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Designation of neotype of *Hemileuca maia* (Drury, 1773) and refinement of its type locality (Bombycoidea, Saturniidae, Hemileucinae)

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ABSTRACT. The present paper defines the original type locality of *Hemileuca maia* (Drury, 1773) as Edgewood, New York, in the Long Island Pine Barrens. It has been locally known as the ñCoastal Pine Barrens Buckmothò and its range may be confined entirely to Long Island, though populations throughout southeastern coastal New England and offshore islands may be considered the same nominotypical taxon. In analyzing historical events, there are questions regarding the geographic location, and source and eventual disposition of the specimen illustrated by artist Moses Harris in Drury (1773). While there is ample evidence that Druryôs specimen of *maia* came from a Mr. Thomas James of Brooklyn, New York, it is not clear whether the illustrated specimen was actually obtained by, and in the possession of, Dr. John Fothergill at the time the specimen was illustrated. Druryôs illustrated specimen perhaps found its way to various collections and is believed to now be lost or unidentifiable. A neotype is designated from the Edgewood Scrub Oak Plains, near present day Brentwood, New York, to agree with a possible collecting location used by Thomas James.

Additional key words: Pitch Pine Barrens, Scrub Oak Plains, Thomas James.

ZooBank registration: http://zoobank.org/References/6A0BCEEB-F6E2-4FC6-BFB8-BD116194AFA0

INTRODUCTION

Dru Drury (1725-1803) stood out among entomologists in 19th century England as having likely the largest private natural history collection of the time, containing an estimated 11,000 specimens. Druryôs livelihood was as a jeweler and silversmith, but he was better known as an entomologist. He served as president of the Society of Entomologists of London (1780-1782) and was a member of the Aurelian Society. Among his peers were familiar names such as Cramer, Donovan, Fabricius, Kirby, and Linnaeus among others.

Drury produced and published his major work ôIllustrations of Natural Historyô in three volumes: Vol. 1 (1770), Vol. 2 (1773), and Vol. 3 (1782), based on specimens in his collection. What is now known as *Hemileuca maia* was described by Dru Drury in Vol. 2 (1773) as *Phal*[*aena*] *Bomb*[*yx*] *Maia* (Fig. 1). Interestingly, species names were not included with any of the original descriptions nor the drawings in this work, thus the only reference to the name ñ*maia*ò is found in the ñIndex to the Second Volume. Names of the Insects, according to the System of Linnaeusò. Drury explained his curious philosophy on names: ñIt is not my present design to enter into the scientific part of the study, by arranging the insects according to any system now established; nor will the reader find that I have given a single name to any one here figured. This, indeed, must be the consequence of not following the system of any author, unless I had formed one of my own; for it is impossible I should give names to them, particularly trivial ones.ò

P L A T E XXIV.

Fig. III. Expands full two inches and a quarter.

Upper-ſide. — The *Antennæ* are black, and ſtrongly pectinated or combed.—The *Neck* is aſh colour.—The *Thorax* and *Abdomen* black, the extremity being orange.—All the *Wings* are ſimilar to each other, and very thin.—The *Superior* are black, with a white bar croſſing them from the anterior to the poſterior edges; whereon is a ſemi eye placed near the former.—The *Inferior Wings* are alſo black, with a white bar, broader than that on the ſuperior wings, croſſing them from the anterior to the abdominal edges; having near the former a black triangular ſpot thereon, anſwering to the ſemi eye on the other wings.

Under-ſide.—The *Palpi* and *Tongue*, if it has any, are not to be ſeen.—The *Legs* and *Thorax* are black.—The *Thighs* orange.—The *Abdomen* grey, having its ſides ſpotted with white; the extremity being orange, as on the upper-ſide.—All the *Wings* are the ſame colour as on the upper-ſide, but rather more diſtinct. The thinneſs of the wings occaſion the colours to be leſs diſtinct and clear, than in moſt others of this kind. The edges of all the wings are even.

It was brought from New York, and is in the poſſeſſion of Dr. Fothergill.

I have not ſeen it in any author.

