

The birds in the collection of the Zoological Museum of the University of Liège: diversity and interest, a first approach

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Most birds in the Liège Museum of Zoology have been collected during the 19th century. Between 1835 and 1871, Theodore Lacordaire acquired skins from South-East Asia through Francis Laporte Comte de Castelnaud. Later, between 1872 and 1910, Edouard Van Beneden bought Belgian birds. At present, some 6,000 avian specimens are recorded as mounted skins, skeletons, skulls, eggs or organs preserved in alcohol. Since the 1970s, new specimens added to the collection are either gifts from private collections or fresh birds found dead. As we achieved to computerise the collections in a FileMaker Pro database, statistics by taxonomy, geographical origin or other criteria can be extracted. The museum also houses a few specimens of threatened or extinct species. The presence of type specimens has not yet been checked. Many specimens of the University of Liège bird collection are exhibited in systematic order in the 'world wide diversity presentation'. Skulls and skeletons are also on display, and a 'Belgian fauna' room is devoted to local birds. The lack of interest of researchers in smaller collections outside national institutions and the recent lack of investment by the university for the preservation and scientific evaluation of its zoological heritage will lead to a progressive loss of the material not used for public exhibitions. The collections in universities are in urgent need of national and international appreciation, co-operation projects and funding to guarantee their long-term preservation.

Origin and development of the collections

Founded in 1817, the University of Liège is one of the three oldest Belgian state universities, along with Leuven and Ghent. The official decree by Guillaume I, King of The Netherlands (September 26th, 1816) obliged all newly created universities to collect and preserve specimens to illustrate the courses. The first Belgian King Leopold I imposed the requirement to record the collection items in catalogues (Royal decree of February 10th, 1853). The oldest catalogue of the Liège collection preserved up to present has been produced in 1837. The collection is of a worldwide provenance and intended to illustrate animal biodiversity. Successive professors in charge of the zoological collections all contributed to their enrichment, in particular Jean-Théodore Lacordaire (1837-1871) and his successor Edouard Van Beneden (1872-1910). As a consequence, the most significant growth of the collections took place during the first century of the University's existence.

Research was associated with the collections until the wars. After World War II, the new ideas were to open the collections to the public. The existing Zoological Museum was renovated and an Aquarium was build at the Zoological Institute. Both were officially opened to the public in November 1962. Ever since, the Museum presents the

specimens in a systematic order, among others for students. A special room, the ‘Salle Faune belge’ is devoted to the exhibition of Belgian native birds, including some rare visitors recorded only occasionally in the country. Today, the collections are used for educational purposes through the public exhibition only.

		N of specimens		Nr in the 1837' Inventory Register	
Year of Registration		Day, Month		Complete Date of Registration	
Number in Cat. Syst.				Card created the updated the ...	
Genus					
Species					sexe
Descriptor, date					
French Name					
Synonym					
Family			SubFamily		
SuperFamily					
Order			SubOrder		
SuperOrder					
Class			SubClass		
SuperClass					
Phylum			SubPhylum		
Kind Fauna ☐ marine ☐ terrestrial ☐ freshwater ☐ aquatic ☐ parasite ☐ fossil					
Detailed Geographic Origin			Continent		
			Country		
Date of collect or purchase			Province, County		
Price (when bought)			Lambert Coord.		
			UTM Coord.		
Provider					
Other observations					
CONSERVATION - STOCK			Conservation Status of the species		
Conservation Mode			State of conservation		
Access			☐ destroyed ☐ In box		
☐ Exposed to public			☐ not found ☐ other		
☐ Not exposed			☐ Label found alone		
☐ no more in collection (transferred)					
Conservation Place			StockMuseum		
USE and PUBLICATIONS					
Reproduced as ☐ digital foto ☐ colour foto ☐ white & black foto ☐ drawing ☐ slide ☐ painting					
Reproduction published in...					
Ident. by ... and when					
Print new label		☐ to do ☐ done			
New exhibition label		☐ to do ☐ done ☐ to correct			
					Card

Fig. 1. Fields of the encoding card in the database. Information in the shaded fields comes directly from the hand-written record. All the other fields are filled in from other taxonomic sources and from inventories in the various storage rooms.

