

10th International Meeting of European Bird Curators

17-19 October 2017, PARIS

10^e Congrès International des Conservateurs Européens de Collections d'Oiseaux • 17-19 octobre 2017, Paris



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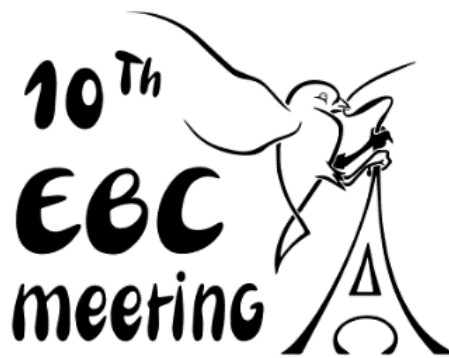
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E B C 2017

10th International Meeting
of European Bird Curators



10^{ème} Congrès International des Conservateurs
Européens de Collections d'Oiseaux

Paris, 17-19 October 2017

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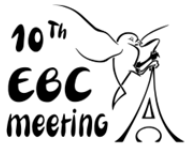
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10th International Meeting of European Bird Curators 17-19 October 2017

PROGRAM

Tuesday, October 17

Amphitheater of Comparative Anatomy and Palaeontology

- 9:00 - 10:20 Registration
- 10:20 - 10:40 Opening
- 10:40 - 12:40 Session “Collections of historical importance in Natural History Museums”
- 10:40 - 11:00: Hein VAN GROUW, Igor FADEEV, Varvara MIRONOVA
Theodor Lorenz - founder of the scientific taxidermy in Moscow; his life, birds and collections
- 11:00 - 11:20: Igor FADEEV, Varvara MIRONOVA, Eleonora PAVLOVSKAYA
Big purchases 1907-1920: Exotic birds collections in Darwin Museum acquired from European natural history dealers
- 11:20 - 11:40: Anton IVANOV
Bird skins collected before 1917 in ornithological collections of the Timiryazev State Biological Museum in Moscow
- 11:40 - 12:00: Zoe VARLEY, Joanne COOPER, Robert PRYS-JONES
The other Beagle birds: Robert FitzRoy's contribution to ornithology
- 12:00 - 12:20: Douglas RUSSELL
Case Study: Acquisition of the Tomkinson Egg Collection by the Natural History Museum
- 12:20 - 12:40 General discussion
- 12:40 - 14:20 Lunch
- 14:20 - 16:30 Session “Collections of historical importance in Natural History Museums”
- 14:20 - 14:40: Ulf JOHANSSON, Erik Åhlander
On the specimens used for Anders Sparrman's "Museum Carlsonianum" published 1786-1789
- 14:40 - 15:10: Ludovic BESSON
Les collections d'oiseaux dans les institutions françaises
- 15:10 - 15:30: Marie MEISTER
Bird collection of the Museum of Zoology in Strasbourg
- 15:30 - 15:50 : Ludovic BESSON
Les collections ornithologiques historiques du muséum de Bourges
- 15:50 - 16:10: Jérôme FUCHS, Edward DICKINSON, Jeremiah TRIMBLE, Anne PRÉVIATO, Patrick BOUSSÈS
Study of d'Orbigny's "Voyage dans l'Amérique méridionale" III. New avian names relating to d'Orbigny's voyage dans l'Amérique méridionale: evidence for their first introduction and necessary correction to authorship, dates and citations
- 16:10 - 16:30 General discussion

Wednesday, October 18

Comparative Anatomy Lab

09:00 - 10:20 **Poster session & Coffee**

- José CARRILLO-ORTIZ, Santiago GUALLAR, Laura ROQUÉ, Javier QUESADA
Revising birds' skin preparation for facilitating its scientific utility
- Olivier GERRIET
Transporter des oiseaux naturalisés : une technique simple et efficace
- Anita GAMAUF & Pascal QUERNER
Pest control in the Bird Collection of the Museum of Natural History Vienna (NMW), Austria - first results
- Bob MCGOWAN
Birds' eggs and the Predatory Birds Monitoring Scheme
- Judith WHITE
Use of the Avian Osteology Collection at NHM Tring
- Marco PAVIA
The bird osteological collection of the Dipartimento di Scienze della Terra of the Torino University, Italy

Auditorium of the Gallery of Evolution

10:40 - 11:00 **Session "Preparation techniques and conservation of collections"**

10:40 - 11:00: Laura ROQUÉ, Irene DEL CANTO, José CARRILLO-ORTÍZ, Carles ORTA, Javier QUESADA
Effects of Prolonged Freezing on the Preparation Quality of Fresh Material Destined for Bird Collections

11:00 - 12:20 **Session "Osteological collections and their use"**

11:00 - 11:20: Joanne COOPER, Richard THOMAS
Damaged, diseased and deformed: a guide to pathological specimens in avian osteological collections

11:20 - 11:40: Mark ADAMS
Pre-historic Falkland Island bird bones - a new species in the peat

11:40-12:00: Paul SWEET
Skeletons in the closet: building a modern osteology collection

12:00 - 12:20 : Arnaud LENOBLE, Monica GALA, Véronique LAROULANDIE
La collection ostéologique d'oiseaux de l'Université de Bordeaux. Pour quoi faire ?

12:20 - 12:40 **General Discussion**

12:40 - 14:20 **Lunch**

14:20 - 16:40 **Session "New collections and their use"**

14:20 - 14:40: Ildiko SZABO, Grant HURLEY, Stephanie CAVAGHAN, and Darren E. IRWIN
OMBIRDS: Online Museum of Bird Images, Recordings, and DNA Samples

14:40 - 15:00: Jan T. LIFJELD
The avian sperm collection in the Natural History Museum in Oslo

15:00 - 15:20: Jade BRUXAUX, Maëva GABRIELLI, Hidayat ASHARI, Robert PRYS-JONES, Leo JOSEPH, Borja MILA, Guillaume BESNARD, Christophe THÉBAUD
Recovering the evolutionary history of crowned pigeons (Columbidae: Goura): implications for the biogeography and conservation of New Guinean lowland birds

15:20 - 15:40: Gary VOELKER, Yaroslav RED'KIN, Igor FADEEV, Evgeniy KOBLIK, Vladimir SOTNIKOV, Sergei DROVETSKI
Multi-locus reassessment of a striking discord between mtDNA gene trees and taxonomy across two congeneric species complexes

15:40 - 16:00: Marko RAKOVIĆ
Geometric morphometric of bill shape and molecular analyses define subspecies in the chiffchaff hybrid zone

16:00 - 16:20: Utku PERKTAS
Phylogeography and phylogeny of Turacos

16:20 - 16:40 **General discussion**

19:30 - 22:30 **Conference Dinner at *The Train Bleu***

Thursday, October 19

Comparative Anatomy Lab

09:00 - 10:20 Poster session & Coffee

- Renata STOPIGLIA, Alain DUBOIS, Flávio BOCKMANN, Marcos RAPOSO
*Accessibility and importance of historical data of the type collections: the genus *Synallaxis* (Passeriformes: Furnariidae) as a case study.*
- Guy DUKE, René DEKKER, Paola MOVALLI, Friederike WOOG
The European Raptor Biomonitoring Facility
- Giovanni BOANO, Nicola BACCETTI, Fausto BARBAGLI, Enrico BORGIO, Giorgio CHIOZZI, Ugo FOSCOLO FOSCHI, Carla MARANGONI
Italian specimens of White-Backed Woodpecker in Italian Museums
- Anita GAMAUF & Gabriela GORGON
Morphological changes in avian predators due to climate change? - first findings
- Juilan KOKOTT & Till TÖPFER
Remarkable bird objects in the ornithological collection of Otto Kleinschmidt (1870-1954)
- Paul SWEET
The Whitney South Sea Expedition Revisited

