



EDMUND FELLOWES / BTO IMAGES

European Raptor Sampling programme (ERSamP)

Summary of objectives, state of play and links to ERSpeB

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European Raptor Biomonitoring Facility



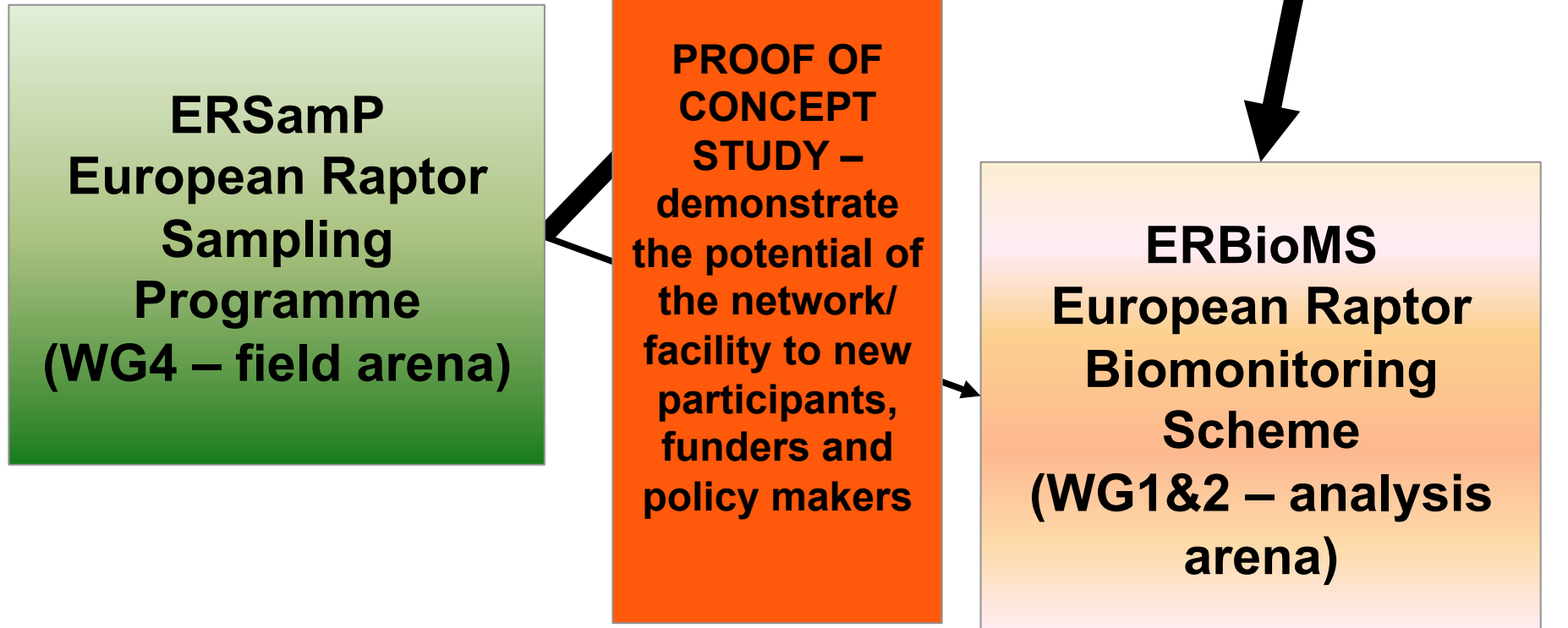
How does it all link together and how is it coordinated?

