

New records and identifications of butterflies and moths (Lepidoptera) from Tobago, West Indies

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Abstract

Details of 54 new butterfly and moth records from Tobago are presented, including species of Crambidae (9), Erebidae (18), Euteliidae (1), Geometridae (10), Hedyliidae (1), Hesperidae (1), Lasiocampidae (1), Megalopygidae (1), Noctuidae (3), Nolidae (2), Notodontidae (1), Nymphalidae (1), Papilionidae (1), Pieridae (1), Pyralidae (2), and Uraniidae (1). Five corrections of names previously used are also reported. All records are based solely on photographs, and representative images are included as vouchers. The total number of species known from Tobago is now 466 moths, and 157 butterflies. All newly reported species are also known from Trinidad (although some have not been previously published from Trinidad).

Key words: Trinidad, Crambidae, Erebidae, Euteliidae, Geometridae, Hedyliidae, Hesperidae, Lasiocampidae, Megalopygidae, Noctuidae, Nolidae, Notodontidae, Nymphalidae, Papilionidae, Pieridae, Pyralidae, Uraniidae

INTRODUCTION

The butterflies of Tobago are fairly well known, and an updated checklist of 150 species was recently published (Cock 2017a). In contrast, the moths of Tobago are not well known and a preliminary checklist of 355 species was published only recently (Cock 2017b). This is a small total compared to the more than 742 species extrapolated by Cock (2003), and many more moth species are expected to occur in Tobago, particularly those of smaller size. Cock and Kelly (2020) added 45 new records of moths from Tobago, based mostly on photographs taken by MK at the lights of his house near Englishman's Bay, and Cock (2021b) added a further 11 moths and two butterflies based on images posted on iNaturalist (www.iNaturalist.org) by several naturalists. Here we add a further 49 moths and five butterflies based on the authors' images and photographic records from iNaturalist, and remove one misidentified species. The total number of Lepidoptera species currently known from Tobago is 466 moths, and 157 butterflies. All species newly recorded from Tobago are also known to occur in Trinidad, although not all have been previously published as occurring in Trinidad.

We refer to material examined in the following collections: Matthew J.W. Cock, private research collection, Dolgellau, UK (MJWC), The Natural History Museum, London, UK (NHMUK), National Museums of Scotland (NMS), Oxford University Museum of Natural History (OUMNH), United States National Museum (USNM), and the University of the West Indies Zoological Museum, St. Augustine, Trinidad and Tobago (UWIZM). Identifications were made by comparison with the first author's collection of Trinidad Lepidoptera (MJWC), which have been named primarily in the context of the collections of NHMUK and USNM. In three cases

we also refer to species' barcode index numbers (BINs) (Ratnasingham and Hebert 2013) as used in the Barcode of Life database ((Hebert *et al.* 2003), www.boldsystems.org). Species are arranged by family alphabetically, and alphabetically within families; subfamilies (where used) are included in parentheses after each species heading. Comments on the status of each species in Trinidad are based on the first author's unpublished records; these give an indication of how commonly and in which habitats these species may occur in Tobago. The figures show photographs taken in Tobago, except as indicated. © in the figure legend refers to the photographer. As the photographs are without any indication of scale, the forewing length (F: base of forewing – wing tip) is provided in the figure legends based on Trinidad material in MJWC, or the original descriptions.

CRAMBIDAE

Desmia bajulalis Guenée, 1854 (Spilomelinae)

A new record for both Trinidad and Tobago. Trinidad specimens from Curepe (14–21 September 1981) and St Benedicts (10–16 July 1996) were identified by comparison with a paralectotype (NHMUK, French Guiana), NHMUK series and USNM series. There is also a recent photographic record from Port of Spain, Hololo Road by Lena Dempewolf (November 2021, iNaturalist observation 101913653). MG's photo of a female attracted to light above Englishman's Bay (Fig. 1) is the first for Tobago.

Metoea foedalis (Guenée, 1854) (Spilomelinae)

This small, but distinctive, pantropical species was identified by comparing Trinidad specimens with the NHMUK and



Fig. 1. Female *Desmia bajulalis*, Englishman's Bay, at light, 25 January 2022, M. Gibson (iNaturalist observation 105585502); F 12–16 mm.

USNM series. Although there are no published records from Trinidad, there are Trinidad specimens in USNM and MJWC has records from Brasso Seco, Cumaca Road (0.5 miles), Curepe, Penal and South Oropouche. AED photographed this species attracted to lights near Englishman's Bay on 7 and 9 January 2022 (Fig. 2).



Fig. 2. Male(?) *Metoeca foedalis*, Englishman's Bay, 11.28 -60.68, 9 January 2022, A. Deacon (iNaturalist observation 104684170); F 6 mm.

***Microcrambus elpenor* Bleszyński, 1967 (Crambinae)**

Bleszyński (1967) described this species from Mexico, Trinidad, and Guyana; MJWC identified Trinidad material from Bleszyński (1967) and Landry and Andriollo (2020). A photo by bellbird20 (Fig. 3) appears to be the first record from Tobago.

***Phidotricha baradata* Schaus, 1922 (Epipaschiinae)**

Schaus (1922) described this species from Trinidad, although MJWC has seen no other specimens from the island. However, MK and AED were able to photograph specimens in Tobago (Fig. 4). They were identified by comparison with a photo of the type.



Fig. 3. *Microcrambus elpenor*, Main Ridge, 11.287 -60.594, 15 April 2022, bellbird20 (iNaturalist observation 112971813). F 5.5–6 mm (Bleszyński 1967). ©, with permission.



