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An updated and annotated checklist of the larger butterflies
(Papilionoidea) of Trinidad, West Indies:
Papilionidae, Pieridae and Nymphalidae

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An updated and annotated checklist of the larger butterflies
(Papilionoidea) of Trinidad, West Indies: Papilionidae, Pieridae and
Nymphalidae

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Abstract. A revised checklist for the butterfly families Papilionidae, Pieridae and Nymphalidae of Trinidad (Trinidad and Tobago) is presented, bringing nomenclature in line with modern usage, indicating synonyms from earlier lists and adding new records since the last checklist was published in 1970. Migrant and vagrant species are provisionally recognised, and records considered incorrect are discussed. The checklist includes 204 species: 15 Papilionidae, 29 Pieridae and 160 Nymphalidae. The only taxonomic change is to treat *Hamadryas feronia insularis* (Fruhstorfer) as a synonym of *H. f. feronia* (Linnaeus), **syn. nov.**, and not as a synonym of *H. feronia farinulenta* (Fruhstorfer).

Introduction

Last century, the butterfly fauna of Trinidad was documented by Kaye (1921, 1940), Barcant (1970) and Cock (1982a), the last covering Hesperiiidae only. As part of my ongoing studies on the Lepidoptera of Trinidad, and the growing interest among local collectors and photographers, it is timely to complete the compilation of an updated checklist of the butterflies, bringing nomenclature and classification in line with the checklist of Neotropical butterflies (Lamas 2004) as modified by the most recent studies. The first part is presented here, covering the families Papilionidae (15 spp.), Pieridae (29 spp.) and Nymphalidae (161 spp.), in total 205 species. Future parts will cover Hedyliidae (2 species) and Hesperiiidae (about 307 species), Riodinidae (about 121 species) and Lycaenidae (about 132 species), giving a total of about 765 species. A separate checklist of all recorded Lepidoptera of Tobago (about 462 species at present, of which 118 are Papilionoidea) is also in preparation.

Classification

For some decades, the butterflies have been considered to consist of two superfamilies: Papilionoidea (comprising Papilionidae, Pieridae, Nymphalidae, Riodinidae and Lycaenidae) and Hesperioidea (comprising the single family Hesperiiidae) and that their closest relatives are the butterfly moths Hedyloidea (with the single family Hedyliidae). The traditional families Brassolidae, Heliconiidae, Ithomiidae, Libytheidae, Morphidae, and Satyridae which were recognised from Trinidad (Barcant 1970) have been subsumed as subfamilies or tribes of the Nymphalidae.

Recent work incorporating molecular and morphological characters has shown that Papilionidae are the oldest lineage, and from this the groups Hedyliidae + Hesperiiidae split off first, and then Nymphalidae + Riodinidae + Lycaenidae, while the origin of Pieridae remains unresolved (Heikkilä et al. 2011, van Nieukerken et al. 2011). Accordingly butterflies and butterfly moths now form a single superfamily Papilionoidea, comprising the families Papilionidae, Hedyliidae, Hesperiiidae, Pieridae, Riodinidae, Lycaenidae and Nymphalidae, and the superfamilies Hesperioidea and Hedyloidea should no longer be recognised. The sequence of families and their global composition given in van Nieukerken et al. (2011) is:

Superfamily Papilionoidea Latreille, 1802 (7 families)
Family Papilionidae Latreille, 1802 (32 genera, 570 species)

Family Hedylidae Guenée, 1858 (1 genus, 36 species)
Family HesperIIDae Latreille, 1809 (570 genera, 4,113 species)
Family Pieridae Swainson, 1820 (91 genera, 1,164 species)
Family Riodinidae Grote, 1895 (1827) (146 genera, 1,532 species)
Family Lycaenidae Leach, 1815 (416 genera, 5,201 species)
Family Nymphalidae Rafinesque, 1815 (559 genera, 6,152 species)

The arrangement of subfamilies and tribes within Nymphalidae is the subject of ongoing research. Lamas (2004) treats Morphinae as a subfamily with Brassolini as one tribe, but recent work indicates that Morphini and Brassolini should be tribes within Satyrinae (Marín et al. 2011). The former Ithomiidae have been treated as a subfamily (Lamas 2004) or as a subtribe of Danainae (Ithomiini) (Ackery et al. 1999); the latter view is now prevalent (e.g. Brower et al. 2006, de-Silva et al. 2010) and is followed here. The classification of Pieridae is also partially unresolved in light of new molecular phylogenetic studies (Braby *et al.* 2006), but as it happens, the Trinidad species all fit within the robust parts of the classification and align with the treatment in Lamas (2004).

