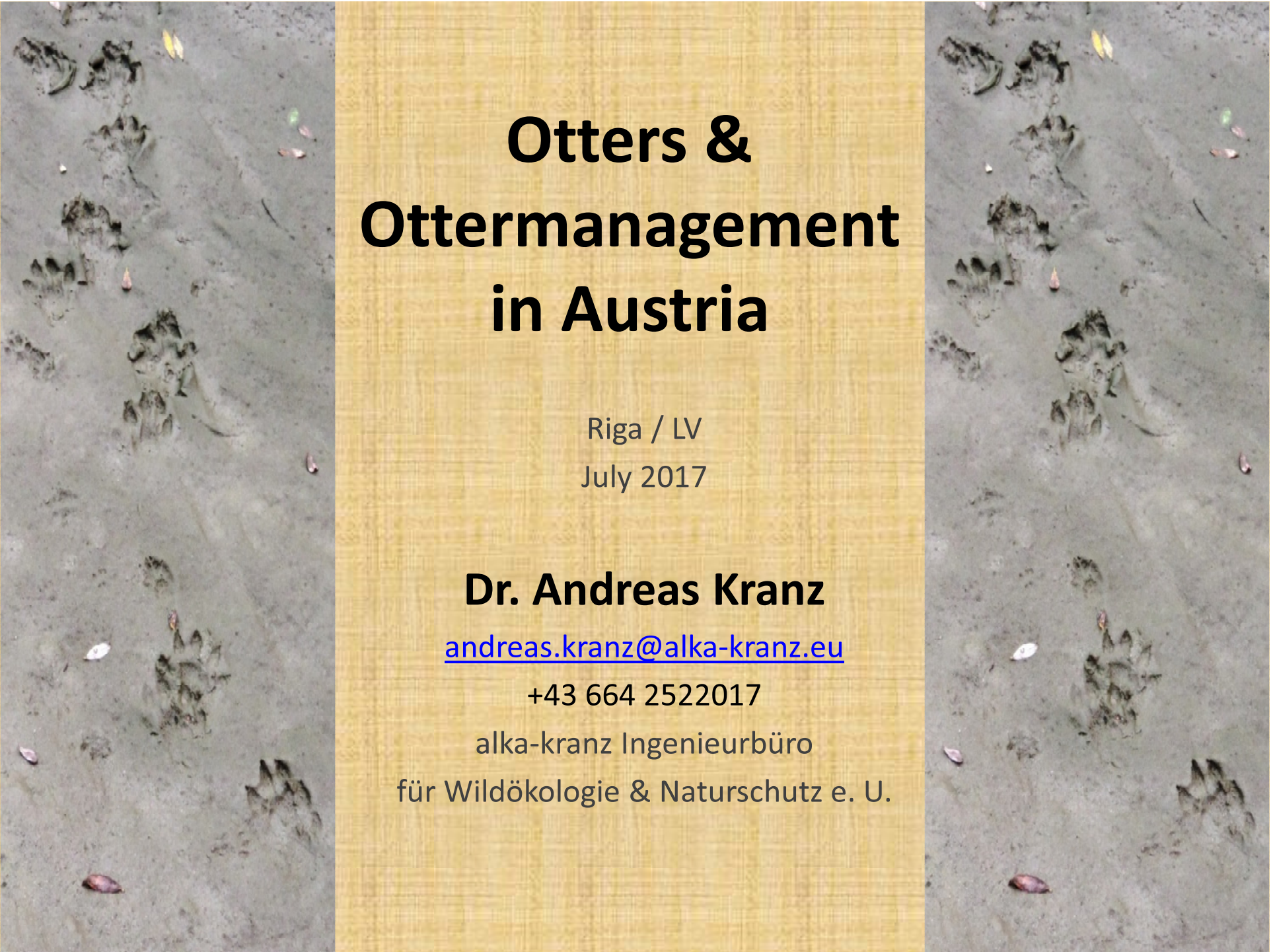




Otters & Ottermanagement in Austria

Riga / LV

July 2017

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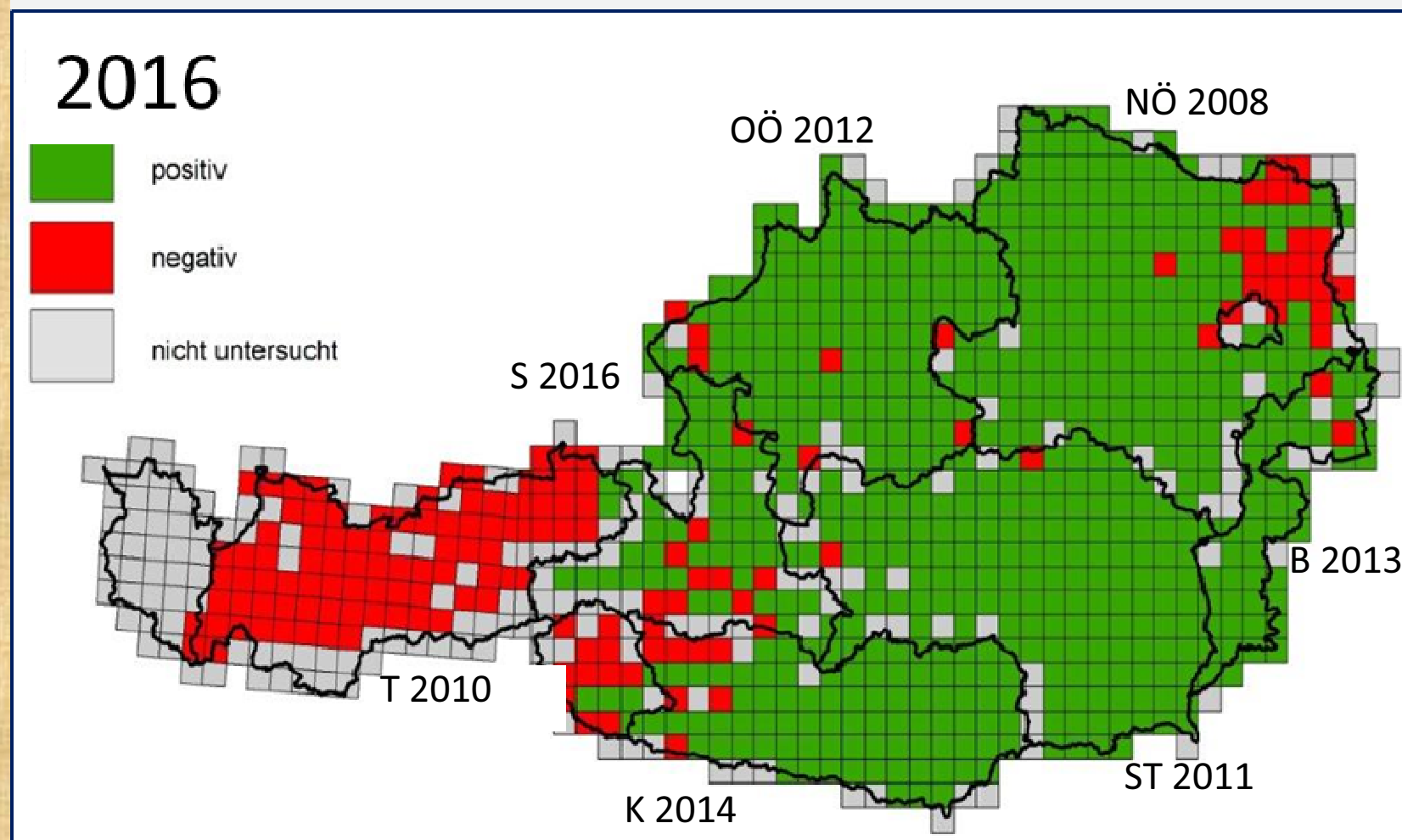
