

# HAWK MOTHS AND W. H. EDWARDS: ILLUSTRATIONS OF NORTH AMERICAN LEPIDOPTERA, SPHINGIDAE

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**ABSTRACT.**— The rare 1903 publication, *Illustrations of North American Lepidoptera, Sphingidae*, authored by J. W. Weidemeyer, S. H. Calverley, and the well-known American butterfly expert, W. H. Edwards, is discussed and its historical development noted. Only 14 copies were published in 1903, under the guidance of H. Skinner, although the 27 plates were actually printed from 1860 to 1866 (or to 1869). An appendix lists the current ownership of known copies.

**KEY WORDS:** bibliography, biography, Canary Islands, Caribbean, *Catocala*, Cuba, *Deilephila*, *Erinnyis*, history, *Hyles*, *Limenitis*, Nearctic, Neotropical, New World, Noctuidae, North America, Nymphalidae, *Papilio*, Papilionidae, Rhopalocera, South America, USA, West Indies.

The 19th century lepidopterist, William Henry Edwards (1822-1909), is well-known for his work on butterflies, particularly his monographic 3-volume, *Butterflies of North America*. Most readers may be unfamiliar with the fact that he also had an early interest in moths: *Catocala* (Noctuidae) moths and hawk moths (Sphingidae). In the 1860s, he was involved in the production of plates of American hawk moths, but none of these were formally published until Henry Skinner organized the plates and added a preface to the series in 1903, then entitled *Illustrations of North American Lepidoptera, Sphingidae* (Weidemeyer, Calverley, and Edwards, 1903). This work is largely unknown since so few copies were published, and because it has not been included in many bibliographic references or in Edwards' list of papers (e.g., Weeks, 1911; dos Passos, 1951).

In memoir notes, later edited by C. F. dos Passos (1951), Edwards (Fig. 1) wrote briefly about the period when he was interested in hawk moths. In 1863, he met the two amateur collectors who had already begun production of a series of plates to illustrate all the known North American Sphingidae: John W. Weidemeyer (1819-96) and Stephen H. Calverley (18??-?), of New York. Calverley apparently was the initiator of this project (Grote, 1888; Graef, 1914), then co-authored with Weidemeyer, and only in 1863\* did Edwards join the project and had his name added to plates 3-27 of the series (see Fig. 2). As Edwards noted in his memoirs (dos Passos, 1951):

"John W. Weidemeyer and Stephen Calverley of Brooklyn in 1863 began to issue a series of colored plates of North American Sphingidae, drawn and colored by a German, one Walo. I was permitted to join these gentlemen with their issue of No. 2. Each of us had one set colored by Walo, and fifty plain plates. The work went on as far as No. 28 under Mr. Weidemeyer's supervision and then suddenly stopped. Weidemeyer sold his whole collection of insects in Europe and gave up the study entirely; probably it interfered with his business which was that of a broker in hides. No text was issued with the plates of sphinges. I have recently sold my set of colored plates and all my plain plates to the Academy of Natural Sciences of Philadelphia."

Edwards noted that there were 28 plates etched and printed. The published plates and all other copies of the plates only number 27 in each set. Grote (1888) stated in a brief note about the sphingid plates, that No. 28 was actually of a butterfly, that of the new species *Papilio calverleyi* Grote, described by Grote in 1864. Thus, Edwards

