

## SHORT COMMUNICATION

### A persistent case of mistaken identity: Charles A. Walckenaer's collection of spider drawings by John Abbot is in Paris, not London

**John V. Calhoun:** Research Associate, McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL, USA. E-mail: bretcall@verizon.net

**Abstract.** A series of spider drawings and accompanying notes by the naturalist John Abbot (1751–c.1840) served as the basis of many new taxa described by Charles A. Walckenaer. Since the late nineteenth century, researchers have wrongly associated these drawings with Abbot's watercolors of Georgia spiders (and some Opiliones) held at The Natural History Museum, London. In reality, the drawings and notes consulted by Walckenaer are deposited at the Muséum national d'Histoire naturelle in Paris. Six letters preserved with these drawings, dated 1802–1821, corroborate their provenance as published by Walckenaer. This mistaken identity stems from Abbot's practice of duplicating his artwork and written observations. It has yet to be determined how the differences between these collections of drawings will impact species synonymies as they relate to Walckenaer's taxa. One example involves the original concept of *Sphasus vittatus* Walckenaer, 1837.

**Keywords:** John Francillon, Alexander Macleay, William S. Macleay, manuscripts

A set of spider drawings by the pioneer Georgia naturalist John Abbot (1751–c.1840), now deposited at the Natural History Museum, London, is considered to have served as the basis of many descriptions of New World spiders by Walckenaer (1837, 1841). For nearly a century, researchers (e.g., Crosby & Bishop 1928) have insisted that these drawings be examined to help settle any nomenclatural questions regarding Walckenaer's taxa. Using the illustrations in London, Chamberlin & Ivie (1944: 5) attempted to determine "as far as possible from available evidence, the proper application of the names based by Walckenaer upon Abbot's drawings of the spiders of Georgia." This controversial study, which reproduced 63 of Abbot's figures, galvanized the association between the London drawings and Walckenaer's taxa. Subsequent authors, including Brady (1964), Richman (1978) and Maddison (1986), reproduced more of Abbot's London figures from a set of color slides that were prepared by Allen R. Brady in 1963 (currently on file in the Department of Invertebrate Zoology, Museum of Comparative Zoology, Harvard University). Recent authors (e.g., Lehtinen & Marusik 2008; Dimitrov & Hormiga 2010; Brady 2012; Ballesteros & Hormiga 2018) continue to associate the London drawings with Walckenaer's taxa, and many of the figures were considered to represent holotypes, "iconotypes" and lectotypes of his names. Despite this persistent association, evidence reveals that the London drawings are not those consulted by Walckenaer. This mix-up invalidates all previous conclusions pertaining to relevant taxa described by Walckenaer (1837, 1841) from Abbot's illustrations.

**Acquisition and "rediscovery".**—Walckenaer (1837) recounted that a series of spider drawings by "Thomas Abbot" was offered for sale in 1802 by John Francillon (1744–1816), a London jeweler and natural history dealer who acted as John Abbot's agent, selling his natural history specimens and illustrations to European buyers. Walckenaer wanted to purchase the spider drawings, but Francillon refused to send them to Paris. They were instead sold to the British entomologist Alexander Macleay (1767–1848), who allowed Walckenaer to examine the illustrations before ultimately selling them to him in 1821. Walckenaer (1837) described the collection as 535 figures of species from Georgia, drawn and colored from living individuals. The accompanying 42 pages of notes by Abbot were

titled "Notes and observations on the Drawings of the Spiders of Georgia."

The subsequent whereabouts of these drawings was unclear. Underwood (1887: 964) remarked that the "Knowledge of the date of preparation of this series of drawings, as well as its present place and condition, is wanting." However, Pickard-Cambridge (1876: 282) called attention to a set of Abbot's drawings in London, stating "The British Museum possesses a set of these drawings, but whether this is the original set from which Walckenaer's descriptions were derived . . . appears to be uncertain." White (1841) also mentioned the drawings in the British Museum, but did not link them directly to Walckenaer.