Fig. 4. Male *Phidotricha baradata*; **above**, Englishman's Bay, 11.28 -60.68, at light, 7 January 2022, A. Deacon (iNaturalist observation 104591052); **below**, Englishman's Bay, at light, 14 March 2020, M. Kelly; F 7.5 mm (Schaus 1922).

***Prenesta sunialis* Snellen, 1875 (Spilomelinae)**

This species was recorded from Trinidad by Kaye and Lamont (1927), and the identity of this species was confirmed by comparison of Trinidad material with the NHMUK series. This is an occasional and widespread species in Trinidad, particularly in forested areas, but Fig. 5 is the first Tobago record.



Fig. 5. Female *Prenesta sunialis*, Englishman's Bay, at light, 7 March 2022, M. Kelly; F 11 mm.

***Psephis myrmidonalis* Guenée, 1854 (Glaphyriinae)**

This species has not previously been reported from Trinidad, although there are records from Brigand Hill, Curepe and South Oropouche. A Trinidad specimen was identified by M. Shaffer (NHMUK, 1980). Photographs by MK (Fig. 6) are the first record from Tobago.



Fig. 6. *Psephis myrmidonalis*, Englishman's Bay, at light, 1 February 2022, M. Kelly; F 5 mm.

***Pyrausta insignitalis* Guenée, 1854 (Pyraustinae)**

Trinidad specimens were identified by comparison with the cotypes (NHMUK, 2♀ French Guiana) and NHMUK series. The cotypes have contrasting shading which seems to be a feature of the female, whereas the male is more uniformly buff yellow. This species is common and widespread in Trinidad, but AED's photo from Englishman's Bay (Fig. 7) is the first record from Tobago.



Fig. 7. Male(?) *Pyrausta insignitalis*, Englishman's Bay, 11.28 -60.68, 10 January 2022, A. Deacon (iNaturalist observation 104742163); F 8 mm.

***Salbia cassidalis* Guenée, 1854 (Spilomelinae)**

This species is known from Trinidad (Kaye and Lamont 1927) and MJWC identified it by comparison with the type (NHMUK, ♂ Brazil) and NHMUK series. MG's photo from above Englishman's Bay (Fig. 8) is the first record from Tobago



Fig. 8. Male *Salbia cassidalis*, Englishman's Bay, 11.288 -60.674, 23 January 2022, M. Gibson photo (iNaturalist observation 105462976); F 8 mm.

***Sufetula diminutalis* (Walker, 1859) (Lathrotelinae)**

Although there are no published records of this species from Trinidad, MJWC is aware of several records (Maracas Valley, El Tucuche, Brigand Hill, Talparo). MJWC identified Trinidad material by comparison with the type (NHMUK, Honduras), NHMUK series and USNM series. Males are smaller, darker and more contrasting than females. MG photographed what appears to be a male of this species above Englishman's Bay (Fig. 9), and AED photographed one near Englishman's Bay (9 January 2022, iNaturalist observation 104684171).



Fig. 9. Male *Sufetula diminutalis*, above Englishman's Bay, 25 November 2021, M. Gibson (iNaturalist observation 102232267); F 6 mm.

EREBIDAE***Ateneria crinipuncta* Schaus, 1914 (incertae sedis)**

The subfamily placement of this species has yet to be established. MJWC identified Trinidad specimens by comparison with the type (USNM, ♂ French Guiana), USNM series and NHMUK series. Although it has not previously been recorded from Trinidad, MJWC has records from Arima Valley (Asa Wright Nature Centre, Simla), Inniss Field, Parrylands Oilfield, and Sangre Grande. MK photographed several individuals above Englishman's Bay: female 28 December 2021 (Fig. 10), male 30 January 2022 (Fig. 10), male 1 February 2022 and female 27 March 2022.

***Baniana ypita* Schaus, 1901 (Anobiinae)**

Although there are no previous published records from Trinidad, this species is quite common and widespread in forested areas of the island. Trinidad specimens were identified by comparison with the type (USNM, ♀ Venezuela), USNM series and NHMUK series. A photo by AED (Fig. 11) is the first record from Tobago.



Fig. 10. *Ateneria crinipuncta*, above Englishman's Bay, at light; male (**above**), female (**below**), 28 December 2021, M. Kelly; F 11 mm.



Fig. 11. Male *Baniana ypita*, Englishman's Bay, 11.28 -60.68, 12 January 2022, A. Deacon (iNaturalist observation 104846555); F 16 mm.

***Carteris oculatalis* (Möschler, 1890) (Herminiinae)**

This species has been reported from Trinidad (Kaye and Lamont 1927), where it is widespread in lowland areas. MJWC identified it by comparison with the NHMUK series. Rachael Williams-Littzen photographed one between Buccoo and Black Rock (Fig. 12).



Fig. 12. Female(?) *Carteris oculatalis*, Buccoo to Black Rock, 17 June 2020, R. Williams-Littzen (iNaturalist observation 94392658); F 11 mm. ©, under CC-BY-NC license.

***Catephiodes trinidadensis* (Kaye, 1901) (Erebinae)**

This species was described from Trinidad (Kaye 1901) and is a common and widespread species on that island. More recent Trinidad material was identified by comparison with type (NHMUK, ♀ Trinidad). The first Tobago record appears to be a photograph by MK (Fig. 13).



Fig. 13. Female(?) *Catephiodes trinidadensis*, Englishman's Bay, at light, 1 February 2022, M. Kelly; F 13 mm.