Auditorium of the Gallery of Evolution

10:40 - 12:40 Session “Database types and use”

10:40 - 11:00: Ludovic BESSON

Le projet BDBE : Base de Données Biographies et Étiquettes

11:00 - 11:20: Heather PRESTRIDGE, Gary VOELKER

Leveraging Resources in a University Based Collection

11:20 - 11:40: Thomas TROMBONE

Integrating Historical and Modern Collections Data at the American Museum of Natural History: A Retrospective of Recent Activity

11:40 - 12:00: Sylke FRAHNERT, Anita GAMAUF, Celia BUENO, Pascal ECKOFF, Gerald MAYR, Manuel SCHWEIZER, Markus UNSÖLD, Raffael WINKLER, Friederike WOOG

On major recent thefts of raptor and owl feathers in European collections: Implication for future access

12:00 - 12:20: Till TÖPFER

Data optimisation in bird specimens

12:20 - 12:40 General Discussion

12:40 - 14:20 Lunch

14:20 - 16:20 Session “Miscellaneous”

14:20 - 14:40: Hein VAN GROUW

Grouse - Tetraoninae: primitive birds or one step ahead of evolution?

14:40 - 15:00: Fuisz TIBOR, Perszlényi ÁDÁM, Vas ZOLTÁN, Haraszthy LÁSZLÓ

The Inventory of Hungarian egg collections and their possible use for ornithological research

15:00 - 15:20: Sylke FRAHNERT

Macaw talk - an introduction to 200 years of the bird collection at the Museum für Naturkunde Berlin based on the macaw specimens

15:20 - 15:40: Clem FISHER

The Owl, the Pussycat and the Monograph of the Toucans - how the identity of the Nonsense Poet and talented bird artist Edward Lear was suppressed

15:40 - 16:00: Claudia KAMCKE

Presentation of the Staatliches Naturhistorisches Museum in Braunschweig, Germany

16:00 - 16:20 General Discussion and closing of the conference

Collections of historical and scientific
importance in Natural History Museums

Theodor Lorenz – founder of the scientific taxidermy in Moscow; his life, birds and collections

Hein Van Grouw ^{*†} ¹, Igor Fadeev ^{*}

², Varvara Mironova ²

¹ Natural History Museum (NHM) – United States

² State Darwin Museum Moscow – Russia

Content: Brief biography, major publications, species and subspecies named by him and named after him, his main interest; Grouse and their aberrations, his collections today, specific details on aberrant Grouse specimens, special features of his labels, mounts and study skins. Correcting of common mistakes.

Keywords: bird collections, Theodor Lorenz, Moscow taxidermy, colour aberration, Grouse.

*Speaker

†Corresponding author: h.van-grouw@nhm.ac.uk

Big purchases 1907-1920: Exotic birds collections in Darwin Museum acquired from European natural history dealers.

Igor Fadeev ^{*†} ¹, Varvara Mironova ¹, Eleonora Pavlovskaya ¹

¹ State Darwin Museum (SDM) – ul. Vaviliva, 57, Moscow, 117292, Russia

From 1907 to 1913 the founder of the Darwin Museum Alexander Kohts bought many bird specimens from European dealers. Also in 1919-1920 numerous exotic birds from private collections were received by the museum. Recently new information is found in the museum's archive, including some specific about particular specimens and dealers.

Keywords: bird collections, natural history dealers, taxidermy, W.F.H. Rosenberg, S. Schluter, J. Umlauff, O. Fritshe, V. Fric, R. Ward, J. Gardner, A. Chomyakov.

*Speaker

†Corresponding author: igorfad@darwinmuseum.ru

Bird skins collected before 1917 in ornithological collections of the Timiryazev State Biological Museum in Moscow

Anton Ivanov * ¹

¹ the Timiryazev State Biological Museum – Russia

In this year 100 years have passed since the Russian Revolution of 1917. This event greatly influenced the subsequent history of Russia. It is no accident that Russia's history is often divided into pre-revolutionary and post-revolutionary periods. The Soviet authority often eradicated what was associated with the pre-revolutionary period, so many items from different areas of life were lost. Therefore, the preserved pre-revolutionary artifacts are of particular importance.

The collection of bird's skins of the TimiryazevStateBiologicalMuseum includes 2403 items. By size of the collection it ranks fifth after the collections of the The Zoological Museum of Moscow University (more than 118000), the department of biogeography of StateMoscowUniversity (9000-10000), the Darwin museum (over 7500), department of zoology and ecology of the MoscowStatePedagogicalUniversity (over 3000). The collection of the TimiryazevStateBiologicalMuseum includes 575 species of birds (271 non-passerines, 304 passerines) and it is mostly presented by fauna of Russia and neighboring countries. The modern avifauna of Russia includes 789 species of birds, there are 477 in the our collection which represents 60,5 % species of birds in Russia.

Some bird's skins in the museum came from the collections of M.A. Menzbir (1855–1935), P.P. Sushkin (1868–1928), Baron Harald von Loudon (1876-1959), S.I. Ognev (1886–1951), N.A. Bobrinskiy (1890–1964), V.A. Xaxlov (1890-1983), Y.P. Spangenberg (1898-1968). The specimens were purchased from collectors, received by the Timiryazev Museum from the Darwin museum and the Zoological Institute of the Academy of Sciences. In this study we analyzed the specimens of birds from these collections that were collected before 1917.

Keywords: Timiryazev State Biological Museum, Moscow, Russia, Menzbir, Sushkin, Baron Harald von Loudon, Ognev, Bobrinskiy, Xaxlov, Spangenberg

*Speaker

The other Beagle birds: Robert FitzRoy's contribution to ornithology

Zoe Varley ¹, Joanne Cooper ¹, Robert Prys-Jones *

¹ Natural History Museum – Royaume-Uni

The 2nd Voyage of H.M.S. Beagle, 1831-36, is indelibly associated with the ground-breaking evolutionary research of Charles Darwin and, more specifically, for the bird collection that that he and his servant Covington assembled during this trip. However, Darwin's was not the only collection made, though the others have been heavily overshadowed and remain relatively little known. The largest and most important among these was the collection assembled under the direction of the Beagle Captain, Robert FitzRoy, much of which was deposited in the British Museum in 1837. The talk will present an overview of this collection, making relevant comparisons with Darwin's collection and considering what FitzRoy's interest tells us about natural history collecting during the voyage.