Geographical Scope

The geographical area covered by the checklist is the island of Trinidad, and in principle the offshore islands, including the Bocas Islands, but not Tobago and its offshore islands. In practice, the few records of butterflies from the offshore islands are of species also known from the island of Trinidad, apart from a small number of species that have been recorded from Chacachacare Island, but not elsewhere from this area. One of these species is included: *Pharneuptychia* sp. ?nov.

Preparation of the Checklist

Two recent publications and one recent initiative have made this task practical. The first publication is the annotated bibliography of Neotropical butterflies, initially issued in 1995, but subsequently revised, updated and made available on the internet (Lamas 2013). The second is the checklist of Neotropical butterflies (Lamas 2004), which provides a standard nomenclature with synonyms, based on a huge amount of work and the inputs of key taxonomists in the field. Without these two key publications, I would not have attempted this task. Complementing these, the development of the Biodiversity Heritage Library (<http://www.biodiversitylibrary.org/>) has facilitated ready access to the key early publications, which would otherwise have not been accessible outside a major entomological or natural history library.

The International Code for Zoological Nomenclature (ICZN 1999) requires that adjectival specific names of animals should agree in gender with the genus in which they are placed. Many taxonomists, particularly those dealing with the Lepidoptera, have advocated that this rule should be changed, and specific names should always follow the original spelling used by the author, ignoring gender agreement (e.g. Sommerer 2002). Many taxonomists have gone further, and in their checklists and other works have put this into practice. While, I agree that it would be a much better arrangement to use only the original spelling, there is also an imperative to follow the ICZN – if we don't follow the rules of nomenclature it is a path to greater chaos in animal names. The ICZN also requires that where a species is currently placed in a genus other than the one in which it was described, then the author's name should be placed in parentheses, whereas if it is still in the original genus, then there are no parentheses. Again many taxonomists, including many dealing with Lepidoptera have argued that this rule is not useful, and that the use of parentheses should be dropped. Barcant (1970) did not seem to have been aware of this rule, and placed all author names in parentheses. For the purposes of this checklist, I have adopted two principles (1) I have not considered gender agreement, but simply followed the usage in the checklist of Neotropical butterflies (Lamas 2004), in order to maintain stability; (2) I have followed the rule regarding use of parentheses, since this is relatively easy to establish even if it is not useful.

The advantage of using the checklist as the standard for this checklist is that it provides a recent update of name changes across all families, which hopefully will provide some stability for years to

come. Even so, I have deviated from the checklist where more recent work indicates the need (e.g. Neild 2008). A disadvantage of this and many checklists is that they may include new synonyms and new combinations, which are not always designated as such, and the explanation and justification for these may not be included. This can lead to traditional species being lumped together as subspecies of one species, or traditional subspecies being split into separate species, without an explanation of why. Where this involves allopatric taxa that do not overlap in distribution, unless morphological, biological or molecular studies have been made, the decision to treat taxa as subspecies or species can appear subjective. A case in point here is the species or subspecies of *Mestra*. Traditionally, the oldest name in the genus, *Mestra dorcas* (Fabricius) has been considered to be a separate species restricted to Jamaica (Brown and Heineman 1972, Smith et al. 1994), whereas the widespread continental taxon has usually been treated as *M. hypermestra cana* (Erichson) (e.g. Neild 1996). Subspecies *cana* is now considered to be a synonym of *hersilia* Fabricius, which is older and therefore senior to *hypermestra* Hübner. Lamas (2004) treats them all as a single species, *M. dorcas*, with seven subspecies including *hersilia*, whereas the current Butterflies of America website (Warren et al. 2013) treat them as three species, one of which, *M. hersilia* (Fabricius), has six subspecies. The subspecies found in Trinidad may be therefore be treated either as *M. dorcas hersilia* (Fabricius) in line with Lamas (2004) or as *M. hersilia hersilia* (Fabricius) in line with Warren et al. (2013). Neither the checklist, nor the website, includes an explanation for the differences, and it is beyond the scope of this checklist for Trinidad to resolve this Neotropical issue, so my choice is also subjective. In this particular case, I have opted for the more recent combination of Warren et al. (2013), but this only reflects my opinion, based on appearance and the expressed views of others (e.g. Neild 1996).