When the last curator retired late 1991, a temporary assistant acting as curator was employed half-time. For 12 years, the main aim was to assess the scientific value of the collections. The first step was to describe the collection. Since 1992, the objectives were:

- To create a computerised database (FILEMAKER Pro Mac OS) from the old hand-written registers. The systematic arrangement follows del Hoyo et al. (1992-2003) for non-passerines and Perrins (1991) for passerines. Information has since been completed and improved year after year. Improvements were made possible especially after 1996, when all the written records had been encoded in the computer file (fig. 1) (Loneux, 2005).
- To make inventories of all storage and exhibition rooms.
- To diffuse information worldwide, e.g. by attending conferences and by publications on the collections in journals and through a museum website (online since January 15th, 1997: <http://www.ulg.ac.be/museezoo>).

Previous contributions to valorise the collections did not concern birds, but invertebrates (Loneux & Thiéry, 1998; Loneux, 2002a; 2002b; 2002c; 2002d). Awareness of the bi-annual European Conferences on Bird Collections arose only in 2002 at the 23rd International Ornithological Congress (van den Elzen et al., 2002). The 3rd European Bird Collection Conference provided an opportunity to present the bird collection of the University of Liège for the first time.

Diversity of the bird material

Birds comprise 27.3% of the total number of registered cards (5,938 of 21,778, contents of the database, March 5th, 2004). As some cards list more than one specimen, the total number of specimens is higher. Birds comprise approximately 50% of the total number of vertebrates in the collection (total Chordata 12,107 specimens, table 1), originating from all continents and many different countries (table 2). Almost all avian families are represented in the collection of Liège University.

Relevance of the bird collection in Liège

The University of Liège bird collection is characterized by:

- A majority of old mounted specimens (most acquired in the 1850s).

Table 1: Vertebrate specimens in the collection, from the database up to March 5th, 2004.

Vertebrate Class	N of specimens	%
Mammalia	1855	15.3
Aves	5944	49.1
Reptilia	1263	10.4
Amphibia	640	5.3
Osteichthyes	1999	16.5
Chondrichthyes	264	2.2
Cyclostomata	81	0.7
Myxini	16	0.1
Undetermined	45	0.4
Total	12107	100.0

Table 2: Geographical origin of the bird specimens in the collection, by continent, from the database up to March 5th, 2004.

Geographic origin of the bird specimens	N of specimens	%
Europe	1454	24.5
Eurasia (Russia)	35	0.6
Asia (mainly SE Asia)	1255	21.1
Africa	860	14.5
America (mainly South and Central America)	1654	27.8
Oceania	612	10.3
Pacific Ocean	13	0.2
Antarctica	9	0.2
Unknown	52	0.9
Total	5944	100.0

- 26 complete mounted skeletons and numerous skulls, exhibited in the public rooms.
- A rather well-organised systematic storage (in exhibition cabinets and wooden boxes in the depositories).
- The presence of several extinct or endangered birds, most of them on display:
 - a. *Ectopistes migratorius* (Linnaeus, 1766): one pair.
 - b. *Heterolocha acutirostris* (Gould, 1837): one female.
 - c. *Raphus cucullatus* (Linnaeus, 1758): copies of bones and head from the Oxford Dodo.
 - d. *Grus americana* (Linnaeus, 1758): three specimens.
 - e. *Strigops habroptilus* G.R. Gray, 1845:
two specimens, including one mounted skeleton.
- A relationship with the activities of Francis de Laporte, Comte de Castelnau (1812-1880), who travelled in South-East Asia and South America.

Regarding its worldwide richness, the bird collection of the University of Liège could provide additional data on foreign species in the frame of international taxonomic research or data base projects, like BIOMAP.

