

## **The Collection of Natural History Specimens in Jamaica 17<sup>th</sup> – 19<sup>th</sup> Century**

The collection of nature in any systematic way in an attempt to understand and process it had its roots in the 16th to 18th century. At the time human transformation and use of the natural environment had become divorced from a strict medieval Christian framework. During “The Enlightenment”, also termed the “Age of Reason or Modernity”, people believed that they could improve themselves by improving nature and in search of progress turned to science, technology and industry. The environment was seen as a collection of raw materials to be used to further the progress of mankind. It was felt, and to some extent this still holds, that nature was there to serve mankind and it was mankind’s prerogative, indeed duty, to solve the mystery of nature by unlocking its secrets and developing new insights into its inner workings.

Where the natural environment was once surrounded by mystery and folk legend or imbued with spiritual significance it was now viewed as a store of raw materials for human economic purposes. As people’s view of the natural environment changed, a new world of possibilities emerged. The natural world was now open to be coded and classified through vigorous modes of enquiry through a scientific project of dominating nature and finding out her secrets. In order to do so, vast amounts of scientific specimens were collected, preserved and studied leading to the systematic taxonomic classification system we use today. The work of Charles Darwin and the publication of the “*Origin of Species*” in 1859 further fuelled the movement to collect and classify nature as scientists sought to test the Theory of Evolution. Jamaica with its high level of biodiversity was a paradise for those engaging in the collecting of nature.

Early naturalists who studied Jamaican flora and fauna included Sir Hans Sloane, Dr. Anthony Robinson and Phillip Henry Gosse. Sir Hans Sloane visited Jamaica from 1687 - 1689. He first described the flora and fauna of Jamaica and employed an artist to illustrate specimens. His collection expanded to such a degree that it nearly overwhelmed his house and he had to employ a part – time curator to maintain it. The collections

became quite famous attracting numerous visitors. His descriptive text and illustrations were used by other scientists including the famous Swede, Carolus Linnaeus. On Sloane's death in 1753, his collection of Jamaican specimens was purchased for £20,000 and became the nucleus of the British Museum of Natural History (BMNH).

Dr. Anthony Robinson, who practiced medicine in Jamaica in the mid 1700s, accumulated a large mass of valuable information on the flora and fauna of Jamaica in 5 folio Manuscript volumes. These manuscripts were in the possession of the Institute of Jamaica (IOJ) until about 1914 when they were loaned to the BMNH and never returned. Only 1 volume appears to have remained in Jamaica and is currently in the possession of the National Library of Jamaica.

Phillip Gosse visited Jamaica in 1844 and wrote extensively on the natural beauty of the island and its customs and described several species of flora and fauna. He also collected extensively during his stay in Jamaica. Gosse's description of a naturalist's workroom brought into focus the vast amounts of environmental material that were collected, processed and transported to Britain

*"Large sacks containing Orchidaceae, newly brought in, lie on the floor, and many specimens of the same curious tribe of plants are heaped up under tables, with Cactoidea, awaiting the time they may be shipped to England."*

The same chapter describes the preparation of hundreds of bird skins for shipment and the procedure used to obtain land snails.

<b>Specimens collected by Gosse</b>	<b>Amount</b>
Mammals	41
Birds	1510
Reptiles	102
Fishes	94
Nests and eggs	34
Shells (marine)	1276
Shells (terrestrial/freshwater)	1850

Crustacea	100
Insects/Arachnida	7800
Echinodermata	57
Sponges	550
Zoophytes	42
Dried Plants	5000
Orchidaceae	800
Bulbs/Suckers	932
Cacti	32
Ferns	222
Capsules/Seeds	383
Seeds of flowering plants	170
Palm seeds	14
Boxes of Gum	24
Woods	50 blocks
Others	117

Table 1: Gosse's Collections (Made during 18 months from December 5, 1845 to July 4, 1846. (Sold for £ 577: 9:8)

*Gosse's Jamaica 1844-45*, Ed. D.B. Stewart. Institute of Jamaica Publications Ltd. 1984

This is just one recorded instance of the type and volume of Jamaican specimens that were collected by hobbyists for their private collections in the 1800s. One can only speculate as to the numbers of flora and fauna that were collected and not recorded, or those collected and not properly preserved. As recently as the early 1990s, the Natural History Division received a telephone request from a church in England for a donation of approximately 10,000 Jamaican seashells needed to replace the broken ones in the decorative façade of it's church wall! The request was denied.