ERSpeB
European Raptor Specimen Bank
(WG3 – collections arena)

ERSamP
European Raptor Sampling Programme
(WG4 – field arena)

PROOF OF CONCEPT STUDY –
demonstrate the potential of the network/facility to new participants, funders and policy makers

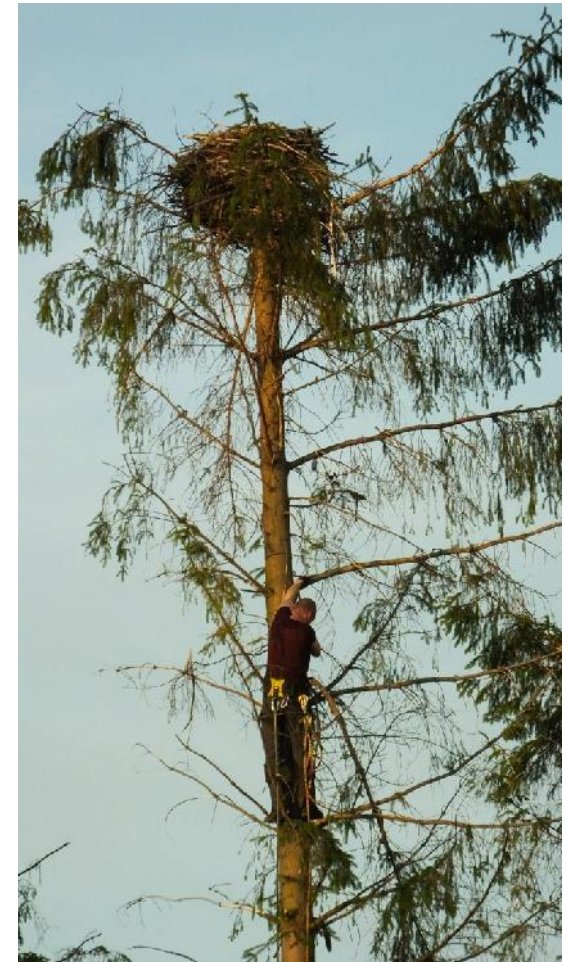
ERBioMS
European Raptor Biomonitoring Scheme
(WG1&2 – analysis arena)



