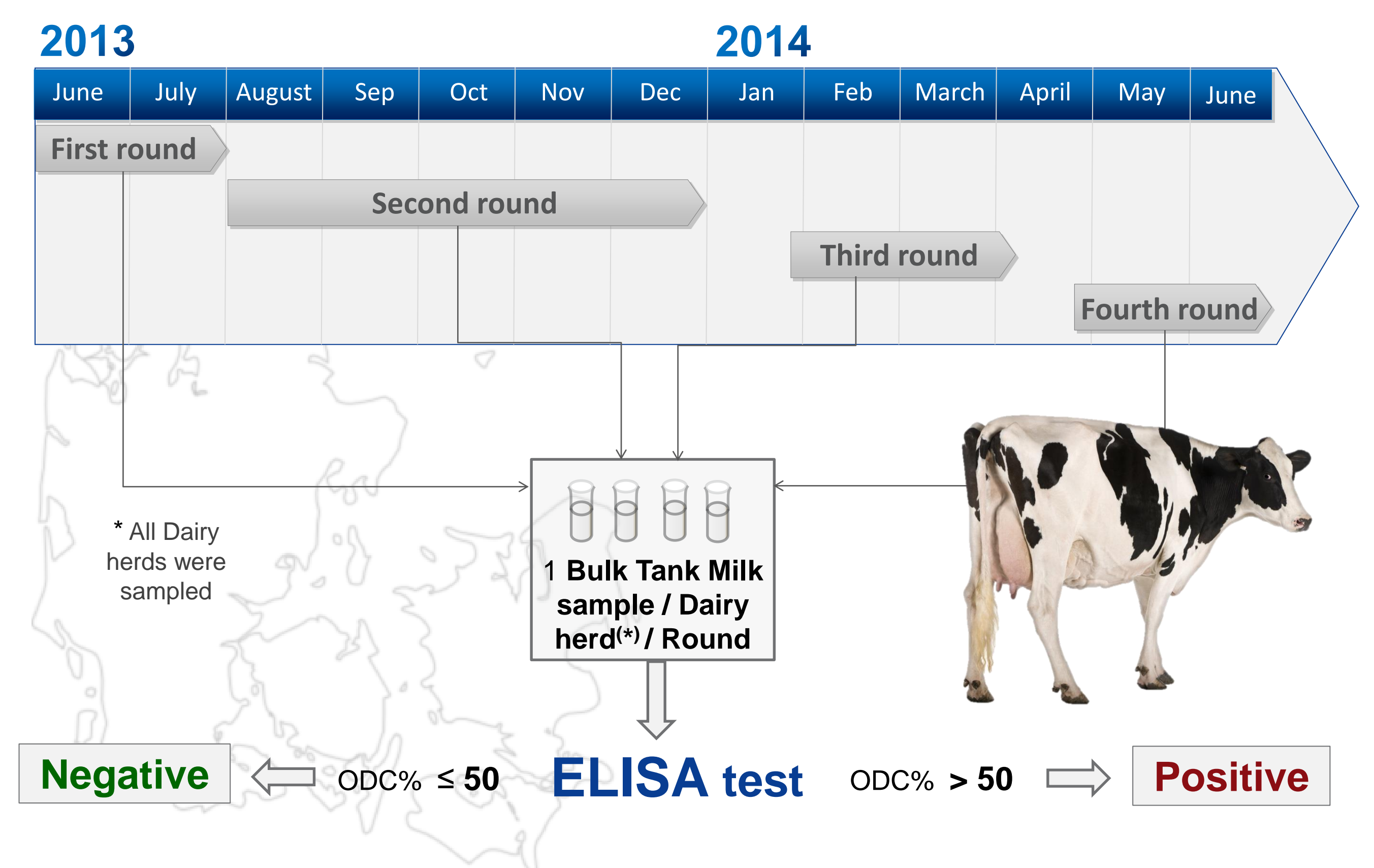2 Department of Large Animal Sciences, Faculty of Health and Medical Sciences, University of Copenhagen

Background

Mycoplasma (M.) bovis causes in cattle, among other diseases, mastitis. The dairy cattle population in Denmark had an increase in atypical clinical outbreaks of *M. bovis* over the past years. An important prerequisite to the implementation of an effective control program is **to determine the geographical distribution of *M. bovis***.

