

SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator

Action number: CA16224

STSM title: ASSESSMENT OF THE EXTENT OF EXISTING RAPTOR COLLECTIONS IN EUROPE

STSM start and end date: 03/10/2018 – 26/10/2018

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PURPOSE OF THE STSM

The purpose of this STSM was to **assess the extent of existing raptor collection in Europe** including the content of these collections, ongoing collection activity, available facilities for collection/storage, current provision for research access to collections and samples exchange, and current constraints to ongoing collection, storage, research access and sample exchange, as well as any existing related contaminant data.

This STSM benefited from supervision by Dr Rene' Dekker and Dr Paola Movalli at Naturalis Biodiversity Center and with input from the Action Chair, Guy Duke.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSM

I took a questionnaire approach to meet the purpose of the mission..

I first identified collections to which the questionnaire would be sent. To do this, I downloaded (in Excel) a list of European natural history museums from the [eBEAC website](#) (Electronic Inventory of European bird collections, last updated 2003) hosted by the Natural History Museum London. The data included Institution Name, City Name, Country Name, Skins (number), Mounts (number). I selected from this list those museums with raptor and owl collections, and added other relevant institutions (environmental specimen banks, research collections). The final list contained 102 museums, 64 research institutions and universities and 12 Environmental Specimen Banks.

I updated contact information for each institution and added the following data for each:

- Name of relevant country COST representative;
- Name of bird collection manager/curator;
- Name of mammal collection manager/curator;
- Name of overall collection curator/manager;
- Name of Head of Department;
- E-mail address(es);
- Phone/mobile phone number(s);
- Museum phone number(s) (in case of lack of other contact numbers).

I verified bird specimen numbers and contacts by checking institutions' websites (pages such as "Collection", "Bird collection", "Zoology Department", "Ornithology", "Research", "Contacts", "Staff",

“Curators”, “Curator of bird collections.”.

I drafted the questionnaire first in Word, arranging questions in five sections:

- A. Contact information - Name of institution, Contact person, Position of contact person, Mail address, Institutional website;
- B. Questions on the receipt/collection of fresh (contemporary) specimens and storage of samples from these specimens. This section concerned specimens’ management, specimens’ reception, specimens’ storage procedures, samples collecting and their conservation;
- C. Questions on constraints to receiving/collecting, processing and storage of fresh raptor and/or owl specimens. This section concerned problems and limitation of frozen specimens;
- D. Questions on historical archives. This section concerned old collections information like number of specimens, number of samples, collection digitizing, old collection type (ethanol, formalin, etc...);
- E. Questions on related studies. This section concerned the presence of ongoing researches, study types, ecotoxicological studies information.

I then transferred this questionnaire to “Google Forms” (which are easier for respondents to use, and easier to analyse, than an offline form). I used settings in Google Forms to collect e-mail addresses of respondents, issue confirmation of submission, and also allow respondents to edit their submission. I also added a field for respondents to give consent to use of their personal data, in compliance with the EU General Data Protection Regulation.

Finally, I prepared a group mailing list based on the Excel file and drafted and issued an e-mail invitation to complete the questionnaire, including the “Google Forms” link and three attachments:

1. Message from the ERB Facility Chair (to encourage people to reply);
2. Summary of the Action (to provide necessary context);
3. List of institutions to which the questionnaire is being sent (to give respondents a sense of taking part in a significant initiative involving all collections across Europe).

DESCRIPTION OF THE MAIN RESULTS OBTAINED

I sent the questionnaire to around 178 contacts including museums, other institutions and Environmental Specimen Banks (ESB) in 37 European countries, with an initial deadline for responses of 9 November 2018. The deadline was subsequently extended and reminder emails sent to encourage replies.

As at Nov 25th, we had received 113 answers.

I updated the Excel file to record those institutions that had answered the questionnaire and maintained an up to date mailing list of those institutions which had not yet answered, to be used to send reminders.

I have drafted the analysis of the results which shows that:

- Questionnaires were submitted mainly by curators;
- 75% of museums/institutions receive fresh (contemporary) specimens;
- the main aims of collecting are specimen preservation and research;
- specimens are typically stored in freezers at -20°C;
- collections have on average around 800 raptor and 300 owl skins;
- 46% of museums are actively involved in research on raptors and/or owls;
- the major part of institutions make studies on PCBs and metals/semi-metals.

To increase the number of responses I send a final reminder with a new deadline to missing respondents.

FUTURE COLLABORATIONS (if applicable)

At end November, I will download responses from “Google Forms” and will then prepare a full analysis of these responses for presentation at a Working Group 3 (Collections) workshop in Brussels on 10 – 11 December 2018.

This review is expected to underpin future work by WG3 (Collections Arena) towards development of a distributed European Raptor Specimen Bank, bringing together all of these collections to supply suitable samples for contaminant monitoring in relation to EU chemicals management. This work will be taken forward in collaboration with WG1 and 2 (Analysis Arena) and WG4 (Field Arena).