In the checklist presented here, all names listed by Kaye (1921, 1940) and Barcant (1970) are included; original spellings and combinations are used, but the names of the authors of the specific names have been corrected when necessary to align with Lamas (2004); Barcant (1970) in particular made many errors in presenting the author names. In addition, I have included other relevant publications that refer specifically to a species or subspecies being found in Trinidad, or provide information on the biology of that species in Trinidad, including the food plant listings of Benson et al. (1976), Drummond and Brown (1987) and Beccaloni et al. (2008). This does not provide a complete bibliography of Trinidad butterflies, but should include all key works. Where a work treats a species found in Trinidad, but does not mention Trinidad specifically, this reference is not included under that species, for example, the treatment of many but not all of the Trinidad species covered in the *Butterflies of the Neotropical Region* by D'Abbrera (1981, 1984, 1987a, 1987b, 1988) does not mention Trinidad in the distribution, but those that do are referenced. I have not included the original description of every species and subspecies, as this information can be obtained from the bibliography of Neotropical butterflies (Lamas 2013), using the author and date of publication from this list or Lamas (2004). However, for all taxa described from Trinidad (indicated in the list by 'TL' after the reference), I have provided the citation for the original description.

There are several new records included which have not previously been published. Most of these are species that have been overlooked as they resemble other commoner species, but at least one, *Eunica anna* (Cramer), seems to be a very localised and uncommon species newly discovered from Trinidad.

Where there is no correlation between the current name and the name used by previous authors, or some explanation is needed for other reasons, I have added a brief comment in square brackets, e.g. synonym, misidentification. I recognise that the names used by earlier authors were those in current use at the time, i.e. correct based on knowledge at that time, so that a misidentification should not be construed as an error, and no criticism of these earlier works is intended. I have included all documented species, including those that have not been seen for many years, vagrants only known from one or two captures, and those suspected to be errors. These last are considered at the end, and reasons for excluding them presented.

Species are grouped in families (uppercase, bold), subfamilies (uppercase) and tribes (lower case). Where used, subtribes are combined with tribes, e.g. Ithomiini - Tithoreina. The following collections and their acronyms are referred to: the Angostura-Barcant Collection, Laventille, Trinidad and Tobago (no acronym), Booth Museum of Natural History, Brighton, UK (BMBN), Fountaine-Neimy Collection, Norwich Museum, UK (FNCN), The McGuire Centre for Lepidoptera and Biodiversity, Florida (MCLB), and The Natural History Museum, London (BMNH).

PAPILIONIDAE

PAPILIONINAE

Leptocircini

Protesilaus protesilaus protesilaus (Linnaeus, 1758)

Papilio protesilaus protesilaus Linnaeus: Kaye (1921, no. 296)

Graphium protesilaus (Linnaeus): Barcant (1970, no. 155)

Eurytides protesilaus (Linnaeus): Raby (1984)

Protesilaus protesilaus protesilaus (Linnaeus): Beccaloni et al. (2008)

Protesilaus telesilaus (C. Felder and R. Felder, 1864) *dolius* (Rothschild and Jordan, 1906)

Papilio telesilaus telesilaus C. Felder and R. Felder: Kaye (1921, no. 297)

Graphium telesilaus (C. Felder and R. Felder): Barcant (1970, no. 156)

Eurytides telesilaus (C. Felder and R. Felder): Raby (1984)

Protesilaus telesilaus dolius (Rothschild and Jordan): Beccaloni et al. (2008)