***Clapra marginata* (Warren, 1889) (Erebinae)**

MJWC identified this species by comparison of Trinidad material with the type (NHMUK, Amazons) and NHMUK series. It is an occasional and widespread species in forested areas of Trinidad. MK's photograph (Fig. 14) is the first observation that we know of from Tobago.



Fig. 14. Male(?) *Clapra marginata*, Englishman's Bay, at light, 9 January 2022, M. Kelly; F 12 mm.

***Ctypansa inconstans* Walker, 1958 (Erebinae)**

This name has been applied to Trinidad material since Kaye and Lamont (1927). It seems to be a variable species, most material from Trinidad being of a pale form, but at least some being a dark form which matches the type (NHMUK, ♂ Ega, Brazil). MK photographed a male of the pale form at Englishman's Bay (Fig. 15).



Fig. 15. Male *Ctypansa inconstans*, Englishman's Bay, at light, 19 November 2021, M. Kelly; F 18 mm.

***Delphyre* sp. near *espinozai* Cerda, 2020 (Arctiinae, Ctenuchina)**

Until recently, this species has been known from Trinidad as *Delphyre hebes* (Walker) (Kaye and Lamont 1927, Fleming 1959). However, Cerda (2020) established that *D. hebes* is restricted to Central America, and described *D. espinozai* from French Guiana. Dissection of a Trinidad male showed that it is very close to, or conspecific with, *D. espinozai*

as illustrated by Cerda (2020). Several photographs from Englishman's Bay (♀ 13 December 2021, MK; ♀ 6 January 2022, ♀ 8 January 2022, ♂ 9 January 2022, AED) (Fig. 16) show that what appears to be this species also occurs in Tobago. However, AED collected a female voucher for which we now have a DNA barcode, and this indicates that the Tobago specimen is neither *D. hebes* nor *D. espinozai*. It seems to be an undescribed species, but male dissections from Tobago, and DNA barcodes from Trinidad, will be needed to clarify the position.



Fig. 16. Male (left) and female (right) *Delphyre* sp. nr. *espinozai*. Male, Englishman's Bay, 11.285 -60.696, 9 January 2022, A. Deacon (iNaturalist observation 104684181); F 10 mm. Female, above Englishman's Bay, at light, 13 December 2021, M. Kelly; F 11 mm.

***Lesmone duplicans* (Möschler, 1880) (Erebinae)**

Trinidad material was identified by comparison with the NHMUK series. This is a common and widespread species in disturbed and suburban habitats in Trinidad. The only record from Tobago is a photograph by MK (Fig. 17).



Fig. 17. *Lesmone duplicans*, above Englishman's Bay, at light, 26 December 2021, M. Kelly; F 15 mm.

***Lophodelta goniograpt* Hampson, 1924 (Herminiinae)**

Trinidad material was identified by comparison with NHMUK series. *Lophodelta goniograpt* may prove to be

a junior synonym of *Metalectra aglaia* (Schaus, 1912), but no action is proposed at this point. This is an occasional and widespread species in Trinidad, and MK has photographed specimens that came to his house lights at Englishman's Bay, 13 January 2020, 22 November 2021 and 5 March 2022 (Fig. 18).



Fig. 18. Male *Lophodelta goniograpt*, Englishman's Bay, at light, 5 March 2022, M. Kelly; F 11 mm.

***Neophisma aeolida* (Druce, 1890) (Erebinae)**

The identification of this species was by comparison of Trinidad material with the NHMUK series. It was previously placed in *Ophisma*, which is an Old World genus, but is now in the Neotropical genus *Neophisma* (Barbut 2022). It has not previously been reported from Trinidad, but it is an uncommon species with records from the Arima Valley, Morne Bleu and Brasso Seco. First photographed in Tobago by MK (Fig. 19).



Fig. 19. *Ophisma aeolida*, Englishman's Bay, at light, 11 January 2022, M. Kelly; F 20 mm.

***Neophisma tropicalis* (Guenée, 1852) (Erebinae)**

This species has been recorded from Palmiste, Trinidad as *Ophisma tropicalis* (Lamont and Callan 1950), but see comments regarding this genus under the previous species. MJWC has only encountered it at Morne Bleu Textel, Trinidad, and these specimens were identified by comparison with the NHMUK series. AED's photo from Englishman's Bay (Fig. 20) is the first record from Tobago.



Fig. 20. Male(?) *Ophisma tropicalis*, Englishman's Bay, 2 January 2022, A. Deacon (iNaturalist observation 104320951); F 25–30 mm.

***Parachabora abydas* (Herrich-Schäffer, 1869) (Calpinae)**

There are no published records of this species from Trinidad or Tobago. However, MJWC is aware of several records from the Northern Range of Trinidad (Brasso Seco, Maracas Valley, Morne Bleu), and specimens from Morne Bleu were identified by comparison with the NHMUK series. AED's photo from Englishman's Bay (Fig. 21) is the first from Tobago.



Fig. 21. *Parachabora abydas*, Englishman's Bay, 12 January 2022, A. Deacon photo, (iNaturalist observation 104846547); F 14–16 mm.

***Phlyctaina irrigualis* Möschler, 1890 (Herminiinae)**

Kaye and Lamont (1927) recorded this species from Trinidad, where it is common and widespread in suburban and forest habitats. Identified by comparison with NHMUK series,

including the male type of *P. griseirena* Hampson, a synonym described from St Vincent and Grenada. It has also been observed on Monos Island (♂, 17 August 2021, A. Deacon, iNaturalist observation 91589411), but Rachael Williams-Littzen's photo from between Buccoo and Black Rock (Fig. 22) is the first Tobago record.



