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Recuration of the Fulgoridae collection at the Manchester Museum



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Abstract

This article is a brief summary of a project which recatalogued the Fulgoridae collection at Manchester Museum. The collection of over 150 specimens of Fulgoridae (Lantern Bugs) were accessioned, photographed and databased. The project updated species information for several specimens as well as adding previously unknown information about the collector.

Keywords: Fulgoridae; Lantern Bug; Manchester Museum

Introduction

The Manchester Museum's Entomology department houses some two and a half million specimens and is considered the third or fourth largest in the UK (Logunov, 2012). The collection began with the Manchester Society for the Promotion of Natural History in 1821 and was first assembled by John R. Hardy (1844-1921) who was appointed as Senior Keeper and Entomology Curator in January 1908. (Logunov, 2012: 86-87).

The Manchester Museum's Entomology department contains several important collections including the C. H. Schill World Lepidoptera Collection, W. D. Hincks and J. Dibbs collection of world Coleoptera and the worldwide Dermaptera collection assembled by W. D. Hincks and Alan Brindle. Smaller, important collections of Odonata, Hemiptera and Neuroptera also exist. The British Hemiptera collection is well documented and within the Auchenorrhyncha, seven families, 134 genera and 311 species are represented in the British collection.

This paper will focus on the Manchester Museum's collection of Fulgoridae. The Fulgoridae make up a Family belonging to the suborder Auchenorrhyncha. They are known as "Lantern Bugs" because of the erroneous belief that the insect's large head process lit up when it was disturbed (Kirby and Spence, 1823: 508-509). There are about 130 Genera and over 687 species found world wide (see FLOW: Fulgoromorpha Lists on the Web).

It is estimated that less than 40% of the existing species remain to be discovered (see Poiron and Nagai, 1996: 9). Though little is known about their behaviour, Fulgoridae are important organisms, especially regarding their role as trophobionts (see Naskrecki & Nishida, 2007).

The Manchester Museum's Fulgoridae collection

The Fulgoridae collection at the Manchester Museum consists of over 150 specimens, including 28 Genera and 34 species (Table 1). Though small, the collection is important historically and represents species from all tropical ecozones of the world.

The collection is housed in 6 drawers (with an additional drawer, No. 38, housing 11 nymphs collected by Herbert Stevens). It is part of the World Auchenorrhyncha collection (accession number F3227) which is housed in two wooden cabinets containing 38 glass topped drawers. Each individual specimen has yet to be allocated with its own accession number, though this will eventually be done for all the entomology collections. As well as the pinned specimens, slide material of Fulgorid specimens also exists in the collection. The Fulgoridae collection has been photographed and databased on the electronic collections management system KE Emu (Manchester Museum, 2013).

Tribe	Genera	Species	Specimens
Amyclini	0	0	0
Aphaeini	10	11	57
Diloburini	0	0	0
Enchophorini	1	3	3
Fulgorini	3	5	13
Lystrini	1	1	8
Paralystrini	0	0	0
Poioicerini	1	2	2
Zannini	1	2	2
Laternarini	11	10	70
Limoisini	0	0	0
Xosopharini	0	0	0

Table 1. Specimens in the Manchester Museum collection by Tribe.

The development of the collection Herbert Stevens (1877-1964)

The majority of the specimens in the Fulgoridae collection come from Herbert Stevens (1877-1964), a tea planter and naturalist who lived in India. Most of the Fulgorid specimens in the Manchester Museum collection were collected between 1910-1914 at his tea plantation in Gopaldhara-Rungbong valley, Darjeeling District and other surrounding areas. In 1965 his collection of Fulgoridae which had originally been held at the Natural History Museum, Tring was bequeathed to the Manchester Museum, along with 100 store boxes of Coleoptera, including cotypes and 620 papered specimens of Sphingidae. Stevens was a Fellow of the Zoological Society of London and the Royal Geographical Society. Though primarily an ornithologist, he collected many insects on his expeditions to the Sikkim Himalayas and neighbouring regions. His book, *Through Deep defiles to Tibetan Uplands* describes his experience as a naturalist and collector on the Kelly-Roosevelt Expedition. His bird collections are currently held at The Great North Museum in Newcastle, and the Natural History Museum, Tring.

James Cosmo Melvill

James Cosmo Melvill (1845-1929) was a naturalist born in Hampstead. He was the elder son of James Cosmo Melvill, Assistant Under-Secretary of State for India and grandson of Sir James Cosmo Melvill, K.C.B., F.R.S., Chief Secretary of the East India Company. Though Melvill's primary interests as a naturalist were Conchology and Botany, he was also interested in Entomology, and donated the oldest specimens of Fulgoridae in the collection



Fig. 1. A specimen *Laternaria clavata* (Westwood, 1839) collected by Herbert Stevens.

(collected in 1886 in Ceylon-now Sri Lanka) to the Manchester Museum. His largest donation to the museum consisted of his exotic herbarium, containing 36,000 species of flowering plants, and 6000 species of non-flowering plants such as Liverworts, Mosses, Ferns and Algae. At the time of his death, he was one of the oldest members of the Linnaean Society.

Alan Brindle

Alan Brindle (1915-2001) was Keeper of Entomology at the Manchester Museum from 1961-1982. Before his role at the Manchester Museum, he was called up in 1942 to join the Lancashire Fusiliers and transferred to the intelligence section. While posted abroad in India, he collected numerous insect specimens in the 1940s including Coleoptera, Hemiptera and Hymenoptera. Brindle collected thousands of insect specimens throughout his career, and some of his most important collections are kept at the Manchester Museum, including the Hincks and Brindle Dermaptera collection, which consists of over 11,000 specimens.

Other Collectors: P. S. Nathan, R. N. Baxter and W. H. Clayton:

This collection also contains specimens collected by Peter Susai Nathan (accession number 2588 and collection date 1972) and R.N. Baxter (accession number 2870 and collection dates 1977

Summary

The collection contains no type specimens and, apart from some undetermined material, is probably not a strong resource with regards to taxonomic research. Instead, the collection's strengths are in specimens that detail geographical and historical data for localities where collecting is now forbidden.

During research for this article, more papered Fulgoridae were discovered in the collection in store boxes from P. S. Nathan (collection dates 1967-1972). The specimens were relaxed, set, identified and incorporated into the collection (Fig. 4). The specimens are all from India, where collecting is now strictly forbidden, even for scientific purposes.

Following recuration of the collection, Fulgoridae specimens were used in outreach sessions and exhibitions. The new permanent gallery at the Manchester Museum, *Nature's Library* features five specimens.



Fig. 4. Pinning specimens for incorporation into the collection.

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