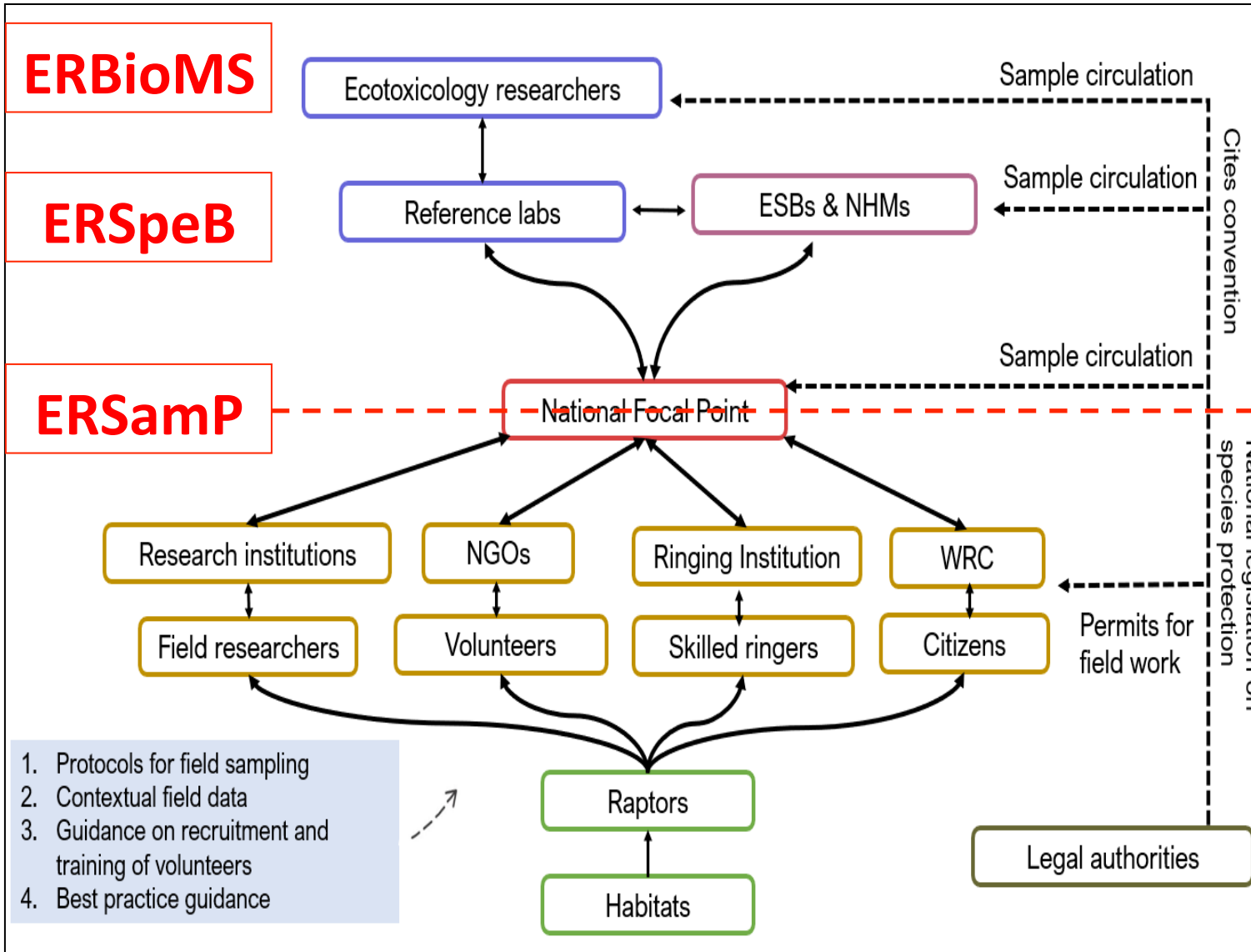
ERSamP - Objectives



- Develop a framework, standards and protocols for a European Raptor Sampling Programme (ERSamP)
- This will provide for collection of **the right raptor samples from the right locations at the right times**
- Standards and protocols will ensure **harmonised** sampling methods and **harmonised** recording of relevant field data



ERSamP – Structure (people)



➤ The collection of the right samples from the right locations at the right times

➤ Standards and protocols to ensure harmonised sampling methods and recording of contextual data

ERSamP – Structure (functions)



OVERALL MANAGEMENT STRUCTURE (ERBFacility)

KNOWLEDGE EXCHANGE NETWORK
(ERBioMS)

SAMPLE HOLDING NETWORK
(ERSpeB)

Ecotoxicology
analyses

Interpretation of
contaminant
results and
contextual data

Short-term

Longer-term

Co-ordination and Advice Hub
(country specific, collaborating institutions, Ambassadors and/or
National Coordinators)

SAMPLE AND CONTEXTUAL DATA COLLECTION NETWORK (ERSamP)

Collection
of carcasses

Samples
from live
birds (e.g.
blood)

Nest-based
samples and
data requiring
licences (e.g.
eggs)

Other monitoring
information
(contextual data)
not requiring
licences

- The collection of the right samples from the right locations at the right times
- Standards and protocols to ensure harmonised sampling methods and recording of contextual data
- **Acknowledges that organisations and individuals may carry out more than one function**

The ERSamP framework – work areas



- **Importance** - Why take part in the sampling programme? What are the motivations of, and potential benefits to, all the types of participants who we need to take part?
- Overview of the **players** across Europe – current capacities and constraints
- **Priority species** for collection in relation to the European Raptor Biomonitoring Scheme (ERBioMS) + **priority tissues** + sampling 'design' (WG 1&2 – Badry *et al.*)
- **Guidance** on gathering specimens and 'contextual data'
- **Capacity building** needs and how to address constraints



ERSamP - Review of 'actors' and their needs



“To be or not to be (sampled and monitored), that is the question”!

