WG3 Brussels meeting
10-11 December 2018

- Focus:
  - Consideration of the findings of the **Review of Raptor Collections** (Task 3.1) – *previous session*
  - Scoping of issues relating to developing the **framework for a distributed European Raptor Specimen Bank** (Task 3.2) – *this session*
  - Scoping of issues relating to **design and construction of a meta-database** (Task 3.3) – *this session*

Task 3.2 Scoping development of the framework for a European Raptor Specimen Bank

Some general considerations

- Collections are interested to help out – but don't waste their time and money - there needs to be a clear 'ask':
  - which species, matrices, what processing, storage protocols…
- Don't ask NHMs to build a large frozen tissue archive unless:
  - assured of lab capacity/resources to analyse samples
  - there is clear regulatory demand for the data
- Build ERSpeB step-by-step:
  - demonstrate value first with 1-2 species / 1-2 matrices for which there is analytical resource and regulatory application
- Note that NHMs in some countries (notably E. Europe) are very short of resources

Task 3.2 Scoping development of the framework for a European Raptor Specimen Bank

Incentives to engage

- Part of a major European initiative with key regulatory applications
- Opportunity to collaborate across ESBs, NHMs and research collections
- Opportunity to expand research interests to ecotox and publish
- Opportunity to know of and exchange samples with other NHMs to broaden own collections

Task 3.2 Scoping development of the framework for a European Raptor Specimen Bank

Constraints

T3.2 MISSION 1 – PUBLISHED

- **Legal constraints** for sampling (e.g. blood), shipping (e.g. CITES, Hazardous materials, Nagoya)
  - Review constraints, identify best practice solutions

- **Personnel/financial constraints** to gathering, processing, recording of samples:
  - Limit the burden by giving clarity on priority matrices, volumes to retain/store
  - Re-direct samples to those NHMs with greater capacities?
  - Leverage funding, e.g. for NHMs to be more proactive in bringing in specimens
- **Freezer capacity constraints**
  - Re-direct samples to those NHMs with greater capacities?
  - Fund additional freezer capacity?

T3.2 MISSION 2

Task 3.2 Scoping development of the framework for a European Raptor Specimen Bank

Standards and protocols

- NHMs tend to have own protocols
  - which may not be optimal for contaminant monitoring
- May not be possible for all NHMs to apply same standards
  - consider gold/silver/bronze standards
- Develop Standard Operating Procedures (SOPs):
  - Build on ESB experience, EURAPMON Protocol

T3.2 MISSION 3

Task 3.2 Scoping development of the framework for a European Raptor Specimen Bank

Access to samples

- No point in building ERSpeB if anyone can use the samples for any purpose!
- So, need a **restricted access policy**:
  - e.g. analysis meets ERBioMS priorities, data supplied free to ERBioMS, open access publication, NHM acknowledged…
- But, restricted access may clash with existing NHM access policy
  - NHMs may struggle to ring-fence samples for ERBioMS
- Do we exclude central ERSpeB, or regional banks?

T3.2 MISSION 4

WG3 Brussels meeting
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  - Scoping of issues relating to **design and construction of a meta-database** (Task 3.3) – *this session*

3.3 Development of ERSpeB meta-database

(1) Circumscribing the database

- Focus database on recent, frozen wet tissues
- Focus database on samples of most value for ERBioMS (pan-European biomonitoring in support of EU chemicals regulations)
  - e.g. 2-3 priority species
  - e.g. 2-3 key matrices
- Set temporal boundaries of the database
  - e.g. samples 2000 to date
- Specify the minimum data required in the meta-database
  - species, location, age, sex, carcass or tissue…

T3.3 MISSION 1

3.3 Development of ERSpeB meta-database

(2) Some key questions for the database

- NHMs tend to have their own, differing, database systems − will they upload data to ERSpeB or can ERSpeB mine NHM data?
  - Promote interoperability (e.g. use of unique species identifiers)
  - Data mining is preferable if sufficient interoperability − automated, cheap
- Can we get real-time picture of available samples across Europe?
  - Requires frequent (annual?) updates of all NHM databases, e.g. for samples entering collection, transfer of samples, use of samples
- Can we link samples to results of any analyses performed?
  - e.g. to publications, analytical datasets
- Stand-alone database, or integrated within LIFE APEX knowledgebase (NORMAN platform)?
  - LIFE APEX Knowledgebase: 3 modules − samples, target analysis data, NTS data

T3.3 MISSION 1

SUMMARY

- We have a pretty good **picture of the state of raptor collections** across Europe and the constraints they face
- We have a pretty good initial **scoping of issues to be addressed** in **developing a distributed European Raptor Specimen Bank**, and in **developing a meta-database**
- We propose **5 missions** and **one WG3 meeting** to take this forward through to April 2020 (end GP3)

Proposed WG3 activities to end GP3

Task 3.1 Review of raptor collections

- Mission 1 (GP2) - Finalise report, paper arising from Gloria's mission and WG3 meeting Brussels

Task 3.2 Developing framework for ERSPeB

- Mission 1 (GP2) − Addressing legal constraints to shipping of samples
- Mission 2 (GP3) − Addressing NHM personnel and freezer capacity constraints
- Mission 3 (GP3) − Developing standards and protocols for gathering, processing, storage of samples by NHMs
- Mission 4 (GP3) − Scoping an access policy for ERSpeB samples

Task 3.3 Meta-database

- Mission 1 (GP3) − Scoping the ERSpeB database

WG3 meeting GP3 (early 2020) − Review of mission outcomes, consideration of next steps