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Content

- 1) Background to Austria
- 2) Ecological aspects
- 3) Management

Distribution in Provinces



Distribution 30 years ago (1986)



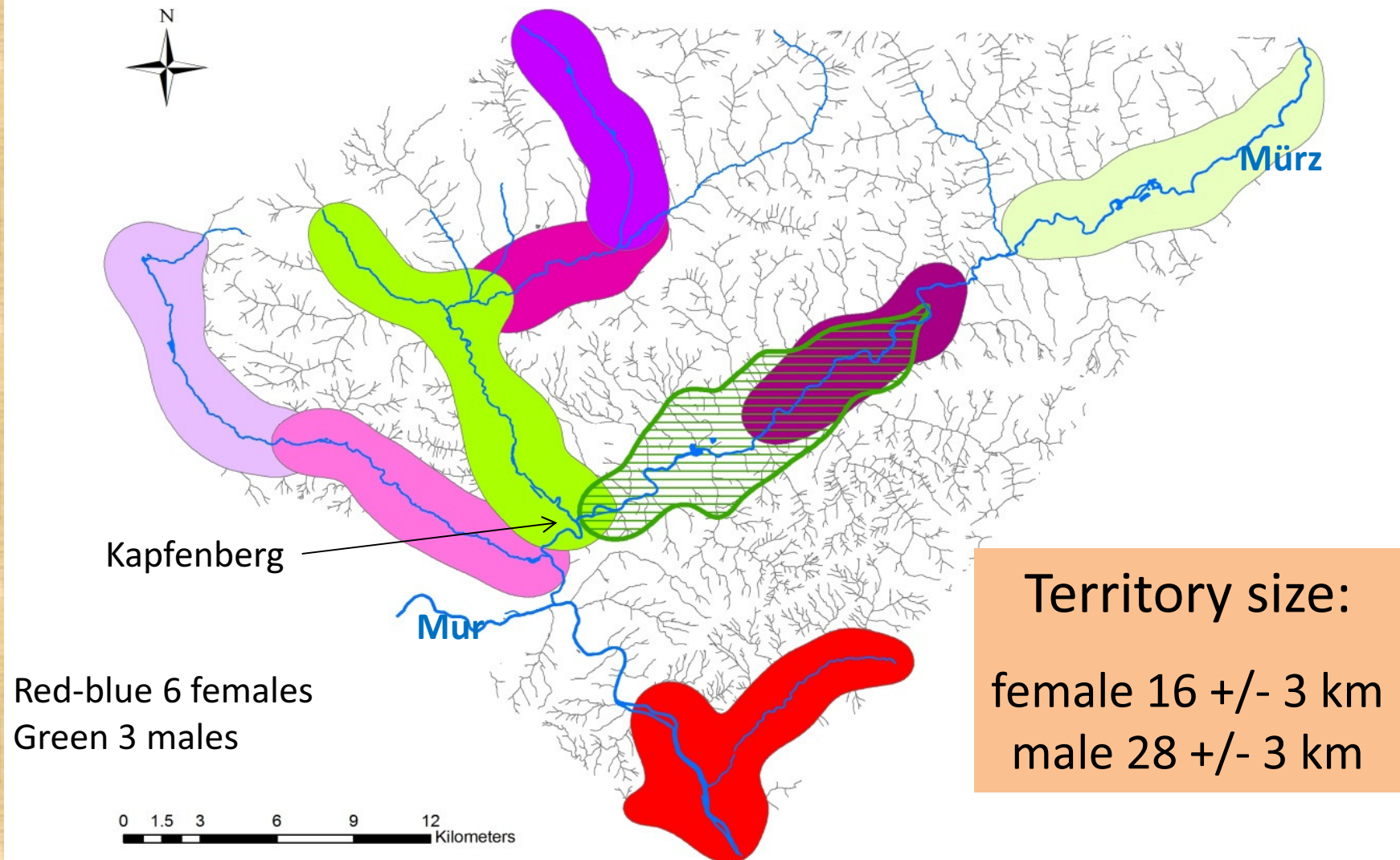
2 aspects of ecology:

territories
breeding



Territoriality along rivers

in Alps: Kapfenberg Weinberger et al 2016



Subdult female shifting range

Adult female territory

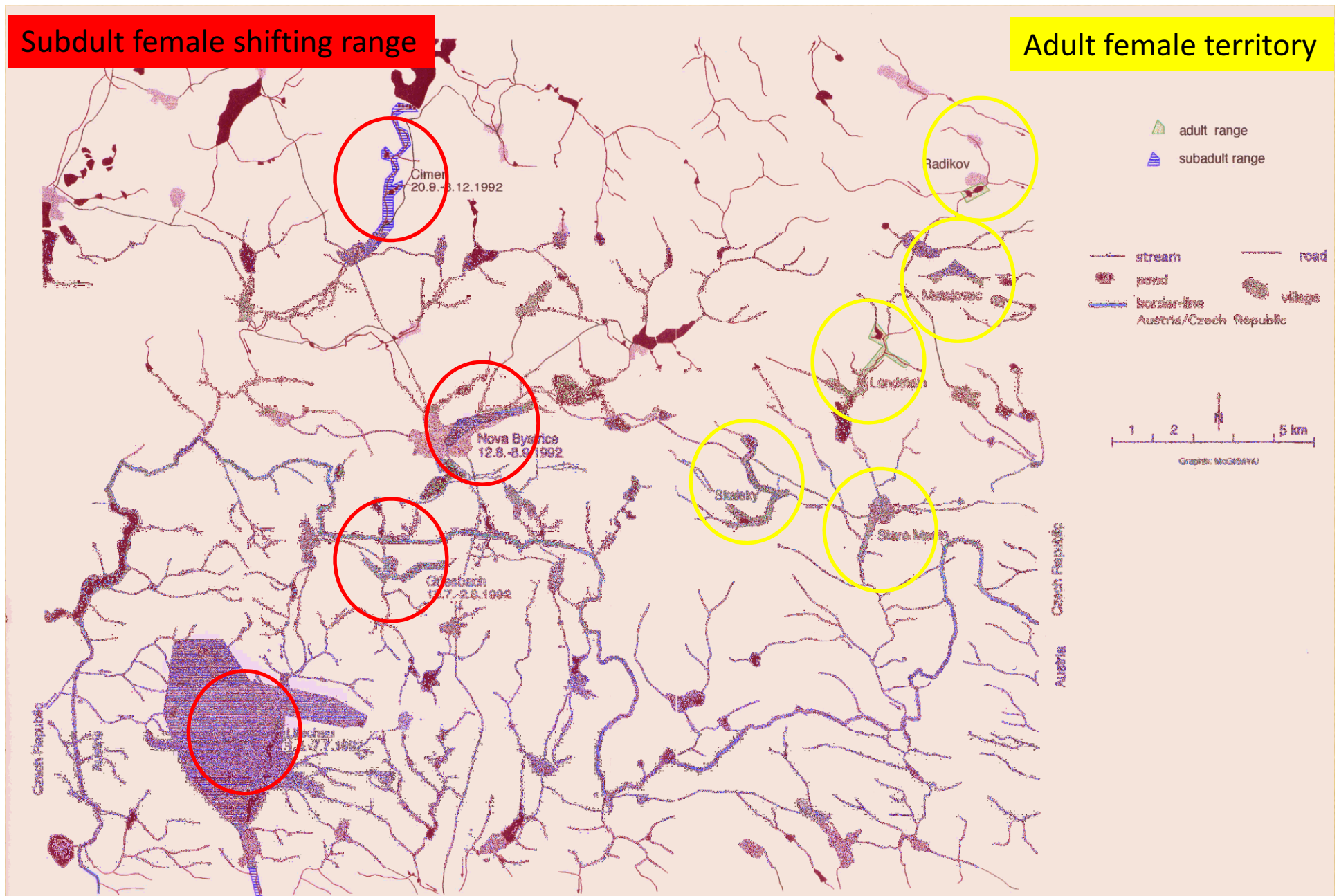


Fig. 2: The home range of the adult and the subadult otter during 10 months of radio-contact.

