



## The contact zone between small mammals, pathogens and humans

### Weather conditions triggering bank vole (*Myodes glareolus*) movement to human dwellings

#### Background

The bank vole (*Myodes glareolus*) is Europe's most common mammal and the solely host of the Puumala virus (PUUV) causing nephropatia endemica (NE), a hemorrhagic fever in humans. Winter climate is likely an important factor triggering outbreaks of NE. Underlying mechanisms are poorly studied, but likely unfavorable conditions such as mild winters with less protective snow cover drive the generally forest dwelling bank voles to human dwellings, resulting in increased contact between bank voles and humans.

#### Primary questions

1. Is winter movement to and activity and abundance of bank voles in human dwellings triggered by adverse winter condition (e.g. thin snow cover, ice-bark formation and/or rainy conditions)?
2. To which extend is the voles' activity affected by other factors including predation risk?

#### Work plan and methods

1. Thorough literature study on environmental factors triggering movement of small rodents to houses
2. Development of study design
3. Field study on winter movement of bank voles using activity traps, camera traps and PIT (passive integrated transponder) tags
4. Data analyses
5. Thesis compilation

#### Extent

Preferably 60 credits, but 30 credits might also work.

#### Contact

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