Referring to the same watercolors, McCook (1888a: 74) announced that during a visit to the British Museum in 1887, he had found Abbot's original drawings "from which Baron Walckenaer described the numerous species from Georgia." He asserted that "Americans seem to have been in ignorance of what had become of these drawings, and the fact that they were in the Zoological Library appears to have escaped the observation of the little circle of British students of araneads." McCook was thoroughly convinced of his finding, observing that the "number of Abbot's figures as they appear in the manuscripts correspond with the numbers cited by Walckenaer in his references to the same." Emerton (1888: 114) claimed to have examined these same watercolors in 1875 and agreed that they are "probably the same drawings used by Walckenaer." This discovery was heralded as "of the greatest interest, not only to American but all arachnologists" (McCook 1888b: 430). Further studying the drawings in 1892, McCook (1893) reproduced 13 of Abbot's figures, some in color. After reviewing McCook's conclusions, Pocock (1906: 672) confirmed that Abbot's spider drawings in London "leave little doubt that it was this series of figures that Walckenaer had before him."

**Discrepancies.**—McCook's (1888a) claim is contradicted by several key facts. First, Walckenaer (1837) indicated that the drawings he consulted included 535 figures, while the collection in London contains 582 figures. Despite the large number of figures, Walckenaer (1837, 1841) did not name any beyond figure 520. Second, the illustrations in London are from the personal library of J. Francillon and are bound into the fourteenth volume of a 17-volume collection of Abbot's drawings, which was acquired by the British Museum in 1818 (Lankester 1904) (they were transferred to the Natural History Museum in 1883). Walckenaer could not have purchased these



Figure 1.—Spider drawings by John Abbot (insets are enlarged signatures and dates): (a) Drawing 1 in Paris, signed “J. Abbot ad vivum delin. 1798” (© Muséum national d’Histoire naturelle); (b) drawing 1 in London, signed “J. Abbot delin. 1800” (© Trustees of the Natural History Museum, London); (c) duplicate figure of *Dolomedes* sp., c.1795–1800, University of Georgia (Courtesy Hargrett Rare Book and Manuscript Library). All images reproduced with permission.

drawings from Macleay in 1821 while they were in the possession of the British Museum. This also refutes the suggestion by McCook (1893) and Chamberlin & Ivie (1944) that the drawings were purchased by the museum after Walckenaer’s death in 1852. Third, it was assumed that the notes for these drawings were personally written by Abbot, when in fact they are in the hand of Francillon, who transcribed edited versions of Abbot’s originals and pasted them into the volume opposite the drawings (see Chamberlin & Ivie 1944, fig. 3). This was Francillon’s practice for his entire collection of Abbot’s illustrations (Gilbert 1998; Calhoun 2005). Francillon added general identifications, such as “Aranea” and left spaces for species names to be added later. This belies Walckenaer’s (1837) description of Abbot’s notes as a separate, 42-page manuscript. Finally, Walckenaer’s species accounts do not entirely correspond to the notes in London, including his references to specific page numbers from Abbot’s notes, which are not applicable to Francillon’s transcriptions.

**Abbot’s drawings in Paris.**—More than a decade before McCook (1888a) announced his alleged discovery, Pickard-Cambridge (1876) wondered if Abbot’s illustrations used by Walckenaer were located “in one of the public institutions of Paris.” Two decades later, Pickard-Cambridge (1895: 506) confirmed his suspicion: “It appears from Dr. McCook’s remarks that he was under the impression that some drawings which he saw in the British Museum in 1887 were the original drawings of John Abbott’s spiders. This, however, is not so. The British Museum set of drawings are either a copy of those done by Abbott, or, may be, a duplicate set done by Abbott himself. The originals (or, at any rate, those from which Walckenaer drew up his descriptions of the spiders) are in the possession of the authorities at the Jardin des Plantes, Paris.” This revelation went unnoticed by subsequent arachnologists, including Chamberlin & Ivie (1944).

An unpublished manuscript about Abbot, penned during the 1950s by the ornithologist Elsa G. Allen (1888–1969) (Kroch Library, Cornell University), includes a detailed discussion about a series of

Abbot’s spider drawings in Paris, which were purportedly consulted by Walckenaer. More recently, biographical works by Rogers-Price (1983, 1984, 1997), Rogers-Price & Griffin (1983) and Gilbert (1998) repeated this assertion. These drawings are deposited at the Bibliothèque centrale du Muséum national d’Histoire naturelle (Central Library of the National Museum of Natural History; MNHN), located on the grounds of the Jardin des Plantes.