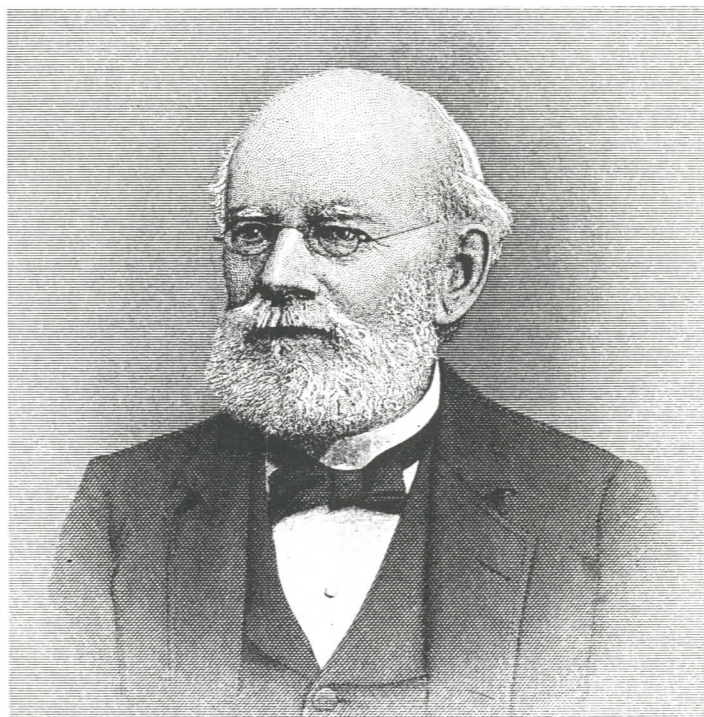


Fig. 1. William Henry Edwards (engraving from Weeks, 1911).

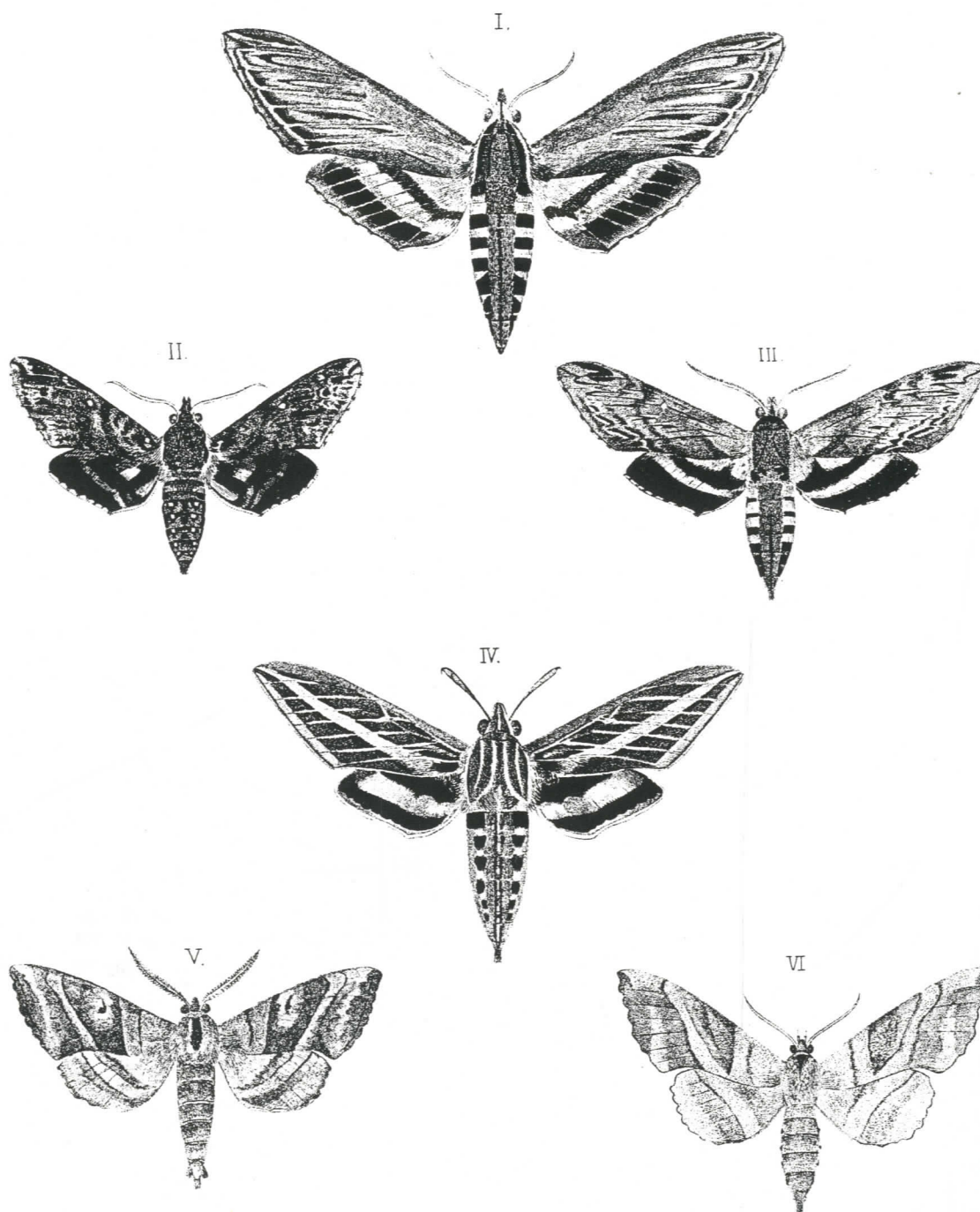
either thought to describe this species or let Grote do it, but had the plate prepared. Grote (1888) noted that it was the very plate published along with his original description (Grote, 1864), from the original etched die and coloring of C. Walo, although the 1864 plate that Grote published is trimmed to a smaller size than the sphingid plates produced earlier, and without any authorship or artist's name added. Walo did most of the plates but some of the later plates appear to have been done by other artists, as also noted by Hagen (1887). At least 3 plates were commissioned in London from specimens at the British Museum (Natural History), as Edwards noted in his 1903 preface:

"As there were some American species in the collection of the British Museum that had never been figured, I was authorized to secure plates of them if possible. I wrote to Mr. Francis Walker, head of the Entomological Section of the Museum, and he very kindly undertook to find an artist and have the species figured. These are upon Plates XVI, XVII and XVIII."

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\* Hagen (1887), however, noted that Scudder received plates 1-5 already in October 1861 (see further below).

# North American Lepidoptera.



I. SPHYNX KALMIAE ♀  
 II. DOLBA HYLAEUS ♂  
 III. SPHYNX GORDIUS ♂

IV. DEILEPHILA DAUCUS ♀  
 V. SMERINTHUS JUGLANDIS ♂  
 VI. DO. DO. DO. ♀

Published by J.W. WEIDEMEYER,  
 and S. CALVERLEY,  
 and W.H. EDWARDS. } New York.

C. W. W. 1861. 1861.

Fig. 2. One of the plates from Weidemeyer *et al.* (1903): Plate V (nearly full size), engraved by C. Walo and printed in black ink ca. 1861, then bound and issued, together with the prefaces of Skinner and Edwards, in 1903. Only 1 colored book is known, plus one partially colored (4 unpublished colored sets of plates are known).



Although the species illustrated occur in North America, about half are to be found in Cuba and on to South America. Walo only used actual specimens to draw Plates I-X, thereafter mostly copying figures from such illustrated older works as those of Cramer and Drury (Grote, 1888; Edwards, 1903).

In reminiscences on the early days of some of the Brooklyn Entomological Society members, Graef (1914) had the following comments about the project:

"Mr. Calverley together with W. H. Edwards and Mr. Weidemeyer, undertook to publish a monograph on the Sphingidae. The plates were issued but the mss. were never completed, in fact it is doubtful whether they were ever begun. This work was intended for distribution only among museums and similar institutions, and consequently only 150 copies of the plates were printed. Three copies were to be colored for the three authors and the balance to be distributed uncolored. The plates were destroyed. Although I would have been willing to pay a comparatively exorbitant sum for a copy, Mr. Calverley flatly refused to let me have one, at which I was greatly chagrined. Mr. Calverley intended that his collection should go to the British Museum, but before he made arrangements to that end he became deranged, having become quite old, and was taken to an institution in Auburn, N.Y., where he died. Subsequently his heirs donated his collections, together with the plates of the Sphingidae, to the Brooklyn Institute of Arts & Sciences."

