

Notes on the Lepidoptera of Huevos, Trinidad and Tobago

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ABSTRACT

Lepidoptera of Huevos were surveyed during two-day visits in the dry season of 2014 and the wet season of 2015. Butterflies were surveyed by searching during the day and a light trap was operated at night to sample moths. Thirteen species of butterfly and 35 species of moth were recorded. The moths are all documented with images of living individuals from Huevos. Fourteen of the moth species have not been recorded previously from Trinidad, although we here record that they are also found there. We document and illustrate several moth species which have not previously been found in Trinidad or Tobago, but cannot be identified satisfactorily at this time.

Key words: butterflies, moths

INTRODUCTION

The Lepidoptera of the islands offshore northwestern Trinidad are poorly known, particularly Huevos where nothing has been recorded on the Lepidoptera due to its rugged terrain and carefully controlled access. Accordingly, when the TTFNC overnights on the island on 22 February 2014 and 4 October 2015, attempts were made to record the species encountered.

METHODS

Butterflies were recorded by visual identification during a walk to the highest ridge of the island and on shorter trips closer to the house. To record moths, a light trap was operated in the dry gully that runs northward from the house in an area of dry forest. On both occasions, this trap was operated from approximately 1900 h that evening to 0230 h the following morning, with photographs taken of all the species that were attracted to the trap.

As is typical for the region, there was no rain for the entire duration of both trips. It was hot and dry during the day. At night, a light warm wind blew in from the sea and up the gully nearly throughout the entire trapping period, and negatively affected trap performance.

Moths were identified by MJWC by comparing KS's photographs with pinned specimens from Trinidad in his collection and photographs of specimens in the museums named below. MJWC's Trinidad material was mostly identified by comparison with named material and often type material in the Natural History Museum, London (NHMUK) and the United States National Museum (USNM). Additional material was examined in the Oxford University Natural History Museum (OUNHM), National Museums of Scotland, Edinburgh (NMSE) and the University of the West Indies Zoological Museum, St. Augustine (UWI).

RESULTS

Lepidoptera numbers were generally low, both at night and at day. An annotated list of the moths observed is presented overleaf and illustrated in plates 1 and 2. The most commonly observed butterfly on both visits was

Morpho helenor (Cramer) as one or two were almost always in sight in the gully during the day. During the first trip, on the ridgeline, Lycaenidae were easily disturbed from the dry scrub, but these could not be captured or photographed. All appeared similar in form to *Calycopis origo* (Godman & Salvin) but the exact identity remains uncertain. Also observed on the ridgeline during the first trip was *Anteros carausius*. This species appears to be restricted to dry forests on Trinidad, having only been recorded from nearby Chachachacare, Gaspar Grande (Cock 1981) and Point Gourde (Cock 2004), so that its presence on Huevos is not surprising.

List of butterflies observed on Huevos, 22/23 February 2014 and 4/5 October 2015

Nymphalidae, Nymphalinae

Historis odius dious Lamas. Oct. 2015.

Nymphalidae, Biblidinae

Biblis hyperia hyperia (Cramer). Feb. 2014.

Mestra hersilia hersilia (Fabricius). Feb. 2014.

Pyrrhogyra neaerea (Linnaeus). Feb. 2014.

Nymphalidae, Satyrinae

Morpho helenor insularis (Fruhstorfer). Feb. 2014.

Lycaenidae, Theclinae

Strymon albata (Felder & Felder). Feb. 2014.

Calycopis ?origo (Godman & Salvin). Feb. 2014.

Cyanophrys sp. Oct. 2015.

Riodinidae, Riodininae

Anteros carausius Westwood. Feb. 2014.

Melanis electron electron (Fabricius). Feb. 2014.

Juditha molpe (Hübner). Feb. 2014.

Hesperiidae, Eudaminae:

Chioides catillus catillus (Cramer). Feb. 2014.

Epargyreus sp., prob. *E. socus chota* Evans. Oct. 2015.

During the night of the first trip, the most common moth was *Nycterotis lucia* (Schaus), of which three individuals were attracted to the light. Of the other moths, there was never more than one of the same species on the sheet at the same time.

The combination of a dry environment and its distance from mainland Trinidad does not favour a wide range of Lepidoptera on Huevos. A high percentage of dry forest specialists is to be expected and indeed, the moth diversity observed on these trips was similar to collections made by MJWC on the Five Islands (Cock 2017a) and around Crown Point, Tobago (Cock 2017b). The near continuous winds negatively affected both moth trapping efforts as moths were having difficulty alighting on the sheet.

