Using a focal animal as a 'probe for learning' in creating adaptive governance of urban forests

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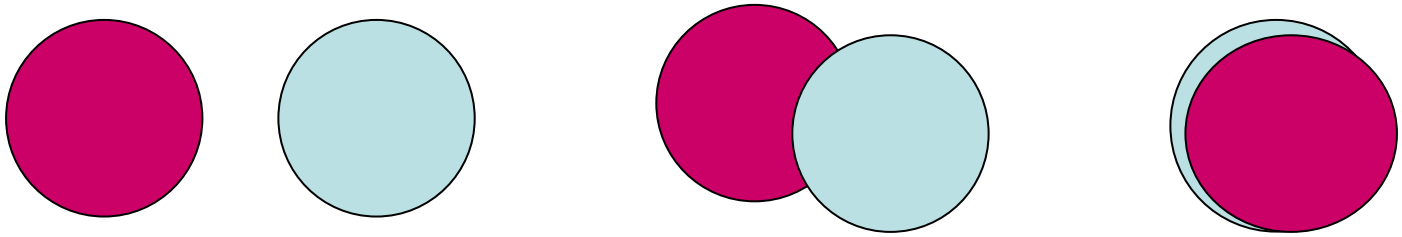
The southern fringe of the City of Tampere



Are there always pre-given dichotomies such as
forest recreation vs. nature conservation?

Sustainability research: The challenge of urban green governance

- Management of urban green areas is very object-oriented and produces static nature, whereas ecological, social and economic processes are highly dynamic
  (Andersson 2006, Folke 2005, Pickett et al. 2004, Tjallingii 2000)

- Resilience of urban socio-ecological systems?

- Learning?

- Optimisation of resources is based on past records……instead of addressing uncertainty, surprise, and the dynamic features of urban landscapes
- Institutional regimes, professional traditions, classification systems

  - forestry, land-use planning, nature conservation
- The problem is both *the incompleteness and imprecation of existing knowledge* (Scriven 1987)

What are we able to perceive?

- we should ask, without having normative assumptions of what is forest recreation or nature conservation (or what they should be):

  what is really happening in the forest when people follow their practices?

How to open up new perspectives?

- Unlearning is difficult
- Stepping aside to see better?
- We need special cases to be studied carefully

=> **focal animal as a probe for learning**

Siberian flying squirrel

Marko Schrader

- a fairly common species in spruce-dominated mature forests, also in urban areas
- strictly protected by the Habitats Directive
- all breeding sites and resting places automatically protected
- problems:

  - nocturnal, hard to detect
  - several resting places
  - no exceptions to conservation
  - annual dispersal of juveniles
  - may suddenly emerge in the planning area

Complexity and focal animals

Taxon-based surrogate schemes

- assumption that also the needs of other taxa will be met (**ecological** nestedness)
  - umbrella species
  - flagship species
  - indicator species
  - focal-species approach (a suite of taxa)

This approach

- focus on **ecosocial** interaction, relatedness and difference

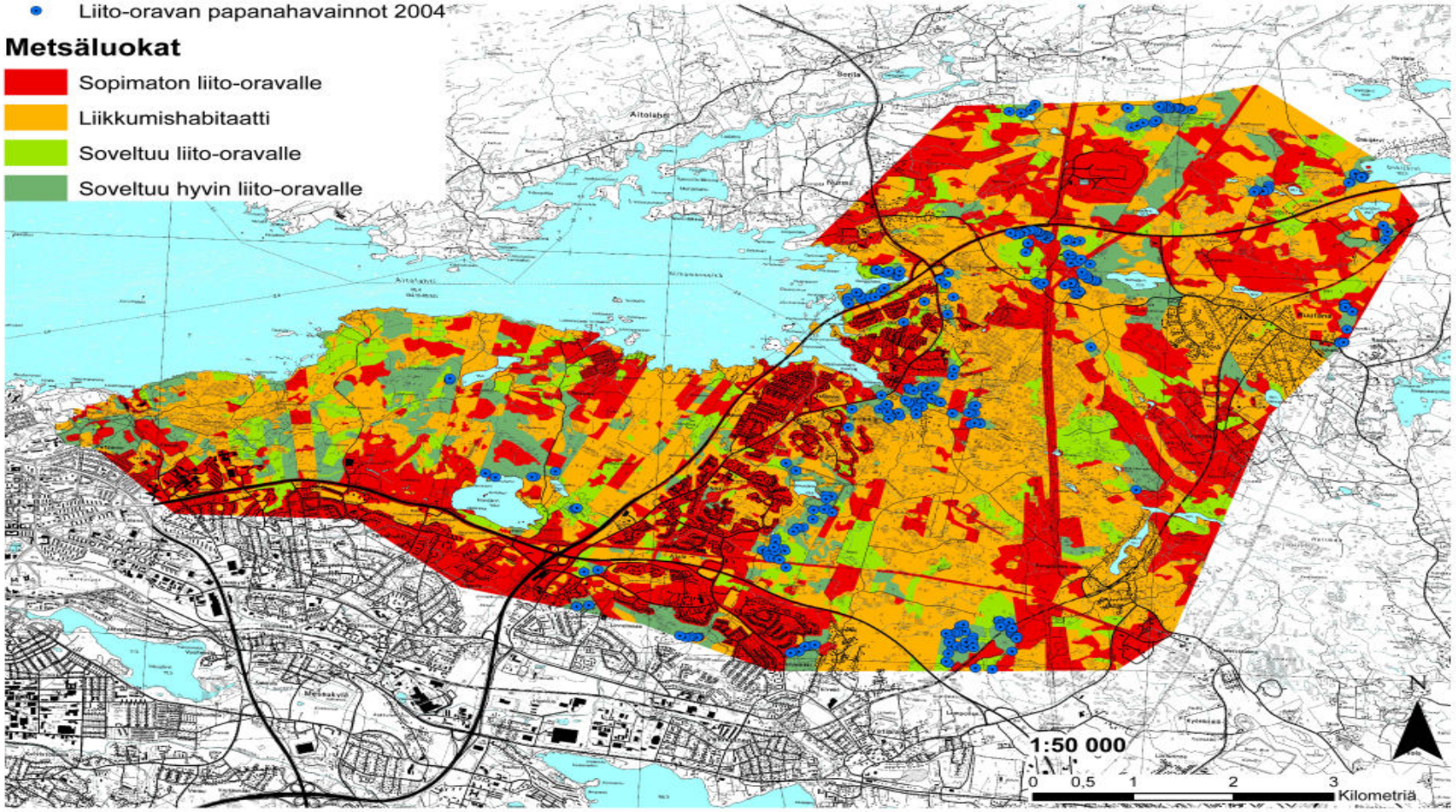
1) Selection of an animal
2) The animal is used as a **probe** to stimulate human interaction and broaden understanding of the challenges and opportunities of feasible urban green governance