The date of the work is 1903. The plates, although struck and printed nearly 40 years earlier, were never actually published until H. Skinner gathered together the sets which he had available at the Academy of Natural Sciences, Philadelphia, and had the American Entomological Society publish the sets under the title already noted above (Fig. 3). Skinner added a brief preface, including comments by Edwards, and a contents list of the plates and figures, thereby also updating the nomenclature of the species illustrated, versus the names printed directly on the plates. Hodges (1971) stated that the date range of plate production was 1860-69, according to remarks made by Hagen (1887) and Grote (1888), but other evidence indicates that the plates probably were made between 1860 and 1866, assuming they were produced in numerical order. Hagen (1887) noted that S. H. Scudder had told him that he had received the first 5 plates from Edwards in October 1861 (Fig. 2). Thus, one can surmise that the first plate was finished either in 1860 or early 1861. A bit of information that may help in getting to the ending date is a remark made by Edwards in his comments published in the preface for the 1903 work (Edwards wrote this in 1903, so apparently not all the details were perfectly remembered by him, since his narrative differs slightly from that of others such as Graef, Grote and Hagen):

"The winter of 1862-1863 I spent in New York, and found that John W. Weidemeyer and Stephen Calverley had begun a work that was intended to give illustrations of all known species of the Sphingidae found either in North or South America, and that Plate I had already issued. On that Plate may be seen the names of the two gentlemen. I found that a German lithograph artist by name of Walo had made the drawings on the stone from life, and had colored one plate for each of the parties interested. Also each had fifty or seventy-five plain plates struck off for himself. I asked that I might join in the project, and was admitted on equal terms with the others. My name was put on Plate III, and is on all that followed. The insects were provided from the collections of one or other of the projectors. I, myself, furnished the example of *ello* figured. It was taken in my father's house, at Hunter Village, in the Catskills, on the night of September 11, 1865."

The specimen Edwards refers to, *Erinnyis ello* (Linnaeus), collected in 1865, is figured on Plate 23 of the series, a male. There is another "*ello*" on Plate 16, a female, but this is on one of three plates commissioned in London, as noted by Edwards (1903). Thus,

## ILLUSTRATIONS

OF

NORTH AMERICAN LEPIDOPTERA,  
SPHINGIDÆ.

BY

J. W. WEIDEMEYER, S. CALVERLEY

AND

W. H. EDWARDS.

PHILADELPHIA.  
THE AMERICAN ENTOMOLOGICAL SOCIETY.  
1903.

Fig. 3. Title page of the 1903 book edited by Skinner (Weidemeyer *et al.*, 1903).

one could put the ending date of the series about 1866, which is what Hagen (1887) noted, being "1861 to 1866": Grote (1888), however, stated the series was produced from 1860-69. In any case, the 155 or so plates produced (5 colored sets and another 50 for each author) were never published after being readied for the final book. Edwards mentioned, as quoted earlier, 3 colored sets, but at least 5 colored sets are known and one other set has a few of the figures colored (the copy I have seen shows the hand painting of very high quality and accuracy). Grote (1888) noted that he was to have been author of the accompanying text, but "the plates were finished at such irregular periods and over so many years (1860 to about 1869) that they were never placed complete in my hands for the purpose." Edwards, in his preface to the 1903 book goes on to state:

"Our series went as far as Plate XXVIII(?), and suddenly was stopped by Mr. Weidemeyer. He never told me why; but he sold his whole collection of insects, and gave up the study. About ten years ago I applied to him to know if he would sell me his plates, and the reply was that they were utterly lost, he knew not how. The plates now edited by Dr. Skinner are those which belonged to me."

Of the possibly 155 or more sets of plates printed by 1866 or 1869, most are lost. Skinner (1903) notes the following:

"The American Entomological Society purchased the plates of this work from Mr. W. H. Edwards, and I considered them of sufficient importance to ask this Society to undertake their publication. We possess one copy colored and thirteen plain. Mr. Edwards speaks of twenty-eight (?) plates, but our sets run to twenty-seven only. There is one copy of plates in the library of Cornell University, and one copy in the American Museum of Natural History in New York City, those I believe are both colored. The Brooklyn Institute of Arts and Sciences owns twenty-five to thirty sets, of which two are colored."

