The Zoology Museum of Padua University: a rediscovered historical heritage

Paola Nicolosi
Museo di Zoologia, Università di Padova, Via Jappelli, 1/a, I-35121 Padova. E-mail: paola.nicolosi@unipd.it

ABSTRACT
The Zoological Museum of the University of Padova was founded in the 18th century thanks to the legacy of Antonio Vallisneri and donated by his son, Antonio, to the University.
In the following century many acquisitions, donations and expeditions enriched the collections of the museum of valuable specimens. During the 20th century, the Museum went through a period of decline due to the World Wars and the frequent changes of seat, up to its total closure at the end of the 1970 decade.
Fortunately, the long and important history of this Museum had a happy ending. The building and the collections have been recently restored and exposed to the public.
In 2014 the current setting was completed in time to celebrate ten years from its re-opening (2004-2014).
The event was dedicated to professor Margherita Turchetto, who worked on the project of the new Museum since its beginning, always believing in the importance of museums for scientific knowledge.

Key words: zoological collections, University of Padova, historical specimens, new opening.

RIASSUNTO
Il Museo di Zoologia dell’Università di Padova: un patrimonio storico ritrovato.

Il Museo di Zoologia dell’Università di Padova affonda le sue radici nel XVIII secolo grazie alla donazione della collezione privata di Antonio Vallisneri (1661-1730) da parte del figlio. Come molti altri musei storici italiani, ha alternato periodi di splendore, in cui vennero acquisiti molti reperti, frutto di donazioni, spedizioni, acquisti, a periodi di abbandono delle collezioni. La sua lunga ed importante storia conta però un finale fortunato dato che, in tempi recenti, le collezioni sono state restaurate e nuovamente esposte al pubblico. Nel 2014 è stato completato l’attuale allestimento e il decennale della riapertura è stato dedicato alla professoressa Margherita Turchetto che ha contribuito alla progettazione e ha sempre creduto nel ruolo fondamentale dei musei per la divulgazione scientifica.

Parole chiave: collezioni zoologiche, Università di Padova, reperti storici, nuova apertura.
roof of the entire building was rebuilt, making all the attic available. In the largest room a loft was built, in order to provide an internal storehouse for the museum. Works inside the building began in 2001. The old metallic cabinets were discharged, as they were no longer useful for specimen conservation. The ancient wood display cases were preserved and later restored. As long as the restoration proceeded, specimens were moved from one room to the other, to avoid additional damage from relocating them in another place (fig. 1). In 2002, the restoration of the entire floor of the building ended and the setting up of the exposition and the rearrangement of the ancient collections began.

Aim of the new exposition was to tell the history of the studies and researches performed since the 17th century by many distinguished researchers, that led to the collection we can see today:

The founder of the collection was Antonio Vallisneri (1661-1730). He was professor of Medicine at the University of Padova between 1700 and 1730. After his death, his son, Antonio Vallisneri junior (1708-1777), donated the private collection to the University of Padova, giving rise to the original core of the Natural History Museum. The museum (Museo Vallisneriano) was first located within the ancient building of the University (Palazzo del Bo'). The exposition of Antonio Vallisneri junior was performed according to a didactic criterion, as he had been the first Professor of Natural History of the University of Padova since 1734 (Casellato 1991, 1997, 2002, 2008). The museum stayed there until the second half of the 19th century. During this century, the museum received most of its donations and acquisitions.

Stefano Andrea Renier (1759-1830) succeeded Vallisneri junior as director of the Museum and bought most of the vertebrates preserved up to now (Gibin, 2008). Other relevant pieces of African fauna were a gift from the Italian consul in Egypt: Giuseppe Acerbi (1773-1846). Most of the invertebrates were acquired by Giovanni Canestrini (1835-1900) who enriched the museum with a relevant collection of mites, spiders, and shells, and with the specimens, he collected during an eventful campaign in the Sea of Sciacca, in Sicily (Canestrini & Canestrini, 1883). Most of the specimens of the museum have historical value. For this reason, we decided to arrange the exposition according to the figures that contributed to the constitution of the museum during the times. Besides the historical point of view, we selected some themes of relevance at the present days, such as preservation of the species, destruction of natural habitats, biodiversity reduction, allochthonous species introduction and other phenomena associated with the complex climate change of these times.

THE MUSEUM TODAY

The exposition is divided into four halls. We selected for presentation those specimens having both the highest historical value and the best conservation. Through the displayed pieces, we dealt with various themes, telling the stories of the most important scientists and collections, or peculiar stories of some of the animals specimens.