Flying squirrel as a probe

- shifting the focus from chaotic implementation of the EU regulation to a valuable asset when developing cooperative nature conservation
- the obligation of protecting the flying squirrel brings together the elements of scaling, ecosocial dynamics and participation

A breeding site of the flying squirrel

Findings (blue) and habitats (green) of the flying squirrel in an urban forest area (52 km2) in Tampere, SW Finland



The flying squirrel as a probe for social learning

1. social diversity
2. new ecologies
3. shared problem-solving by increasing complexity
   - innovations
   - social learning

FLYING SQUIRREL AS AN INTERVENTION

- triggers organization

The flying squirrel as a probe…

1. INTERVENTION forced the actors to suspect the standards and think otherwise
2. NEW ECOLOGIES arose and formed the basis for cooperation that was promoted by a research project
3. SHARED PROBLEM-SOLVING was organized to promote innovation capacity and social learning

1. INTERVENTION: The flying squirrel forced the actors to suspect the relevance of conventional management and think otherwise

- planners, foresters, authorities, citizens and other actors received the probe (the task of protecting the flying squirrel)

  => ambiguity (institutional void)
- the value of uncertainties: the probe stimulated the mind of the actors and sensitized and activated them to reflect on everyday experiences with fresh perspectives
- the probe charted and brought out domains that are crucial in understanding the ecosocial dynamics but thus far ignored
- the probe allowed exploration to find ideas and to make sense of the future aspects of the dynamical view of conservation

  => the probe triggered new views and opportunities and the actors started to pay more attention to possible and partial solutions and even hints and clues

2. NEW ECOLOGIES: The flying squirrel started to create a diverse pool of human-animal activities

- various solutions for conservation were developed
  - guidelines for 1) forestry and 2) land-use planning by the ministries
  - different stakeholders created their own strategies and solutions on the basis of their institutional traditions and new explorations
    - the flying squirrel as a probe was able to enter intimate spaces of the institutions
    - a delicate balance between following formal rules and practicing through informal practices
- flying squirrel surveyors as a new group of experts
- citizen participation, the public
- human-animal relations of birdwatchers and other citizens (nest boxes)

- the new ecologies blurred the boundary between public and private
- controversies and conflicts

3. SHARED PROBLEM-SOLVING: The flying squirrel started to promote social learning

- the new ecologies were gathered together in four dialogue workshops to find opportunities for new approaches to collaborative management
- the probe had stimulated the participants' capabilities to make innovations
  - new connections between people, professions, municipalities, administrational sectors, organizations and institutions
  - problematization of the public and participation
- innovations could be used as fragmentary clues about important aspects of urban ecological governance; these clues were motivational to participants

The value of uncertainties

- clues to the animal
- clues to the interests of other members during the shared problem solving

Conclusions (1)

- the flying squirrel as a probe was a means to study the working context of managers of urban forestry and other practitioners in relation to scaling, cooperation and citizen participation
- interdependencies between actors
- the flying squirrel as a probe was innovative and process-oriented and facilitated empathy and dialogues between participants

  => potential for social learning

Conclusions (2)

- entities of urban nature classified as valuable objects

  - animals, plants, habitats, forest classes

  or their implementation cannot be the final point in urban ecological governance
- instead, they should be understood as probes and mediators in a cooperative **process** through which valuable nature begins to grow up

Conclusion (3): Probe design becomes important

- in changing the focus from object-oriented management to process-oriented cooperative management
- public participation
- ecosocial dynamics

It is cooperation that gives birth to values of urban forest, not classifications made in advance

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PROBE

triggers organization