Fig. 1. Original description of *Phalaena Bombyx Maia* (in Drury, 1773). [Ed. Note: Placement of text is reformatted here, but content is intact].

The plate (Fig. 2) in Drury (1773) was drawn and engraved by artist and entomologist Moses Harris, whoôs engraving work was in high demand in England. Drury set a high standard for accuracy in the drawings: ñ[T]he same plan, of giving *just* and accurate figures, that was followed in the first volume, is continued in this. The utmost care and nicety has been observed, both in the outlines and engraving. Nothing is strained, or carried beyond the bounds nature has set; and whoever will compare the engravings with the originals, I flatter myself will allow, that nothing is borrowed from fancy, or any colour given to an insect that does not really exist in the subject intended to be represented.ò One must assume that care was taken to represent exacting detail to width of the bands, placement of spots, etc. in the plate of *maia*. Of interest is the accurate depiction of the secondaries showing as a shadow, as seen through the primaries where the wings overlap.

Fig. 2. *Phalaena Bombyx Maia* (in Drury, 1773)

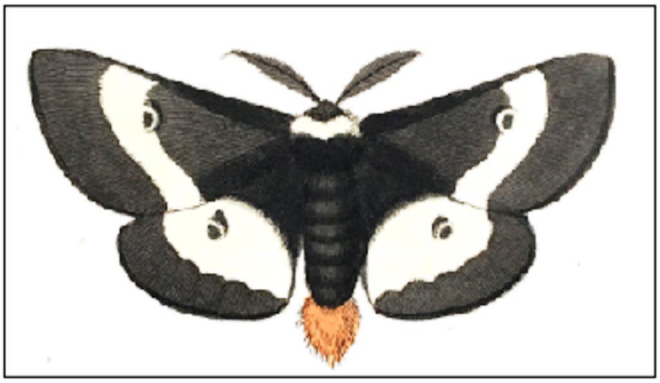


Fig. 3. *Saturnia Maia* (in Westwood, 1837)

Thirty-four years after the passing of his friend Drury, J. O. Westwood decided to republish Druryôs work. In his Vol. 1 (1837), Westwood explained that Druryôs work was of ñacknowledged valueò, but the scarcity of Druryôs work appeared to be ñalmost unknown to Continental Entomologistsò. Thus, as Westwood stated: ñI have consented to undertake the charge of bringing it forth in a form more adapted to the present greatly advanced state of Entomology.ò Which meant, in part, applying current names to each species treatment. He went on to write: ñ[T]he chief difficulty has arisen from the non-possession of the specimens which served for the original illustrationsé ò. Unfortunately, all of the specimens illustrated in Druryôs work had been sold or otherwise disappeared into the world of private and institutional collections by the time his collection was sold at auction in 1805. Typical of collections of the 18th and 19th centuries, generally only one or two specimens represented a species in any collection (Calhoun, 2010), which were easily ñlost.ò Westwood mentions in a footnote that the copper plates, drawn and engraved by Moses Harris for Druryôs 1773 work, were used exclusively in the first two volumes of Westwoodôs 1837 ñNew Editionò. In Fig. 3 (above), one can see some minor differences in the result, as is expected with hand-colored illustrations.

Westwood, in Vol. 2 (1837), edited the description of *Phalaena Bombyx Maia*, and in this case applied the species name ñ*Saturnia maia*ò (Fig. 4), referring to Druryôs *Phalaena Bombyx Maia* as a synonym. Westwood dispensed with the French translations that accompanied each of Druryôs original descriptions, added life history information such as hosts, descriptions of immature stages, flight dates, distribution, and anecdotes referring in this case to the name of common use in America: ñBuck-flyò. Westwoodôs description of the adult is without any doubt representative of *H. maia*:

SATURNIA MAIA.

Plate XXIV. fig. 3.

ORDER: Lepidoptera. SECTION: Nocturna. FAMILY: Bombycidæ, *Leach.*

GENUS. Saturnia, *Schrank.* Attacus, *Germar.* Phalæna (Attacus), *Drury.*

SATURNIA MAIA. Alis rotundatis nigris; fasciâ albâ, maculâ subocellari nigrâ, ano rufescenti. (Expans. Alar. 2 unc. 3 lin.)

