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Glasgow University: Coleoptera Part I

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# THE FABRICIAN TYPES OF INSECTS IN THE HUNTERIAN COLLECTION AT GLASGOW UNIVERSITY

# COLEOPTERA PART I

By

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### INTRODUCTION

The Hunterian Collection of Insects represents a small but very important part of the extensive Museum formed by Doctor William Hunter who was Court Physician to Queen Charlotte, consort of George III.

It is well known that Dr Hunter intended to found, during his lifetime, a School of Anatomy and Medicine in London; he was prepared to establish it at his own expense and to endow it with his Museum and Library, provided the Government would grant a suitable site on Crown land. His generous offer was not entertained.

Hunter then thought of Glasgow, his Alma Mater; writing about his plans to his old friend, Dr Cullen, he said, "I have a great inclination to do something considerable at Glasgow some time or other". Again, however, he suffered disappointment; for at that time (1765), as it happened, Cullen and others, who were essential to the success of his cherished scheme, had left or were about to leave Glasgow.

Ultimately, Dr Hunter bequeathed his valuable collections to Glasgow University, all his anatomical preparations, his zoological, geological and ethnological specimens, his unique library of books and manuscripts, his magnificent collection of coins and various art treasures. In his will he assigned the usufruct of these collections for a period of thirty years to his nephew and heir, Dr Matthew Baillie, brother of Joanna Baillie. The collections were received by Glasgow University in 1807.

Hunter was not, like most collectors of his day, and some private collectors of the present time, a mere gatherer of curiosities or natural rarities...every specimen or preparation suggested to him either a fact recorded or a problem to be solved. The last thing he would have approved was a *dead* museum, a mere storehouse. He surely and certainly meant that his preparations and his specimens



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were to take their place with others as stones built into the rising house of knowledge<sup>1</sup>.

With that aim ever in view, the Hunterian Collections have been greatly enriched, more especially in recent years, by many valuable acquisitions. Dr Hunter's Cabinets of Insects have formed a great nucleus around which there is now a considerable amount of material for reference and instruction in Entomology, the latest and most notable additions being the extensive collections of British and Exotic Coleoptera which belonged to the late Mr Thomas G. Bishop, and the great collection of British Insects of all Orders, the life work of Mr James J. F. X. King, F.E.S.

Some years ago (in 1910) Professor Graham Kerr published a paper<sup>2</sup> in which he made special reference to Dr Hunter's Insects. The particular interest and importance of this collection is mainly due to the fact that many of the specimens are the types of insect species founded by *Johann Christian Fabricius*, the great pioneer of Systematic Entomology in the eighteenth century.

Fabricius was (latterly) Professor of Natural History and Rural Economy in the University of Kiel; he was born in Tondern, Schleswig, on January 7th, 1745 and he died May 3rd, 1810. As a small boy he "collected plants and insects and studied the *Species Plantarum* and the *Philosophia Botanica* far more diligently than *Cornelius Nepos* or *Cicero*"; and when he was a little older, he developed an ardent desire to go to Upsala and become a pupil of the celebrated Linnaeus. Wisely recognising this early evidence of a future vocation, his father granted his wishes and sent him to Upsala at the age of seventeen. Daily intercourse with the great master

<sup>&</sup>lt;sup>1</sup> William Hunter and his Museum. An Oration delivered in the University of Glasgow on Commemoration Day, 22nd June, 1922, by Professor T. H. Bryce, M.A., M.D., F.R.S. (Glasgow, MacLehose, Jackson & Co.).

<sup>&</sup>lt;sup>2</sup> "Remarks upon the Zoological Collection of the University of Glasgow" by Professor J. Graham Kerr (*Glasgow Naturalist*, Vol. 11, No. 4, September, 1910).



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soon determined his bent of mind, and Fabricius then began to devote himself to the study of Insects, thenceforth his main interest in life.

After two years with Linnaeus, he returned to Copenhagen and set about compiling the *Genera Insectorum*, in accordance with the small collection he then possessed; this was the foundation of his first notable work, the *Systema Entomologiae*. About that time he began those journeys, in many parts of Europe, which throughout his life he voluntarily undertook for the advancement of Entomology. He visited the various towns, became acquainted with the leading men of science, more especially those who studied and collected insects, and thus gained access to most of the noted collections in Europe.

In his Autobiography<sup>1</sup> Fabricius mentions his indebtedness to Dr Solander, of the British Museum, who introduced him to Hunter, Banks, Drury and many others in London "whose houses and libraries and collections were soon opened to me. I determined and described the insects, and arranged the species of the collections. My System of Insects gained ground considerably, as well by the more exact definition of the species, as by the addition of a considerable number of genera".

The following passage, in which he refers to a later London visit (1772–1775), is of special interest, particularly in relation to the history of systematic entomology:

My friends Mr Banks and Dr Solander had returned from their voyage round the world (with Captain Cook), and had brought with them innumerable specimens of natural history and insects. I now lived very pleasantly. With Banks, Hunter and Drury I found plenty of objects to engage my time, and everything which could possibly be of service to me. My situation was not only very delightful, but it afforded the means of gaining much instruction. In 1775...my Systema Entomologiae appeared. Entomology was at that period in its infancy. We had then only the Systema of Linnaeus, whose classification, derived from the wings of insects, was not the

1 "The Autobiography of John Christian Fabricius," translated from the Danish by the Rev. F. W. Hope, A.M., F.R.S. (Transactions of the Entomological Society of London, Vol. IV, 1845).