Homeranges in fishpond area

Homerange of 1 adult female in fishpond area

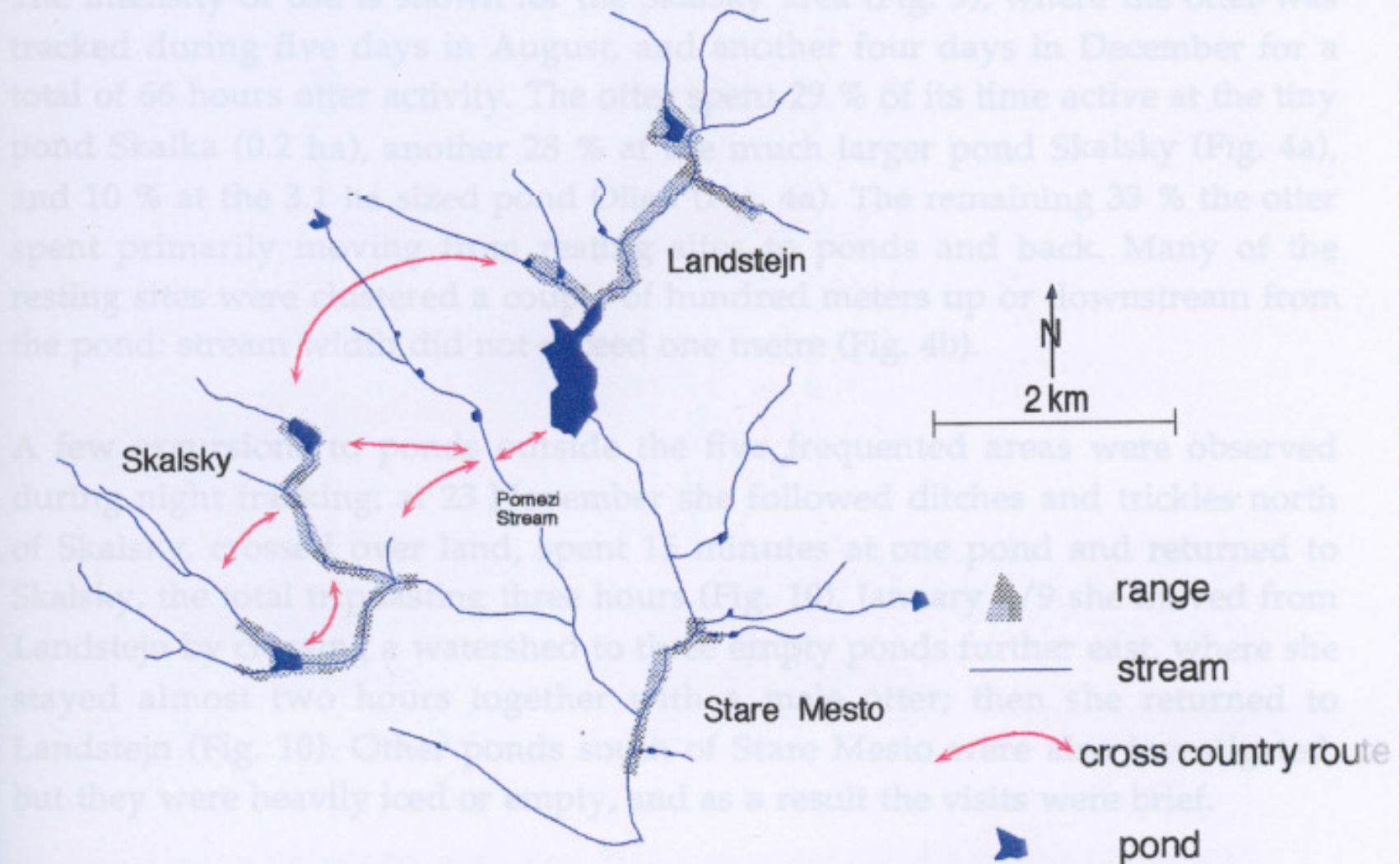
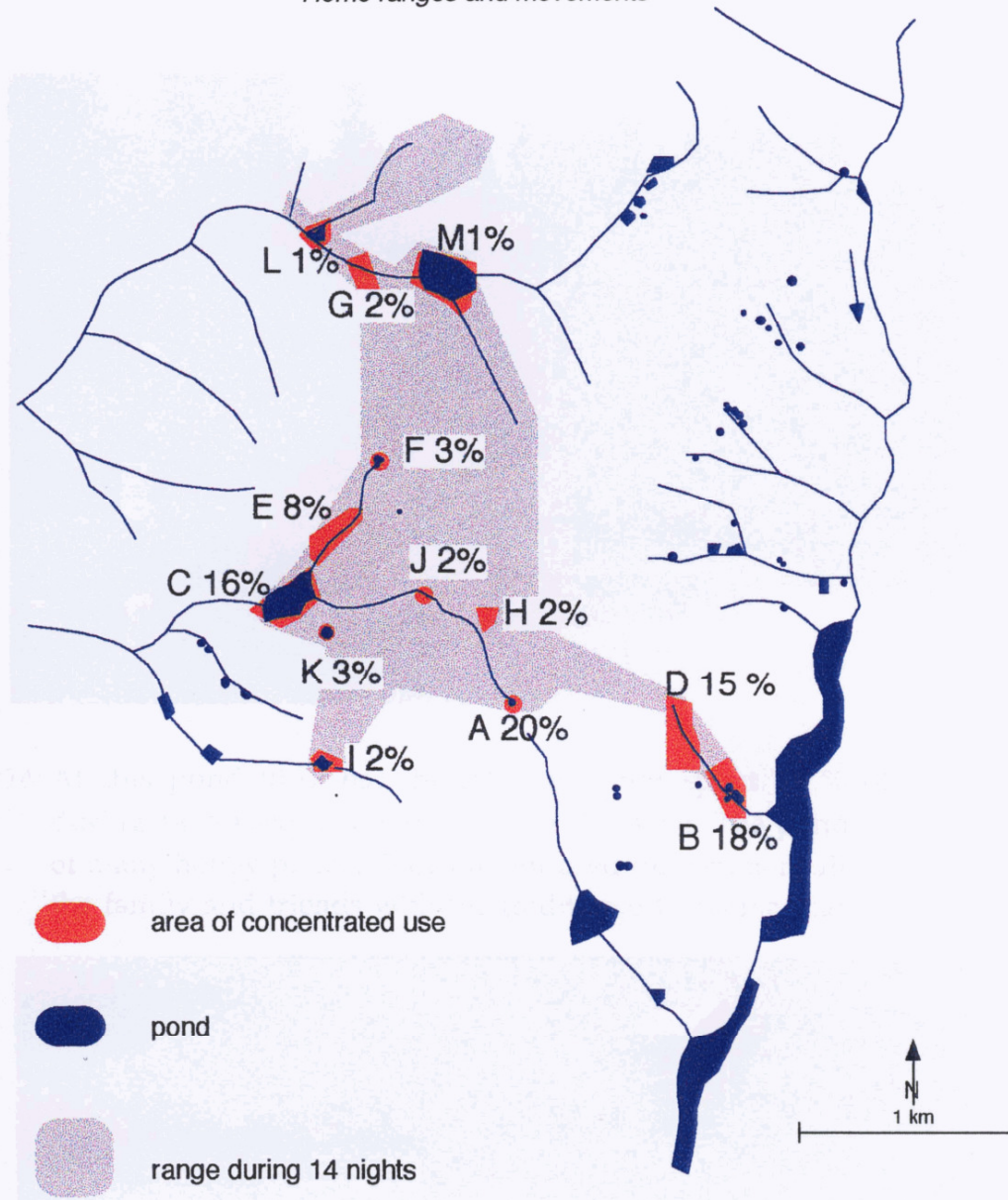