SYN. Phalæna (Bombyx) Maia, *Drury, App. vol. 2. Cramer, Ins. 2. tab. 98. fig. A.*
Bombyx Proserpina, *Fabr. Ent. Syst. 111. 1. p. 419. No. 40. Gmel. Linn. S. N. 2407. 480. Abbot & Smith Ins. Georg. pl. 50. Oliv. Enc. Méth. 5. 37. 48. Pal. Beauv. Ins. d'Afr. et d'Amer. Lep. pl. 24. f. 2. 3.*

HABITAT: New York *(Drury).* Georgia *(Abbot).*

Upper Side. Antennæ black, and strongly pectinated. Neck ash-coloured. Thorax and abdomen black, the extremity being orange. Wings pellucid. The anterior being black, with a white bar crossing them from the anterior to the posterior edges; whereon is a semi-eye placed near the former. Posterior wings black, with a broader white bar crossing them from the anterior to the abdominal edges; having near the former a black triangular spot thereon.

Under Side. Palpi and tongue indistinct. Legs and thorax black. Thighs orange. Abdomen grey, having its sides spotted with white; the extremity orange. Wings coloured as on the upper side, but rather more distinct. The thinness of the wings occasions the colours to be less distinct and clear than in most others of this kind. Margins of the wings entire.

Fig. 4. Description of *Saturnia Maia* (in Westwood, 1837).

At this point, one needs to determine the source and eventual disposition of the one original specimen that was modeled by Moses Harris for the plates of both the Drury (1773) and the Westwood (1837) works. A pertinent passage was written by Whitehead (1978) as follows: ñ[T]he modern specialist trying to trace type or figured specimens must explore such famous old museums as the Leverian or Bullockôs and he must probe the many small and ephemeral collections that time and again changed hands, at each step with some loss of material and of the information that accompanied it. A complex web of sales, loans, gifts and transfers must be unraveled if the specimen is to be located or its provenance authenticated. The task is time-consuming, and it is often held that such ñhistorical taxonomyò is an old-fashioned and expensive luxury in modern systematic work.ò Nevertheless, such a task must be pursued in the case of *Phalaena maia.*

It must be noted that Dru Drury enlisted the help of associates throughout the world to supply him with specimens and report natural history observations. Enlisting the employ of ship captains and other travelers, Drury sent letters and printed instructions abroad, even supplying collecting equipment when necessary, and always insisting on perfect specimens. Curiously, Drury (1773) mentions in the OD of *maia*: ñIt was brought from New York, and is in the possession of Dr. Fothergill.ò This indicates that the specimen was not part of Druryôs own collection, at least at the time of writing Vol. 2.

Among Druryôs overseas associates was Thomas James of Brooklyn, New York (Calhoun, 2010). Drury corresponded with James beginning in 1763, and received specimens from him between 1764 and 1776. Drury paid James for insect specimens and instructed him with collection techniques and sent him equipment. Drury had also encouraged James to collect duplicates, which Drury would exchange with other collectors. Thus there is a possibility there were additional specimens of *maia* being distributed, but no documented record of such transactions exists. It is believed that James originally lived in Flatbush, Brooklyn (New York), though some letters from Drury were addressed to James in ñGuanoes, Long Islandò. The best current translation of ñGuanoesò is similar to Gowanus (Brooklyn), a neighborhood near present-day Flatbush. Later correspondence between Drury and James went through a Mr. Rapalje, who lived at Brookland Ferry in the same area (Calhoun, 2010). The specimen of *maia* that James would have sent to Drury was collected or delivered in 1766, presumably while James still lived in Brooklyn. It is not known whether James could have collected the specimen of *maia* in Brooklyn or further out on Long Island, where James eventually relocated in 1767 or 1768.