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most natural, and his species were very imperfectly defined. Moreover, it contained but few species, as the great founder of that system was fully aware that the science would make little progress by a compilation of an inadequate number of species; the amount of genera also described by him was not great. In my System I made use of the organs of manducation as marks of distinction for my classes and species, and in spite of all its faults, which arose from the smallness of those parts, my classes were far more natural, my species were more numerous and more ably defined, and the number of described genera considerably greater. I at the same time extended the Orismology, fixed its significations with greater accuracy, and introduced the concise language of the Linnaean school in this department of natural history.

Fabricius worked through Dr Hunter's Cabinets of Insects, he identified and labelled the various specimens, and a large number of them were named and described by him (in his *Systema Entomologiae* and his later works) as species new to Science.

It has long been desired that the Fabrician Types in the Hunterian Collection should be made accessible, for purposes of systematic entomology, by the publication of accurate upto-date descriptions together with accurate figures. When recently, following on the magnificent gift of the Bishop Collection, the University Entomological Collections came under my supervision, it was then suggested by Professor Graham Kerr that I should at once begin this work on the Fabrician types. I have been enabled to do that by the Carnegie Trustees for the Universities of Scotland, and I here record my obligations.

The most important part of the work of investigating these types, checking their identity and carefully comparing with them representative modern examples of the species, has been done in London, in the Entomology Department of the British Museum of Natural History, and in close collaboration with Dr C. J. Gahan, Mr Gilbert J. Arrow, Mr Kenneth G. Blair and Mr Bryant. To these gentlemen and to Sir Guy A. K. Marshall, C.M.G., F.R.S., Director of the Imperial Bureau of Entomology, I am indebted for their unfailing



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courtesy and kindness to me and for constant help generously given. Without the advantage of their special knowledge and expert advice, the work could not have been properly done, nor would it have carried the same weight as a contribution to systematic entomology.

For the facilities granted to me while at the British Museum, and especially for permission to consult freely the officers of the Entomology Department, I beg to tender thanks to Sir Sidney Harmer, K.B.E., F.R.S.

I desire to acknowledge my particular indebtedness and express my thanks to the *Carnegie Trustees*, for a special grant towards the cost of production, and to the *Publications Standing Committee of Glasgow University* for similar substantial assistance to ensure the publication of this volume.

I also desire to acknowledge gratefully my indebtedness to Professor Graham Kerr, F.R.S., for his constant interest and for many helpful suggestions.

The figures of the types have been drawn by Miss Margaret Rankin Wilson, D.A. (G.S.A.), and are good examples of her skill as an artist and her accuracy in rendering important detail. My special thanks are due to her for the care and interest she has taken in the work.

The Hunterian Collection of Insects is now housed in the Museum of the new Zoology Department; it is contained in five cabinets herein referred to as Cabinets A, B, C, D and E. The specimens in these cabinets are more than one hundred and fifty years old, and the great majority of them are still in a remarkably good state of preservation; they are arranged in the order given by Fabricius in his Species Insectorum (1781). That applies to the species of each genus, but not invariably to the arrangement of the genera. The labels are not attached to the specimens, but are fastened to the bottom of the drawer, and are placed, each label immediately above the specimen or specimens to which it refers.

When Professor Graham Kerr examined the collection, he found that certain drawers (Cabinet A) had been tampered



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with by some person or persons unskilled; in several instances the specimens and labels were obviously misplaced and the labels had been gummed on to the bottom of the drawer, the original pins having been removed. Fortunately I have been able (after considerable trouble and deplorable loss of time) to locate most of the misplaced types; I have not removed these from the drawers in which they were found, but have there indicated them with special labels, and have thus refrained from perpetuating confusion by interfering in any way with the existing arrangement of the specimens.

Beginning with the Coleoptera I have thus far investigated the types of species belonging to that order. My notes on types of the Families Cicindelidae, Carabidae, Dytiscidae, Scarabaeidae, Silphidae, Histeridae and Erotylidae, form the subject matter of this volume, the first portion of a contribution which, it is hoped, may ultimately take the form of a complete Descriptive Catalogue of the Insect Types in the Hunterian Collection at Glasgow University.

In Dr Hunter's Collection there are several specimens which are the types of species founded by the noted French entomologist, Antoine G. Olivier (b. Jan. 17, 1756; d. Nov. 1, 1814), and there are also certain other types supposed or known to have been acquired by Dr Hunter. As it seemed advisable to publish these I have therefore included them.

In the Cabinets each species is represented usually by two specimens; but in several instances there is only one specimen, or more than two, under the name label, and sometimes the specimens are of different species. When there is no clear indication that one or other of the specimens is to be regarded as the type, I have described as such that one which answers to the descriptions and which corresponds most closely with modern examples of the species in the British Museum Collections.

The descriptions of the types are necessarily limited to those features or characters which I have been able to make



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out clearly; the mouth appendages and other parts of many of the types are defective or wanting, or are obscured by the accumulated dust of years, and for the best reasons I have not attempted to clean them. The references to the species are those given in the Catalogues.

The coloured plates represent the specimens with all their existing defects due to the age of the Hunterian Collection. No doubt it would be more in agreement with custom to figure these insects with their appendages symmetrically arranged; it was, however, clearly out of the question to subject such historically important types to the risks of relaxing and resetting, and it appeared equally out of the question to restore their imperfections in the drawings. To try to improve their appearance in these ways would certainly lessen the value of the illustrations and serve no useful purpose; the aim has been to portray them exactly as they are at the present time.

The "Bishop" Collection, its wealth of material British and Exotic, has been of great service to me while investigating these Hunterian insects; I have often had occasion to refer to it for modern examples with which to compare the types.

ROBERT A. STAIG

THE ZOOLOGY DEPARTMENT THE UNIVERSITY, GLASGOW June, 1930