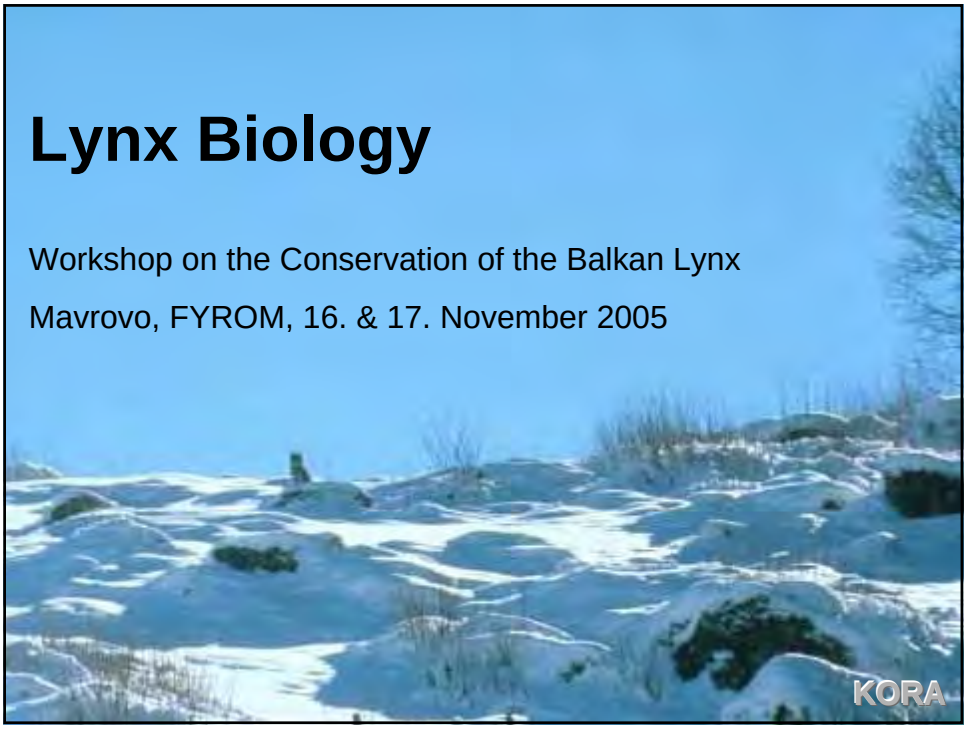
Lynx Biology

Workshop on the Conservation of the Balkan Lynx

Mavrovo, FYROM, 16. & 17. November 2005



Description & Morphology	Biology & Life history	Habitat & Land tenure system	Feeding ecology

General

Monitoring has to be designed in accordance with the species' biology and the environmental conditions of the living space.

The interpretation of the field data need to respect lynx' life history, land tenure system, and feeding ecology.

As no ecological studies of the Balkan lynx are available, certain assumptions must be made, which may have to be verified.

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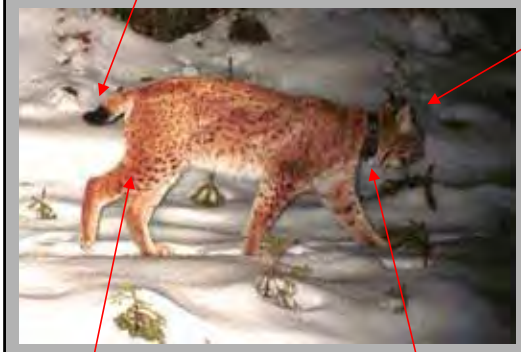
Description & Morphology	Biology & Life history	Habitat & Land tenure system	Feeding ecology

short black-tipped tail



round head

triangular ears with black tufts

long legs

short neck

large feet

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Description & Morphology	Biology & Life history	Habitat & Land tenure system	Feeding ecology

Claws:
- sharp, strong, and hooked
- retractile

usually not mark in footprint

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Pelt colour greyish to reddish

4 coat patterns:
- large spots,
- small spots,
- rosettes,
- unspotted

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~ 65 cm

70-130 cm

12-35 kg

Females smaller and ~25 % lighter than males

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Skull round and high

Short snout

High biting force of the canines

Dental formula:

$$I\ \frac{3}{3}\ C\ \frac{1}{1}\ P\ \frac{2}{2}\ M\ \frac{1}{1} = 28$$

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Reproduction

Mating: February to mid-April

Birth: after 67-74 days (usually in late May), birth weight about 300g

Litter size: 1-5, most often 2-3 kittens

Separation: at the age of 10 months

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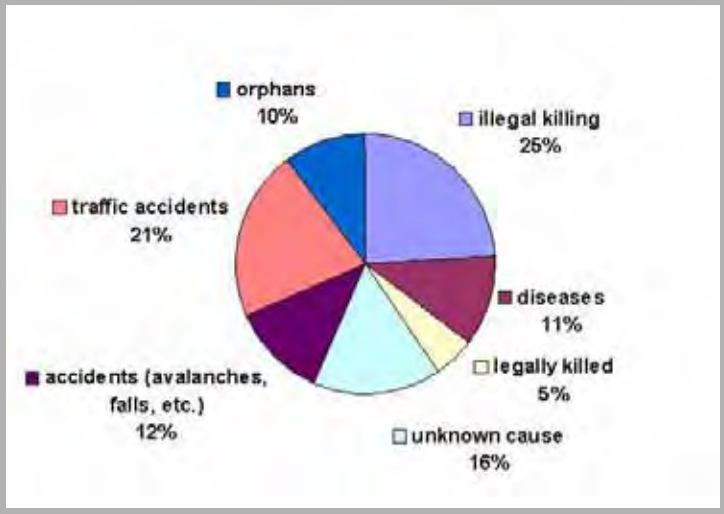
Mortality (discovered mortality in Switzerland, N=202)