Future collection efforts on Huevos should focus on the area north of the main ridge towards Balata Bay and amongst the open patches of low scrub along the ridge line where butterflies appeared to be more numerous than on the forested southern slope.

**Annotated list of moths observed at light on Huevos,
22/23 February 2014 and 4/5 October 2015**

Cossidae, Hypoptinae

***Gaviria* sp. unknown #1.** Feb. 2014. Plate 1, No. 1 The generic placement is tentative based only on external similarities. MJWC has not been able to identify this species, of which he has three specimens from Trinidad (Curepe). Matching material was not found in NHMUK or USNM.

Crambidae, ?Crambinae

Unidentified Crambidae genus and sp. #1. Oct. 2015. Plate 1, No. 2. This species does not match any recorded from Trinidad.

Crambidae, Glaphyriinae

***Aureopteryx argentistriata* (Hampson).** Feb. 2014 and Oct. 2015. Plate 1, No. 3. Identified by comparison with the USNM series, but the type has not been examined. Although this species has not previously been recorded from Trinidad, there is a ♀ in USNM from Mt. St. Benedicts (M. St. B., 1923, collected by Bro. Maur[ice]) and MJWC has specimens from Curepe, Point Gourde and Simla.

***Schacontia nyx* Goldstein & Solis.** Feb. 2014. Plate 1, No. 4. One specimen of this recently described species was provisionally identified from Goldstein *et al.* (2013). It has not previously been recorded from Trinidad, but MJWC has a ♀ from Point Gourde that also appears to be this species.

Unidentified Glaphyriinae genus and sp. #1. Feb. 2014. Plate 1, No. 5. This species could not be matched in NHMUK.

Crambidae, Nymphulinae

***Petrophila* unidentified sp. #1.** Oct. 2015. Plate 1, No. 6. This species could not be matched in NHMUK. At least four *Petrophila* spp. are known from Trinidad (MJWC unpublished). This species also occurs on Chacachacare Island (K. Sookdeo photo, 24.i.2015), but is not known from Trinidad (MJWC unpublished).

Erebidae, Eulepidotinae

***Ephyrodes cacata* Guenée.** Oct. 2015. Plate 1, No. 7. Identified by comparison with the NHMUK series. This species is known from Trinidad (Kaye & Lamont 1927), but not from Tobago (Cock 2017b).

Erebidae, Herminiinae

***Bleptina caradrinalis* Guenée.** Feb. 2014. Plate 1, No. 8. Identified by comparison with the NHMUK series. Recorded from Trinidad (Kaye & Lamont 1927) and Tobago (Cock 2017b), this species is common and widespread on both islands.

***Renia clavalis* Guenée.** Feb. 2014 and Oct. 2015. Plate 1, No. 9. Identified by comparison with the NHMUK series. Recorded from Trinidad (Kaye & Lamont 1927) and Tobago (Cock 2017b), this species is also common and widespread on both islands.

Erebidae, Hypocalinae

***Gabara bisinuata* (Hampson).** Oct. 2015. Plate 1, No. 10. Identified by comparison with the type (NHMUK). Recorded from Trinidad (Kaye & Lamont 1927) and Tobago (Cock 2017b), this species is common and widespread on both islands.

Erebidae, Scolecocampinae

***Pharga pholausalis* (Walker).** Oct. 2015. Plate 1, No. 11. Identified by comparison with the NHMUK series. Recorded from Trinidad (Kaye & Lamont 1927) and Tobago (Cock 2017b), this species is moderately common and widespread on both islands.

Erebidae, Arctiinae

Unidentified Lithosiini. Feb. 2014. Plate 1, No. 12. A plain white 'footman' probably representing a *Euthyone* sp. but could not be identified with confidence. There are three *Euthyone* spp. known from Trinidad (MJWC unpublished), but none from Tobago (Cock 2017b).

Erebidae, incertae sedis

***Orsa deleta* Hampson.** Feb. 2014. Plate 1, No. 13 This species was identified by comparison with the type, which is a male from Trinidad in the NHMUK. It is uncommon in Trinidad, with records from Curepe and Port of Spain (MJWC unpublished).