Conclusions

- *Mycoplasma bovis* infected herds are clustered in northern or southern Denmark.
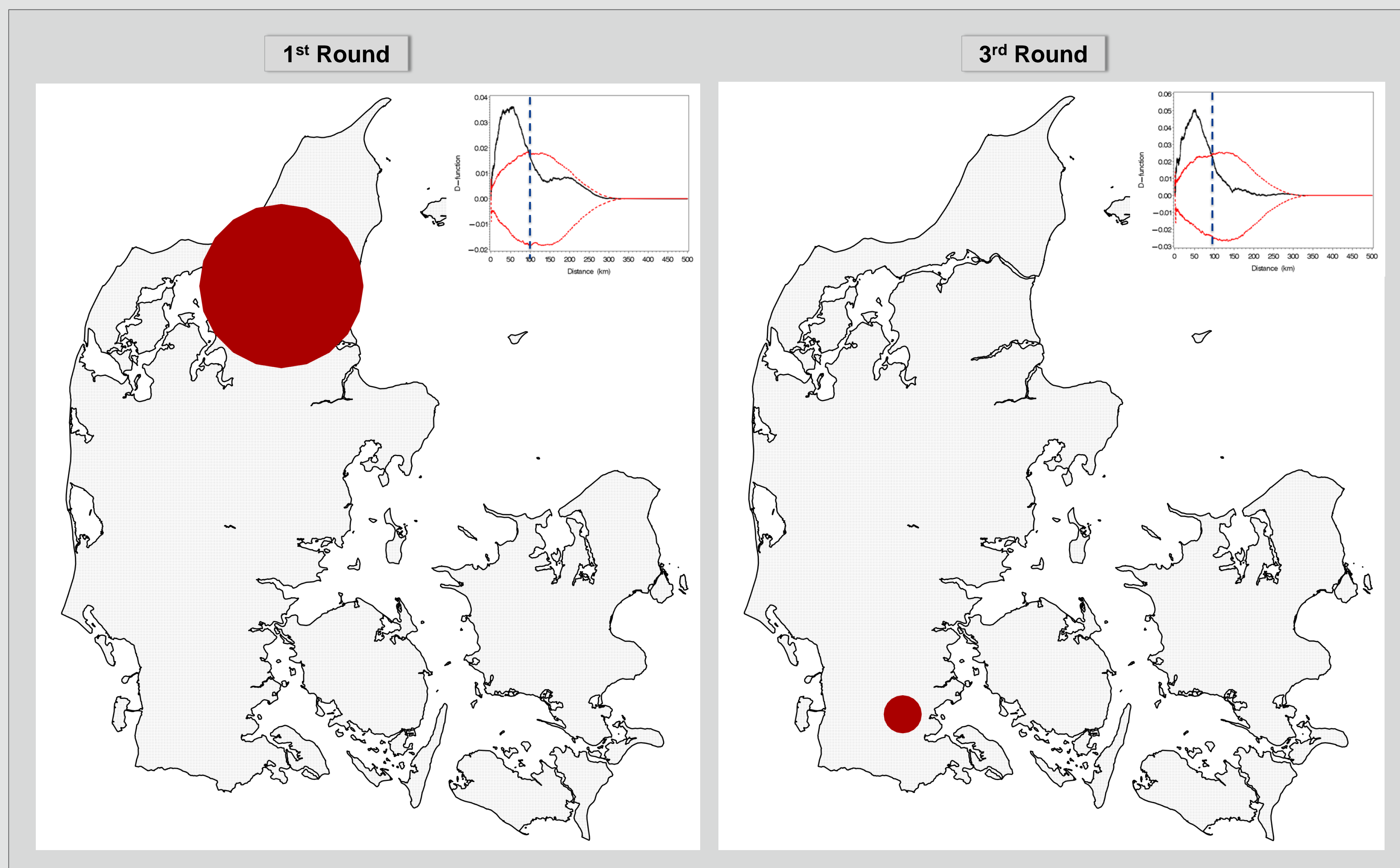
Data

2013   2014

June | July | August | Sep | Oct | Nov | Dec | Jan | Feb | March | April | May | June

First round
Second round
Third round
Fourth round

* All Dairy herds were sampled

1 Bulk Tank Milk sample / Dairy herd[(*)] / Round

Negative ⇐ ODC% ≤ 50   **ELISA** test   ODC% > 50 ⇒ **Positive**

Results

Space-time scan statistics (SatScan™) / K- function

Significant local primary clusters*

A **marginally significant primary cluster**:

1st Round | 3rd Round | 4th Round

The clusters are in areas with high herd and cattle density.
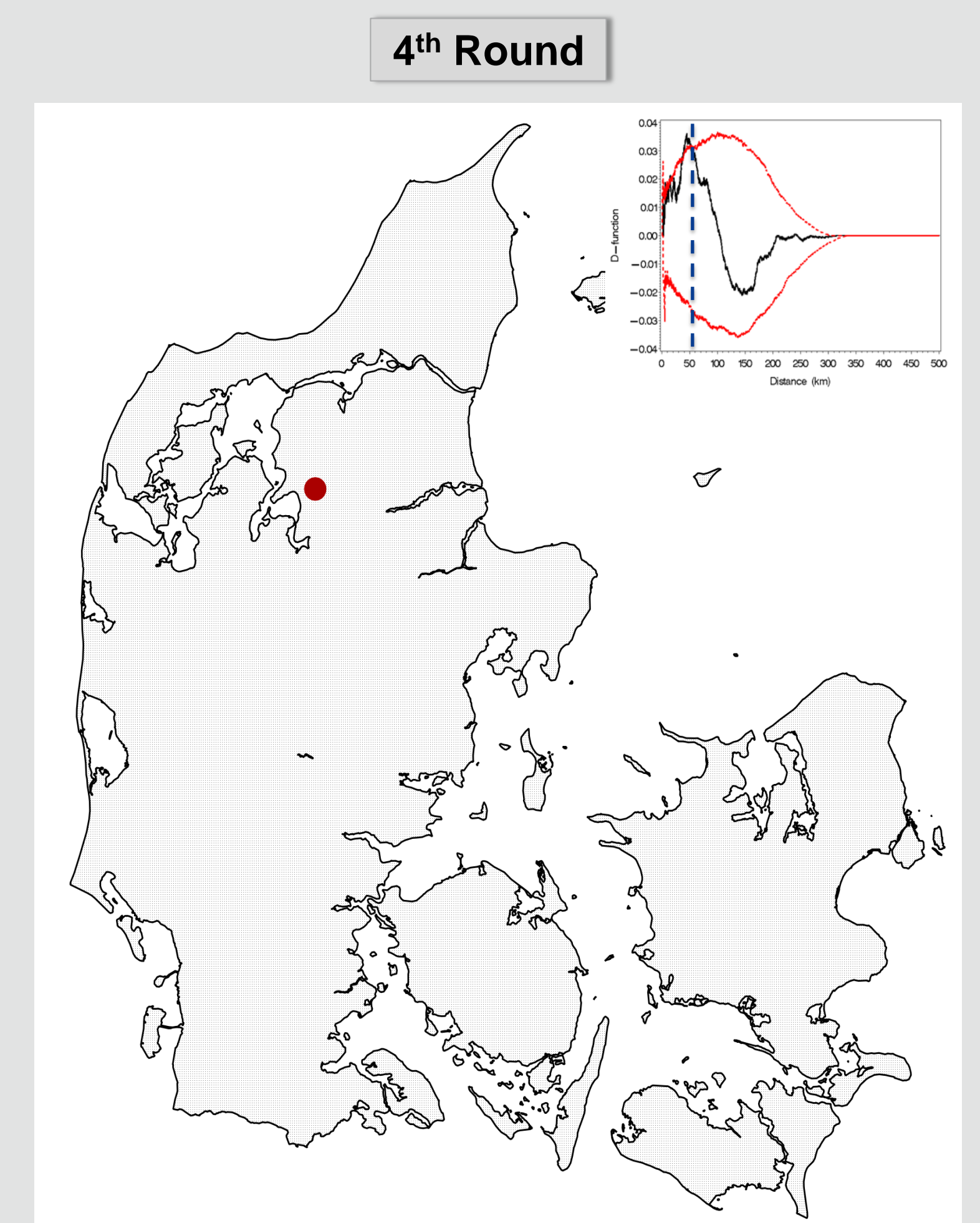
The maps show the location of the clusters of *M. bovis* infected herds, while the inserts (K-function) indicate global clustering of cases around a radius of 70 km (app), in each round.

(*)There was no clustering in the second round.

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