“ACTORS”

- Different groups and types of people that we need to encourage to take part in the different parts of the sampling programme or to collect or store different types of samples and data
- We may also refer to them as “players”, “audiences”, “interest groups” or “participants”
- Examples: bird ringers; raptor nest monitoring volunteers; professional researchers; vets; wildlife rehabilitation staff; citizen scientists who do bird survey work; members of the public who send in carcasses; museum curators; NGOs who coordinate survey volunteers; specimen banks



ERBF FLORENCE (March 2019)



Group 1 – Carcass collection

Group 2 – Live (blood) sampling

Group 3 – Population monitoring data



What types of people could do it?

What are their motivations for fieldwork? What would put them off?

How are they currently coordinated? / How do we reach them?

What guidance and training would they need to take a more active role in ERSamP?

What feedback will they need to keep them engaged? What benefits?

Which key people and organisations should we get involved?



ERBF Working Group 4 FLORENCE (March 2019)



TYPES OF PEOPLE

- ✓ Vets
- ✓ Trained ringers
- ✓ Nest monitoring volunteers
- ✓ Professional ecologists
- ✓ Wildlife rehab centres
- ✓ Road ecology network
- ✓ Public citizens
- ✓ Hunters
- ✓ Police, rangers & authorities

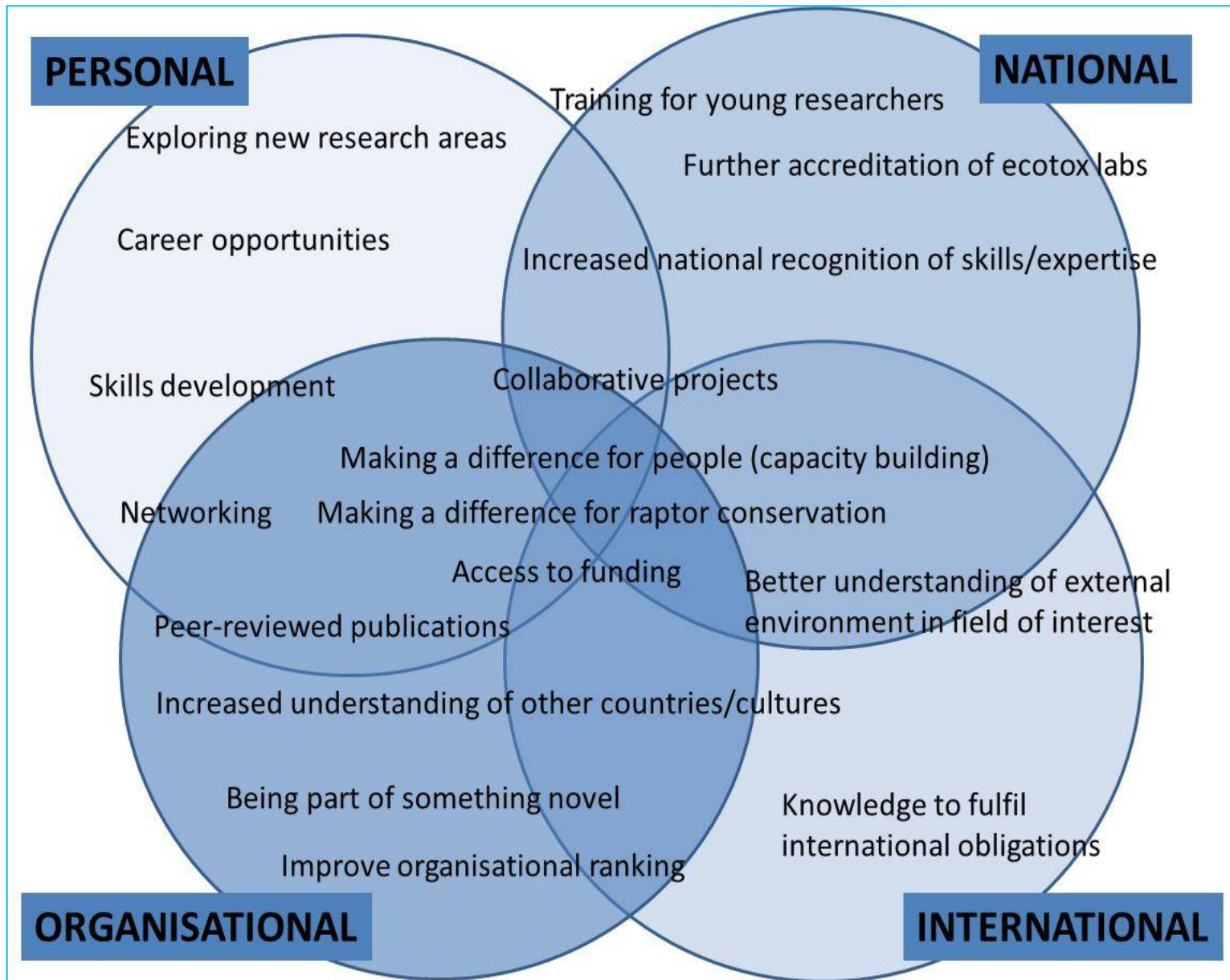
MOTIVATIONS

- ✓ Professional job
- ✓ Fun – their hobby
- ✓ Commitment to conservation
- ✓ Passion for raptors and other wildlife
- ✓ Career experience
- ✓ Contribute to something useful
- ✓ Interest in science
- ✓ Challenge and excitement of finding new nest sites

WHAT DO THEY NEED?

- ✓ Specific guidance & protocols
- ✓ Regular feedback suitable for the specific audience
- ✓ Accreditation, certificate of participation or rewards
- ✓ Funding for equipment or travel
- ✓ Acknowledgement or co-authorship of publications
- X Don't want too much paperwork
- X Don't want to duplicate effort (e.g. data submission)