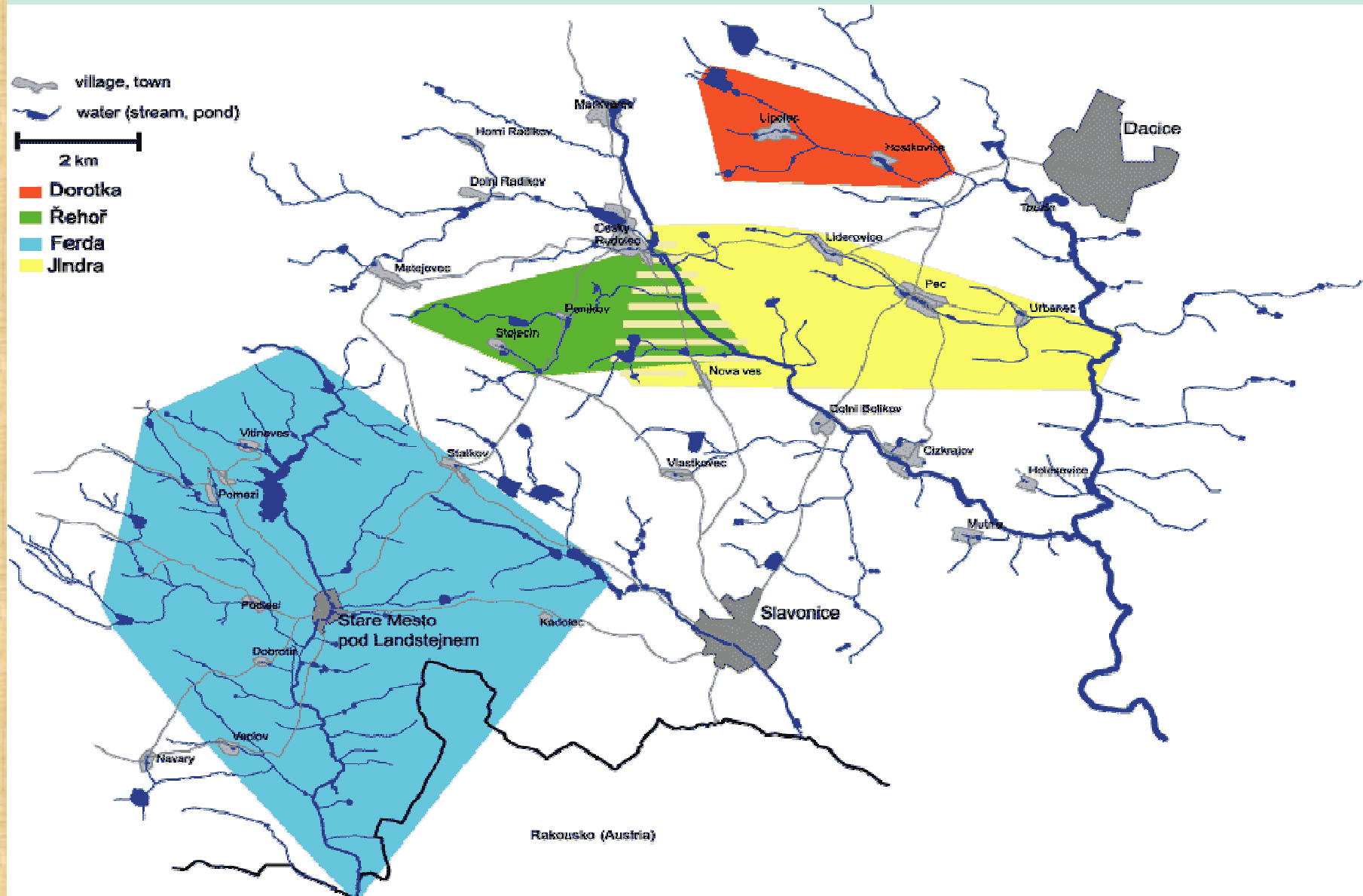
Fig. 7: Cross country routes of the adult otter within Skalsky and between Skalsky and Landstejn.

Home ranges and movements



Temporary range
of suadult female
14 days nonstop
tracking

4 Territories along fishponds



Otter homerange at ponds

- One otter uses many ponds (10-20 ponds) & streams and bogs within a year
- Adult animals are territorial
- Males have >> ranges than females
- Subadults are floaters, have shifting ranges
- Simultaneous presence is possible

