

# Low arctic study design Varanger

## REGIONAL DESIGN OF THE ARCTIC FOX MODULE

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The regional design of the arctic fox module is based on a contrast in management regime:

- “experimental area” covering the Varanger peninsula where red foxes that compete with arctic foxes are culled (culling by Norwegian Nature Surveillance – SNO – and encouragement program for local hunters)
- “control area” covering the neighbouring Nordkynn peninsula with adjacent inland areas (Ifjordfjellet, Gaissene). Red foxes are not culled here (hunting is allowed but there is little interest for it).

### LOCATIONS WITHIN THE CONTROL AND EXPERIMENTAL AREAS

Within the regional design of the arctic fox module, three locations are in the experimental area: Komagdalen, Stjernevann and Vestre Jakobselv and four locations in the control area: Nordkynn, Bekkarfjord, Ifjordfjellet and Gaissene (Figure 1).

#### Sites for small rodent monitoring

Within the regional design of the arctic fox module, small rodents are currently monitored at six locations of the arctic fox module design: Bekkarfjord, Nordkynn, Ifjordfjellet, Komagdalen, Stjernevann and Vestre Jakobselv.

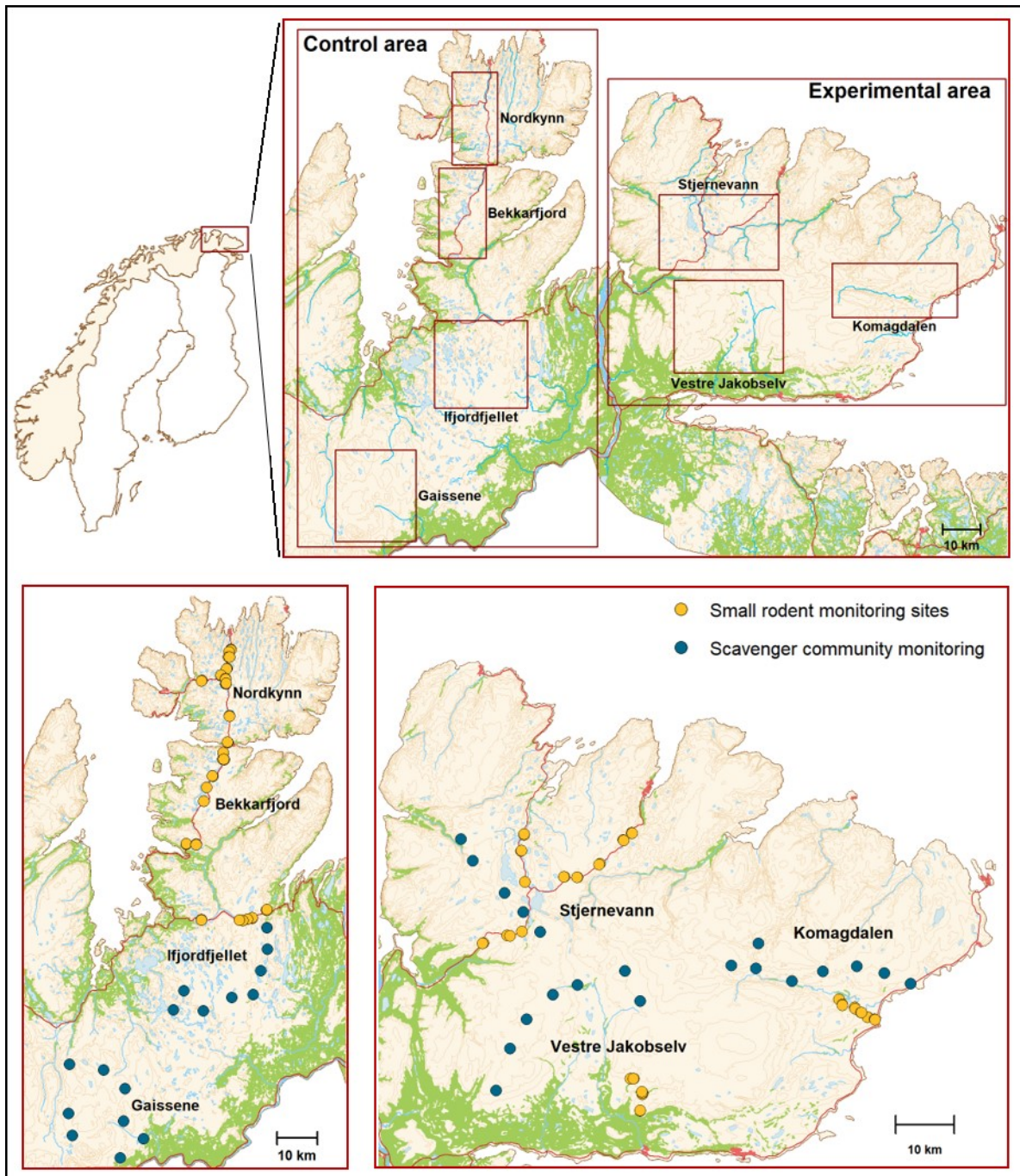
Bekkarfjord, Nordkynn, Ifjordfjellet and Stjernevann have 6-10 sites in grey-sided vole habitat and 4-14 sites in lemming habitat. Grey-sided vole habitat is located at lower altitudes within the localities (between 80 and 290 m asl.) and lemming habitat located at higher altitudes within the localities (between 120 and 350 m asl.). Komagdalen and Vestre Jakobselv have 14 and 11 sites respectively, which are located in the same river valleys as the two localities included the intensive study design but at lower altitudes (between 20 and 240 m asl.).

Each site has a 15\*15 m sampling quadrat that is used for small rodent monitoring. The quadrat corners and/or small rodent trap localities are marked with metal wire pins, painted rocks and/or plastic straps.

#### Sites for monitoring the scavenger community

The scavenger community is currently monitored in five localities: Komagdalen, Vestre Jakobselv, Stjernevann, Ifjordfjellet and Gaissene. Within these localities the monitoring sites are located as transects spanning a gradient from the more productive coast/forest to the less productive tundra in the inland, with 5-8 sites per transect. One baited automatic camera is placed at each site.

There were some changes of localities used over the years. Camera stations were placed in Bekkarfjord from 2005 to 2008 and in Nordkynn from 2005 to 2012. The camera stations in Gaissene were active since 2013.



**Figure 1:** Overview of the regional study design of the arctic fox module with seven localities on Varanger peninsula and Nordkynn peninsula and sites for small rodent and scavenger community monitoring within the localities (Map data from [www.kartkatalog.geonorge.no](http://www.kartkatalog.geonorge.no)).