Mots-Clés: Robert FitzRoy, HMS Beagle, Charles Darwin

Case Study: Acquisition of the Tomkinson Egg Collection by the Natural History Museum

Douglas Russell * ¹

¹ Natural History Museum (NHM) – United Kingdom

In March 2017 the Natural History Museum acquired the historical egg collection of Gerald Tomkinson (1876-1959). The collection contains around five thousand extremely well prepared clutches of birds of many different species all with annotations (set marks) linking to a catalogue, manuscripts and photograph albums with very high levels of provenance information including collector, date of collection and detailed locality. For example, the collection contains 27 individually boxed and beautifully prepared data-rich clutches of Common Blackbird *Turdus merula*, taken by Tomkinson and colleagues between 1st May 1894 and 22nd May 1944. The collection is arguably one of the most important we have received since the Chance collection was acquired in 1947. Gerald Tomkinson, a member of the British Oological Association (later Jourdain Society) was an accomplished oologist. Like many collectors there were species in which he was particularly interested and, for example, between 1910 and 1925 he found some 400 Tree Pipits' nests in south Shropshire. His collection of this species rivalled that of his contemporary Edgar Chance and an exhibited drawer of 36 clutches was magnificent in variety, including sets of the rare, almost unmarked, cyanic type.

This paper evaluates this acquisition of the Tomkinson Collection as a) an intact and comprehensive oological collection of specimens and manuscripts and b) reviews the importance of museums acquiring and archiving these data-rich historical collections of eggs before this dwindling resource is inexorably lost to the science.

Keywords: Oology

*Speaker

On the specimens used for Anders Sparrman's "Museum Carlsonianum" published 1786-1789

Ulf Johansson * ¹, Erik Åhlander ¹

¹ Swedish Museum of Natural History – Sweden

Museum Carlsonianum was published in four volumes 1786-1789 and was based on a selection (100 specimens) of birds in the collection of Gustaf von Carlson (1743-1801). Each volume contains colour plates of 25 birds with short a description. The text was written by Anders Sparrman and the plates were made by Jonas Carl Linnerhielm. Some specimens are known to have come from the collection of the Swedish Royal Academy of Sciences and some birds were collected by Anders Sparrman in South Africa or during his participation in Captain James Cook second voyage. The major part of the birds in the book was new to science. The von Carlson collection was split after von Carlson's death in 1801. So far only a few type specimens have been identified, but some observations indicate that some specimens may remain unnoticed in the collections in Stockholm and Uppsala, whereas some other specimens in these collections may have been misidentified as the type specimen. In this study we aim to follow fate of each specimen after the collection was split in 1801 and for each specimen evaluate the type status for all nominal species involved.

Keywords: type specimens, 18th century birds

*Speaker

Les collections d'oiseaux dans les institutions françaises

Ludovic Besson * ¹

¹ Muséum de Bourges (BOUM) – MUSEES DE FRANCE – Les Rives d'Auron - 18000 Bourges, France

Pour le congrès EBC 2017, une enquête a été menée dans plus de 200 institutions françaises détenant des collections d'histoire naturelle. Un bilan quantitatif et qualitatif est proposé.

Keywords: collection, histoire des collections, spécimens publiés, collecteurs, espèces E&E

Bird collection of the Museum of Zoology in Strasbourg

Marie Meister * ¹

¹ Musée Zoologique de l'Eurométropole et de l'Université de Strasbourg (MZS) – Eurométropole et Université de Strasbourg – 29 bvd de la Victoire, F67000 Strasbourg, France

The bird collection of the Museum of Zoology, Strasbourg, France, constitutes one of the premier collections of the Museum as it contains close to 18,000 specimens, encompassing mainly mounted animals, but also skins, osteological samples, nests and eggs. One particularity of the museum is that it was successively run by French academics (from its beginning as a natural history chamber created by Jean Hermann -1738-1800- to the annexation of Alsace by Germany in 1871), then by German administration until 1918, and again by the French, thus accumulating collections with both French and German specificities. The collection covers all existing families and has worldwide geographic origins, the vast majority was collected during the 19th century. It harbors some extinct or close to extinct species, but no types. Collectors include some prominent ornithologists, many local naturalists and Natural History dealers.

Keywords: museum strasbourg 19th_century collections

Les collections ornithologiques historiques du muséum de Bourges

Ludovic Besson * ¹

¹ Muséum de Bourges (BOUM) – MUSEES DE FRANCE – Les Rives d’Auron - 18000 Bourges, France

Présentation des collections historiques d’oiseaux du muséum de Bourges. La collection d’oiseaux montés Albert Ma’és, numériquement l’une des plus importantes en région : historique, période de collecte, lieux de collecte, origine des spécimens, circuits d’obtention (achats, échanges), collecteurs présents, présence de spécimens publiés et espèces remarquables, espèces E&E, espèces dédiées à Ma’és. Les éléments de la collection Guy Babault venant du Sri Lanka (1912) et du British East Africa (1913). La collection de peaux du Dr Arnault (Laghouat, Algérie, vers 1930). Un diorama présentant quelques oiseaux de la collection du Commandant Charcot (expédition antarctique 1903-1905). Le point sera fait sur la mise en ligne de ces collections sur le GBIF.

Keywords: collection, histoire naturelle, spécimens publiés, collecteurs, E&E birds

Study of d'Orbigny's "Voyage dans l'Amérique méridionale" III. New avian names, evidence for their first introduction and necessary correction to authorship, dates and citations

Jérôme Fuchs *¹, Edward Dickinson², Renata Stopiglia^{3,4}, Jeremiah Trimble⁵, Anne Previato⁶, Patrick Boussès⁶

¹ ISYEB7205 (MNHN) – Muséum National d'Histoire Naturelle - MNHN (FRANCE) – France

² Eastbourne, East Sussex – United Kingdom

³ Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Universidade de São Paulo (FFCLRP/USP) – Av. Bandeirantes, 3900, Ribeirão Preto, SP, 14040-901, Brazil

⁴ Institut de Systématique, Évolution, Biodiversité (ISYEB - UMR 7205 - CNRS, MNHN, UPMC, EPHE) – Muséum National d'Histoire Naturelle (MNHN) – 25, rue Cuvier, 75005 Paris, France

⁵ Museum of Comparative Zoology, Harvard University – United States

⁶ Direction des Collections – Muséum National d'Histoire Naturelle (MNHN) – 55 rue Buffon, 75005 Paris, France

The detailed six-part review by Hellmayr (1921-25) of the important ornithological findings of d'Orbigny in South America made use of the limited available information then available to him on the dates of publication of the 90 individual livraisons of d'Orbigny's report. This was against a background of relative uncertainty as to the dates of publication of the two parts of the *Synopsis Avium* by d'Orbigny & Lafresnaye in the *Magasin de Zoologie* published by Guerin-Meneville. The later findings of Sherborn & Griffin (1934), based on a set of wrappers of d'Orbigny's book, allowed more certainty regarding the content of each wrapper, but the reported wrapper dates themselves (year dates only) cast doubt on issue sequence, and better information on the individual dates of the livraisons was not brought forward. Here that evidence is assembled and the interaction of these dates with the probable publications dates for the two parts of the *Synopsis Avium* is assessed. Based on this each genuinely new name proposed in either work is presented as a recommended valid original name, accompanied by citations to the same taxon elsewhere in either work. As far as possible the sequence is that used by Hellmayr (based on that in the *Synopsis Avium*). Attention is drawn to the need for multiple corrections to dates and authorship and a few original spellings of names.

Keywords: d'Orbigny, type specimens

Preparation techniques and conservation of collections

Effects of Prolonged Freezing on the Preparation Quality of Fresh Material Destined for Bird Collections

Laura Roqué ¹, Irene Del Canto ¹, José Carrillo-Ortíz ¹, Carles Orta ¹,
Javier Quesada ^{*† 1}

¹ Department of Chordates, Natural Sciences Museum of Barcelona (MZB) – Passeig Picasso s / n
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The preparation of animal specimens destined for zoological collection is a key step to ensure and maintain an optimal conservation state in the long term. Animal skins and bones are a common element in zoological collections and they are usually prepared from recently deceased animals that have been frozen before their preparation. Sometimes, the preparation of the specimen is carried out many years after the freezing process. The deleterious effects on the skins and bones of the specimens from freezing, has rarely been assessed.

