BIG4: Biosystematics, informatics and genomics of the big 4 insect groups- training tomorrow's researchers and entrepreneurs

> Kick-Off Meeting 14-18 September 2015 Copenhagen, Denmark





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Kick-off meeting, Copenhagen 14th - 18th September 2015

The `wet' collections of the Naturhistorisches Museum Wien : History, importance and challenges

Dr Nesrine Akkari Curator of Myriapoda Collection 3. Zoology department (Invertebrates)



Founded 250 years ago, NHM-Wien houses one of the important collections in the world as well as world-famous and unique objects



http://www.nhm-wien.ac.at/en

25,000-year-old Venus of Willendorf The Steller's sea cow that became extinct over 200 years ago, Enormous dinosaur skeletons The world's largest and oldest public collection of meteorites 1st Zoological departement): more than **800 000 specimes**

2nd Zoological department (insectes): more than **10 million specimens**







3rd Zoological department (invertebrates)



Evertebrata Varia



Helminths

One of the oldest and richest collection of parasitic worms. **appr. 12.000 lots; 250 types**.

Polychaeta

Rich marine collection with focus on Mediterranean & red sea. appr 4.000 lots; 150 types.

Spogiaria

Rich collection with focus on Mediterranean and Australia **appr. 150 lots**

Mollusca

A total 1.800.000 lots

Bryozoa ca.1400 lots

Brachiopoda ca. 400 lots

Tunicata ca. 600 lots



Only 2 % wet collection (ca. 30 000 series) with 350 type series

Arachnida

Ca. 40,000 lots (ca. 25,500 inventorised)

Naturhistorisches Museum Wien





Bastian Ra

"Highlights":

Collection of pseudoscorpions – approx. 7,000 lots and 800 types due Prolofic specialist Max Beier (1903-1979)

A part of the Ludwig Koch-collection including types (bought from Steindachner in 1882/1884)

Crustacea

Approximately 36000 lots









20,000 lots with nearly 2000 types

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Data on specimens are registered in books of acquisitions, inventories, and entered in the databases



William Croone 1662 appeared before the Royal society of London with 2 embryos of puppy dogs that he kept for 8 days in spirit inside a glass vial sealed hermitically.

Robert Boyle developed further the experiment while providing first means of controlling concentration an acidity

Jars – Ethanol - Maintenance





Collection Storage Basement Room: appr. 40.000 lots

<u>Surface</u>: appr. 400 sqm <u>Storage</u>: mainly standing metal cabinets with rubber sealed doors; 240 cm height, est. 40 cm depth

AC: temperature 16° C +/- 1, humidity 50 % +/- 5; air circulation (1000 m³/h) with refrigerating machine and heating machine and humidifier

Security: Gas- and temperature alarm; fire and smoke alarm; explosion protected instruments/electrics; automatic fresh air feed if persons in the rooms

<u>Contents</u>: The entire mollusc wet collection, the echinodermata wet collection, the sponge wet collection, the coelenterate wet collection and parts of the crustacean wet collection











Jars in the Evertebrata Varia collection with their labels, and a modern screw cap jar (50 ml).

The two jars to the left probably date back to the 19th century, because of their "handmade"appearance.

Schiller et al. 2014. Ann. Naturhist. Mus. Wien, B. 116:41-68.

Curate..Update.. Improve.. Make accessible..Research



inventarisation - databasing



Ms. Elisabeth Belicic databasing the mollusk collection

Ca. 100 000 series (Mollusc Collections) recorded in our database (ca. 5,5% of the material) – so a lot more to do for the next centuries!!

Interactions between research and collections (and outreach)



Courtesy of Henrik Enghoff









Collections housed in natural history museums are treasures for science; they have to be protected, maintained and further extended for use in the present and the future.

Acknowledgements