Female otter with cub

Foto: ©E. Neffe 2009



Females give birth all year round
and have dependent cubs for 12 months



All year round breeding

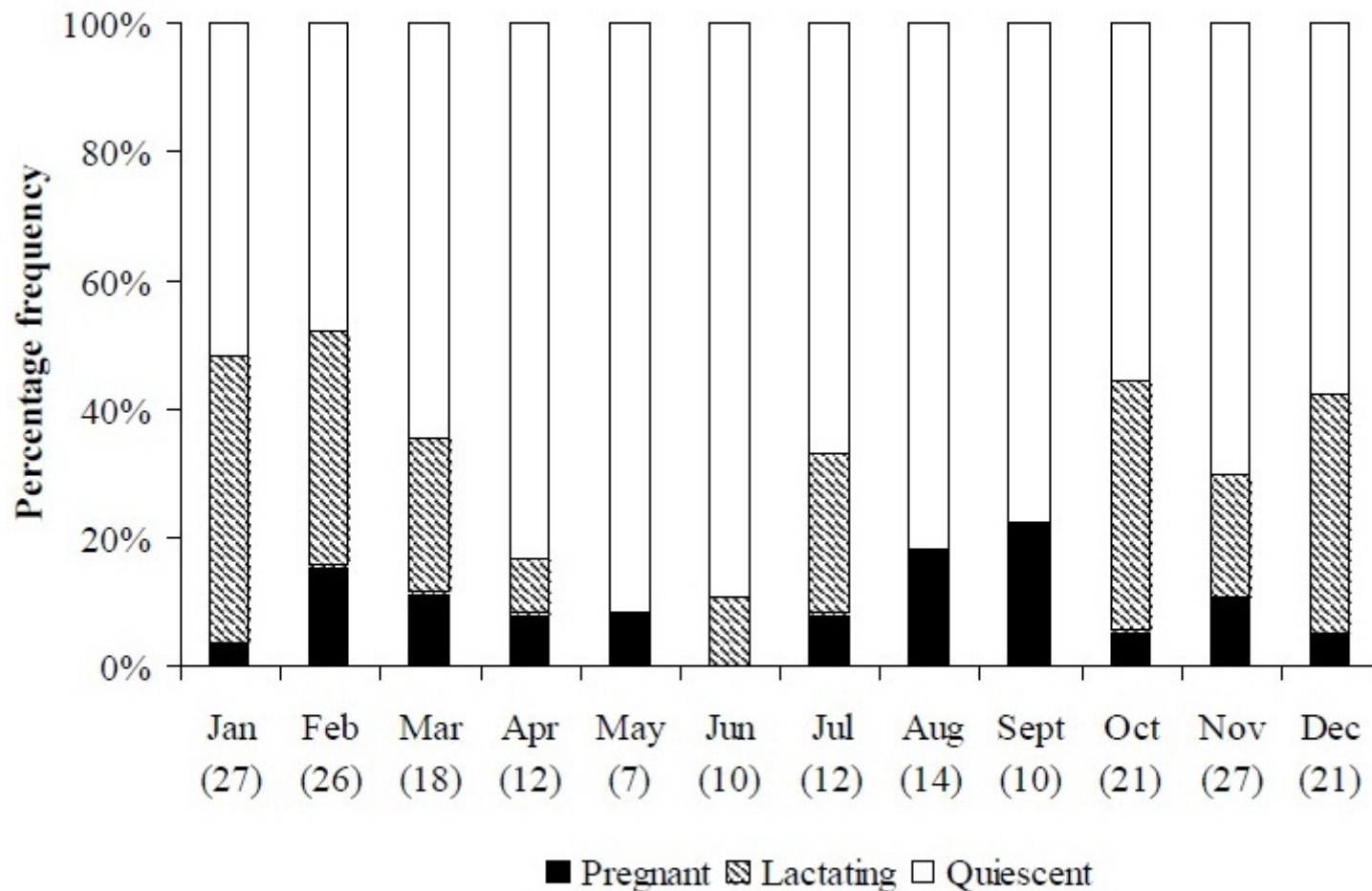
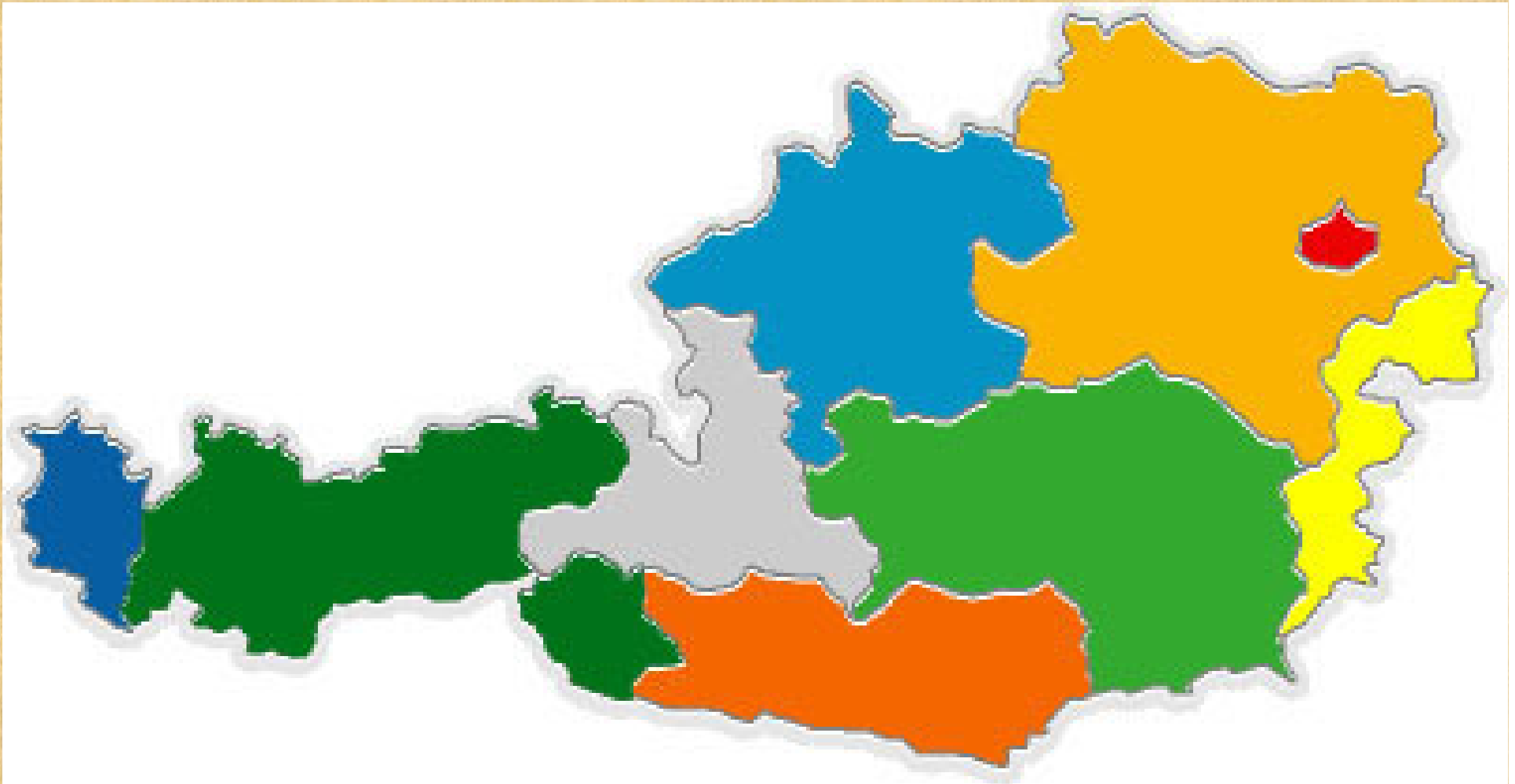