The aim of this study was to determine whether or not prolonged freezing caused ageing of the soft tissues. Two bird species (*Buteo buteo* and *Tyto alba*) were used as biological models. Our hypothesis is that freezing causes dehydration which in turn makes the skins more difficult to prepare because of changes in skin flexibility or marrow texture from acidification of the bone. We prepared 132 Buzzards and 139 Barn Owls that had been frozen for a period of time between 1995 - 2012. The results showed that, in both species, those which were frozen for longer periods of time, had less mass, less elasticity of the skin, the pH of the bone marrow was more acidic and its texture was more solid. Along with these results we also found that sexing of the birds and preparation of the skins, proved more difficult in specimens that had been frozen for a longer period of time.

Our results suggest that, prolonged freezing of specimens pending preparation, can compromise the maintenance of their optimal state and their scientific utility in the long term. We propose several solutions to avoid these deleterious effects.

Keywords: Bird preparation, freezing, deleterious effects, *Buteo buteo*, *Tyto alba*, zoological collections

*Speaker

†Corresponding author: jquesadal@bcn.cat

Osteological collections and their use

Damaged, diseased and deformed: a guide to pathological specimens in avian osteological collections

Joanne Cooper * ¹, Richard Thomas ²

¹ Natural History Museum – United Kingdom

² University of Leicester – United Kingdom

Avian osteological collections may include a wide range of pathological specimens, which can be a valuable resource for palaeopathology and veterinary researchers. In this presentation, we will review the description and classification of pathological specimens and outline a method for recording them for collections databases.

Keywords: Avian osteology, pathology, palaeopathology, research applications, classification, description, recording

Pre-historic Falkland Island bird bones – a new species in the peat

Mark Adams * ¹

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Approx. abstract: Since humans first settled in the Falkland Islands in the late 1700s, the peat has been cut there and used as fuel. From at least the 1930s bones were noticed in peat deposits on West Point Island and these were briefly documented in 1950. This presentation provides a summary of more recent excavations and analysis of these subfossil remains. It dates them at over 5000 years before present and makes comparison with the extant bird fauna of the Falkland Islands. Eighteen avian species are identified including a new species of caracara.

Keywords: Falkland Islands, peat, subfossil, bones, caracara

Skeletons in the closet: building a modern osteology collection

Paul Sweet * ¹

¹ American Museum of Natural History (AMNH) – Department of Ornithology American Museum of Natural History Central Park West @ 79th St, NY 10024, United States

Traditionally ornithological collections have been heavily biased in favor of study skins over skeletal specimens. Deficiencies in skeleton collections have hampered studies in many areas of ornithological research. Over the past several decades efforts have been made to increase the taxonomic, temporal, and geographic range of the osteology collection at the American Museum of Natural History which now holds some 32,000 specimens. Significant collection growth has been achieved by active collection, salvage and exchanges. The recently completed database and taxonomic revision of skeletal holdings has allowed analysis of the collection and access to all associated data.

Keywords: skeletons, osteology, bones, database

La collection ostéologique d'oiseaux de l'Université de Bordeaux. Pour quoi faire ?

Arnaud Lenoble ^{*†} ¹, Monica Gala ^{*}

¹, Véronique Laroulandie ¹

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Le laboratoire PACEA de l'Université de Bordeaux héberge une collection d'environ 900 squelettes d'oiseaux documentant une partie de l'avifaune européenne et antillaise. Sa constitution a débuté dans les années 1950, en support des activités de recherche du laboratoire. Depuis quelques années, le rythme des acquisitions s'est accéléré et fait l'objet d'une politique concertée répondant à l'évolution de la recherche sur le site. Du concept de spécimen ostéologique, la collection est passée à celui de spécimen biologique, où les informations propres aux individus sont renseignées dans un catalogue. Cette évolution traduit la succession des différentes thématiques de recherche : détermination des taxons fossiles dans une perspective paléoenvironnementale, archéozoologie aviaire et, récemment, paléo-écologie des communautés aviaires d'outre-mer. Pour les prochaines années, l'objectif est l'insertion du catalogue dans les bases de données internationales (e. g. VertNet, GBIF), ainsi que la prise en compte et l'échange interinstitutionnel de spécimens virtuels (modélisations ostéologiques 3D par CT-scan).

Keywords: Université de Bordeaux, ostéologie aviaire, Europe, Antilles, squelettes

*Speaker

†Corresponding author: arnaud.lenoble@u-bordeaux.fr

”New” collection types and their use

OMBIRDS: Online Museum of Bird Images, Recordings, and DNA Samples

Ildiko Szabo, Grant Hurley, Stephanie Cavaghan, And Darren E. Irwin *†
1

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In 2014, the authors published the OMBIRDS concept. The abstract of this paper is reproduced below. Additional information and free templates are available at: <http://beatymuseum.ubc.ca/research-2/collections/cowan-tetrapod-collection/ombirds/>
Much current and historical research in ornithology employs catch-and-release methods, resulting in a variety of data and materials from birds for which whole-body specimens have not been collected. Often, a genetic specimen (blood, etc.) is collected along with "media specimens" such as images and/or sound recordings, providing a rich source of research material as well as an opportunity to use each type of specimen as a source of validation of the other. Despite the abundance of these datasets and their potential use in future research, the preservation of such data and associated materials is currently a task that each researcher must confront individually, which results in the loss of these research materials. To promote the long-term utility of information collected from the thousands of birds that are captured and released each year, we present a protocol and database template (OMBIRDS: Online Museum of Bird Images, Recordings, and DNA Samples) for organizing and preserving images, recordings, and data associated with genetic samples. This protocol ... facilitates submission of records to international data repositories such as VertNet. By contributing OMBIRDS to the research community as a free database tool that can be downloaded and adapted by researchers and institutions, we hope to encourage the collection of media along with genetic samples and to facilitate the archiving of these materials for their use in future research. (*The Auk: Ornithological Advances* 131: 321-326)

Keywords: blood samples, data archiving, DNA preservation, genetic samples, media specimen, museums, sound recordings, voucher specimen

*Speaker

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The avian sperm collection in the Natural History Museum in Oslo

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In this talk I will present a new museum collection; a collection of preserved avian spermatozoa. Sperm cells are highly diversified among bird lineages and are therefore taxonomically informative. They also carry signals of selection enforced by sperm competition and are therefore useful indicators of mating system variation. The avian sperm collection at NHM Oslo is about ten years old and currently consists of > 10 000 formalin-fixed samples from > 500 species, mostly from passerine birds. I will give an overview of the geographic and taxonomic coverage of the collection and how samples are utilized for the study of sperm morphology and morphometrics using optical and electron microscopy. I will give a brief overview of how sperm morphology has diversified across the passerine phylogeny and how sperm morphology can be a valuable taxonomic character in species delimitation.

