ICOM-CC ICOM international council of museums – committee for conservation

NATURAL HISTORY COLLECTIONS NEWSLETTER
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After more than 3 years of inactivity, the ICOM-CC Natural History Collections Working Group is active again. Dr. Davison Chiwara (Figure 1)is the Coordinator for the Working Group and he is working collaboratively with Dr. Laura Brambilla and Marion Dangeon (Figure 2) who are Assistant Coordinators. The three were chosen at the ICOM-CC Triennial Conference, in Valencia, Spain, in September 2023.

Dr. Davison Chiwara is a lecturer in the Department of Archaeology, Cultural Heritage and Museum Studies at the Midlands State University, Zimbabwe. His interest in natural history collections developed through a doctoral research with the University of Pretoria, South Africa, which focused on pesticide contamination on organic collections at the Natural History Museum of Zimbabwe.

Laura Brambilla is head of studies and research at Haute Ecole Arc Conservation-restoration, Switzerland. She is a conservation scientistwith multiple interests ranging from corrosion of metal artifacts to scientific and technical heritage, including natural history collections (in particular wet collections and lepidochromies).

Marion Dangeon is a conservator from MUZOO (Natural History Museum), La-Chaux-de-Fonds, Switzerland. She specialised in natural history collections through her two theses, one focused on pesticide toxicity in mammal and bird collections and another on wet collections.

Figure. 1. Dr. Davison Chiwara.© Davison Chiwara 2024.

Figure 2. Laura Brambilla (left) and Marion Dangeon (right). ©HE-Arc CR 2024.

Highlights of activities done in 2024

International Museum Day Commemoration lecture

In commemorating the International Museum Day, 18 May 2024, Dr Davison Chiwara presented a lecture at the Natural History Museum of Zimbabwe on 17 May 2024 (See Figure 3). In the lecture, Dr Chiwara discussed the challenges faced in the conservation of natural history collections at the Natural History Museum of Zimbabwe, particularly the contamination of the collections by hazardous pesticides contaminants from both past and current application of pesticides in the museum. Such pesticides include arsenic, mercury, lead, naphthalene, vapona and chlorine among others.

He discussed the effects of the contaminants on the conservation of natural history collections in the museum as well the health of the staff, visitors and researchers who handle such collections. He recommended non-pesticide methods for pest control in the museum and the adoption of safety protocols for handling and use of contaminated collections for protecting users of the collections against the harmful effects of the pesticide contaminants. The recommended non-pesticide methods of pest control include use of pest traps, anoxic treatment of pest infested collections and freezing of collections. Some of the recommended safety protocols include use protective equipment such as nitrile gloves, goggles, face masks, overalls, work suits and washing of hands with soap after handling collections and working in contaminated areas of the museum.

Figure 3. Dr. Davison Chiwara lecture advert. ©Natural History Museum of Zimbabwe 2024.

Rathgen Laboratory Fellowship

Dr. Davison Chiwara completed a 3 month post-doctoral fellowship, from July- September 2024 at the Rathgen Laboratory of the National Museums of Berlin, in Berlin, Germany. During the fellowship, Dr Chiwara analysed samples taken from collections and storage cabinets at the Natural History Museum of Zimbabwe to determine possible pesticide contaminants and assess their effects on the conservation of collections and human health. The analysis methods used includeddigital microscopic analysis of powder and crystalline samples, XRF spectroscopy, FTIR spectroscopy and gas chromatography mass-spectrometry. The research findings are under review pending possible publication. Dr Chiwara also participated in conservation work involving anoxia treatment of pest-infested organic objects (See figures 4 and 5).

Figure 4. Preparing an object for anoxic treatment against pest attack. ©Rathgen Laboratory 2024.