Figure 2. Percentage frequency of pregnant, lactating and quiescent adult females in each month (data pooled for 1994-2008). The number of individuals in each month is shown in brackets

Management

- **Actions to achieve a certain goal**
- Monitoring
- Need for research: ... impact of otters on fish in rivers (conflict with anglers (trout,...))...

Provinces and Management



Adviser-Central Otter Person

- One person for a given province
- Advice & information for all who need it
- In charge for subsidies
- Dead otter monitoring

Advise and information

- Expert needed
- Personal contact important
- Psychological aspect crucial

How to protect a pond from otter



Minimising damage at ponds

- Fence
- Extensive fish farming (low stocking density)
- Other species than target such as Prussian carp
(**Sudrapkarusa**)
- No stocking over winter in risky ponds
- Personal and competent advise for individual pond owners

Fences

- Permanent fences
- Electric fences
- Combination of both: perman. & electric



Otter
climbing
over a fence
into a
fishpond

Carp pond in Styria
1.500m bank-length







Electric mash fence



Electric mash fence













Support for nature friendly
bank management &
vegetation in the water





1 Euro / meter bank
1 Euro / vegetation in water
Max 1000 Euro / pond
Max 2.000 Euro / applicant

Otter Reduction

A useful tool to reduce damage?

- FFH-Directive: Article 16, generally possible
- Precondition 1: favourable conservation status
- Precondition 2: other tools are applied /do not work

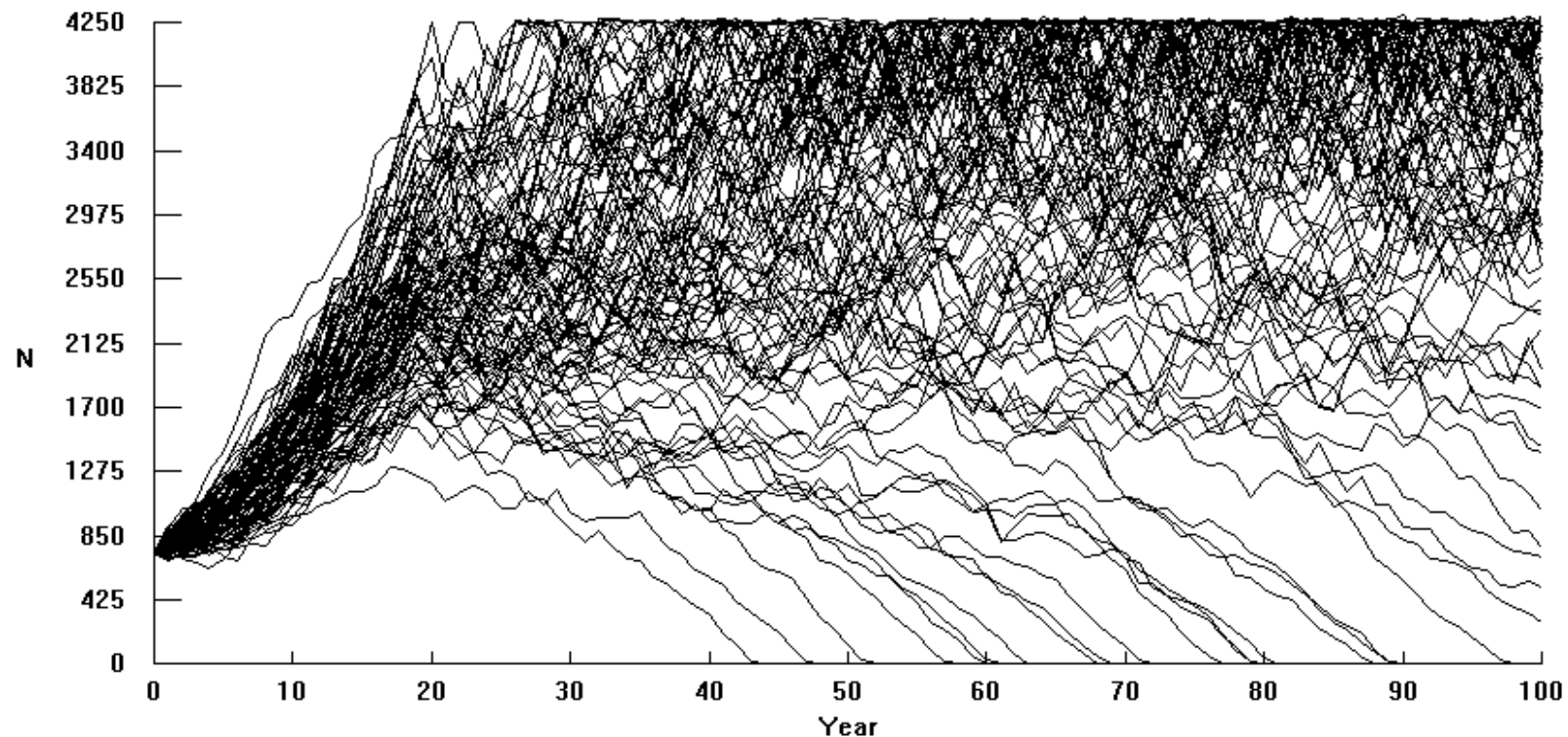
Otter Reduction

A dangerous/tricky/expensive tool

- Difficult balance reduction : over-exploitation
- Population monitoring expensive
- Ethical aspects