Benefits of participating in ERB Facility (or as an Ambassador)





ERBFacility Raptor Advice Hub

Advice Hub objective

To compile the main information and links to identification/sampling guidelines, legislation, monitoring activities, training opportunities etc. in an easy-to-follow format, to facilitate cooperation and coordination, increase capacities and harmonize future raptor biomonitoring activities.

Target audiences

Our target audiences are **broad**, including ornithologists, raptor ecologists, field researchers, volunteer citizen scientists (e.g. ringers and those collecting nest monitoring data), veterinary scientists, ecotoxicologists and analytical chemists, among others.

Difficulties (providing too detailed or too obvious information for some readers)

- Use **links to redirect the reader** to the relevant information (depending on their level of need and expertise).
- **Signposting to information** rather than duplicating materials published elsewhere.

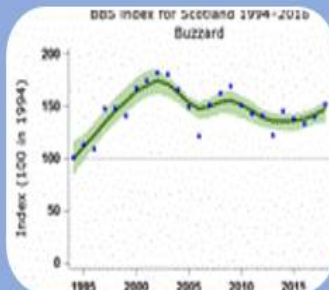
Hub overview



Raptor identification,
ageing and sexing



How to monitor raptors



How to share your
monitoring data



Information on
legislation / permits /
licensing / wildlife crime



How to get people
involved in raptor
research



Training opportunities &
skills sharing hub



Species-specific
guidance



How to collect samples



How to submit samples
for analysis



What can we analyse
and where?

ERSamP – Review of constraints



- Maria Dulsat, Rui Lourenço *et al.* (in prep) – A review of constraints and solutions for collecting raptor samples and contextual data for a pan-European contaminant monitoring scheme.
- Based on questionnaire survey and expert advice from 74 respondents from 24 European countries considering 31 broad constraints in 4 groups (legal, methodological, spatial coverage, skills).
- Suggests workable solutions and therefore concludes that a long-term monitoring scheme relying on the collection of raptor samples is feasible!