The collection of drawings in Paris consists of 107 watercolors of 535 figures of spiders (and some Opiliones) (Ms 274) (Fig. 1a) with a separate 42-page manuscript in Abbot’s hand titled “Notes and Observations on the Drawings of the Spiders of Georgia” (Ms 841). This is precisely how Walckenaer (1837) described the drawings and notes that he consulted. The first drawing is clearly signed “J. Abbot” in his hand (Fig. 1a, inset). Citations in Walckenaer (1837, 1841) correspond exactly to Abbot’s drawing numbers, figure numbers, and page numbers. Walckenaer accurately reiterated Abbot’s written observations, though he occasionally reported incorrect dates (e.g., 8 vs. 18 April), probably due to typesetting errors. More important, six letters preserved at MNHN (Ms 274bis), written in French and English, corroborate Walckenaer’s (1837) account of how he obtained this collection of drawings.

In 1802, the French naturalist Louis Dufresne (1751–1832) visited the home of John Francillon in London, where he examined a set of Abbot’s spider drawings. Dufresne evidently told Walckenaer about the drawings after he returned to Paris. On 11 November 1802, Walckenaer inquired about the drawings in a letter to Francillon, who responded on 9 December that he was selling them for £30 sterling and described them as 107 sheets of 535 figures. Walckenaer asked to examine the drawings prior to purchase, but Francillon refused to send them to Paris, advising him to rely on Dufresne’s judgement about their quality. Instead of being sold to Walckenaer, they were purchased by Alexander Macleay, who Chamberlin & Ivie (1944) and Levi & Levi (1961) erroneously referred to as “the entomologist Mackay.”

On 4 January 1818, Macleay's son, William S. Macleay (1792–1865), paid a visit to Walckenaer's home with Abbot's watercolors in hand. He left the drawings, asking that Walckenaer provide the names of any new species that he described from the figures. Walckenaer kept the drawings until 19 February 1821, when W. S. Macleay contacted him through a mutual acquaintance, Andrew A. Royer, head of administration at MNHN. The younger Macleay, then back in London, requested that the drawings be returned to his father, unless Walckenaer paid no less than 600 francs for their purchase. Walckenaer was "anxious to become the proprietor of the drawings" and instructed Royer to pay W. S. Macleay, who accepted payment on the condition that Walckenaer share his findings with the scientific community. The sale was completed on 13 March 1821. Upon Walckenaer's death, his library was auctioned (Potier 1853) and MNHN acquired Abbot's drawings. Gilbert (1998) and Rogers-Price (1983, 1997) asserted that Walckenaer also consulted Abbot's drawings in London, but there is no evidence that he did so.

Preserved with Abbot's notes in Paris is a manuscript on Carolina spiders by the French naturalist Louis A. G. Bosc (1759–1828), which Walckenaer (1837) also credited as a source for his descriptions of new spiders. Bosc arrived in America in 1796 and spent two years exploring around Charleston, South Carolina, before returning to France in 1798 (Beale 1978). According to Walckenaer (1837), he received Bosc's spider manuscript immediately after the publication of Walckenaer (1802). Abbot's notes and Bosc's manuscript are currently available online (MNHN 2019).

**Duplication.**—Previous authors were understandably misled by the illustrations in London. Most of Abbot's drawing numbers, figure numbers, and written observations cited in Walckenaer (1837, 1841) match that collection. In fact, the London watercolors share entire compositions with those in Paris (Fig. 1a, b). This is not surprising, as Abbot frequently copied his artwork and notes based on template manuscripts (Rogers-Price 1983; Neri et al. 2019) (Fig. 1a–c). He traced his template renderings in graphite to duplicate individual figures and entire compositions, though he sometimes made slight modifications (Calhoun 2007).