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Lynx density

Under natural conditions, it depends on habitat productivity and prey availability, and is limited through social interactions among individuals

In the cultivated landscape, man is the ultimate limiting factor

Some examples:

Poland: 1.9-3.2 ind,/100 km²

Switzerland: 0.94-2.10 ind./100 km²

Southern Norway: 0.25 ind./100 km²

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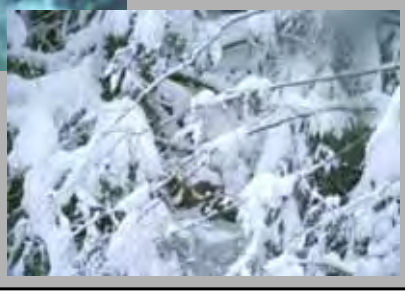
Habitat



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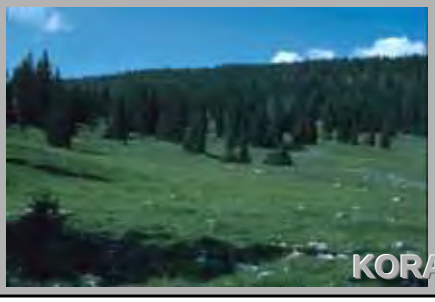
Habitat



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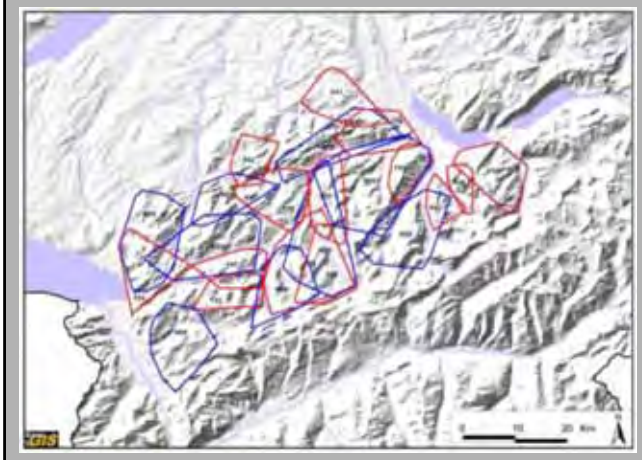
Land tenure system

(e.g. Northwestern Swiss Alps)



- solitarily living species
- home ranges
  males: 180-2780 km²
  females: 98-759 km²
- males monopolize one or two, rarely more females
- home range size vary depending on latitude, habitat productivity and prey availability

blue: males / red: females

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Activity

Lynx are mainly active at dusk and at night, and rest during daytime (except rutting season)

Distance travelled per night: 1-45 km

Highest movement activities in males during mating season

Females with kittens usually only travel short distances

When a lynx has a fresh kill, it stays in its proximity for several days

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Habitat use, land tenure system and expected density are important factors to consider when designing a monitoring system; e.g. transect lines, spatial pattern of camera-traps, or the spacing of a grid of informants must be adjusted to these features.

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Prey

Lynx is a hunter of small ungulates in many parts of its range

Only in north-eastern Europe, mountain hares are the main prey

In areas with low ungulate availability, lagomorphs, birds and rodents can be an essential prey part

Lynx diet varies seasonally

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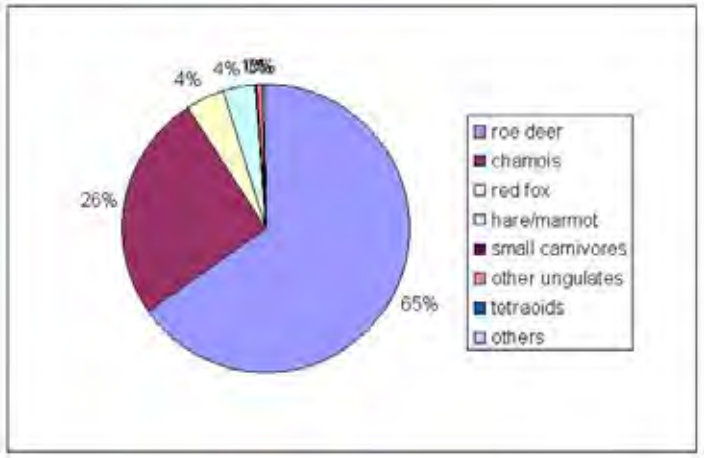
Diet

e.g. radio-marked lynx in Switzerland (N=946)



Consumption rate per lynx = 1-2.5 kg meat per day

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