Mimoides pausanias (Hewitson, 1852) *tabaquita* (Kaye, 1925)

Papilio pausanias pausanias Hewitson: Kaye (1921, no. 295)

Papilio pausanias tabaquita Kaye: Kaye (1925) TL

Graphium pausanias (Hewitson): Barcant (1970, no. 154)

Eurytides pausanias (Hewitson): Raby (1984)

Mimoides pausanias tabaquita (Kaye): Tyler et al. (1994), Beccaloni et al. (2008)

Troidini

Battus ingenuus (Dyar, 1907)

Papilio belus varus Kollar: Kaye (1940, no. 290b), Barcant (1970, no. 145), Boos (1986b)
[misidentification]

Battus ingenuus (Dyar): Racheli and Pariset (1992), Möhn (1999)

Battus chalceus ingenuus (Dyar): Tyler et al. (1994)

Battus lycidas (Cramer, 1777)

Battus lycidas (Cramer): Barcant (1970, no. 147), Boos (1986b), Möhn (1999)

Battus polydamas polydamas (Linnaeus, 1758)

Papilio polydamas polydamas Linnaeus: Kaye (1921, no. 290)

Battus polydamas (Linnaeus): Barcant (1970, no. 146), Boos (1986b), Beccaloni et al. (2008)

Battus polydamas polydamas (Linnaeus): Racheli and Pariset (1992), Cock (2004a)

Parides anchises (Linnaeus, 1758) *cymochles* (Doubleday, 1844)

Papilio cymochles Doubleday: Doubleday (1844) TL

Papilio anchises cymochles Doubleday: Kaye (1921, no. 288)

Parides anchises cymochles (Doubleday): Barcant (1970, no. 143), Boos (1986b), Cock (2004a),
Beccaloni et al. (2008)

Parides neophilus (Geyer, 1837) *parianus* (Rothschild and Jordan, 1906)

Papilio neophilus parianus Rothschild and Jordan: Rothschild and Jordan (1906) TL, Kaye (1921,
no. 289)

Parides neophilus parianus (Rothschild and Jordan): Barcant (1970, no. 144), Boos (1986b), D'Abbrera
(1981), Cock (2004a), Beccaloni et al. (2008)

Parides sesostris (Cramer, 1779) *trinitensis* K.S. Brown, 1994

Papilio sesostris sesostris Cramer: Kaye (1921, no. 287)

Parides sesostris (Cramer): Barcant (1970, no. 142), Boos (1986b)

Parides sesostris trinitensis K.S. Brown: Brown (1994) TL, Beccaloni et al. (2008)

Papilionini

Heraclides anchisiades (Esper, 1788) *philastris* (Fruhstorfer, 1915)

Papilio anchisiades philastris (Fruhstorfer): Fruhstorfer (1915b) TL

Papilio anchisiades anchisiades Esper: Kaye (1921, no. 293), Cock (2004a)

Papilio anchisiades Esper: Caracciolo (1891), Fountaine (unpublished), Barcant (1970, no. 148),
López and Quesnel (1970)

- Heraclides anchisiades* (Esper): Beccaloni et al. (2008)
Heraclides anchisiades philastrius (Fruhstorfer): Tyler et al. (1994)
Heraclides astyalus (Godart, 1819) *hippomedon* (C. Felder and R. Felder, 1859)
Papilio lycophron (Hübner): Kaye (1940, no. 292a), Barcant (1970, no. 151)
Heraclides astyalus hippomedon (C. Felder and R. Felder): Tyler et al. (1994), Beccaloni et al. (2008)
Heraclides androgeus androgeus (Cramer, 1775)
Papilio androgeus androgeus Cramer: Kaye (1921, no. 292), Cock (2004a)
Papilio androgeus Cramer: Barcant (1970, no. 152)
Heraclides androgeus epidaurus (Godman and Salvin): Beccaloni et al. (2008) [misidentification of subspecies]
Heraclides homothoas (Rothschild and Jordan, 1906)
Papilio homothoas (Rothschild and Jordan): Barcant (1970, no. 150)
Papilio cresphontes Cramer: Quesnel (1956), López and Quesnel (1970) [misidentification]
Heraclides homothoas (Rothschild and Jordan): Beccaloni et al. (2008)
Heraclides thoas (Linnaeus, 1771) *nealces* (Rothschild and Jordan, 1906)
Papilio thoas nealces Rothschild and Jordan: Kaye (1921, no. 291), Barcant (1970, no. 149), D'Abbrera (1981), Cock (2004a)
Papilio thoas (Linnaeus): Fountaine (unpublished), López and Quesnel (1970)
Heraclides thoas nealces (Rothschild and Jordan): Beccaloni et al. (2008)
Heraclides torquatus torquatus (Cramer, 1777)
Papilio torquatus torquatus Cramer: Kaye (1921, no. 294)
Papilio torquatus Cramer: Barcant (1970, no. 153)
Heraclides torquatus (Cramer): Beccaloni et al. (2008)