The drawings in London and Paris are companion sets that share many similarities. Those in Paris are preceded by a watercolor dated 1798 in Abbot's hand (Fig. 1a), suggesting the entire series was completed that year. Although the volume of drawings in London has a printed title page (prepared by Francillon) dated 1792, the first watercolor in the series—a duplicate of that in Paris—is dated 1800 in Abbot's hand (Fig. 1b). This timeline is supported by Abbot's notes. For those in Paris, he wrote "The Collecting and making these Drawings has been the fruit of several Years Observations, but has more particularly engaged my Attention for these last five Years." The notes in London (as transcribed and edited by Francillon) read "The collecting and making of these drawings has been the work for many years observations but more particularly has engaged my attention for these last *seven* years" (emphasis mine). This suggests that the series in London was completed two years after that in Paris (i.e., 1800 vs. 1798). The ten additional drawings in London, portraying 47 more figures, are presumably the result of Abbot's continuing studies during the intervening two years. His notes imply that he started making his template drawings in earnest around 1793.

Duplicate figures are also included in a volume of 537 small spider drawings that were acquired in 2000 by the University of Georgia (Athens, Georgia). Formerly owned by Chetham's Library, Manchester (Fig. 1c), they are accompanied by transcriptions of Abbot's notes in an unknown hand. Probably rendered between 1795 and 1800, this collection was previously offered for sale by Christie's (1980), who erroneously claimed it was "partly published" by Walckenaer (1806–[1808]).

**Nomenclatural impact.**—Abbot sometimes rearranged and substituted figures in his compositions, thus the collections in London and Paris are not exact duplicates. Differences between them will

doubtless affect species synonymies involving Walckenaer's taxa, but the extent has yet to be determined. Two notable examples involve drawings 8 and 74.

Drawing 8 in both Paris and London includes figures 36–40. All figures are duplicates except no. 38, which Walckenaer (1841) described as a variety of *Epeira spatulata* Walckenaer, 1841 (= *Eustala anastera* (Walckenaer, 1841)), having a greenish abdomen with a black circle. Chamberlin & Ivie (1944: 104) identified figure 38 in London—a black spider with white spots on an angular abdomen—as an immature male *Gasteracantha elipsoides* (Walckenaer, 1841) (= *Gasteracantha cancriformis* (Linnaeus, 1758)), remarking "The inclusion of fig. 38 of Abbot in *Epeira spatulata* by Walckenaer must have been accidental, as it in no way resembles the other figures placed in that species." This discrepancy is due to the fact that Walckenaer (1841) was actually referring to figure 38 in Paris, which portrays a very different species of orbweaver, possibly a member of the genus *Eustala* Simon, 1895.

Drawing 74 in Paris and London includes figures 366–370. All the figures are duplicates except one: no. 369, which Walckenaer (1837) used for his description of *Sphasus vittatus* Walckenaer, 1837. Chamberlin & Ivie (1944, fig. 4) considered figure 369 in London to represent the "type" of *S. vittatus*, identifying it as *Castianeira vittatus* of the family Clubionidae. Brady (1964) noted that the figure in London is "obviously a clubionid, not an oxyopid" as treated by Walckenaer (1837). It portrays a dark member of the Corinnidae, which Reiskind (1969) suggested is *Castianeira descripta* (Hentz, 1847). The World Spider Catalog (2019) treats *S. vittatus* (as *Castianeira vittata*) as a *nomen dubium*.

Walckenaer's (1837) concept of *S. vittatus* is actually based on figure 369 in Paris, which portrays a member of the Salticidae. Walckenaer (1837) accurately described this figure as a female with a greenish abdomen bearing two longitudinal bands of carmine red, forming an elongated oval that is open at both ends. The Latin name *vittatus* literally means striped or banded, and Walckenaer's common name for the species, "Sphase a Bandes," translates to "banded Sphase." Abbot mentioned in his notes that the underside of the abdomen of this spider is a "pale cream colour." Abbot duplicated this figure for the London series of watercolors, but he changed its position in drawing 74 and numbered it 368. Chamberlin & Ivie (1944) identified figure 368 in London as *Maevia inclemens* (Walckenaer, 1837). Originally named *Attus inclemens*, Walckenaer's description of this species was based on Abbot's figures 413 and 464 in Paris. Consequently, the name *Sphasus vittatus* Walckenaer, 1837, is a subjective synonym of the name *Attus inclemens* Walckenaer, 1837.

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