Keywords: Spermatozoa, Sperm morphology, Diversification, Species delimitation

*Speaker

Recovering the evolutionary history of crowned pigeons (Columbidae: *Goura*): implications for the biogeography and conservation of New Guinean lowland birds

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Assessing the relative contributions of immigration and diversification into the buildup of species diversity is key to understanding the role of historical processes in driving biogeographical and diversification patterns in species-rich regions. Here, we investigated how colonization, *in situ* speciation, and extinction history may have generated the present-day distribution of *Goura* crowned pigeons (Columbidae), a group of large forest-dwelling pigeons comprising four recognized species that are all endemic to New Guinea. We used a comprehensive geographical and taxonomic sampling based mostly on historical museum samples and shallow shotgun sequencing, to generate complete mitogenomes, nuclear ribosomal clusters and independent nuclear conserved DNA elements. We used these data to reconstruct three molecular phylogenies. All analyses recovered the four species as monophyletic groups, providing support for recent morphology-based taxonomic changes. They also found support for the existence of two monophyletic sister lineages comprising species that were not seen as being close relatives. While the geographical origin of the *Goura* lineage remains elusive, the crown age of 5.73 Ma is consistent with present-day species diversity being the result of a recent diversification within New Guinea. While the orogeny of New Guinea's central cordillera must have played a role in driving diversification in *Goura*, cross-barrier dispersal seems likely to explain the speciation events having led to the four current species. Future conservation status assessments of *Goura* species should carefully reconsider threat levels based on the recently revised taxonomy, in particular by distinguishing *G. sclaterii* from *G. scheepmakeri*.

*Speaker

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Keywords: Crowned pigeons, Goura, Columbidae, New Guinea, sequencing, phylogenies, biogeography

Multi-locus reassessment of a striking discord between mtDNA gene trees and taxonomy across two congeneric species complexes

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² Zoological Museum of Moscow State University – Russia

³ State Darwin Museum – Russia

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⁵ US National Museum – United States

Resolving relationships among members of the yellow and citrine wagtail species complexes is among the greatest challenges in avian systematics due to arguably the most dramatic disagreements between traditional taxonomy and mtDNA phylogeny. Each species complex is divided into three geographically cohesive mtDNA clades. Each clade from one species complex has a sister from the other complex. Furthermore, one cross-complex pair is more distantly related to the remaining two pairs than are several other wagtail species. To test mtDNA gene tree topology, we sequenced the mtDNA ND2 gene and 11 nuclear introns for seven wagtail species. Our mtDNA gene tree reconstruction supported the results of previous studies, thereby confirming the disagreement between mtDNA phylogeny and taxonomy. However, our multi-locus species tree which used mtDNA clades as "taxa" was consistent with traditional taxonomy regardless of whether mtDNA was included in the analysis or not. Our multi-locus data suggest that despite the presence of strongly supported, geographically structured mtDNA variation, the mtDNA gene tree misrepresents the evolutionary history of the yellow and citrine wagtail complexes. This mito-nuclear discord results from mtDNA representing the biogeographic, but not evolutionary history of these recently radiated Palearctic wagtails.

Keywords: gene tree, species tree, speciation, Motacilla, mito, nuclear discord, asymmetric hybridization

*Speaker

Geometric morphometric of bill shape and molecular analyses define subspecies in the chiffchaff hybrid zone

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Morphological characters within bird populations reflect their ecological requirements as well as their adaptive evolution. These characters were used commonly to assess species/subspecies status between distant regions, or in zones of sympatry. In modern times two new methods are developed, DNA analysis and analysis of size and shape known as geometric morphometrics. Here we show the improved characterization of subspecies of common chiffchaff in a hybrid zone at Balkans area using traditional morphometrics, geometric morphometrics and DNA analysis. Breast tissue samples were used for extracting chiffchaff DNA. We sequenced one mitochondrial (ND2) and one nuclear gene (ACO1I9). Our data point to the existence of admixture zone in the Balkans where two mitochondrial lineages (subspecies *collybita* and *abietinus*) of chiffchaffs meet and hybridize. Morphometric measures were obtained from preserved voucher specimens located in NHM Belgrade. Results of PCA analysis using traditional morphometrics for body measurements showed no significant difference in any measurements between evolutionary lineages (subspecies) of chiffchaff. Using geometric morphometrics we quantified shape and size of upper mandible of beak which showed significant difference in shape for delineating subspecies in hybrid zone. This contribution highlights the importance of biological collections for scientific research and point out the importance of preserved specimens for reassessing morphological characters when new methods arise.

Keywords: Geometric morphometrics, chiffchaff, hybrid zone, subspecies

*Speaker

Phylogeography and Phylogeny of Turacos

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We used mitochondrial and nuclear DNA sequences to examine patterns of differentiation and evolution in the Musophagidae, an avian family endemic to sub-Saharan Africa. Phylogeographic analysis of ND2 sequences from throughout the ranges of the currently recognized species revealed unexpectedly large genetic divergences and several cryptic taxa. Within both montane and lowland species fixed private haplotypes were found in disjunct portions of the ranges, suggesting negligible recent gene flow and evolutionary independence. We used complete ND2 sequences and nuclear DNA sequences of an Aconitase intron and the RAG-1 exon to discuss the phylogenetic relationships among those species.

Keywords: turacos, Musophagidae, mtDNA, phylogeography, phylogenetics, Africa

Databases types and uses

Le projet BDBE : Base de Données Biographies et Étiquettes

Ludovic Besson * ¹

¹ Muséum de Bourges (BOUM) – MUSEES DE FRANCE – Les Rives d’Auron - 18000 Bourges, France

Les documents autographes (registres, lettres, étiquettes, etc.) sont primordiaux pour comprendre et travailler les collections d’histoire naturelle. Ils permettent d’obtenir des informations importantes et de fournir des données naturalistes fiables à la communauté scientifique. Le muséum de Bourges a mis en place un protocole d’inventaire prenant en compte les étiquettes et les différents marquages qui leurs sont associées. Par la suite, la nécessité d’une base de données transdisciplinaire faisant la synthèse des notice biographiques des naturalistes et de leurs productions manuscrites s’est très rapidement fait sentir. Depuis, 2012, trois personnes portent le projet BDBE. Après des contacts avec le MNHN, e-ReColNat et l’OCIM et un sondage sur les besoins réalisé en France, un comité de pilotage a été mis en place, le cahier des charges écrit, une maquette fonctionnelle réalisée et Le CERESE choisi pour supporter ce projet.

Keywords: Base de données, biographies, étiquettes, histoire des collections

*Speaker

Leveraging Resources in a University Based Collection

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The Biodiversity Research and Teaching Collections houses important collections of herptiles, fishes, birds, mammals, marine invertebrates and parasites at Texas A&M University in College Station, Texas, USA. Being based at a University, but nestled within a Department, offers both challenges and opportunities for the collections. Challenges include limited funding, facilities that may not be ideal, and struggles to prove our importance to administration. To address these challenges, our collections have leveraged free networks for data dissemination and data cleaning, developed University based resources for image hosting, recruited extramural funding for facilities improvements and digitization, and have integrated the collections facility to formal and informal undergraduate and graduate teaching within the Department.

Keywords: collections, database portal, funding, resources for collections

*Speaker

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Integrating Historical and Modern Collections Data at the American Museum of Natural History: A Retrospective of Recent Activity

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One of the primary responsibilities of natural history collections is the effort to make their specimen data available to researchers in a manner that is consistent, useful, and convenient. Large and historical collections face additional challenges pertaining to the integration of collection data acquired over many years and following different standards for recording specimen data and maintaining collection catalogues. Since the beginning of the 21st century the Department of Ornithology at the American Museum of Natural History has made great strides towards these goals, particularly with regard to electronically capturing primary specimen catalogue data. Much work remains to be done in order to maximize usability of these data for 21st century purposes. The undertaking of this work will rely not only on the efforts of departmental staff but also on the expertise of the larger ornithological community.

