



Aalto University

# Tassu observations

S-114.4202 Special Course in Computational Engineering II

Ville Väänänen

*Aalto University School of Science*

March 8, 2012

# Outline

## Data

### Geographical data in R

### Preparing the observation window

### Preliminary LGCP fit

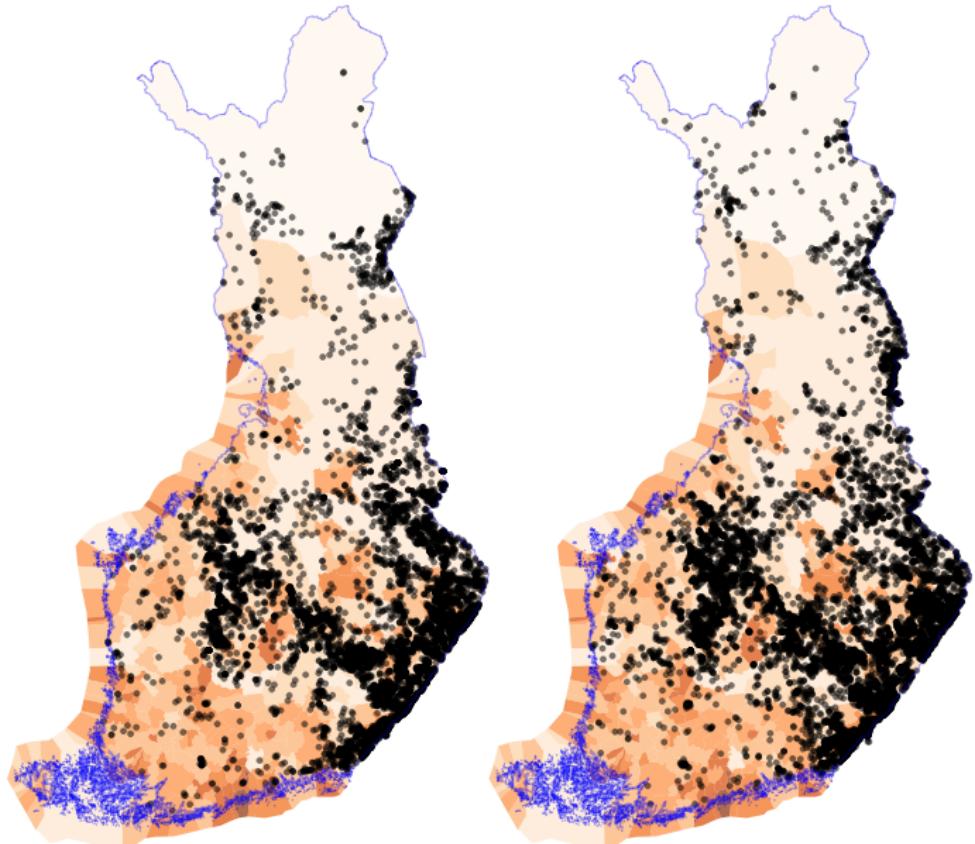
## Summary

# Data

- Wild animal observations in Finland
  - Bear
  - Wolf
  - Lynx
  - Wolverine
- Location (in KKJ coordinates)
- Foot-size measurements
- Date