The first hall is dedicated to the 18th century and to the founders of the museum (fig. 2). Antonio Vallisneri father and son. Their naturalistic collection was the subject of many different studies, that have been published after the death of Vallisneri father in the “Opere Fisico-mediche” (Vallisneri, 1733). This hall tells the history of the common origin of this naturalistic museum with other of this University and exhibits zoological finds that were common in this kind of exposition in the 18th century. The causes of death of the exposed animals are explained, as well as the different forms of preparation and conservation that can be used: naturalized or taxidermized animals, specimens in alcohol, bones, skeletons, skulls, shells, insects and so on. The most important specimen is the holotype of the leatherback turtle, Dermochelys coriacea (Vandelli, 1761) (Fretéy & Bour, 1980). It is a naturalized specimen, captured in the Tyrrenian Sea and gifted to the University of Padova by the pope Clemente XIII in 1760 (Nicolosi & Turchetto, 2008). The second hall is dedicated to the 19th century and to the great donations made to the museum at that time. After the death of Vallisneri junior, the museum direction remained vacant for 30 years, until Stefano Andrea Renier was charged of it in 1806. During his direction, the museum acquired many specimens: mainly shells and fishes from the Mediterranean Sea,
but also rare or exotic species. This hall displays many vertebrates of that time coming from the so-called ‘exotic countries’ (fig. 3). Throughout these rare specimens we can explain to visitors some interesting subjects as the loss of biodiversity associated with the degradation of natural environments, with the introduction of allochthonous species and the conflicts between these species and the autochthon ones, and in general the content of this hall deals with the threats of the extinction of many animal species and the actions people can undertake to preserve our planet. In this room, there are many interesting skeletons, such as a harbor seal (*Phoca vitulina*), a Bengal tiger (*Panthera t. tigris*), a young specimen of giraffe (*Giraffa camelopardalis*), an ostrich (*Struthio camelus*) and a skull of a hippopotamus (*Hippopotamus amphibius*). The most important specimen exposed in this hall is the skeleton of the Indian elephant (*Elephas maximus*) killed by Austrian soldiers in Venice in 1819, during the carnival. Renier bought the dead animal to include it in the collection of the museum (Turchetto, 2004).

The last two rooms are dedicated to the local fauna of North-eastern Italy. They were set up between 2009 and 2010 but completed in 2014 for the celebration of the ten years of the museum opening. In May 2014 the Department of Biology and the University Museum Centre (CAM, Centro di Ateneo per i Musei) organised a day to remember professor Margherita Turchetto, who dedicated more than 15 years to the renovation and opening of the ‘new’ museum. The setting of these halls is different than that of the former ones, both because of the themes and the graphics (fig. 4).

In the smallest of these halls there are only two showcases exposing the regional fauna: one with animals coming from the countryside and the Euganean hills (group of hills of volcanic origin, 30 km from the town of Padova) and the other with historical specimens from the Dolomites Alps. The most interesting specimens are the brown bear (*Ursus arctos*), the wolf (*Canis lupus*) and the lynx (*Lynx lynx*), all samples from the 19th century. These animals were chosen to discuss on problems connected with fauna management: the reintroduction of big carnivores (such as the brown bear and the lynx) in the Dolomite mountains and the return of the wolf after over one century of local extinction. Others themes are the importance of endemic species and the problem of animals that have been introduced, the management of which is troublesome, such as the
nutrias (*Myocastor coypus*), causing severe damages to the banks of local rivers, or the wild boars (*Sus scrofa*), that are overpopulating the Euganean hills and affecting crops production. For these reasons the setting of this room has been realized thanks to the cooperation of the Corpo Forestale dello Stato, which provided useful informations on projects on fauna management (see web sites 2, 3) and a video made by the local bureau for biodiversity of Tarvisio (see web site 4).

The last section of the museum is located in the saloon below the loft. A metallic panel defines a small room, which is used as a laboratory for the restoration of the ancient samples. A short narrow walk introduces to the main saloon and exposes only some few lagoon birds living in this delicate environment. An introductory panel depicts briefly the main features of the Adriatic Sea and of the ‘tegnue’, a distinctive environment of the Northern Adriatic Sea between Chioggia and the Trieste gulf, characterized by a rocky substrate in an otherwise sandy environment (Casellato et al., 2007; Casellato & Stefanon, 2008). Several large specimens are exposed in this room. Each one of them would require a hall on its own: the skull and some vertebrae of a sperm whale (*Physeter macrocephalus*) captured in Zara, in 1767 (Nicolosi, 2014) (fig. 5), the stuffed specimen of a white shark (*Carcharodon carcharias*) fished in the Adriatic Sea in 1823 (fig. 6), the complete skeleton of a Risso’s Dolphin (*Grampus griseus*) that was prepared in 1956, when the zoologist Umberto D’Ancona (1896-1964) was director of the Institute of Zoology and Comparative Anatomy. The skeleton is displayed close to the model of the dolphin and to the panel explaining the main characteristics and adaptations of cetaceans to the sea life. Several naturalized fishes illustrate the diversity of species living in the Adriatic Sea and a cabinet is dedicated to the exhibition of marine invertebrates.