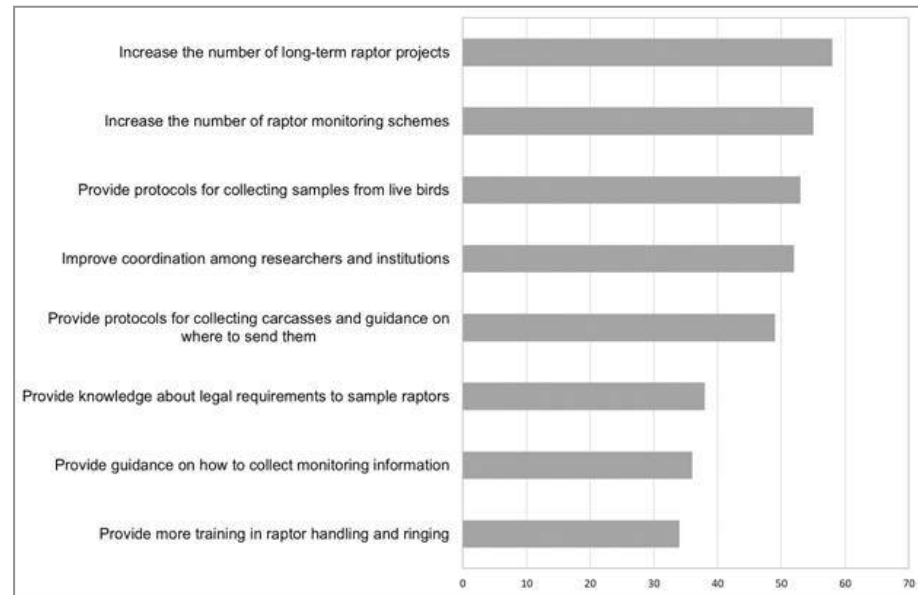


Figure 6

Frequency of the most important constraints for sampling raptors identified by respondents



ERBF WG4 Slovenia workshop (September 2019)

Review of existing field and storage capability by country

The workshop considered:

- All relevant actor types: ringers; nest monitoring; wildlife rehab centres; vets; public (carcass collection); volunteers (for visual survey work); professional ornithologists; museums/collections
- Strengths of current capacity and most significant gaps by country
- Focus on the likely Proof of Concept species – Tawny Owl and Common Buzzard – to provide working examples of current capacity, gaps and constraints
- Problems with collecting carcasses (the main initial focus of the Proof of Concept)
- Feasible ways of improving each country's capacity to contribute to ERBF in future
- Examples of best practice available to share for future capacity building