Gelechiidae, Dichromeridinae

***Trichotaphe* sp.** Feb. 2014. Plate 1, No. 14. This is not the same as the common *T. nessica* (Walsingham), which MJWC (unpublished) has recorded from both Trinidad (Brigand Hill, Curepe, St Benedicts, Simla) and Tobago (Cock 2017b).

Geometridae, Geometrinae

***Oospila confundaria* (Möschler).** Oct. 2015. Plate 1, No. 15. Identified by comparison with the NHMUK series. Not previously recorded from Trinidad, although MJWC (unpublished) has records from Cumaca Road (0.5 mile-stone), Curepe and Point Gourde. Not recorded from Tobago (Cock 2017b).

Geometridae, Sterrhinae

***Idaea cellifimbria* (Prout).** Feb. 2014. Plate 1, No. 16. Cock (2017b) discusses the use of this name. It is a common and widespread species in Trinidad (MJWC unpublished) with records from Brigand Hill, Caparo, Curepe, Inniss Field, Parrylands, Point Gourde, St Benedict's. It is also known from Chacachacare Island (K. Sookdeo photos, 3♀ at light 24 Jan 2015) and Tobago (Cock 2017b).

***Idaea incanata* (Schaus).** Feb. 2014 and Oct. 2015. Plate 1, No. 17. Identified by comparison with the type from Peru in the USNM and the NHMUK series; the type is more heavily and clearly marked than Trinidad material. Although it has not previously been recorded from Trinidad, there are specimens from Caparo and Curepe (MJWC unpublished) and it is recorded from Tobago (Cock 2017b).

***Idaea rufarenaria* (Warren).** Feb. 2014. Plate 1, No. 18. Identified by comparison with the ♂ type from French Guiana in USNM. It is quite common on Trinidad (MJWC unpublished) with records from Arima Valley, Curepe, Point Gourde, St. Benedicts. It is also found on Chacachacare Island (K. Sookdeo photos, at light, 24 Jan 2015), Caledonia, Five Islands (Cock 2017a) and Tobago (Cock 2017b).

***Idaea triangulata* (Warren).** Oct. 2015. Plate 2, No. 19. Identified by comparison with the male and female types (USNM, French Guiana) and USNM series. It is widespread in Trinidad (MJWC unpublished) with records from Brigand Hill, Bush Bush, Manzanilla-Mayaro Road (milestone 46.5), and Parrylands, and also known from Tobago (Cock 2017b)

***Leptostales subrubella* (Warren).** Feb. 2014. Plate 2, No. 20. Identified by comparison with the male type from French Guiana in the USNM. Although not previously recorded from Trinidad, MJWC has a specimen from Curepe and KS has photographed it at Penal.

***Scopula apparitaria* (Walker).** Feb. 2014. Plate 2, No. 21. Identified by comparison with the type from Honduras

and NHMUK series. Although not previously recorded from Trinidad, there is material in the NHMUK from Ariapite [*sic*] Valley, Caparo and Tabaquite, in OUNHM from Caigual, MJWC has specimens from Curepe, and KS has photographed this species at Penal.

***Scopula* sp.** Feb. 2014. Plate 2, No. 22. Two specimens appear to represent a species similar to *S. apparitia* that is also found on Tobago (Cock 2017b). No matching material has been located in NHMUK or USNM.

Unidentified ?*Sterrhinae* sp. Feb. 2014. Plate 2, No. 23. A worn, obscurely marked dull green species could not be identified. It is not the superficially similar *Dithecodes deaurata* (Warren) which is known from Trinidad (Kaye & Lamont 1927).

Geometridae, Ennominae

***Psamatodes abydata* Guenée.** Feb. 2014. Plate 2, No. 24. Identified by comparison with the NHMUK series. This species was recorded from Trinidad by Kaye & Lamont (1927) misidentified as *Semiothisa confusaria* Walker. It is common in Trinidad and also recorded from Tobago (Cock 2017b).

Geometridae, Laurentiinae

***Dislisioprocta stellata* (Guenée).** Feb. 2014. Plate 2, No. 25. Identified by comparison with the type and NHMUK series. Kaye and Lamont (1927) recorded this species from Trinidad (as *Camptogramma stellata*) and Cock (2017b) recorded it from Tobago.

Limacodidae

***Euprosterina elaea* (Druce).** Oct. 2015. Plate 2, No. 26. Identified by comparison with the NHMUK series. Kaye and Lamont (1927) recorded this species from Trinidad and Cock (2017b) recorded it from Tobago.