Keywords: collections, database, amnh

*Speaker

On major recent thefts of raptor and owl feathers in European collections: Implication for future access

Sylke Frahnert *[†] ¹, Anita Gamauf *[‡] ², Celia Bueno , Pascal Eckhoff ,
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¹ Museum für Naturkunde Berlin – Germany

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³ State Museum of Natural History, Stuttgart (SMNS) – <http://www.naturkundemuseum-bw.de/>,
Germany

Between 2005 and 2012, several museums in Austria, Germany and Switzerland fell victim to a major theft. A private person, who pretended to be a specialist for raptors and owls planning to write a monograph on these groups, wanted to collect missing data on rare species in these collections. Owing to his great experience with raptor taxonomy, none of the responsible collection managers and curators became suspicious and access to the collections was granted. Only by the end of 2012, Pascal Eckhoff - the collection technician in Berlin - noticed that single feathers or entire wings or tails were missing on a notable number of raptor and owl skins, which had been recently digitized in good condition. According to the visitors' book, there was only one person who came into consideration. After other bird curators were contacted, it turned out that at least 300 to 400 specimens in the bird collections in Basel, Berlin, Bern, Frankfurt, Munich, Neuchâtel and Vienna were damaged by this very same person. All institutions reported their losses and damages to the police and the public prosecutor's office immediately. Only after a monetary estimation of the damage was given by the bird curators, police started work. Owing to close international cooperation, Swiss police was able to confiscate two feather collections across the boundaries of Germany and Switzerland in December 2012. The trial ended this year with the sentence of two persons and the decision to return the feathers to the museums. In the meantime, we analyzed how our security systems were circumvented and how to improve them in future.

Keywords: Collection security, theft, persecution

*Speaker

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Data optimisation in bird specimens

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The importance of ornithological collections as biological archives crucially relies on the availability of well-documented specimens. Thus, there are numerous attempts to create optimal specimens, both in terms of preservation and in terms of documentation. While there is apparently no ideal way of preserving a truly multifariously usable specimen, there are numerous opportunities to enhance the value of associated data, particularly of newly acquired specimens. Considering the great demand of contemporary research for well-documented specimens in existing collections, our view on data use might sometimes be biased by a backward-looking point of view that is clearly constrained by apparent data limitations of historical specimens. However, despite the important archival function of historical collections we should aim to link individual life-history data to currently preserved specimens. For example, such life-history data (e.g., precise age determination, plumage stages) becomes available if curators actively seek to incorporate specimens that were marked individually during a variety of field studies.

In fact, oftentimes field ornithologists are not aware of the museums' interests to preserve marked birds that were found dead during their studies. Considering the ease of databasing corresponding life-history data digitally (e.g., ringing and recovery data from ringing stations, sight records documented on the internet, photographs), a valuable new degree of documentation can be reached. Such information, coupled with associated tissue collections, will clearly enhance the value of individual bird specimens and sets the basis for a progressive future involvement of bird collections in ongoing research.

Keywords: biological archives, bird specimens, life history data, bird ringing

*Speaker

Miscellaneous

Grouse - Tetraoninae: primitive birds or one step ahead of evolution?

Hein Van Grouw * ¹

¹ Natural History Museum (NHM) – United States

In Grouse three peculiarities causing taxonomic confusion in the past: Colour aberrations, hybrids and Sex-changed plumage, especially as all three are rather common in this bird family. And even nowadays we don't have an evolutionary explanation for these peculiarities frequently occurring colour aberrations, hybridisation and sex-changed plumage. In this talk the different aberrations will be discussed based on museum specimens.

Keywords: Tetraoninae, aberrant plumage, hybrids

The Inventory of Hungarian egg collections and their possible use for ornithological research

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In 2015 a bilingual inventory was published on extant and lost Hungarian egg collections, titled: "Catalogue of the Hungarian Oological Collections". The authors of this book made accessible all available data on Hungarian egg collections, listed earlier publications on them, and published the data of known collections that were not scientifically elaborated before. Formerly only 13 collections were described, and 24 collections are detailed here.

Collections assembled within Hungary, but perished mainly during the two world wars or in the fights in 1956, are described: altogether 29 collectors' oological collections are summarised. A summary on the collector, number of clutches, geographical coverage, time period when the collections were assembled are described, and the fate of the collections are also detailed. The earliest lost collection dates back to Á. Kubinyi (1799-1873), who later became the director general of the Hungarian National Museum.

Inventory cards of the perished egg collection of the Hungarian Natural History Museum were found and digitalised. We estimate that 4500-5000 clutches were stored in the HNHM's perished egg collection, and data of 2296 clutches of 219 bird species, represented by approximately 9500 eggs is given. Some species found in the historical collection with clutches from the territory of Hungary, but no longer breeding in our country: Lesser Kestrel, Common Crane, White-headed duck.

Data from the Hungarian collections give a chance to monitor faunal changes, and distribution dynamics in the last two centuries. We intend to show our initial results on identifying the lost and vulnerable species of the Hungarian ornithofauna, and the changes in the breeding phenology of the most abundant species.

Keywords: egg collections, climate change, distribution, timing of nesting

*Speaker

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Macaw talk – an introduction to 200 years of the bird collection at the Museum für Naturkunde Berlin based on the macaw specimens

Sylke Frahnert * ¹

¹ Museum für Naturkunde Berlin – Germany

During recent years a list of the historical catalogues belonging to the bird collection of the Museum für Naturkunde Berlin was performed. Six historical catalogues were found to have been set up for the skins and mounts. Further catalogues for skeletons and eggs completed the documentation. Finally, a digital database for all specimens terminated the phase of paper catalogues in 1999.

Based on new insights in the historical documents a chronological overview of the macaw holdings was performed. Over a period of 200 years more than 200 macaws were incorporated into the collection of which around 150 are still available. Besides selling doublets, damage during World War II was the most important reason for loss of specimens.

The catalogue documentation characterizes historical taxonomic standards, as well as the work flows at the Berlin museum and international scientific networks in which the museum was included. Furthermore it was determined what information is stored in the historical catalogues and can complement the data given on the labels. The latter point is especially important as scientific methods changed over the centuries and researchers today need a lot more information than that which was originally stored with the specimens. Based on examples it will be shown what the destiny of single specimens can tell us about the history of the collection and what it can contribute to further research on this material.