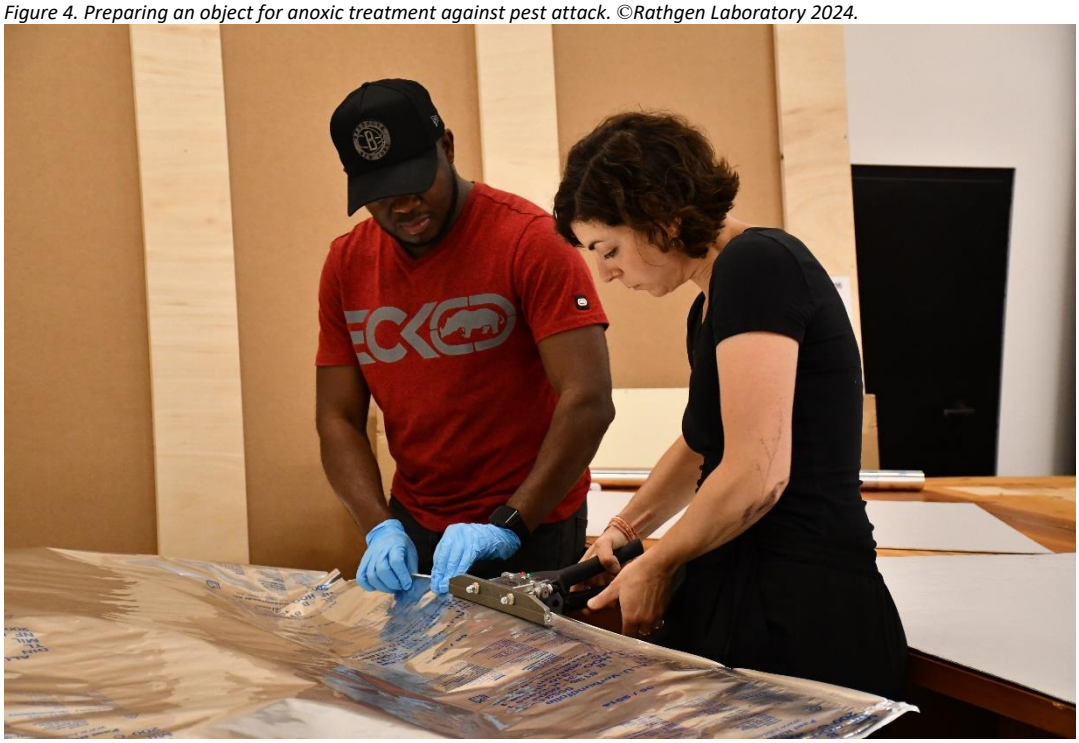

Figure 5. Enclosing an object in an anoxic encasement for pest eradication. ©Rathgen Laboratory 2024.

Preservation of Fluid Collections (PFC) Conference 2024

By Marion Dangeon and Laura Brambilla

The second edition of the PFC conference took place on 7 and 8 November 2024 in La Chaux-de-Fonds, Switzerland. Two Swiss institutions co-organized this event: MUZOO, Natural History Museum of La Chaux-de-Fonds and HE-Arc Conservation-restoration, Neuchâtel. After the first PFC meeting organized in 2018 in Paris, this conference was attended by conservators, curators and conservation scientists working on fluid collection

preservation. The goal of this meeting was to bring together all those working with fluid collections and to discuss the progress and current thinking around wet preserved specimens. Fluid collections are invaluable for research on both living and extinct species as well as species at risk. However, preserving collections in fluid is still a constant challenge due to new regulations on the use of chemicals and threats to biodiversity. Hence collaboration between specialists is a key in the conservation of existing and new collections using science advances and the PFC conference was an ideal space to meet and discuss the current challenges. This conference was a success with 23 presentations and 141 participants online and in person (Figure 6). There were six topics covered in the conference which included fluid collections, jars, sealants, anatomical collections, analyses and best practices.
Here is the link to the conference abstract book:
https://pfc2024.sciencesconf.org/data/pages/PFC2024_ProgramBookA5_int_20241024_complete.pdf

Figure 6. In presence participants of the PFC2024 conference. © HE-Arc CR/MUZOO 2024.

Stay tuned for more interesting information on natural history collections.
Davison, Laura and Marion.