Noctuidae, Acontiinae

***Chalenata mesonephele* Hampson.** Oct. 2015. Plate 2, No. 27. Identified by comparison with type (NHMUK, Argentina) and NHMUK series. This species is also common in Trinidad (MJWC unpublished) with records from Curepe, Palmiste, and Valencia Forest, but not known from Tobago (Cock 2017b).

Noctuidae, Eustrotiinae

***Marimatha botyoides* (Guenée).** Oct. 2015. Plate 2, No. 28. Identified by comparison with NHMUK series. This species is common and widespread in Trinidad (Kaye & Lamont 1927), but not known from Tobago (Cock 2017b).

Noctuidae, incertae sedis

***Melagramma* sp. ?*nov. nr. expetita* Walker.** Oct. 2015. Plate 2, No. 29. *Melagramma expetita* is the only described species of the genus. Trinidad specimens

represent a similar species, segregated as an un-named species in NHMUK and USNM. It is recorded from Trinidad as *M. expetita* (Kaye & Lamont 1927), also occurs on Chacachacare Island (K. Sookdeo photo, 2 Jan 2015), but has not been recorded from Tobago (Cock 2017b).

Notodontidae, Nystaleinae

***Nycterotis lucia* (Schaus).** Feb. 2014. Plate 2, No. 30. The commonest species. Identified by comparison with the male type from St Lucia in the USNM. This species has not previously been recorded from Trinidad, but there is a ♂ from Palmiste in UWIZM (29 Sep 1946), and MJWC has a male from Curepe (Apr 1982). In 1981 it was the commonest species found in the Five Islands (Cock 2017a). It has not been recorded from Tobago (Cock 2017b), but might well occur there.

Pyralidae, Chrysauginae

***Parachma* sp(p).** Feb. 2014. Plate 2, No. 31. One (or perhaps two) unidentified species could not be matched in NHMUK. This species also occurs on Chacachacare Island (K. Sookdeo photo, 24 Jan 2015), but not on Trinidad, although two other species of *Parachma* do occur (MJWC unpublished).

***Xantippe olivalis* Dyar.** Feb. 2014. Plate 2, No. 32. Identified by comparison with the NHMUK series, but the type has not been examined, so this identification needs confirmation. Although it has not previously been recorded from Trinidad, there is a long series from the Arima Valley in the USNM (Feb. 1966, S.S. & W.D. Duckworth, as *Xantippe* sp.) and MJWC has specimens from Curepe and Simla.

Chrysauginae unidentified genus and sp. #1. Feb. 2014. Plate 2, No. 33. This species could not be matched in NHMUK. It has also been found at Brigand Hill, Trinidad (MJWC unpublished).

#Chrysauginae unidentified genus and sp. #5. Oct. 2015. Plate 2, No. 34. Another species that could not be matched in NHMUK.

***Galasa* sp.** or near. Feb. 2014 and Oct. 2015. Plate 2, No. 35.

Tineidae, Acrolophinae

***Acrolophus tretus* Kaye.** Feb. 2014. Plate 2, No. 36. This species was described from Trinidad (Kaye 1925). MJWC identified Trinidad material from the type illustrated in Kaye (1925).

Tortricidae, Tortricinae

***Platynota* sp.** Feb. 2014. Plate 2 No. 37. This species has not been found elsewhere in Trinidad and Tobago. MJWC's provisional allocation to this genus was confirmed by J.W. Brown (pers. comm.). It is not the common

P. rostrana (Walker) which is widespread in Trinidad (MJWC unpublished).

The following species mentioned in the annotated list have not previously been reported from Trinidad:

Cossidae: *Gaviria* sp. unknown #1

Crambidae: *Aureopteryx argentistriata* (Hampson), *Schacontia nyx* Goldstein & Solis

Gelechiidae: *Trichotaphe nessica* (Walsingham)

Geometridae: *Oospila confundaria* (Möschler), *Idaea incanata* (Schaus), *Idaea rufarenaria* (Warren), *Idaea triangulata* (Warren), *Leptostales subrubella* (Warren), *Scopula apparitaria* (Walker)

Noctuidae: *Chalenata mesonephele* Hampson

Notodontidae: *Dasylophia lucia* Schaus

Pyralidae: *Xantippe olivalis* Dyar

Tortricidae: *Platynota rostrana* (Walker)

ACKNOWLEDGEMENTS

We thank the curators and staff of the museums who facilitated his examination of Trinidad Lepidoptera in their care, including Martin Honey, Phil Ackery (NHMUK), Marc Epstein (USNM), Mark Shaw, Keith Bland (NMSE) and George McGavin (OUNHM). The authors would like to express their gratitude to Mr Robert Boos for granting the TTFNC permission to visit the island on both occasions.