Nowadays the voracious pace of collecting natural history specimens has slowed as we are aware of the environmental implications of unchecked removal of species from the wild. In order to protect Jamaica's valuable and limited natural resources from damage by over harvesting, the Government of Jamaica now requires that local and foreign researchers needing to collect natural history specimens have a permit. Permits to collect specimens are approved by a Scientific Authority comprised of a Government appointed advisory board of experts in a wide range of biological fields. The Authority discusses the merits of all applications for permits involving the collection of live specimens for export, whether for trade or research. Approval is granted or denied based on the determined status of the species in the wild and other conservation issues. If the specimens are to be maintained alive, the authority reserves the right to inspect the facilities of the applicant organization for its suitability to host Jamaican specimens. If the species are listed under The Trade in Endangered Species Act or the Wild Life Protection Act the permit process is especially rigorous. It is also mandatory that researchers collecting plant or animal specimen deposit duplicate specimens with the Natural History Division, Institute of Jamaica.

*(Telephone Interview Andrea Donaldson, Coordinator, Biodiversity Branch, NEPA, February 2003)*

European collectors were not daunted by the rough inaccessible Jamaican terrain. They suffered through unpleasant and uncomfortable weather and temperature extremes in order to collect endemic or otherwise interesting flora and fauna. Gosse presented a vivid description of terrain typical to Jamaica as he described difficult territory he encountered in the Bluefields district of Savanna-la-Mar:

*“At one corner of the pasture a steep rocky hill rises abruptly, covered with pristine woods. The boughs of an immense fig-tree, which had prostrated in a storm a few weeks before, enabled me to climb the ascent; but I was astonished at the difficulty of penetrating the forest. The number of tough withes, many of them fearfully spinous, that entwine about the trees and about each other; the long prickly cacti, too, that trail here and there; the lianes .... Some of the larger ones are woody and are often twisted together like the strands of a cable. The bushes*

*and smaller trees are sometimes very numerous and close, quite choking the ground, and preventing the view beyond a few yards in any direction. The oppressive heat, and often, as here, [Hill in Bluefields] the loose stony character of the ground, renders it impossible to go far into these woods.*

(Excerpt from *Gosse's Jamaica 1844-45*, Ed. D.B. Stewart. Institute of Jamaica Publications Ltd. 1984)

Due in large part to the explorations, observations and collections of naturalists, museums of natural history opened in many cities worldwide and grew rapidly. The British Museum of Natural History was so overwhelmed with donations from amateur collectors from different regions of the world that they issued the "*Handbook of instructions for collectors*" in 1902 so that these collectors should have a better knowledge of the manner in which specimens should be preserved. These amateur collectors have been described as "*travelers and others whose vocations have necessitated their residence abroad in all parts of the world.*" They included military and naval officers, explorers and missionaries.

Jamaica's own Museum of Natural History was started by the Jamaica Society in 1830. The Jamaica Society was merged with the Royal Society for Arts and the General Agricultural Society of Jamaica to form the Royal Society of Arts and Agriculture in 1864. This Society was disbanded in 1873 and its collections, stored on the wharf by officers of the Geological Society under the care of the Island Chemist, were turned over to the Institute of Jamaica on its foundation in 1879. ("*The Institute Of Jamaica*" David Brown 2001. Unpublished article)

The avid amateur collectors of natural history although overzealous at times in their quest for knowledge, should be afforded our gratitude as their observations and collections have formed the base of present day collections and scientific knowledge of our biodiversity. The task of collecting, recording, displaying and preserving natural history specimens is now that of the staff of Natural History Division (NHD) of the Institute of Jamaica. The collections of the NHD include a library with over 10,000 scientific

publications, a herbarium of over 130,000 plant specimens and a diverse zoological collection with over 80,000 specimens including insects, arachnids, crustacea, fish, birds, reptiles, amphibians and mammals. Their collections along with recent collections can be used to plot a timeline of Jamaican biodiversity with some specimens collected from as early as 1770s still remaining intact.

