Lynx Monitoring Workshop, Mavrovo Natinonal Park, 15-17 November 2005

# How many lynx?

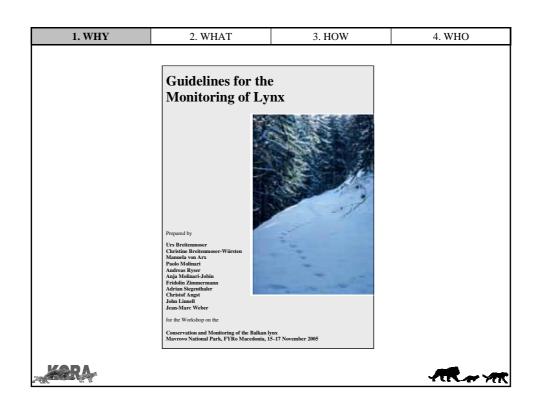
## Aims, Principles, and Concepts of Monitoring

**Urs Breitenmoser** 

- 1. Why monitor?
- 2. What can be monitored?
- 3. How to monitor
  - 1. Principles of monitoring
  - 2. Concept of stratified monitoring
  - 3. Biases and pitfalls
- 4. Who should monitor? The network







**1. WHY** 2. WHAT 3. HOW 4. WHO

### How can we know ...?

- ... what the status and distribution of a species is?
- ... what we have to do to conserve it?
- ... that we do the right things?
- ... that the conservation measures are effective?
- → monitoring, monitoring, monitoring...!





1. WHY	2. WHAT	3. HOW	4. WHO

#### **Definitions:**

**Survey**: Compilation of qualitative or quantitative information through standardized procedures to define status.

**Surveillance**: Series of surveys to reveal a dynamic process (e.g. surveillance of epidemics).

**Monitoring**: Regular and structured surveillance to assess the effect of a (conservation) measure in respect to a goal to be reached (e.g. recovery of an endangered species).





1. WHY	2. WHAT	3. HOW	4. WHO
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### What can be monitored?

**Distribution**: Presence/absence; outline polygon of area; raster distribution; distribution of chance observations; areas of reproduction

**Abundance**: Relative/absolute density; capture-recapture methods; frequency of representative parameter (standardised method)

**Population trend**: Relative/absolute changes of population in time; frequency of observations/parameters over years

**Health and Genetics**: Incidence of pathogens; spread of epidemics; genetic variability; genetic drift