PIERIDAE

DISMORPHIINAE

- Dismorphia amphione* (Cramer, 1779) *broomeae* Butler, 1899
Dismorphia broomeae Butler: Butler (1899) TL
Dismorphia amphione broomeae Butler: Kaye (1921, no. 263), Beccaloni et al. (2008)
Dismorphia amphione astynomides Röber: Barcant (1970, no. 157) [synonym]
Dismorphia amphione broomia Butler: D'Abbrera (1981) [misspelling]
Enantia lina (Herbst, 1791) *acutipennis* Butler, 1896
Enantia acutipennis Butler: Butler (1896a) TL
Enantia licinia acutipennis Butler: Kaye (1921, no. 264), Barcant (1970, no. 158)
 Note 1

COLIADINAE

- Anteos clorinde* (Godart, [1824])
Gonepteryx chlorinde Godart: Kaye (1940, no. 286a footnote) [misspelling]
Anteos clorinde (Godart): Barcant (1970, no. 167), Beccaloni et al. (2008)
 Note 2
Anteos maerula (Fabricius, 1775)
Gonepteryx maerula (Fabricius): Kaye (1921, no. 265)
Anteos maerula (Fabricius): Barcant (1970, no. 166)
Phoebis argante DJH01
Catopsilia argante (Fabricius): Kaye (1921 no. 269)
Phoebis argante (Fabricius): Barcant (1970, no. 164), Beccaloni et al. (2008)
Phoebis argante argante (Fabricius): Cock (2004a)
Phoebis argante DJH01: Janzen et al. (2009)
 Note 3
Phoebis argante DJH02
Phoebis argante DJH02, Janzen et al. (2009)
 Note 3