Fig. 22. Male *Phlyctaina irrigualis*, Buccoo to Black Rock, 17 June 2020, R. Williams-Littzen (iNaturalist)

***Punctumtergum columbiana* Draudt, 1931 (Arctiinae, Arctiini, Ctenuchina)**

Cock (2017b) recorded *Eucereon maia* Druce from Tobago. Cerda (2020) established the genus *Punctumtergum* for *E. maia* based on male genitalia and DNA barcodes. On the same basis, he also concluded that *P. maia* is restricted to Central America, while the South American population is a different species, for which the name *P. columbiana* (Draudt) is appropriate.

***Pupillaptera vicina* Cerda, 2020 (Arctiinae, Arctiini, Ctenuchina)**

This species was previously recorded from Tobago as *Eucereon latifascia sensu* Hampson *nec* Walker, based on a specimen from Englishman's Bay (J. Ingraham) (Cock 2017b). It was recently described from French Guiana (Cerda 2020), and identified from Trinidad and Tobago by a comparison of the male genitalia.

***Rivula pusilla* Möschler, 1890 (Rivulinae)**

There are no published records of this species from Trinidad or Tobago. However, there is a male from Trinidad in USNM, MJWC has specimens from Curepe, and Mark Hulme photographed it at Brasso Seco (17 July 2021, iNaturalist observation 87642739). The Trinidad material was identified by comparison with the NHMUK and USNM series. AED's photo from Englishman's Bay (Fig. 23) is the first for Tobago.



Fig. 23. *Rivula pusilla*, Englishman's Bay, 10 January 2022, A. Deacon. (iNaturalist observation 104742166); F 8 mm. observation 94392531); F 13 mm. ©, under CC-BY-NC license.

***Rivula* sp. cf. *rufescens* Schaus, 1913 (Rivulinae)**

Although there are no published records of this species from Trinidad or Tobago, it is an uncommon species in Trinidad, widespread in lowland areas (Simla, Curepe, Long Stretch, Morne Bleu). Trinidad material was identified by comparison with the type of *R. rufescens* (USNM, ♂ Costa Rica) and USNM series, which it closely resembles, but the pectens of the male antennae are much broader in Trinidad material. Matt Kelley photographed two different males above Englishman's Bay on 22 and 23 January 2022 (Fig. 24).



Fig. 24. Male *Rivula* cf. *rufescens*, Englishman's Bay, at light, 23 January 2022, M. Kelly, F 7.5 mm

***Salia albivia* (Hampson, 1950) (Herminiinae)**

This species was recorded from Trinidad and described based on Hampson's manuscript in Lamont and Callan (1950); two

of Lamont's specimens are in UWIZM. MJWC identified Trinidad specimens by comparison with the type (NHMUK, Guyana). It is an occasional species found in forested areas of Trinidad. MK's photo of an adult observed by day (Fig. 25) is the first record from Tobago.



Fig. 25. Male *Salia albivia*, Englishman's Bay, 4 March 2022, M. Kelly; F 13 mm.

***Schrankia macula* Druce, 1891 (Hypeninae)**

There have been no previous published reports of this species from Trinidad or Tobago. MJWC collected several individuals at Curepe which were later identified by comparison with the USNM series. There are several subsequent photographic records from Trinidad (Carapachaima, Inniss Field, Maracas Valley and South Oropouche) and this seems to be a fairly common and widespread species on the island. AED photographed two different adults at Englishman's Bay (Fig. 26).



Fig. 26. *Schrankia macula*, Englishman's Bay, 7 January 2022 (left) and 9 January 2022 (right), A. Deacon (iNaturalist observations 104591057, 104684179); F 6 mm.

***Synomera alcis* (Schaus, 1914) (Herminiinae)**

MJWC identified specimens from Trinidad (Simla) as this species by comparison with the type (USNM, ♂ Panama). This is a new record for Trinidad, and MK's photo from Englishman's Bay (Fig. 27) is a new record for Tobago.



Fig. 27. Male(?) *Synomera alcis*, Englishman's Bay, at light, 25 November 2021, M. Kelly; F 7 mm.

***Tetanolita mynesalis* (Walker, 1859) (Herminiinae)**

This species was described from the 'USA' and is widespread in Eastern USA (BIN BOLD:AAA9813). It is a good match to Kris Sookdeo's photo from Charlotteville, which Cock (2017b, p. 38, fig. 27) was unable to identify and listed as 'Unidentified Herminiinae sp. 1' (M. De Silva pers. comm. 2022). Hampson (1898) records this species from St. Vincent and Grenada, and so the name should be valid for the Tobago record as well. At this time there are no records from Trinidad.

EUTELIIDAE***Eutelia auratrix* (Walker, 1858) (Euteliinae)**

This species was recorded from Trinidad by Kaye and Lamont (1927), and it is a fairly common and widespread species in Trinidad. Trinidad material was identified by comparison with the type (NHMUK, ♂ Amazons) and NHMUK series. Aaron Wheeler photographed a male near Black Rock (Fig. 28), the only record from Tobago.