Keywords: macaw, collection history, data improvement, data management

*Speaker

”The Owl, the Pussycat and the Monograph of Toucans”

Clemency Fisher * ¹

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The ”Nonsense Poet” Edward Lear was not only a poet, who wrote countless ”Nonsense Rhymes” including ”The Owl and the Pussycat” and ”The Quangle Wangle’s Hat”, but a very accomplished animal artist. Lear lived at Knowsley Hall, home of Edward Stanley, the 13th Earl of Derby, for much of the 1830s. Here he painted many of the animals in Lord Derby’s huge aviary & menagerie, probably the biggest private zoo in history. When the animals died they were prepared as specimens for Lord Derby’s museum, an internationally important collection. When Lord Derby died in 1851 his museum was bequeathed to the people of Liverpool and founded what is now National Museums Liverpool, the only English national museum service outside London. Many of the animals Edward Lear painted are still present in NML’s collections, although most of the paintings Lear did at Knowsley Hall remain there, on the outskirts of Liverpool. Lear also spent much of his early career working for Londoner John Gould, ”The bird man”, who produced many of the grandest folio bird books of the mid-nineteenth century, which were illustrated by hand-painted lithographs. Many of the plates in the first edition of Gould’s ”The monograph of the Ramphastidae or family of Toucans” (1834) were clearly signed by Edward Lear, but when Gould produced a second edition in 1854 he had replaced all the plates, including Lear’s, with new ones produced by himself and Gould’s later assistant Henry Constantine Richter. They strongly show Richter’s excellent artistry and tend to be more accurate than the plates of the first edition, presumably because by then Gould had more information on aspects such as soft part colours. This paper aims to show some of the models Lear used for his paintings, and to identify some of the specimens which Gould and Richter used as models for their new plates. These toucans are mostly in Liverpool or in the Tring collections, but others are in Paris, Berlin and Munich. Many are type specimens.

Keywords: Edward Lear, Edward Stanley, 13th Earl of Derby, John Gould, Monograph of Toucans, bird art.

*Speaker

Poster Session

Revising birds' skin preparation for facilitating its scientific utility

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Bird skins are traditionally prepared with folded wings, but reviewing some features of this material such as plumage details, and biometric measurement can be difficult when folded. To facilitate the research consultation new designs have been proposed as splitting wings and tarsus from the rest of the animal or opening a single wing. However, the feasibility for consultation has been rarely assessed. Our aim is to assess if a new method of non-folded skins improves consultation. By using an ornithologist meeting, we exposed skins from two different passeriform species under different preparation methods (folded wings, and splitting wings and tarsus). Ornithologists identified moult patterns and took biometric measurements (total wing length, Primary 3 (P3) length and tarsus length) from both species and skin preparation methods. Afterward, we made a quiz about their preferences regarding the best preparation method to obtain data.

Over the information obtained from the preference quiz, we applied a non-parametric Wilcoxon test comparing both methods. Among a total of 43 comparisons, we observed significant differences in preference, being the method with splitting wings and tarsus significantly preferred for moult patterns. The same was true for tarsus length measurement. For P3 length measurement, we detected a non-significant positive trend towards splitting wings. Contrary, total wing length measurement was significantly preferred when folded wings. These patterns maintained for both species.

Our conclusion is that for most measurements the splitting wings and tarsus method is preferred. This new method will facilitate consultation work, although it has some handicaps, such as a larger room for storage.

Keywords: preparation skin, splitting wings, biometric measures, moult

*Speaker

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Pest control in the Bird Collection of the Museum of Natural History Vienna (NMW), Austria – first results

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Not only in the past, also in the present time insect pests are sometimes responsible for substantial damage of museum objects. Although the bird collection of the NMW was faced only two times with minor cases of infestation during the last 25 years, we decided in 2016 to collect data about the status quo of "insect activity" in the ornithological collection. We followed therein international guidelines of Integrated Pest Management (IPM) for museums. To prevent damage by pests and their introduction, a holistic concept is applied: This is achieved by (1) sealing the building against pest entry, (2) adapting the micro-climate (the cooler the indoor climate, the slower they develop and reproduce), (3) maintaining high hygienic standards (cleaning is an important part of IPM to reduce food sources for pests), (4) quarantining all new and incoming objects and (5) monitoring pest infestations with traps. (6) Further staff training is an important part of IPM. At the NMW > 130.000 bird specimens are stored in 10 collection rooms (not clearly separated from the work spaces) as well as 4 exhibition halls. All of them are not air-conditioned, and heat up during warm summer. Only a small part of the collection is well protected in an air-conditioned storage room at 10°C. As the NMW is a historical building (opened 1889) points (1), (2) and (3) are difficult to accomplish. First results document different Dermestides (*Attagenus* sp., *Anthrenus* sp., *Dermestes* sp., *Trogoderma* sp.), moths like the webbing clothes moth (*Tineola bisselliella*), Silverfish (*Lepisma saccharina*), booklice (Psocoptera) and other insects, but no serious threat or active infestations were found. The monitoring was continued in 2017 to collect more data on their distribution in the whole building.

Keywords: Pest control, Museum of Natural History Vienna

*Speaker

Transporter des oiseaux naturalisés : une technique simple et efficace

Olivier Gerriet * ¹

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La fragilité des oiseaux naturalisés impose la mise en œuvre de techniques particulières pour leur transport à l'occasion de prêt entre établissements ou pour un déménagement. Une technique, conforme aux standards de conservation, simple et économe est exposée. Elle permet la réutilisation des matériaux d'emballage pour des transports successifs de spécimens de diverses dimensions et préserve l'arrangement du plumage issu de la naturalisation ou de la restauration des spécimens.

Keywords: Collection, transport, conditionnement

The bird osteological collection of the Dipartimento di Scienze della Terra of the Torino University, Italy

Marco Pavia *† ¹

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In 1999, the Dipartimento di Scienze della Terra of the Torino University starts the constitution of a bird skeleton collection (named Marco Pavia Ornithological Collection MPOC) to use as reference collection for the studies on fossil birds and bird skeletal anatomy. This collection is now part of the collection of the Museo di Geologia e Paleontologia of the Torino University with the acronym MGPT-MPOC. All the specimens are preserved, as disarticulated skeletons, in cardboard boxes stored in a temperature-controlled room with metal drawers. From the main collection, an index collection with the major long bones and other diagnostic elements taken from selected specimens of the commonest European taxa is prepared. The collection is completely computerized with a number assigned to each specimen to following its history from the entering in the freezer to the assignment a final Collection number (MPOC). From December 2016, we started to use Dermestids (*Dermestes maculatus*) for skeleton cleaning, giving a great impulse to the number of prepared specimens. Now the collection comprises more than 1200 specimens of about 560 species, with more than 500 samples still to be prepared, either frozen birds or rough carcasses. The collection is still increasing with specimens from bird recovery centres or various casualties, birds from captivity, and specimens collected during scientific expeditions. Goal of the collection is to have a complete representative of the species of Western Palaearctic with some African elements and at least one representative of the bird families of the World, at least the non-Passerines ones. Up to now, the collection served as reference for many papers and Maaster and PhD thesis on fossil birds.

Keywords: Osteological collection, Palaeornithology

*Speaker

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Use of the Avian Osteology Collection at NHM Tring

Judith White * ¹

¹ Natural History Museum (NHM) – United Kingdom

The avian osteology collection at NHM Tring is utilised by a wide range of visitors. This poster will summarise how the collection is used, by whom, and will highlight any trends and changes over the last 10 years.

Keywords: osteology

European Raptor Biomonitoring Facility

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ERBFacility seeks to reduce impacts of environmental contaminants on human health and wildlife, meeting pan-European needs for: (a) enhanced effectiveness evaluation of chemicals laws; (b) more reliable risk assessment of compounds; (c) early warning of emerging contaminant problems.

Using raptors as sentinels for persistent, bioaccumulative and toxic (PBT) compounds, ERBFacility will help answer: (1) is legislation effective in reducing environmental exposure to contaminants in Europe; (2) what are the environmental risks of specific chemicals; (3) are there emerging contaminant problems needing remedial action?