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Plate 1 Moths of Huevos Part 1. See text for species names.

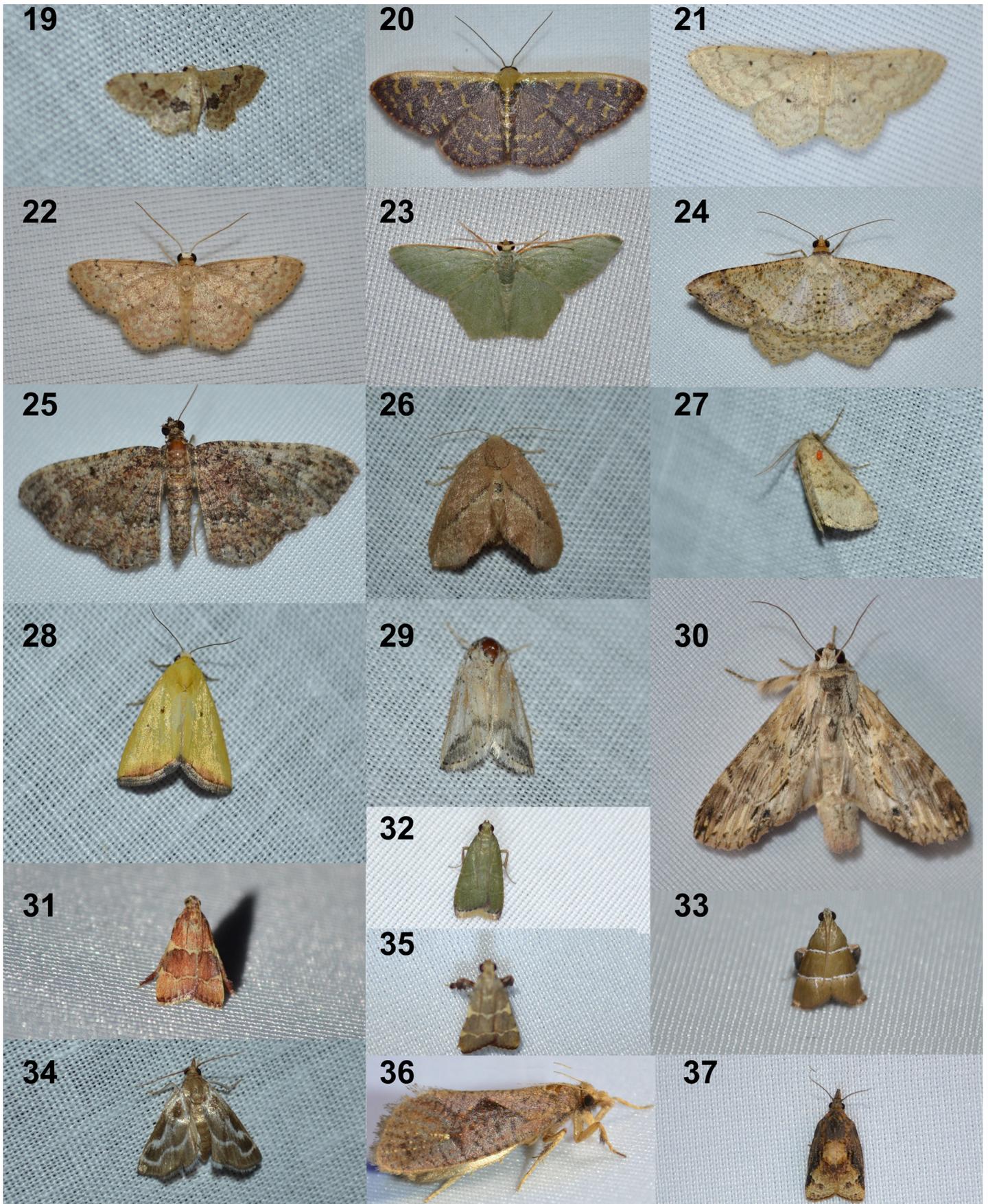


Plate 2 Moths of Huevos Part 2. See text for species names.