GEOMETRIDAE***Eois binaria* (Guenée, [1858]) (Larentiinae)**

Trinidad specimens were identified by comparison with



Fig. 28. Male *Eutelia auratrix*, Black Rock, 28 December 2021, A. Wheeler (iNaturalist observation 103911366); F 13 mm. © figtree, under CC-BY-NC license.

the NHMUK series. It is an occasional and widespread species in Trinidad, usually found in forested areas. AED's photograph (Fig. 29) is the first record for Tobago.



Fig. 29. Male *Eois binaria*, Englishman's Bay, 11.28 -60.68, 9 January 2022, A. Deacon (iNaturalist observation 104684177); F 10 mm.

***Idaea flavicosta* (Dognin, 1914) (Sterrhinae)**

Males from Trinidad were identified by comparison with the type (USNM, ♂ Colombia), and the female was associated by elimination of alternatives in Trinidad. There are a handful of Trinidad records from the Northern Range of Trinidad, but this is not a commonly seen species, and has not previously been reported from Trinidad. The only records from Tobago are AED's photograph of a male and MK's of a female (Fig. 30).



Fig. 30. *Idaea flavicosta*; **above**, male Englishman's Bay, 11.285 -60.696, 2 January 2022, A. Deacon (iNaturalist observation 104320957), F 8 mm; **below**, female above Englishman's Bay at light, 19 January 2022, M. Kelly, F 8 mm.

***Idaea gospera* (Dyar, 1914) (Sterrhinae)**

Material from Trinidad was identified by comparison with the type (USNM, ♂ Panama, Taboga Is.). This is the species which Kaye & Lamont (1927) referred to as *Idaea caudata* (Warren) (= *Deinopygia caudata*) based on material in NHMUK curated as that species. MK photographed females above Englishman's Bay 29 January 2020 and 3 December 2021, and AED photographed another nearby on 2 January 2022 (Fig. 31). A male photographed in Trinidad is shown for comparison.

***Idaea rufulata rufulata* (Warren, 1900) (Sterrhinae)**

Although this species has not previously been reported from Trinidad or Tobago, it is an occasional and widespread species in Trinidad (Asa Wright Nature Centre, Brasso Seco, Caigual, Curepe, Maracas Valley, Penal, St Benedict's), identified by comparison with the type (NHMUK, Venezuela). MK's photo (Fig. 32) is the first record from Tobago.



Fig. 31. *Idaea gospera*. **Above**, male, Trinidad, Arima Valley, Asa Wright Nature Centre, at light, 21 September 2013, K. Sookdeo; F 6 mm. ©, with permission. **Centre**, female, Englishman's Bay, 2 January 2022, A. Deacon (iNaturalist observation 104320956); F 6 mm. **Below**, female, Englishman's Bay, 29 January 2020, M. Kelly; F 6 mm.



Fig. 32. Male *Idaea rufulata*, Englishman's Bay, at light, 19 March 2022, M. Kelly; F 8–9 mm.

***Leuciris fimbriaria* (Stoll, 1781) (Ennominae)**

This is a common and widespread species in disturbed areas of Trinidad, as the caterpillars feed on ti marie, *Mimosa pudica* (Fabaceae). Identified by comparison with the NHMUK series and type of *paecilmidia* Butler

(♂, NHMUK, a synonym). In BOLD, this species appears as several BINs; a Trinidad sequence (MJWC-367) forms part of BIN BOLD:ABY7720, which also occurs in Peru and Costa Rica, and is provisionally considered to represent the true *L. fimbriaria* described from Suriname. A photo from near Englishman's Bay by AED (Fig. 33) is the only Tobago record of which we are aware.



Fig. 33. *Leuciris fimbriaria*, Englishman's Bay, 11.28 -60.68, 9 January 2022, A. Deacon (iNaturalist observation 104684167); F 10 mm.

***Oospila dicraspeda* Prout, 1932 (Geometrinae)**

Cook and Scoble (1995) record a Trinidad specimen in NHMUK, and MJWC has three records from Curepe, which were identified by comparison with the lectotype (NHMUK, ♂ Brazil). MK's photo (Fig. 34) is the first record from Tobago.



Fig. 34. *Oospila dicraspeda*, Englishman's Bay, at light, 30 January 2022, M. Kelly; F 11 mm.

***Oospila venezuelata* (Walker, 1861) (Geometrinae)**

Kaye and Lamont (1927) and Cook and Scoble (1995) recorded this distinctive species from Trinidad. MJWC identified further Trinidad material by comparison with the lectotype (NHMUK, ♂ Venezuela) and NHMUK series. MK's photograph (Fig. 35) is the first record from Tobago.

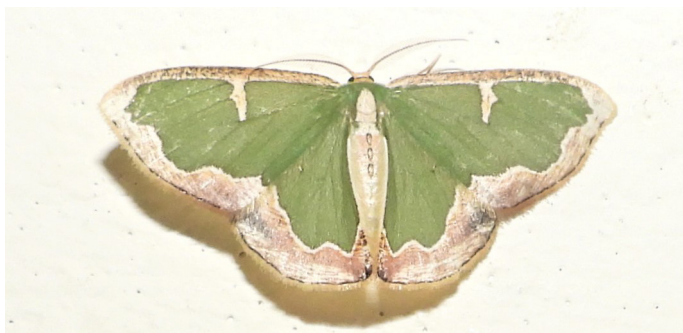


Fig. 35. Male *Oospila venezuelata*, Englishman's Bay, at light, 20 December 2021, M. Kelly; F 12 mm.