ERBFacility will improve effectiveness evaluation, risk assessment and early warning in relation to regulation of priority substances, plant protection products, biocides, veterinary products and heavy metals.

ERBFacility will deliver research coordination and capacity building in three arenas: (1) Analysis (academics, laboratories, regulatory agencies); (2) Collections (natural history museums, environmental specimen banks, other collections providing samples for analysis); (3) Field (gathering samples and relevant contextual data).

ERBFacility will underpin next generation biomonitoring in Europe by delivering: complementary frameworks for a European Raptor Biomonitoring Scheme, a distributed European Raptor Specimen Bank and a European Raptor Sampling Programme; a meta-database of samples; harmonised standards and protocols for analyses and sampling; best practice guidance for sampling; proof of concept for pan-European assessments and harmonised sampling.

Interested bird curators are encouraged to engage in ERBFacility via:

http://www.cost.eu/COST_Actions/ca/CA16224

Keywords: raptor. contaminant, PBT, biomonitoring, museum collections, EU chemicals regulation

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[†]Speaker

Birds' eggs and the Predatory Birds Monitoring Scheme

Bob McGowan * ¹

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My poster describes the acquisition of raptor eggs by NMS and their analysis as part of a long-term monitoring scheme.

Keywords: Birds' eggs, environmental pollutants, collection data

Accessibility and importance of historical data of the type collections: the genus *Synallaxis* (Passeriformes: Furnariidae) as a case study.

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Despite being highly valued from historical and patrimonial point of views, type collections are still poorly known and studied. Particularly in terms of their digital access and associated historical data, there is still a great need for investment and specialized efforts. Although it is well known among ornithologists that the great museum catalogues have played an important role in the investigation of such material, it is also undeniable that the lack of comprehensive inventories has resulted in many nomenclatural mistakes. For the genus *Synallaxis*, one of the largest and geographically most widespread genera of Neotropical Passeriformes, a recent nomenclatural review of different subgroups has revealed several problems, particularly the difficulty of accessing historical data for type specimens and the lack of digitized information for these specimens. Such issues are increasingly relevant as new technologies, in harness with potentially more flexible species concepts, have resulted in a significant increase in descriptions and validations of cryptic species, i.e. with only subtle or no morphological distinctiveness. The importance of accurate historical data is especially significant with respect to type localities. This is true for the genus *Synallaxis* and for at least 15 of the new species of birds described from South America during the last five years. Our results point to the critical importance of accessible historical data associated with type collections as the only way to face the challenge wrought by current taxonomic tendencies.

*Speaker

Morphological changes in avian predators due to climate change? – first findings

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Changes in morphology have been postulated as one of the responses of animals to global warming, with increasing ambient temperatures leading to decreasing body size. However, the results of previous studies, mostly done on passerines, are inconsistent. In the present study seven morphological characters were measured on 1080 study skins of five common avian predators (goshawk *Accipiter gentilis*, sparrowhawk *Accipiter nisus*, common buzzard *Buteo buteo*, kestrel *Falco tinnunculus*, tawny owl *Strix aluco*). The specimens originate from a time period of 135 years (1880-2015) from climatic homogeneous North and East Austria. Using regression models and Pearson's correlations dependencies and relationships between (1) year and individual, (2) temperature and individual and (3) all morphological characters were tested. Age and sex was considered as well. The results showed no significant correlations neither between year and morphology nor with temperature and morphology. But in four of the five species the morphological characters showed intraspecifically significant high correlations. When comparing these data with extensive prey lists from the study area, the most and strongest of the correlations were found in species specialised in bird hunting (goshawk, sparrowhawk), it was less pronounced in generalists (common buzzard, kestrel, tawny owl). We guess that adaptations to main prey categories (agile birds vs. less agile rodents, reptiles and insects) have been more significant in the long term than the rising temperatures. Therefore we cannot support the hypothesis that body size is decreasing due to climate change. In fact, for future investigations other potential environmental influences (e.g., habitat change, shift of prey supply) should be considered more seriously.

Keywords: morphology, climate change, birds of prey, owls

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Italian specimens of White-Backed Woodpecker in Italian Museums

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The White-Backed Woodpecker *Dendrocopos leucotos* (Bechstein, 1802) breeds in Central Italy with a localized population of the subspecies *lilfordi* (Sharpe and Dresser, 1871) discovered only in 1958 (Moltoni 1959). The Central Italian population is now protected by law and a good part of the range is included in national and regional parks, and relatively well monitored (Brichetti & Fracasso 2007, 2015). The species is considered as "vulnerable" in Italy (Peronace et al. 2012) and is also endangered or decreasing in some European countries (Hagemeyer & Blair, 1997). However the presence in Italy of this rare woodpecker was known almost since 1769, well before his formal description, from an illustration of the so called "*Picus varius maximus*" (Manetti et al. 1769).

We made a first attempt to track all the specimens and check their state, actual location and original data. A little more than 35 specimens collected in Italy are preserved in Italian Museums or other public bird collections, but unfortunately we found that seven specimens have apparently disappeared from the respective locations.

The museums with the best samples are Milano (six specimens), La Specola in Firenze (five) and G. Doria in Genova (three); the oldest specimen is preserved in Pisa Museum and was obtained by Savi in 1842; all of them are in good conditions of preservation and curatorial care.

Most of them was collected at the end of the XIX century and came from the northern Apennines where they may be vagrant from central Apennines or, perhaps, representative of a larger past distribution in the beech woods of these mountains.

A few specimens pertain to the nominal subspecies and may be vagrants from North or Eastern European populations. For one of them we cannot rule out erroneous indications of provenance (specimen from the Apennines); nominal specimens collected in the North East Italian Alps, however, are not far from the known breeding range of *D.l.leucotos* in Austria.

Keywords: *Dendrocopos leucotos*, *lilfordi*, Italy, specimens, museums

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Remarkable bird objects in the ornithological collection of Otto Kleinschmidt (1870-1954)

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The ornithological collection(s) of Otto Kleinschmidt do not only comprise more than 15,000 bird specimens but also a number of objects whose structure and style goes beyond that of a regular bird skin. In particular, there are several arrangements of specimens and/ or parts thereof that apparently not only served to generate new scientific insight, but that were also meant to support Kleinschmidt's conceptual ideas about speciation (the so-called "Formenkreislehre") and to visualize his research outcomes in public exhibitions. A systematic assessment of these odd objects reveals not only interesting parallels to the history of his scientific thinking but also demonstrates Kleinschmidt's talent in didactic respect. Here we present a selection of such outstanding objects and relate them to their historical and contentual context.

Keywords: historical collections, didactics, population studies

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The Whitney South Sea Expedition Revisited

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Almost 100 years ago the American Museum of Natural History initiated the Whitney South Sea Expedition. During the nearly two-decade long voyage aboard the sailing schooner The France, some 40,000 bird specimens were collected from over 600 Pacific islands. Most of the specimens were labelled in the field with only the name of the island and hence could not be accurately georeferenced. Fortunately log books kept by the collectors and the ship's captain were available in the AMNH archives. These have now been digitized and are published through the Biodiversity Heritage Library. Working with high school students as part of the AMNH Science Research Mentorship Program, we extracted detailed locality information from the archival material and georeferenced the specimens. To date we have cleaned and enhanced geographic and taxonomic data for the Solomon Islands and Vanuatu.

Keywords: database, georeference, archives, Pacific Ocean

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