Key Constraints in Raptor Sampling

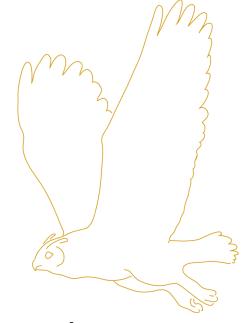
ANTHONY DINOLINA

Maria Dulsat Masvidal 8th February 2019

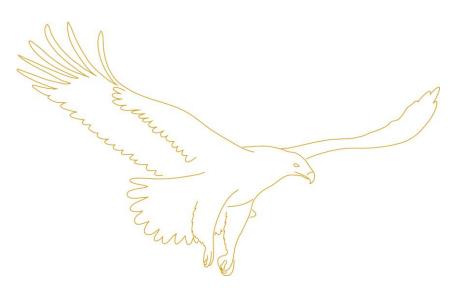


1. STSM objectives

Review of key constraints



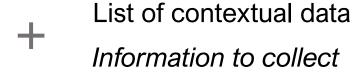
The aim of this STSM is to identify and search for solutions to the main constraints to obtain and share raptor samples and related contextual data about the individual and/or population from which samples are obtained.



2. Search of constraints

Raptor Sampling Framework

Activities and actors involved



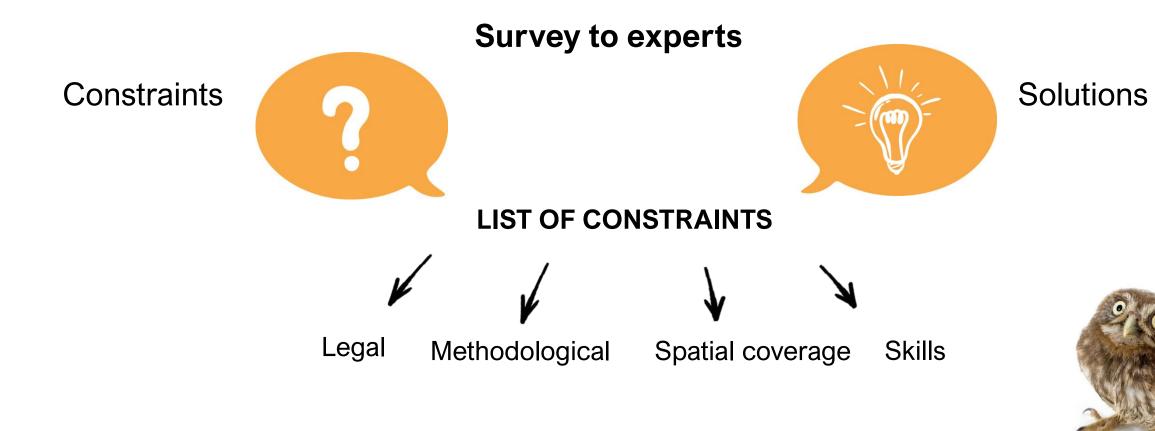
+ Bibliographic review

LIST OF CONSTRAINTS

Legal Methodological Spatial coverage Skills



2. Search of constraints



3. List of constraints: Legislation

CITES

Its purpose is to ensure that no species of wild fauna or flora becomes or remains subject to unsustainable exploitation because of **international** trade.



Birds directive and Habitat directive Member State has to provide legislation or administrative measures that will meet the requirements of the directive.

Collecting dead raptors

National Laws

The laws that affect a person working in raptor management in Europe will be the national law of the country where the work takes place.



3. List of constraints: Legislation

Loss of samples

- Access to private property
- Visiting active nests
- Handling live birds
- Sampling blood or other invasive samples
- To holding and storing raptor samples (carcass, feathers, eggs)
- Transportation of samples within and between countries



3. List of constraints: Methods

Poor capacity to understand contamination levels

Methodological constraints for data collection:

- Mandatory contextual data (age, sex, feather type, raptor species)
- Potential sources of contamination
- Data related with diet
- Data related with reproductive performance
- No land-use information because an imprecise location is given

3. List of constraints: Methods

Methodological constraints for sample collection:

- Lack of adequate protocols for collecting samples
- Providing material for sampling
- Lack of amount of sampling blood for nestlings
- Correct short-term storage of the samples
- Storage of contextual data related with the sample