***Pleuroprucha archigetes* (?) Prout, 1932 (Sterrhinae)**

Prout (1932) described this species from Guyana and *P. protopages* Prout from French Guiana, and noted that although the two are very similar, *P. protopages* is smaller and has three spurs on the hind femora instead of four. MJWC identified both species from Trinidad by comparison with the types and examination of the femora. Identifications based on photographs (Fig. 36) can only be considered provisional, and specimens are needed to confirm this species from Tobago.



Fig. 36. Female(?), *Pleuroprucha archigetes*(?), Englishman's Bay, 11.28 -60.68, 6 January 2022 (above), 8 January 2022 (below), A. Deacon (iNaturalist observations 104618822, 104499964); F 9 mm.

***Semaeopus bimaculata* (Warren, 1897) (Sterrhinae)**

Kaye and Lamont (1927) recorded this species from Palmiste and MJWC has specimens from Simla, which were identified these by comparison with the type (NHMUK, Guyana). There seems to be a second, larger, more orange species

confused with this, which also occurs in Trinidad (specimens from Caparo and Sangre Grande in NHMUK, OUMNH), but MK's photo from Englishman's Bay (Fig. 37) matches the type and material from Simla.



Fig. 37. *Semaepus bimacula*, Englishman's Bay, at light, 19 November 2021 (M. Kelly photo 9923); F 11 mm.

***Synchlora gerularia* (Hübner, [1823]) (Geometrinae)**

This is a common and widespread species in Trinidad, identified by comparison with the NHMUK series. Although MJWC has a male and female from Tobago (Speyside, MVL, 14–17 May 1982), these were overlooked when compiling the provisional checklist of Tobago moths (Cock 2017b). This only came to light when MG photographed this species above Englishman's Bay (Fig. 38). Tobago specimens, particularly females, have the forewing discal spot larger than those from Trinidad.



Fig. 38. Female *Synchlora gerularia*, Englishman's Bay, at light, 10 January 2022, M. Gibson (iNaturalist observation 104732422); F 10 mm.

HEDYLIDAE

***Macrosoma rubedinaria* (Walker, 1862)**

This night-flying butterfly has long been known from Trinidad (Kaye 1901, Kaye and Lamont 1927). Our identification follows Scoble (1990). There have been two recent photographs from Englishman's Bay by MK (Fig. 39) and MG (5 April 2022).



Fig. 39. *Macrosoma rubedinaria*, Englishman's Bay, at light, 19 March 2022, M. Kelly; F 17–18 mm.

HESPERIIDAE

***Salatis salatis* (Stoll, 1782) (Eudaminae)**

This is a rarely seen species in Trinidad (Cock and Alston-Smith 1994), although this is at least partly due to its crepuscular or nocturnal habits. During a night walk (Deo *et al.* 2020) in Tobago, Rainer Deo photographed a male resting beneath a leaf at 21.45h (Fig. 40).



Fig. 40. Male *Salatis salatis*, Main Ridge Forest Reserve, 11.29N 60.60W, 1 August 2020, 21.45h, R. Deo, iNaturalist observation 55233404. ©, with permission.

LASIOCAMPIDAE

***Artace* sp. (Poecilocampinae)**

This species has not previously been reported from Trinidad, although it is uncommon but widespread in lowland areas, both forested and suburban. It is probably an undescribed species in a group of similar-looking moths, and is the subject of on-going investigation by the first author. MK photographed a male in Tobago (Fig. 41) which appears to be the same species.



Fig. 41. Male *Artace* sp., above Englishman's Bay, at light, 23 January 2022, M. Kelly, F 21 mm.

LIMACODIDAE

[*Natada supectinata* Dyar, 1905]

Cock (2017b) listed this species from Tobago based on a specimen collected by Ingraham, but this is here re-identified as *Perola subpunctata* Walker, which is already known from Tobago. There are no confirmed records of *N. supectinata* from Tobago.

MEGALOPYGIDAE

Trosia dimas (Cramer, 1775) (Trosiinae)

A recent revision of this genus by Becker (2022) is the basis for using this name, although as Becker states, DNA barcoding is likely to reveal cryptic species within this widespread, variable species. It is known from Trinidad (Hopp 1934-1935, Lamont and Callan 1950), where it is common and widespread in suburban and forested areas. AED's photographs at Englishman's Bay (Fig. 42) are the first for Tobago.

NOCTUIDAE

Catabenoides lazelli Becker & Miller, 2002 (Oncocnemidinae)

Cock (2017b) listed this species from Tobago as *C. vitrina* (Walker), but this is here corrected to *C. lazelli*. Becker and Miller (2002) described *C. lazelli* from the British Virgin Islands, and it is now known from Puerto Rico south through the Lesser Antilles to Grenada (Becker 2021). Tobago is therefore the southernmost point of the known range of this species.



Fig. 42. Male *Trosia dimas*, Englishman's Bay, 8 January 2022, A. Deacon (iNaturalist observation 104618834); F 13 mm.

Cropia grandimacula (Schaus, 1911) (Cropsiinae)

There is one record of this species from Trinidad (♀, Curepe, 13 September 1978), which MJWC identified by comparison with the type (USNM, ♀ Costa Rica). MK photographed the first record from Tobago (Fig. 43).

Drobeta mesoscota (Hampson, 1910) (Dyopsinae)

Hampson (1910) described this species from Trinidad and MJWC has examined the female type from Caparo in NHMUK. It is believed this habitus represents a dark variation of *D. ithaca* (Druce), based on examination of the type from Panama in NHMUK, and variation within Trinidad material, so that it is anticipated that *D. mesoscota* will be shown to be a junior synonym of *D. ithaca*. However, without making dissections or obtaining DNA barcodes to compare the different variations in Trinidad and Panama, no action is taken at this time. This is an occasional species in Trinidad, mostly found in forested areas but some records are from Curepe. MK photographed a specimen in Tobago (Fig. 44).



