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Tours of Botany and Zoology

- Lindsay Loughtman

Botany

The huge slice of Sequoia loomed over us as we trooped up the stairs to the top floor of the Museum for the Herbarium tour. Steve Cafferty first showed us the upside down scanner used to capture images of herbarium sheets by placing the specimen beneath the scanner then raising the specimen platform upwards. The image quality was superb. One of the group enquired about the cost of such scanners and we were told £4,000 each! The Sloane Herbarium was a very impressive sight with seven bound volumes of plant specimens from his voyage to Jamaica (1687-1689). We were also shown some of Sloane's 'Vegetable and Vegetable Substances', an assortment of over 12,000 fruits, seeds, pots of aromatic gums and other items of plant origin.

Mark Spencer, working on the Linnaean Typification Project and researching type specimens, then gave us an informative presentation. Since 1981 the Linnaean Plant Name Typification Project, based at The Natural History Museum, has been collating and cataloguing information on published type designations for Linnaean plant names and, where none exists, has designated appropriate types. Mark explained the use of British herbarium specimens, especially rare ones, for working out historic distributions, using *Schoenoplectus triquetus* as an example. As we were escorted to the next part of the tour we passed mounds of Lamiaceae specimens from the Flora Mesoamericana project which describes, for the first time, all the vascular plants growing in the southernmost states of Mexico (including the Yucatán Peninsula) and all the Central American republics.

Lastly we were treated to an impressive display of algae specimens from the 327,000-strong collection, commercial products containing algae and associated literature by Jenny Bryant. She talked about the algae collection at the Museum and gave a few anecdotes about the collectors. I was especially interested to hear about Dr Kathleen Drew, who in 1950 discovered the unusual algal life history of *Porphyra* or 'Nori'. Until that time, no one knew where the spores came from that seeded the elaborate nets used by nori fishermen in Japan. She was a lecturer at the University of Manchester and the Manchester Museum herbarium holds some of her algae specimens.

Zoology

I was hoping to go on the Explore tour of the Darwin Centre and was disappointed to find it was closed to the public for the week of the conference. However, the zoology tour seemed to be just what I had hoped for. Initially we were given an introduction to the vast (8 million) mollusc collection by Kathie Way, including some very old books in the mollusc library.

In a climate-controlled room with massive spirit jars of fish round the edge, we were shown vast tanks with huge specimens in, and a selection of Charles Darwin specimens from the 22 million strong collection. A giant squid, weighing over 200 kg, had been caught during a regular trawl by a fishing vessel off the shores of the Falkland Islands and had been shipped, frozen, to London. The 'giant' squid, which is of the *Architeuthis dux* species, has a mantle length of 2.7 meters and an overall length of 10 metres. Staff at the Museum were discussing how best to preserve and store the huge creature.

Besides the world-class storage areas we visited the laboratories and the dermestarium, in which beetles (*Dermestes maculatus*) clean skeletons at 25C but with carefully controlled high humidity to stop them eating their own eggs. The Museum has more than a million whole and part skeletons in its Osteology collections. Curator Patrick Campbell explained that many of the specimens waiting in the Museum's freezers are still whole and the beetles' job is to strip away any flesh to reveal the bones underneath. From an initial colony of just 100 beetles and larvae, the population supplied by Central Science Laboratory was expected to grow to almost 1,000. As the beetles will eat any organic material, they are kept in an airtight room well away from the Museum's other collections. Skeletons removed from the dermestarium are frozen and cleaned before moving to other parts of the Museum to ensure the beetles are not accidentally transferred to the collections.