Despite its beauty and the historic value of its collections, the small Zoology Museum of the University of Padova has limitations: the available spaces are narrow, there are few cabinets, even if they are new and tailor-made to receive the highest possible number of specimens and to provide the best experience for the visitors, the storage room and the laboratory are insufficient to fit the requirements of the services, lighting, heating and dehumidification should be improved to enable a better preservation of the historical material along the time.

THE FUTURE OF THE MUSEUM

For a long time it has been spoken to join all the scientific collections of the University of Padova in a large Museum of Sciences. Now, this project seems more close to reality.

In 2014, the preliminary project of the future Museum of Natural History (MuSNa: Museo di Storia Naturale) was approved. A small exhibit of it has been recently presented at the historical Palazzo Cavalli, where the future entrance of the museum will be. The building is located in a strategical point of the city, closest to the Arena gardens, where the famous Scrovegni Chapel is.

The naturalistic museums of our university could not find any better location for the definitive exposition of all historical collections. The new setting will show the heritage of hundreds of years of studies and researches made by scientists of the University of Padova. There are good hopes that the entire MuSNa project will be a reality increasing the value of the city in a magnificent historical and artistic scenario.
CONCLUSION

In spring 2014, the museum celebrated the first ten years of the opening to the public, thanks to the investment of the University of Padova and to all those, who have believed in its creation, since the beginning. Since the year 2000, six thematic expositions have been realized: three in the University Museum Centre (CAM) and the others in the new exposition setting, starting from the year 2006.

The main aim of the work that has been done in these years is the restoration and the study of the ancient collections. We started from the collections stored in liquid, because of their worse preservation, then we focused on stuffed specimens. Many restoration procedures have been performed inside the museum, but the largest animals have been processed by specialized firms.

The results of all these works are the rearrangement and cataloguing of over 5000 specimens, the participation to national and international congresses, more than 20 among oral presentations, abstracts, papers published in national and international journals (Casale et al., 2003; Guidarelli et al., 2014) and books dedicated to some historical specimen. Many studies performed in the museum were useful for about 15 degree theses, mainly in natural sciences; these studies dealt on rearrangement and restoration, classification, morphometric analyses, historical researches, exposition projects, and recently also field studies. Didactical activities with students of local schools have been done since the opening of the museum, as much as cooperation with the municipal library, the hospital and a formation project for the teachers.

All the museum specimens have been included in a digital catalogue. The complete classification of all vertebrate specimens has been performed in recent years: the classification of the invertebrate specimens is in progress. As a final remark, it must be highlighted the publication of books on the history of some of the most important finds of the collections: the skeleton of the Indian elephant (Turchetto, 2004), the holotype of the leatherback turtle (Nicolosi & Turchetto, 2008) and birds collection recently donated by a private taxidermist and naturalistic (Nicolosi & Paolucci, 2015).

Since 2008, the museum is community service place. In 2015 a museum project on Vertebrate Extinction has been financed by the MIUR (D.L. 6/2000) in a joint project with the Regional Science Museum of Torino, the University Bicocca of Milan and the Science Museum of Trento (MUSE) that realized an exhibition on this theme, inaugurated in July 2016.

The past and the recent history of the collections of the Zoology Museum are probably a rare and lucky example of restoration of a part of the national heritage, which is present in the museums (historical collections) and that, often, is not accessible to the public.

Fig. 5. The sperm whale specimen, *Physeter macrocephalus* (Adriatic Sea, 1767) (photo P. Nicolosi).

Fig. 6. The white shark, *Carcharodon carcharias* (Adriatic Sea, 1823) (photo M. Pistore, University of Padova).
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REFERENCES


Web sites (accessed 20.10.16)

1) Centro di Ateneo per i Musei dell’Università degli Studi di Padova, Museo di Zoologia www.unipd.it/musei/zoologia

2) KORA, Carnivore Ecology and Wildlife Management www.kora.ch

3) Progetto Lince Italia, Il sito italiano interamente dedicato alla Lince Eurasietica e al suo habitat www.progetto-lince-italia.it


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