The Gowanus and Flatbush areas at that time were primarily open farmland associated with scattered hamlets. The largest settlement of the time on the Brooklyn side of New York Harbor was around Brookland Ferry, where farmers from Long Island would take their produce across the East River to New York (Manhattan). This landscape was captured in excruciating detail in the ñPlan of the City of New York in North America: surveyed in 1766 and 1767ò by Bernard Ratzer, commonly referred to as the ñRatzer Mapò (Miller, 2016). Much of Brooklyn (Kings County) was apparently in agricultural production. East of this agricultural region, south of the glacial moraine, was a vast prairie-like plain stretching from present-day Queens County to Hempstead in central Nassau County (Flint, 1896), where a tiny remnant of the ñHempstead Plainsò remains today protected, but otherwise unrecognizable to most. Earlier records documented the unbroken Pine Barrens of central and eastern Long Island extending westward only to around Hempstead (central Nassau County). As the Long Island population of *H. maia* is known to be primarily associated with extensive growth of Scrub Oak (*Quercus ilicifolia*), the likelihood exists that James collected Druryôs specimen farther east, not in Brooklyn.

Cockerell (1922) cited Druryôs correspondence through two letters with James, one of which confirms Jamesô move in that time period. In a letter dated Aug. 1, 1768 Drury requested James to send more insects from Jamesô new home out on Long Island, some 40 miles away, and included payment for specimens. Interestingly, the distance from Gowanus (Brooklyn) to the Edgewood Pine Barrens/Oak Plains, just east of present-day Deer Park, N.Y., is approximately 40 miles. In the mid-1700ôs this area

was characterized by vast expanses of Pitch Pine/Scrub Oak forest. I have observed *H. maia* commonly in the Edgewood area since the late 1960ôs, when I lived in Brentwood, and collected it many times. Much of this area has now been converted to industrial use, though a considerable remnant of the Edgewood Pine Barrens and associated Scrub Oak Plains is protected within the New York State Dept. of Environmental Conservationôs Edgewood Oak Brush Plains Preserve, and there are scattered remnants adjacent to the Preserve which will likely be developed in coming years.

Westwoodôs first hint at the disposition of Druryôs specimens was as such: ñ[A]s appears from the Catalogue of his [Druryôs] Insects, which I obtained at the sale of Mr. [Edward] Donovanôs collections, to whom, as appears by a note, they were presented by Mr. Druryé Here it is quite evident that Drury had carefully noted down the localities of all the specimens of this insect which he possessedé ò Drury reportedly produced printed circulars for the public sale of his collection in London, in 1788, several years prior to his death on Jan. 15, 1804, which included not only insects, but also cabinets, books and the original copper plates. Druryôs handwritten collection catalogue provides whatever data was available to the author (Fig. 5).

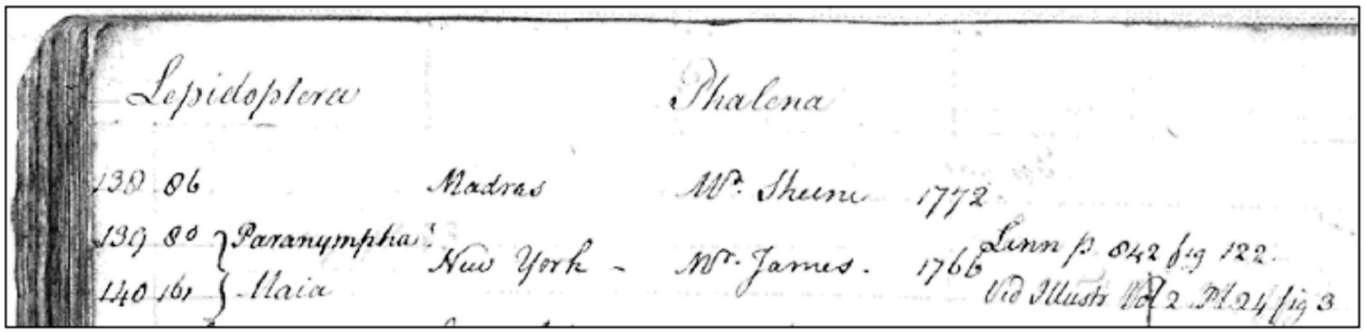


Fig. 5. Portion of Druryôs handwritten catalogue confirming the source of the *maia* specimen to be ñMr. Jamesò. It was apparently obtained in 1766. Note Drury listed it under ñ*Phalena*ò [sic].