- Phoebis philea philea* (Linnaeus, 1763)
Catopsilia philea (Linnaeus): Kaye (1921, no. 271)
Phoebis philea (Linnaeus): Barcant (1970, no. 165), Beccaloni et al. (2008)
- Phoebis sennae* (Linnaeus, 1758) *marcellina* (Cramer, 1777)
Catopsilia eubule (Linnaeus): Kaye (1921, no. 270) [synonym]
Phoebis sennae (Linnaeus): Barcant (1970, no. 163), Beccaloni et al. (2008)
- Rhabdodryas trite trite* (Linnaeus, 1758)
Catopsilia trite (Linnaeus): Kaye (1921 no. 268)
Phoebis trite (Linnaeus): Barcant (1970, no. 162)
- Aphrissa statira statira* (Cramer, 1777)
Catopsilia statira (Cramer): Williams (1919), Kaye (1921 no. 267)
Phoebis statira (Cramer): Barcant (1970, no. 161), Quesnel (1971), Chadee (1998)
- Pyrisitia leuce* (Boisduval, 1836) *athalia* (C. Felder and R. Felder, 1865)
Terias leuce (Boisduval): Kaye (1921, no. 277)
Terias pseudoleuce d'Almeida: d'Almeida (1934) TL [synonym]
Eurema leuce (Boisduval): Barcant (1970, no. 171)
- Pyrisitia proterpia* (Fabricius, 1775)
Eurema proterpia (Fabricius): Barcant (1970, no. 168)
 Note 4
- Pyrisitia venusta venusta* (Boisduval, 1836)
Terias nise (Cramer): Kaye (1921, no. 273) [misidentification in common use]
Eurema venusta (Boisduval): Barcant (1970, no. 170)
Pyrisitia venusta venusta (Boisduval): Beccaloni et al. (2008)
- Eurema agave agave* (Cramer, 1775)
Terias agave (Cramer): Kaye (1921, no. 275)
Eurema agave (Cramer): Barcant (1970, no. 173), Preston and Preston (1983), Beccaloni et al. (2008)
- Eurema albula* (Cramer, 1775) *marginella* (C. Felder and R. Felder, 1861)
Terias albula (Cramer): Kaye (1921, no. 274)
Eurema albula (Cramer): Barcant (1970, no. 169)
Leucidia exigua Prittwitz: Barcant (1970, no. 175), Preston and Preston (1983) [misidentification]
 Notes 5, 7
- Eurema arbela* Geyer, 1832 *gratiosa* (Doubleday, 1847)
Sphaenogona semiflava Butler: Butler (1875) TL [synonym]
Sphaenogona gratiosa (Doubleday): Kaye (1921, no. 278)
Eurema gratiosa (Doubleday): Barcant (1970, no. 174), D'Abbrera (1981)
- Eurema दौरा* (Godart, 1819) *lydia* (C. Felder and R. Felder, 1861)
 Note 7
- Eurema elathea* (Cramer, 1777) *vitellina* (C. Felder and R. Felder, 1861)
Terias elathea (Cramer): Kaye (1921, no. 276)
Eurema elathea (Cramer): Barcant (1970, no. 172)
Eurema elathea palmyra (Poey): Barcant (1970, no. 172, plate 26.1) [misidentification and misspelling of ssp. *palmira* of *E. दौरा*]
Eurema elathea ebriola (Poey): Barcant (1970, no. 172, plate 26.2) [misidentification of ssp.]
- Kricogonia lyside* (Godart, 1819)
Kricogonia lyside (Godart): Kaye (1921, no. 266), Barcant (1970, no. 160), Beccaloni et al. (2008)
- Leucidia brephos* (Hübner, [1809])
Leucidia brephos (Hübner): Barcant (1970, no. 176)
Leucidia exigua Prittwitz: Kaye (1921, no. 272) [misidentification]
 Note 6

PIERINAE

Anthocharidini

- Hesperocharis nera* (Hewitson, 1852) *lamonti* Kaye, 1920
Hesperocharis lamonti Kaye: Kaye (1920) TL

Hesperocharis nera lamonti Kaye: Kaye (1921, no. 279), Barcant (1970, no. 177), D'Abbrera (1981)

Pierini

Melete lycimnia (Cramer, 1777) *harti* (Butler, 1896)

Daptonura harti Butler: Butler (1896b) TL

Daptonoura lycimnia harti Butler: Kaye (1921, no. 280), D'Abbrera (1981)

Melete lycimnia harti (Butler): Barcant (1970, no. 178)

Glutophrissa drusilla drusilla (Cramer, 1777)

Glutophrissa drusilla (Cramer): Kaye (1921, no. 281)

Appias drusilla (Cramer): Barcant (1970, no. 179)

Itaballia demophile (Linnaeus, 1763) *calydonia* (Boisduval, 1836)

Itaballia demophile (Linnaeus): Kaye (1921, no. 283), Barcant (1970, no. 181)

Note 8

Itaballia pandosia pandosia (Hewitson, 1853)

Itaballia pandosia (Hewitson): Kaye (1921, no. 284), Barcant (1970, no. 180)

Perrhybris pamela (Stoll, 1780) *malenka* (Hewitson, 1852)

Perrhybris pyrria malenka (Hewitson): Kaye (1921, no. 282), Barcant (1970, no. 159)

Ascia monuste monuste (Linnaeus, 1764)

Pieris monuste (Linnaeus): Kaye (1921, no. 286)

Ascia monuste (Linnaeus): Barcant (1970, no. 183)

Ganyra josephina (Godart, 1819) *janeta* (Dixey, 1915)