Fig. 43. *Cropia grandimacula*, above Englishman's Bay, 31 December 2021, M. Kelly; F 21 mm.

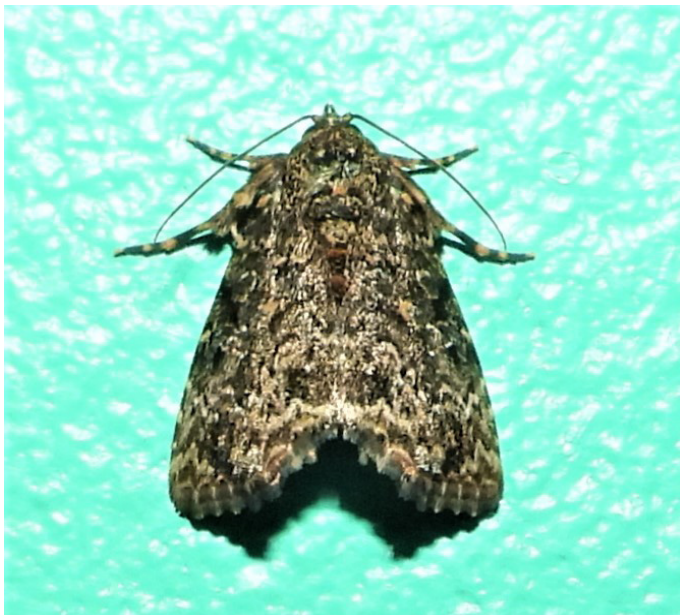


Fig. 44. Female(?) *Drobeta mesoscota*, above Englishman's Bay, at light, 12 January 2022, M. Kelly, F 14 mm.

***Neostrotia albescens* Schaus, 1914 (incertae sedis)**

The correct subfamily for this species has yet to be established. This species has not previously been reported from Trinidad; MJWC identified specimens from Arima Valley (Simla) and Sangre Grande by comparison with the USNM series (type not seen). AED photographed a Tobago specimen (Fig. 45).



Fig. 45. *Neostrotia albescens*, Englishman's Bay, 11.28 -60.68, 10 January 2022, A. Deacon (iNaturalist observation 104742152); F 5.5 mm.

NOLIDAE

***Afrida pnixis* Dyar (Afridinae)**

This species is reported here for the first time from Trinidad and Tobago. Trinidad specimens from Curepe (4 September 1978, 9 September 1978) were identified by comparison with the type (USNM, ?♂ Panama, photo) and the NHMUK series. AED photographed this species at light near Englishman's Bay (Fig. 46).



Fig. 46. *Afrida pnixis*, Englishman's Bay, 11.28 -60.68, 9 January 2022, A. Deacon (iNaturalist observation 104684168); F 6 mm.

***Meganola bifliferata* (Walker, 1862) (Nolinae)**

Trinidad material was identified by comparison with the NHMUK series (including a Trinidad specimen), although this species has not previously been reported from Trinidad. The generic placement is from Poole (1989). This is an uncommon but widespread species in Trinidad, with most records from forest areas. MK's photograph (Fig. 47) is from Englishman's Bay.



Fig. 47. *Meganola bifliferata*, above Englishman's Bay, at light, 14 January 2022, M. Kelly, F ♂ 7.5–8 mm, ♀ 9–10 mm.

NOTODONTIDAE

Marthula multifascia (Walker, 1856) (Heterocampinae)

See Cock (2021a) for details of this species and its presence in Trinidad; the broad orange region of the forewing costa is just visible in MG's photo (Fig. 48 above), which is the first record from Tobago. A more recent record by Rainer Deo (Fig. 48 below) confirms this species is present in Tobago.



Fig. 48. Male *Marthula multifascia*; **above**, Englishman's Bay, at light, 7 April 2022, M. Gibson (iNaturalist observation 110717149); **below**, Main Ridge, 11.29 -60.60, at light, 10.vi.2022, R. Deo (iNaturalist observation 121325877); F 17 mm; ©, with permission.

NYMPHALIDAE

Chlosyne lacinia (Geyer, 1837) *saundersi* (Doubleday, [1847]) (Nymphalinae)

This is a common species, frequently seen and photographed in Trinidad, but an image from Corbin Local Wildlife (Fig. 49) is the first record from Tobago. It seems unlikely that this species has been hitherto overlooked in Tobago, so it might be a recent arrival. With no specimens to examine, it is assumed this is the same as the subspecies found in Trinidad.



Fig. 49. *Chlosyne lacinia saundersi*, Mason Hall, 15 February 2014, corbinlocalwildlife photo (iNaturalist observation 101463001); F ♂ 20 mm, ♀ 24 mm. ©, under CC-BY-NC license.

Hermeuptychia canthe (Hübner, [1811]) (Satyrinae)

This species has hitherto been reported from Trinidad and Tobago as *Euptychia hermes* (Fabricius) (Cock 2014, 2017a), but the painstaking review of the literature relating to *Hermeuptychia* spp. by Vilorio (2021) showed that the species concerned for both islands is *H. canthe*.