Table 3 gives the number of specimens from some non-European countries, to illustrate the wide geographic origin of the birds in the collection.

Table 3: Number of bird specimens in the collection from some non-European countries and regions, in alphabetical order.

Antilles	13	Indonesia	408
Argentina	16	Madagascar	19
Botswana	53	Malaysia	330
Brazil	423	Mexico	175
Cambodia	75	Myanmar	11
Canada	32	Nepal	9
Chile	139	Peru	16
China	61	Philippines	33
Colombia	299	Rwanda-Burundi	127
Ecuador	60	Senegal	52
Egypt	14	South Africa	334
Ethiopia	25	Sri-Lanka	89
Guatemala	113	Thailand	30
Guyana	189	USA	31
Himalaya	27	Venezuela	33
India	67		

Gaps and limitations of the collection

Today, the most important achievement is the database. However, the data have been transcribed from the hand-written catalogues and are based on 19th century identifications. Nomenclature has been updated to contemporary names, when documentation was available (del Hoyo et al., 1993-2003; Perrins, 1991; Walters, 1982; Wolters, 1980) and old generic or species names have been added to the “synonymy” field (cf. fig. 1). To date, no research has been done on the bird collection to verify the identification of the old foreign specimens or to check type status. Lack of staff and lack of requests from researchers about the collection (only five on birds in 12 years) leaves the specimens forgotten in their cabinets. Another shortcoming of the collection is the lack of precise geographical origin for most of the old specimens. As is usual in old collections, only the name of the country or area is mentioned in the catalogue. Sometimes more information appears on the label, but this has to be checked on each specimen.

‘Engaging the community’

This slogan was the theme of the 3rd annual UMAC ‘University Museums And Collections’ Conference, September 2003, Norman (OK, U.S.A.). Engaging the community is indeed the best way to give life to collections and to get recognition, allowing development projects. Weekly activities developed for volunteers at the Zoological Museum during the last three years (2001-2003) have shown the interest and participation of a large community of volunteers, from children and students up to retired people. Weekly workshops focussed on osteology of mammals and reptiles, on the mammal collection inventory and restoration, and on the preparation and the inventory of entomological specimens. They have led to very good results and improvement of some storage conditions and specimen preservation, in the exhibition rooms as well as in the depositories (Loneux, 2005). Considering the large interest of people in birds as well as the existence of a big pool of ornithologists in Liège, the organisation of ornithological workshops might be successful. The biggest constraint for such initiatives is the availability of a full-time curator for the zoological collections of the museum.

Within the University, there is no appreciation of the scientific value of the collections. All the activities developed to valorise the collections did not instigate any interest or support from the scientific or academic communities in Liège. The educational role of the collections alone is considered, and even this restricted to the form of a permanent exhibition. It is the only use the university sees for its heritage. It seems that ‘dead’ collections hidden in depositories are simply not taken into account and are not considered to deserve any care. Since the 1950s, the museum has progressively lost its role of the main depository and storage location for research material. Since the 1980s, retired personnel are not replaced. The last person attached to the museum is a draughtswoman, who encodes the information in the database and will retire in 2006. Since October 1st, 2003, the museum no longer has a curator for its collections. Early January 2004 the responsibility for the museum has been given to the full-time curator of the public Aquarium.

What future?

Today most university museums and collections in Europe as well as in the U.S.A. face severe financial and appreciation problems and must therefore prove the value of their heritage for current research and for society (Davis, 1996; Ferriot & Lourenço, 2004; Gropp, 2003; Suarez & Tsutsui, 2004). This trend has led to the creation of the special working group UMAC inside the International Council Of Museums (ICOM) (Stanbury, 2001). Even when a temporary action plan for systematics or biodiversity generates funding for attractive field missions in foreign countries rather than for work in museum cabinets, researchers should not forget to visit all available museum collections, including those of regional and academic museums, without focusing on national collections only. This would help the smaller collections to prove their importance for current research and to get better recognition.