**Photographs of specimens in the Natural History Collections of the Institute of Jamaica from the 18<sup>th</sup> and 19<sup>th</sup> Century.**



Fig 1. *Pleuronte lucerna* formerly *Helix lucerna* from the collection of E. Durand circa 1860 .

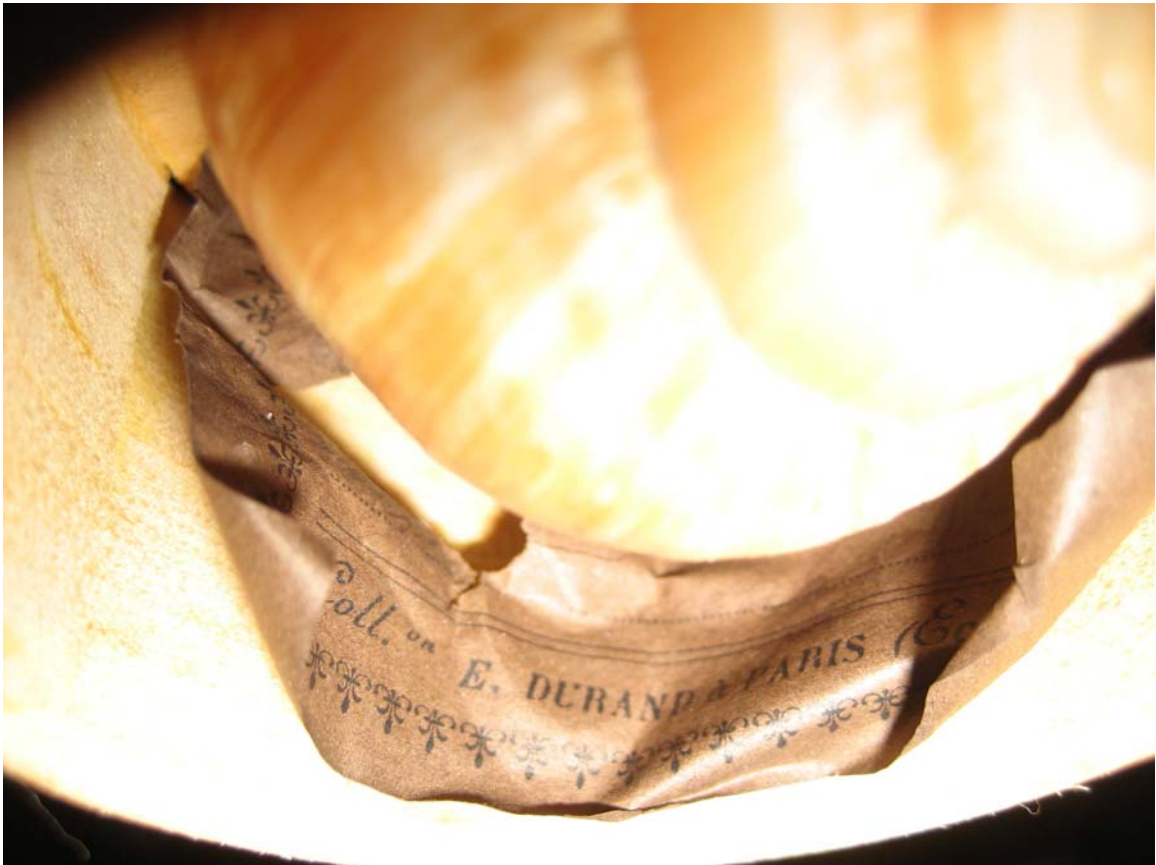


Fig. 2 Original Collectors label reads “E. Durand à Paris (Echarges)”



Fig. 3 The oldest specimen housed in NHD collections, *Prinos dioicus* = *Ilex dioica* collected by Ryan in 1778 from Montserrat.