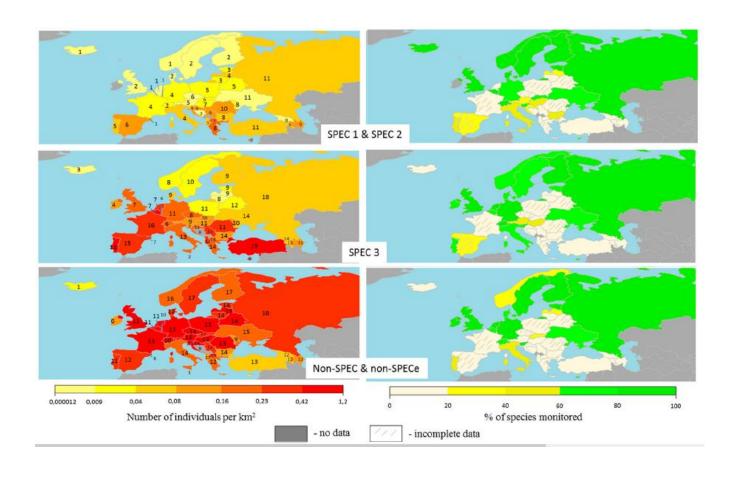
Samples not suitable for analysis



Protocols difficult to follow or doesn't exist

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3. List of constraints: Spatial coverage



Geographical coverage of monitored raptor population differs between countries.

Maja Derlink, Chris Wernham, Irena Bertoncelj, András Kovács, Pertti Saurola, Guy Duke, Paola Movalli & Al Vrezec (2018): A review of raptor and owl monitoring activity across Europe: its implications for capacity building towards pan-European monitoring, Bird Study, DOI: 10.1080/00063657.2018.1447546

3. List of constraints: Spatial coverage

Unrepresentative monitoring

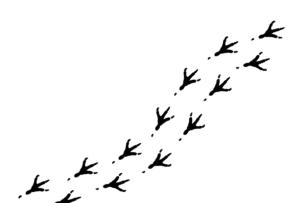
- Raptor populations with very low abundance or uneven distribution
- Habitat areas in the country
- Monitoring schemes and ecological studies to provide access to raptors samples and to provide complex contextual data
- Access to breeding zones or nests
- Lack of institutions to participate in the biomonitoring scheme

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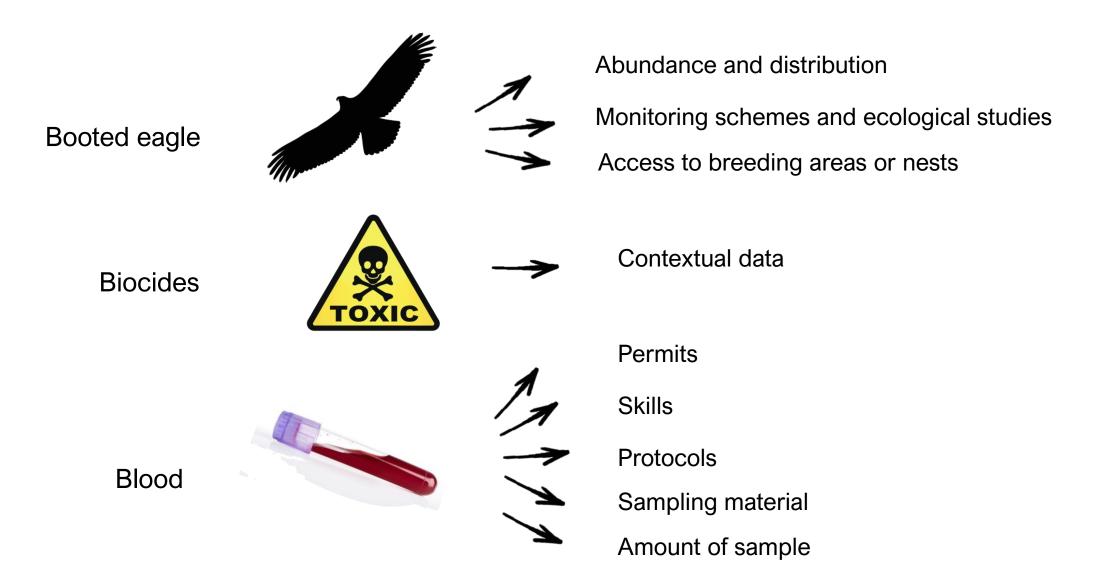
3. List of constraints: Skills

- Skilled people for field sampling
- Post-processing of carcass (necropsies)
- Collect complex contextual data
- Means for capacity building
- Lack of motivation among field workers

Loss of samples and data



3. List of constraints: Example



4. Next steps: survey release

* * * *

List of constraints



Preliminary questionnaire to experts



Design of the questionnaire





Distribution of the questionnaire

Constraints solutions



Questionnaire results

Importance of constraints Role in the framework



5. Thinking about solutions

Preliminary questionnaire to experts





- 1. Increase volunteers: legal facilities & capacity building
- 2. Improve coordination
- 3. Long-term projects: systematic collection
- 4. Increase budget for research