Thus, perhaps 5 copies had all 132 figures painted by hand. Known library holdings in the USA include at least 8 of the 14 numbered



copies of plates Skinner was able to publish in 1903 (see Appendix). At least one or more copies are privately held, including one with a few of the figures colored. It is not known how many copies may exist in foreign institutions, except for one copy in the library of the Natural History Museum, London, England, and one in the Canadian National Collection, Agriculture Canada, Ottawa, Ontario, Canada: that leaves at most only 3 printed copies remaining of the 14 published whose whereabouts are not known of for certain. Some colored and plain original unpublished plates are held by other institutions and possibly some individuals, as Skinner noted in 1903: e.g., the Museum of Comparative Zoology Library, Harvard University, in Cambridge, Massachusetts, has a set of plates obtained in 1887, including a copy of the butterfly plate Edwards had noted as No. 28 (Hagen, 1887). Apparently, most all of the plates held by Weidemeyer were lost. Those plates Calverley still had at the time of his death were obtained by the Brooklyn Institute of Arts & Sciences from Calverley's heirs, about 30 sets, as Skinner (1903) noted. Edwards had only 14 copies, so nearly 50 other loose copies of plates remain unaccounted for, although some probably were given away to friends and colleagues by Edwards and Calverley in earlier years.

As Grote (1888) noted, Weidemeyer and Calverley are remembered with 3 patronyms: two butterfly species (the western North American *Limenitis weidemeyerii* Edwards (Nymphalidae) and *Papilio calverleyi* Grote (Papilionidae), the latter now considered only an aberration of *Papilio polyxenes asterius* Stoll), and one sphingid (*Deilephila calverleyi* Grote). The sphingid name is now thought to refer to a species from the Canary Islands (*Hyles euphorbiae tithymali* Boisduval, 1834), however, and not from Cuba as originally stated by Grote (Heppner, 1996). Edwards, of course, has numerous patronyms honoring him.

Little else is known of the authors, other than Edwards. Weidemeyer was briefly noted by Weiss (1936), but neither his sphingid work nor his other work, *Catalogue of North American Butterflies* (1864), is mentioned. Weidemeyer was a broker in hides in New York. As noted in an earlier quote of Edwards (dos Passos, 1951), by about 1869 Weidemeyer had stopped his interest in Lepidoptera and sold his collection to a museum in Germany. By 1893, Weidemeyer had lost track of his 50 sets of plates (Edwards, 1903). Calverley is even less known, other than having been employed as a weighmaster at a New York shipping company (Graef, 1914), and no biography is known of him. None of the major biographical notes that have been written about W. H. Edwards mention his publication on sphingids, other than those noted herein (dos Passos, 1951; Graef, 1914; Grote, 1888; Hagen, 1887).

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#### APPENDIX

Known holdings of the 14 numbered copies of the sphingid plates published in 1903 are noted below (many other institutions and libraries, and no doubt many individuals as well, have copies of the loose unpublished plates). Three copies remain unaccounted for, possibly in private hands.

##### INSTITUTIONAL HOLDINGS IN THE USA:

Academy of Natural Sciences, Philadelphia, PA (colored)  
American Museum of Natural History, New York, NY (also has a set of the loose unpublished colored plates)  
Iowa State University, Ames, IA  
Natural History Museum of Los Angeles County (LACM), Los Angeles, CA  
Smithsonian Institution (USNM), Washington, DC (No. 11)  
University of Michigan, Ann Arbor, MI  
University of Wisconsin, Madison, WI  
Wittenberg University, Springfield, OH

##### PRIVATE HOLDINGS IN THE USA:

J. B. Heppner, Gainesville, FL (partially colored) [this copy, No. 3, via William Boscoe; previously from the library of the sphingid specialist, Margaret Cary (1882-1969) (Newcomer, 1969), and her Wissahickon Moth and Butterfly Club, Philadelphia, PA (Boscoe, pers. comm.)]

##### FOREIGN HOLDINGS:

Canadian National Collection, Agriculture Canada, Ottawa, Ontario, Canada  
Natural History Museum (BMNH), London, England