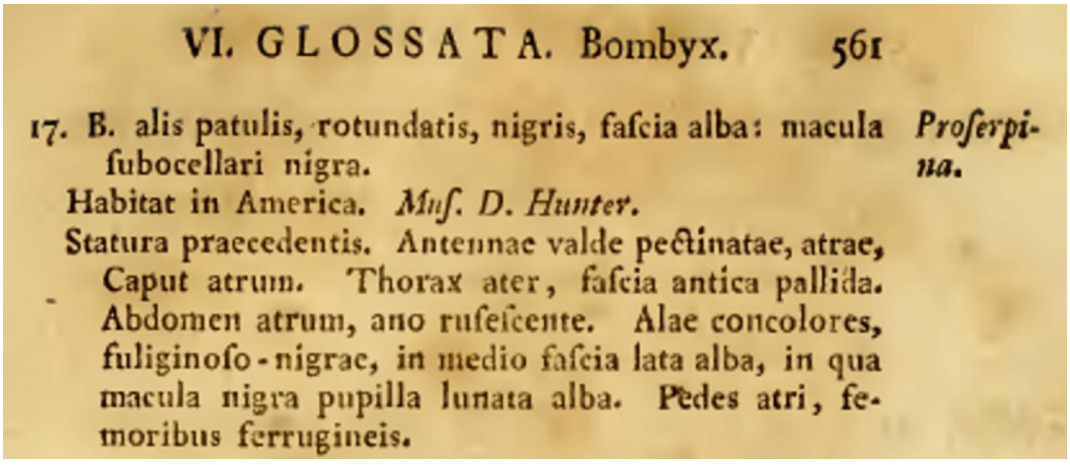
The original copy of Druryôs handwritten collection catalogue, four notebooks in his hand and presumably prepared around 1790, was presented to Edward Donovan, who in turn used it to produce the catalogue of Druryôs collection for public auction (Donovan, 1805; Calhoun, 2010), of which Westwood obtained a copy. It should be noted that *P. maia* was NOT specifically listed among sale items in the sale catalogue (though possibly grouped with several unspecified multiple ñ*Phalaena*ò entries which were purchased by John Francillon). Westwood reproduced part of Druryôs handwritten catalog in his 1837 work to list purchasers of Druryôs collection. The following names were among those listed: G. Humphrey, Donovan, General Davies, Macleay, Latham, and Kirby. John Francillon was listed among those purchasing the multiple ñ*Phalaena*ò entries, which could have included Druryôs specimen of *maia*. However, when Francillonôs own collection was auctioned in 1817-1818, there was no record of *maia* (Calhoun, pers. corr.). Interestingly, Macleay was the recipient of many of Druryôs specimens either through the sale of Druryôs collection or from the auction of Francillonôs collection.

The original specimen illustrated by Moses Harris (Drury, 1773) is believed to be either lost or unrecognizable among worldwide lepidoptera collections. A problem now encountered is that data labels were rarely affixed to specimens during the 18th and 19th centuries, and data (if any) was recorded in separate logbooks or catalogs (Hancock, 2004; Calhoun, 2010). Often, any labels affixed to specimen pins or trays were simply cabinet labels produced to identify a species. This information would have been imprecisely forwarded or lost in the process of specimen exchanges, thus becoming unreliable.