Review of existing field and storage capability by country



| | | | | | | | | |
|---|---|--|--|--|---|---|--|--|
| NAME OF PARTICIPANT: | Al Vrezec, Damijan Denac | | | | | | | |
| COUNTRY (COUNTRIES): | Slovenia | | | | | | | |
| PARTICIPANT GROUP / FUNCTION | Ringers to ring raptors and collect live samples | People who already carry out intensive nest monitoring (visit nests/handle birds) | Wildlife rehabilitation centres | Vets | Public to collect carcasses | Public/volunteers for visual survey work (do not handle birds) | Professional field ornithologists | Museums/collections to store specimens |
| Organisations & personal contacts | Slovenian Bird Ringing Centre (Slovenian Museum of Natural History): Al Vrezec, Dare Fekonja, | only ringers | One centre: GOLOB D.O.O., Glavni trg 7 SI - 2366 Muta Slovenija: | Veterinary Faculty, University of Ljubljana | Road service (DARS) | DOPPS-BirdLife Slovenia | National Institute of Biology, DOPPS-BirdLife Slovenia, Slovenian Museum of Natural | Slovenian Museum of Natural History |
| Strengths of current capacity | Increasing raptor ringing, especially owls and in some diurnal raptors (B. buteo, F. | only ringers | State funding; system of collection of injured birds in the country | Veterinary Stations distributed over the country and are the | Regular road cleaning system. | 50 volunteers of surveys (increasing); well functioning web database; annual | Active research on raptors, particularly on owl species (S. uralensis, S. aluco, O. scops, B. | Bird skin collection from mid 19 century on. Higher priority in collecting raptors. Collaboration |
| Significant gaps/capacity building needs/problems | lack of ringers; nest ringing only for some owl species, no systematic ringing of breeding | only ringers | other segments of raptor research, material storage and | there is low awareness that dead birds should be send to the | veterinary institutions. Need for suitable capacity building, including storage facility (freezers) | low capacity of volunteer surveyors for different needs (not just raptors); no raptor | transfer of knowledge from professionals to volunteers. Low funding of raptor | low capacity for processing carcasses (taxidermy), decreasing capacity for long- |
| Potential/gaps/problems for Tawny Owl (<i>Strix aluco</i>) | At least 3 established nest-box plots (and some new foreseen) with regular ringing of at least nestlings and females. Need for | only ringers | Regularly obtained. Few dead goes to the museum, but mostly discarded. | Regularly obtained. Few veterinary stations send carcasses more or | Common roadkilled bird. No involvement of road service in carcass collection. | Only professional local surveys exists, lack of inclusion of volunteers. Only sporadic local surveys. Need for systematic | One long-term monitoring scheme (breeding productivity, territories). Potential to expand of the | Most frequently received owl species. Low freezer capacity, not priority species for collection. |
| Potential/gaps/problems for Common Buzzard (<i>Buteo buteo</i>) | Ringling of mostly wintering and migratory birds. Only occasional ringing of nestlings. Increasing of ringing activity (especially with | only ringers | Regularly obtained. Few dead goes to the museum, but mostly discarded. | Regularly obtained. Few veterinary stations send carcasses more or | Common roadkilled bird (mainly migrants and wintering birds). No involvement of road service in carcass collection. | Included in Farmland Bird Index surveys. Lack of surveys in forests. No possibility to assess current breeding population | Common Buzzard included only in general bird surveys. Very few species specific surveys. No specific long-term | Frequently received raptor species. Low freezer capacity, not priority species for collection. Non-ringed migrants and |
| What is the general level of conservation interest/policy priority given to raptors in your country (generally and by the different groups above)? | Low conservation interest, in general low number of endangered species. High policy priority regarding protection (raptors protected from 1921 on). Increasing interest for ringing, charismatic species and thus injured birds frequently collected. Not hunted, only occasional illegal hunting. Low poisoning. High roadkill potential (not all species). Only highly charismatic species regularly surveyed, especially of those vulnerable for stealing chicks from nests. Higher interest for research and collection, low for funding. High general public interest for owls (also ringers). | | | | | | | |
| What would be the most feasible way of increasing capacity to contribute to ERSamP in your country? | 1. Increase of storage and carcass processing capacity in museum, 2. increased nest-boxing programme and raptor ringing, 3. Increase raptor research activity and volunteer involvement in raptor research and monitoring programmes | | | | | | | |
| How might this be achieved? | 1. Establishment of Raptor Grid scheme, 2. Increased funding of raptor contaminant monitoring through ERBF panEuropean initiative sent to local governments, 3. training of raptor ringers, 4. establishment of raptor volunteer group | | | | | | | |
| Do you have examples of best practice that could be shared with other countries? Please give details. | Tawny Owl territory and nest monitoring (Vrezec & Bertoncej 2018; Bird Study). On-line database for recording volunteer observations (DOPP-BirdLife Slovenia). | | | | | | | |
| If you found a fresh Tawny Owl or Common Buzzard carcass in your own country what would you do with it? | Take it and give it to the museum. | | | | | | | |

ERSamP – links to ERSpeB / remaining issues



- Need to understand capacity constraints of storage facilities (collections)
- Need to understand constraints around shipping and the best ways to move samples to storage facilities
- Expansion of the Advice Hub to contain the guidance required for the ERSpeB and maximise cross-arena use? Case studies ...
- How to facilitate efficient access to other contextual data to enhance interpretation of toxicological results – existing repositories and new structures?
- Potential for joint capacity building / training events (overlap of participants in field and collections arenas)

Thanks to the WG4 Team!

**Management of WG4
work programme**

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**Everyone who has
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