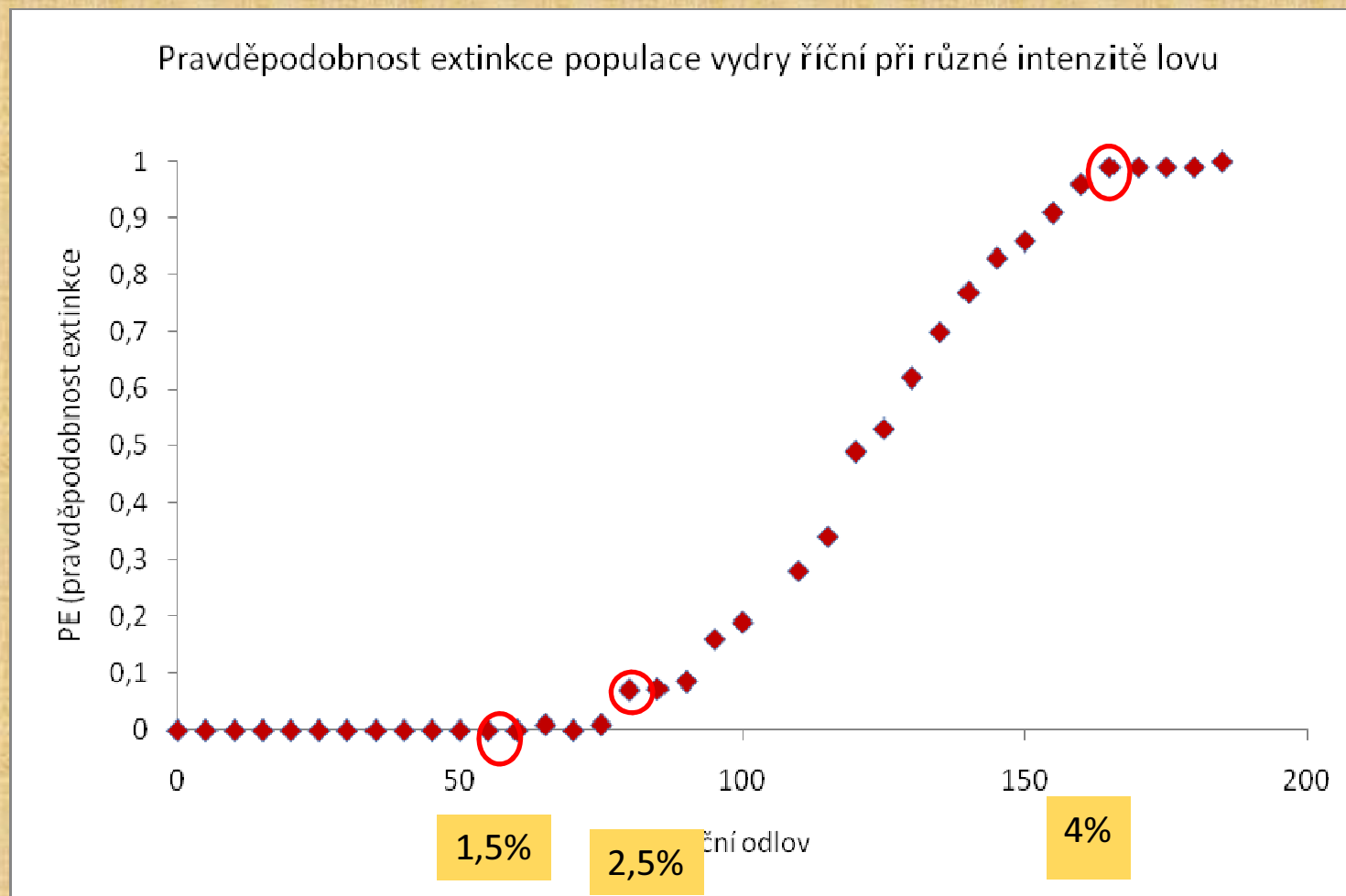
Modelling otter population in CZ

Kill 100 ind./year from population of 850 adult otters



- $\lambda = 1.009$; PE = 0.18 (PE = probab. Extinction)

Modelling: Probability of extinction at different intensity of otter reduction



- 37 scenarios: killing + 5 ind./Jahr until PE=1 at pop. 3.750 Ind.

Population and trend monitoring

- Monitoring by genetic means (spraints)
- Monitoring by snow tracking
- **Monitoring of killed otters:** road kills, beaver trapping/shooting, intended otter reduction

Mortality monitoring: intended, roadkills, by-catch & unintended shooting

- Distribution
- Age
- Sex
- Reproductive status
- Condition of animal
- Scars / damages from other otters / due to other reasons
- Circumstances and habitat
- Reason of death

Key issues to be addressed in MP

- Monitoring of population size and trend
- Monitoring of mortality & analysis
- Install otter adviser
- Financial support for fences
- Compensation or incentive for tolerating otter
- Killing: **if, then** start with experimental case
- Respect females also within beaver management
- Influence on fish in rivers/streams: research