What further complicates matters is the mention in the OD of *Phalaena Bombyx Maia*, where Drury (1773) writes: ñIt was brought from New York, and is in the possession of Dr. Fothergillò. It is not clear from whom John Fothergill obtained the specimen mentioned in the OD, but he apparently had his own contacts in the New York area who likewise sent him specimens. Fothergill is known to have received specimens from his Quaker friends in the New World (Douglas, 2015). Drury always indicated in his written work, who owned the specimen (Brock, 1977). This brings to question: Did Thomas James NOT collect the specimen described and illustrated in Drury (1773)? Calhoun (pers. corr.) suggests that Drury might have obtained additional specimens of *maia* at a later date and incorrectly credited them to James when he prepared his catalog. Also William Hunter is known to have received many American specimens from his own network of acquaintances and exchanged specimens with other collectors, among them a medical student of his, William Wood, who sent specimens mainly from Philadelphia and Rhode Island (Jeanne Robinson, pers. comm.; Calhoun, 2010). There was apparently considerable exchange of material back and forth between Drury, Fabricius, Macleay and Hunter (Hancock, 2004; Hancock *et. al.*, 2015), often making it difficult or impossible to keep track of specimen transfers. Fothergillôs collection was bequeathed in 1780 to William Hunter, whose own collections formed the basis of the Hunterian Museum, which opened in 1807. Interestingly, the two ñco-typesò of *Bombyx proserpina* Fabricius (Figs. 7 and 8), now housed in the Hunterian Museum (University of Glasgow), could possibly have come from Fothergill and served as the model for Druryôs *Phalaena Bombyx Maia*. Jeanne Robinson (pers. comm.) informed me that the only specimen data available comes from Fabricius (1775) where Fabricius mentioned the specimens came from America. The current cabinet labels were prepared between 1783 and 1785 by Hunterôs nephew, Matthew H. Baillie (Hancock *et. al.*, 2015).

The two Hunterian specimens (Figs. 7 and 8) are a much closer match to Druryôs illustrated figure. Could one of these have been the model for Harrisôs illustration for Drury? Fabricius described *proserpina* from Hunterôs collection in 1775. Calhoun (pers. corr.) advised this occurred five years before Hunter ever received Fothergillôs material. It is possible that Fothergill gave the original specimen to Drury. Both ñco-typesò appear to be males by their broad antennae, though the University of Glasgowôs online collection entries indicate the sex of each is ñunknownò. Druryôs specimen was obviously a male. Calhoun (pers. corr.) questioned why Drury would list a specimen of *maia* coming from James, yet possibly described the species from a Fothergill specimen. A satisfactory answer to this may never be found.

Fabriciusô description of *Bombyx proserpina* follows below (Fig. 6). The type locality is indicated as ñHabitat in Americaò, but interestingly he lists Hunter (or the Hunter collection) as the source:



VI. GLOSSATA. Bombyx. 561

17. B. alis patulis, rotundatis, nigris, fascia alba: macula subocellari nigra. *Proserpina.*
Habitat in America. *Mus. D. Hunter.*
Statura praecedentis. Antennae valde pectinatae, atrae, Caput atrum. Thorax ater, fascia antica pallida. Abdomen atrum, ano rufescente. Alae concolores, fuliginoso-nigrae, in medio fascia lata alba, in qua macula nigra pupilla lunata alba. Pedes atri, femoribus ferrugineis.

Fig 6: Description of *Bombyx proserpina* Fabricius (1775).

A rough translation of Fabricius (1775): ñStature as follows. Antennae very comb-like, black, with a dark head. Thorax black, and the front fascia pale. The abdomen with dark reddish anus. The wings of the same colors, chimney-black, with white curves in the middle, in which a black eye is shaped by white. Black legs, thighs reddish brown.ò Fabricius refers to the abdomen having a dark reddish anus, characteristic of the male. Hunterian Museum specimen 133603 appears to be missing the orange-red terminal hairs, while 133604 is missing the abdomen entirely. The two specimens are nearly identical in phenotypic characters. A problem with these Hunterian Museum specimens is without detailed locality information they could be *H. maia*, or perhaps what is now known as *H. lucina* (characterized by broader white bands and greater translucence,) or possibly *H. nevadenis*, or another *Hemileuca* species. The bands are unusually wide for Long Island *maia*.

Fig. 7. Co-type of *Bombyx proserpina* Fabricius. Hunterian Museum catalogue number GLAHM 133603. Image reproduction by permission, © The Hunterian, University of Glasgow.

Fig. 8. Co-type of *Bombyx proserpina* Fabricius. Hunterian Museum catalogue number GLAHM 133604. Image reproduction by permission, © The Hunterian, University of Glasgow.