PAPILIONIDAE

Heraclides thoas (Linnaeus, 1771) *nealces* (Rothschild and Jordan, 1906) (Papilioninae)

This is a common and widespread species in Trinidad (Barcant 1970, Cock 2017a), but a 2019 photo by Saifudeen Muhammad (Fig. 50) appears to be the only record from Tobago. Like *Chlosyne lacinia* (above) it seems unlikely that this species would have been overlooked, so perhaps it is a stray or has recently spread to Tobago?



Fig. 50. *Heraclides thoas nealces*, south-western Tobago, 1 December 2022, S. Muhammad, iNaturalist observation 102336961. ©, under CC-BY-NC license.

PIERIDAE

Phoebis statira statira (Cramer, 1777) (Coliadinae)

Sheldon (1936) reported this species from Tobago, attributing the record to A. Hall at Speyside. However, Hall's unpublished journal only refers to a possible sighting, and so Cock (2017a) did not accept this Tobago record. However, photos of worn males at Corbin Local Wildlife by Aaron Wheeler (25 August 2021, iNaturalist observation 92504103) and MG (Fig. 51), confirm that this migratory species does occur in Tobago. This species appears as *Aphrissa statira* in the checklists of Cock (2014, 2017a), but Murillo-Ramos *et al.* (2018) made *Aphrissa* a synonym of *Phoebis* based on a morphological and genetic phylogenetic analysis.



Fig. 51. Male *Phoebis statira statira*, Corbin Local Wildlife, south of Mason Hall, 12 September 2021, M. Gibson.

PYRALIDAE

Clydonopteron pomponius Druce, 1895 (Chrysauginae)

Kaye and Lamont (1927) misidentified this species from Trinidad as *C. sacculana* (Bosc), which is a North American species. This was confirmed by examining the specimens to which they refer in NHMUK, which are now curated as *C. pomponius*. It is an occasional species in forested areas of Trinidad. Recently, MK (Englishman's Bay, 4 January 2022) and AED (Fig. 52) both photographed males in Tobago.



Fig. 52. Male *Clydonopteron pomponius*, Englishman's Bay, 11.28 -60.68, at light, 12 January 2022, A. Deacon (iNaturalist observation 104846550); F 5 mm.

Hypsipyla ferrealis (Hampson, 1929) (Phycitinae)

Kaye and Lamont (1927) first reported this species from Trinidad, where the caterpillars are known to feed on the seeds of crappo (*Carapa guyanensis*, Meliaceae) (Rao and Bennett 1969). Material in the CABI collection in UWIZM was identified at NHMUK. The first record from Tobago is MK's photo from Englishman's Bay (Fig. 53).



Fig. 53. *Hypsipyla ferrealis*, Englishman's Bay, at light, 19 March 2022, M. Kelly; F 11–12 mm.

URANIIDAE

***Coelurotricha curvilinea* Warren, 1906 complex (Epiplemaidae)**

This is the species which Kaye and Lamont (1927) reported from Trinidad as *Epiplema olivaria* Walker, based on a specimen from Guaiaco, 18 April 1915 (N. Lamont). MJWC examined Lamont's male specimen in NMS, and matched it to other Trinidad material, which he identified as *C. curvilinea* from the treatment in BOLD as BIN BOLD:AAA3221 (bearing in mind that in Costa Rica this is a species complex). This is a sexually dimorphic and variable species; the females being greyer, with a pointed projection on the forewing margin below the apex, and the male shades of brown and without the pointed projection on the forewing margin. AED photographed a female in Tobago (Fig. 54).



Fig. 54. Female *Coelurotricha curvilinea* complex, Englishman's Bay, 7 January 2022, A. Deacon (iNaturalist observation 104591058); F 9 mm.

Other noteworthy records

In addition to the new Tobago records treated above, three butterfly species that had not been recorded for more than 70 years were recently confirmed by photographs from Tobago: *Ithomia agnosia pellucida* Weymer (near Mason Hall, 15 February 2014, Corbin Local Wildlife photo, iNaturalist observation 101463002), *Hypolimnas misippus* (Linnaeus) (near Mason Hall, 15 February 2014, Corbin Local Wildlife photo, iNaturalist observation 101463006), *Historis odious* Lamas (common at Englishman's Bay, 4 January 2022, M. Kelly; M. Hulme, iNaturalist observation 67582872).

ACKNOWLEDGEMENTS

We thank the photographers who posted their images on iNaturalist under a creative commons license, allowing these new records to be documented: Rachael Williams-Littzen (2),

corbinlocalwildlife (1), Aaron Wheeler (1), and Saifudeen Muhammad (1). We also thank Kris Sookdeo for allowing us to use his image of a male *Idaea gospera*, and Rainer Deo and Venkata S. Gosula (bellbird20) for permission to use their © images from iNaturalist. AED thanks Jane Deacon for helping with moth-spotting in Tobago.

MJWC thanks Martin Honey (NHMUK), Scott Miller and Marc Epstein (USNM), Mark Shaw and Keith Bland (NMS), George McGavin and James Hogan (OUMNH), and Mike G. Rutherford, Jennalee Ramnarine and various colleagues over the years (UWIZM) who facilitated MJWC's studies of Trinidad moths in the collections in their care. Most of the identifications used here are based on the collections of first two named museums. MJWC also thanks CABI (www.cabi.org, donors-cabi.org) which has provided him with logistic and laboratory support over the years. The DNA barcodes for *Leuciris fimbriaria* and *Delphyre* sp. were obtained by the CABI Bioscience lab, and MJWC thanks Alan Buddie, Giovanni Cafa and Yuen Ting Yeap for their cooperation and support in this regard.

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