In Liège, the database, a website and an e-mail address of the zoological museum have been created to provide information exchange facilities. All requests should be addressed by e-mail to museezoo@ulg.ac.be. Any research on the collection will be welcome.

Bibliography

- Davis, P., 1996. Museums and the Natural Environment: The role of natural history museums in biological conservation.— London & New York.
- Del Hoyo, J., Elliott, A. & Sargatal, J. (Eds.), 1992-2003. Handbook of the Birds of the World. Volume 1-8.— Barcelona.
- Elzen, R. van den, M. Louette, T. Peterson & R. Prys-Jones, 2002. Bird Collection Management: an information network initiative.— Round Table organized at the 23rd International Ornithological Congress, Beijing, China, 11-17 August 2002, Abstract: 362.
- Ferriot, D. & M. Lourenço, 2004. De l'utilité des musées et collections des universités. La Lettre de l'OCIM, mai-juin 2004, 93: 4-16.
- Gropp, R.E., 2003. Are University natural science collections going extinct?— Bioscience 53: 550.
- Loneux, M., 2002a. Soon a scorpion in the Belgian fauna? Analysis of some observed cases.— Bull. Inst. Roy. Sc. Nat., Biol., 72 (Suppl.): 79-80.
- Loneux, M., 2002b. Actual presence of large Branchiopods in Belgium: appeal to the field naturalists.— Bull. Inst. Roy. Sc. Nat., Biol., 72 (Suppl.): 89-91.
- Loneux, M., 2002c. Trésors des collections scientifiques du Musée de zoologie (ULg): atouts pour la connaissance de la faune Belge.— Bull. Inst. Roy. Sc. Nat., Biol., 72 (Suppl.): 263-269.
- Loneux, M., 2002d. The old marine fauna through the old samples: the database and the collections of the Liège Zoological Museum.— Int. Conf. Brussels, Palais des Congrès, 25-27 Nov. 2002: the Colour of Ocean Data. Abstract: 83. <http://www.vliz.be/En/Activ/Events/Cod/cod.htm>.
- Loneux, M., 2003. How to valorize a scientific heritage unrecognized: the case of the zoological collections of Liège University.— 3rd Univ. Mus. & Collections (UMAC) annual Conference, "Engaging the Community", September 21-26 2003, Sam Noble Oklahoma Museum of Natural History, Norman (OK, USA). Abstract: 7, 12th oral contribution. <http://www.lib.mq.edu.au/mcm/umac/2003/loneux.html>
- Loneux, M., 2005. How to Develop an Unrecognized Scientific Heritage: The Case of the University of Liège Zoological Collections.— In: P.B. Tirrell (ed.), Proceedings of the Third Conference of the International Committee for University Museums and Collections (UMAC). 21-26th September 2003, Norman, Oklahoma: Sam Noble Oklahoma Museum of Natural History: 77-84.
- Loneux, M. & A. Thiéry, 1998. Révision des grands Branchiopodes conservés au Musée de Zoologie de l'Université de Liège: Intérêt des collections muséologiques.— Nat. belges, 1998, 79(2): 33-47.
- Perrins, C., 1991. L'encyclopédie mondiale des oiseaux. L'inventaire de tous les oiseaux du monde. Les principales espèces illustrées et décrites : 1-420.— Paris.
- Stanbury, P., 2001. Managing the Visibility of University Museums and Collections.— In: Managing University Museums. OECD. France.
- Suarez, A.V. & N.D. Tsutsui, 2004. The Value of Museum Collections for Research and Society.— Bioscience, January 2004, 54 (1): 66-74.
- Walters, M., 1980. The complete birds of the world: 1-340.—USA.
- Wolters, H.E., 1982. Die Vogelarten der Erde. Eine systematische Liste mit Verbreitungsangaben sowie deutschen und englischen Namen: 1- 635.

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