A specimen housed in the collection of the Macleay Museum (University of Sydney) (Fig. 9) might have passed through the hands of several people, thus losing any possibility of knowing its true source. An accompanying data label only indicates ñNew Yorkò, and no other information accompanies the specimen. Robert Blackburn (pers. corr.) informed me that George Masters, first curator of the Macleay Museum, wrote the specimenôs data label. Such labels were written to replace the original labels. The specimen has also been re-pinned, as the current insect pin is not of the ólold styleô type used by Drury. Possibly purchased by Macleay from the Drury collection, this specimen does not match the pattern of the specimen illustrated in Drury (1773), though the white bands are characteristic of Long Island *maia*. However, it does lend to the belief that several specimens of *maia* made their rounds among the collectors of the time. Since they are of unknown origin, it is unwise to designate a lectotype from among specimens of uncertain provenance.

Fig. 9. Male *Hemileuca maia* specimen housed in the Macleay Museum, Sydney, Australia. Image: © Macleay Collections, University of Sydney.

Also curious is the fact that a second *H. maia* specimen in the Macleay Museum collection, identified as ñ*Hemileuca proserpina*ò indicates ñGeorgiaò as the location. This specimen was likely collected by John Abbot, but it could not have been examined by Fabricius for the original description of *proserpina*, as Abbot did not arrive in Georgia until 1776.

The only other taxon of interest is the original holotype of *H. maia* ñab. *lintneri*ò (Packard, 1914). The original description reads as follows:

> ñIn one ‖ [ab. *lintneri*] captured at Albany, N.Y. (fig. 11, Pl. LXVII), photographed by the late Dr. Lintner, there is no white band on the fore wings; the ocellus is distinct, but on the hind wing a white band incloses [sic] the ocellus.ò

A poor photograph is illustrated in Packard (1914), showing this extreme male variant of a *H. maia* male that is entirely missing the white band on the forewing. This specimen may quite possibly represent an aberrant specimen of *H. lucina*. The disposition of the specimen is presently unknown.

NEOTYPE DESIGNATION

Since none of the known historic specimens (despite links to Drury and his peers) clearly satisfy the phenotypic characters evident in the illustrated specimen (Drury, 1773), a neotype is proposed here to objectively define nominotypical *Hemileuca maia* (*Phalaena Bombyx Maia*) with a typical male, representative of the Long Island Pine Barrens population. I select a specimen from the Edgewood Pine

Barrens (Fig. 10). The Hunterian Museum specimens of *proserpina*, which are closer matches to the specimen illustrated in Drury (1773), do not appear to be of the nominotypical phenotype of *maia*. A specimen from the Long Island Pine Barrens region would best represent the species from the immediate ñNew Yorkò (city) region, which is likely the geographical origin of the specimen illustrated in Drury (1773). The Long Island population is essentially a Pine Barrens isolate. The next nearest populations of *maia* occur in southeastern New England. Other populations from around Albany, N.Y. and in the New Jersey Pine Barrens region differ phenotypically by having more opaque, darker wings (Pavulaan, in press).

Fig. 10. Proposed neotype of *Phalaena Bombyx Maia* Drury (1773).

The proposed neotype, a male (Fig. 10), bears a plain white printed label [*Hemileuca maia* / October 21, 2017 / Long Island Avenue / north of Deer Park train station / Edgewood, New York. Collected by Harry Pavulaan] and a red printed label [NEOTYPE / *Phalaena Bombyx Maia* / Drury (1773) / Designated by / Harry Pavulaan 2020]. The neotype is deposited in the McGuire Center for Lepidoptera & Biodiversity, Gainesville, Florida.

TYPE LOCALITY

The location of the defined type locality of the neotype of *Hemileuca maia* is just outside the east edge of the Scrub Oak Plains which lie within the Edgewood Oak Brush Plains Preserve, between Deer Park and Brentwood, Long Island, New York (Fig. 11). Industrial growth has destroyed most of the native forest cover of the area in the image with only patches of habitat remaining in some areas outside of the Preserve. This site, in what little remains of the historic hamlet of Edgewood, is directly north of the Long Island Railroadôs Deer Park station along Long Island Avenue. The type locality site will very likely be developed shortly after publication of this paper, though there is a thriving population of Buck Moths in the Scrub Oak Plains within the Preserve. A portion of the Scrub Oak habitat, which is visible in the image below (Fig. 12), was once part of the continuous Long Island Pitch Pine Barrens and Scrub Oak Plains, as recently as the mid-1960ôs.