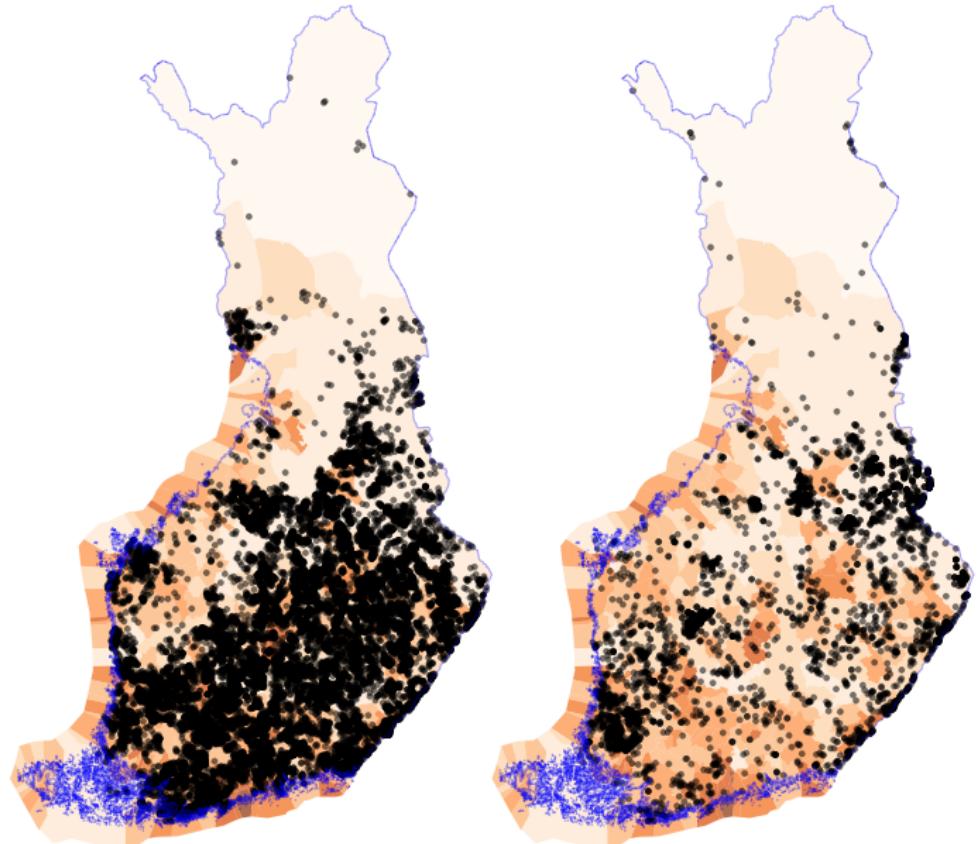
## Questions

- Where the animals really are
  - Why they are where they are
  - (How many are there)
-



(a) Bear 2009 (8020)

(b) Bear 2010 (10689)

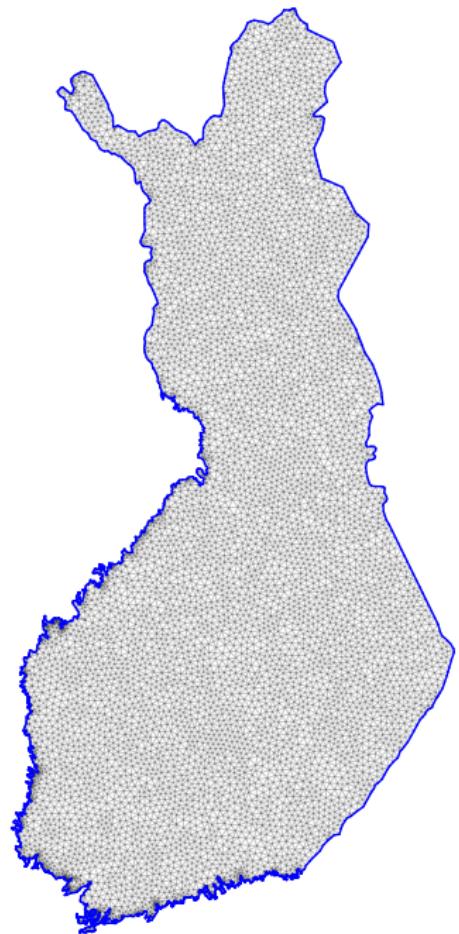


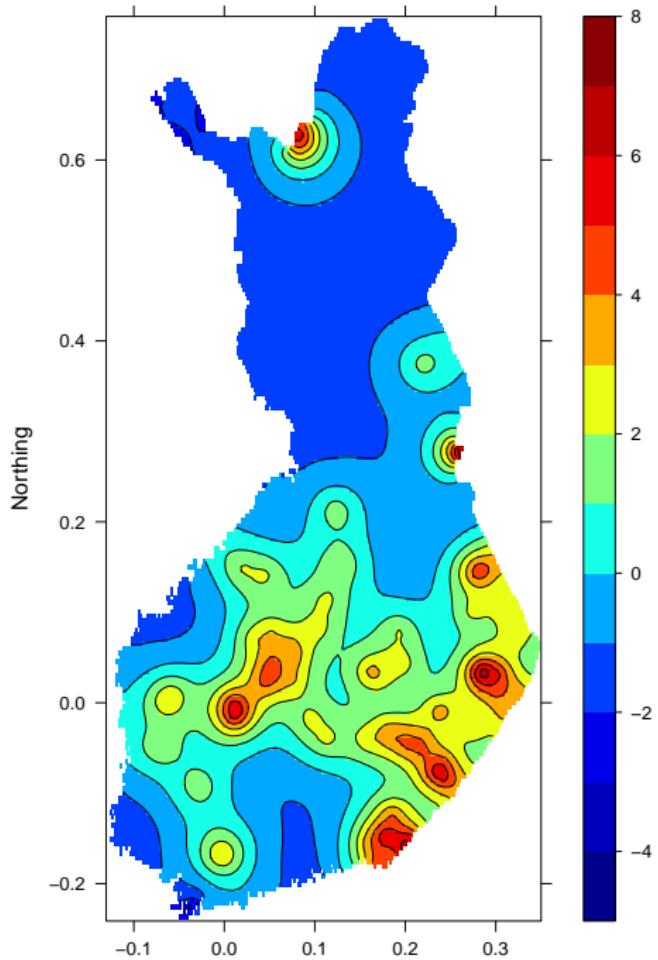
(c) Lynx 2009 (22682)

(d) Wolf 2009 (4742)

# The observation window

- From a map (shapefile with lines) to polygon
- A huge effort
- Needed for the mesh





# Summary

- Wild animal observations
- Map of Finland as observation window
- Tried to fit LGCP using INLA
- Covariates: population density