Pieris sevata janeta Dixey: Kaye (1940 no. 286a), Barcant (1970)

Pieris sevanta [sic] *janeta* Dixey: Urich [1980b]

Ascia menciae janeta (Dixey): Cock [1981b], Cock (1984)

Ganyra josephina janeta (Dixey): Beccaloni et al. (2008)

Ganyra phaloe (Godart, 1819) *lamonti* (Kaye, 1919)

Pieris phaloe lamonti Kaye: (Kaye, 1919) TL, Kaye (1921, no. 285)

Ascia buniae lamonti (Kaye): Barcant (1970, no. 182)

Ganyra phaloe lamonti (Kaye): Cock (2006b), Beccaloni et al. (2008)

NYMPHALIDAE

LIBYTHEINAE

Libytheana carinenta carinenta (Cramer, 1777)

Libythea carinenta (Cramer): Kaye (1940, no. 125a), Barcant (1970, no. 141)

Note 9

DANAINAE

Danaini - Euploeina

Lycorea halia (Hübner, 1816) n. ssp. Lamas (Trinidad)

Lycorea sp.: Guppy (1894)

Lycorea ceres (Cramer): Guppy (1904), Kaye (1921, no. 3), Barcant (1970, no. 28) [synonym]

Lycorea cleobaea (Godart) ssp.: Ackery and Vane-Wright (1984) [another subspecies]

Note 10

Danaini - Danaina

Danaus eresimus (Cramer, 1777) *estevana* Talbot, 1943

Danaus eresimus (Cramer): Kaye (1921, no. 2), Beccaloni et al. (2008)

Danaus eresimus xanthippus (C. Felder and R. Felder): Barcant (1970, no. 27)

Danaus eresimus estevana Talbot: Ackery and Vane-Wright (1984)

Danaus gilippus (Cramer, 1775) *xanthippus* (C. Felder and R. Felder, 1860)

Danaus gilippus berenice (Cramer): Barcant (1970, no. 26) [misidentification of subspecies]

Danaus gilippus (Cramer) ssp.: Ackery and Vane-Wright (1984), Beccaloni et al. (2008)

Danaus gilippus xanthippus (C. Felder and R. Felder): Talbot (1943), Brower and Jones (1965)

Danaus plexippus (Linnaeus, 1758) *nigrippus* (Haensch, 1909)
Danais erippus (Cramer): Caracciolo (1889) [misidentification]
Danais archippus (Fabricius): Kaye (1921, no. 1) [synonym]
Danaus plexippus megalippe (Hübner): Barcant (1970, no. 25), Ackery and Vane-Wright (1984),
 D'Abrera (1984), Smith *et al.* (2005), Beccaloni *et al.* (2008) [different subspecies]
Danaus plexippus (Linnaeus): Brower and Jeansonne (2004) [subspecies not recognised]
 Note 11

Ithomiini - Tithoreina

Tithorea harmonia (Cramer, 1777) *megara* (Godart, 1819)
Tithorea flavescens W.F. Kirby: Kirby (1889) TL [synonym], Guppy (1894)
Tithorea megara (Godart): Guppy (1904), Fountaine (unpublished)
Hirsutis megara (Godart): Kaye (1921, no. 4)
Tithorea harmonia megara (Godart): Barcant (1970, no. 31), D'Abrera (1984), Drummond and Brown
 (1987), Beccaloni *et al.* (2008)
Aeria eurimedia (Cramer, 1777) *agna* Godman and Salvin, 1879
Sais eurymedia (Cramer): Guppy (1894)
Aeria agna Godman and Salvin: Kaye (1921, no. 7)
Aeria eurimedia agna Godman and Salvin: Barcant (1970, no. 35), Young 1978, Drummond and
 Brown (1987), Beccaloni *et al.* (2008)

Ithomiini - Melinaeina

Melinaea lilis (Doubleday, 1847) *sola* Kaye, 1925
Melinaea tachypetis C. Felder and R. Felder: Kaye (1921, no. 5) [misidentification of subspecies]
Melinaea mneme sola Kaye: Kaye (1925) TL, Kaye (1940 no. 5)
Melinaea lilis sola (Kaye): Barcant (1970, no. 32), D'Abrera (1984)
Melinaea crameri Godman and Salvin, 1898 *aurantia* W.T.M. Forbes, 1942
Melinaea melus madeira (Moulton): Barcant (1970, p. 275) [misidentification]
 Note 12