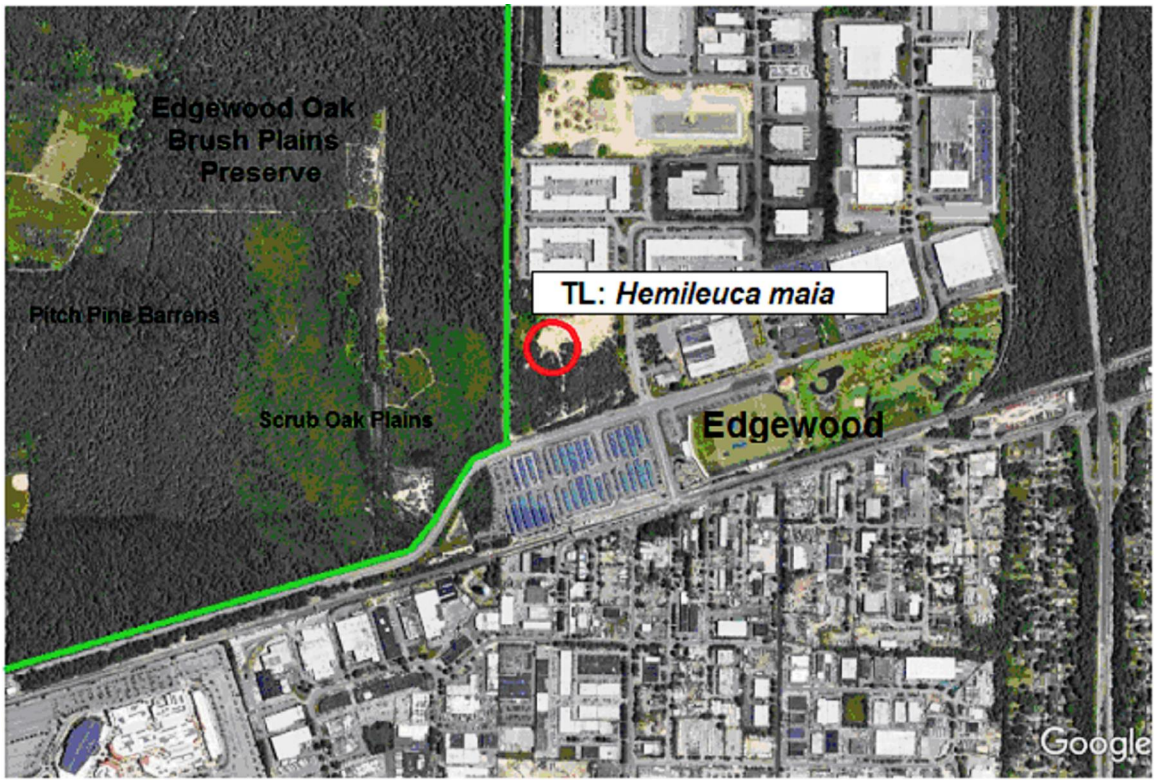


Fig. 11. Location of the defined type locality of the neotype of *Hemileuca maia* beyond the east edge of the Scrub Oak Plains within the Edgewood Oak Brush Plains Preserve between Deer Park and Brentwood, Long Island, New York.

Fig. 12. Typical view of Scrub Oak Plains habitat within the Edgewood Oak Brush Plains Preserve, immediately west of the proposed type locality. This is typical habitat for *H. maia* on Long Island. The Scrub Oak (*Q. ilicifolia*) ñcanopyò in the foreground is the primary component of the Scrub Oak Plains and is approximately 5 ft. in height. Pitch Pine (*Pinus rigida*) towers above the Oaks in the background. [Photo: 10/21/2017]

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