Ithomiini - Mechanitina

Mechanitis lysimnia (Fabricius, 1793) *solaria* W.T.M. Forbes, 1948
Mechanitis lysimnia solaria (Forbes): Fox (1967), Barcant (1970, no. 33a), D'Abrera (1984)
Mechanitis menapis Hewitson, [1856] *caribensis* R.M. Fox, 1967
Mechanitis menapis caribensis Fox: Fox (1967), Barcant (1970, no. 33b), D'Abrera (1984)
Mechanitis polymnia (Linnaeus, 1758) *kayei* R.M. Fox, 1967
Mechanitis egaensis Bates: Guppy (1894) [misidentification]
Mechanitis veritabilis Butler: Guppy (1904), Kaye (1921, no. 6) [misidentification of subspecies]
Mechanitis isthmia kayei Fox: Fox (1967) TL, Barcant (1970, no. 33), D'Abrera (1984), Cock (2004a)
Mechanitis polymnia kayei R.M. Fox: Drummond and Brown (1987), Beccaloni *et al.* (2008)
 Note 13

Ithomiini - Napeogenina

Hypothyris euclea euclea (Godart, 1819)
Ceratinia euclea (Godart): Kaye (1921, no. 8)
Hypothyris euclea euclea (Godart): Barcant (1970, no. 34), D'Abrera (1984), Neild (2008)
Hypothyris euclea forbesi Fox: Barcant (1970, no. 33c) [an aberration resembling ssp. *forbesi* Fox
 (Neild 2008)]

Ithomiini - Ithomiina

Ithomia iphianassa iphianassa Doubleday, 1847
Ithomia lycaste iphianassa Doubleday: Kaye (1940, no. 10a), Barcant (1970, no. 42)
 Note 14
Ithomia agnosia (Hewitson, 1855) *pellucida* Weymer, 1875

Ithomia pellucida Weymer: Weymer (1875) TL, D'Abrera (1984)

Ithomia drymo pellucida Weymer: Kaye (1921, no. 10)

Ithomia pellucida pellucida Weymer: Barcant (1970, no. 41)

Ithomiini - Dircennina

Ceratinia neso (Hübner, 1806) *hamlini* (A.G. Weeks, 1906)

Calloleria nise (Cramer): Kaye (1921, no. 11) [misidentification of subspecies synonym]

Ceratinia nise nise (Cramer): Barcant (1970, no. 38) [misidentification of subspecies synonym],
Preston and Preston (1983)

Callithomia lenea (Cramer, 1779) *siparia* (Kaye, 1922)

Dircenna melanida (Cram.): Kaye (1921, no. 9) [misidentification of subspecies synonym]

Dircenna lenea siparia Kaye: Kaye (1922) TL, Kaye (1940 no. 9)

Callithomia lenea (Cramer): Barcant (1970, no. 37)

Callithomia lenea siparia (Kaye): D'Abrera (1984)

Pteronymia aletta aletta (Hewitson, [1855])

Pteronymia aletta (Hewitson): Kaye (1921, no. 13), Barcant (1970, no. 39), D'Abrera (1984)

Note 15

Pteronymia alissa (Hewitson, 1869) *amandes* Kaye, 1921

Pteronymia asopo amandes Kaye: Kaye (1921, no. 12) TL

Pteronymia amandes Kaye: Barcant (1970, no. 40), Preston and Preston (1983)

Pteronymia asopo asopo (C. Felder and R. Felder): D'Abrera (1984)

Pteronymia artena (Hewitson, 1855) *beebei* R.M. Fox and J.W. Fox, 1947

Pteronymia artena (Hewitson): Barcant (1970, no. 40a), Stradling (1980)

Greta andromica (Hewitson, 1855) *trifenestra* R.M. Fox, 1941

Hymenitis andromica (Hewitson): Kaye (1921, no. 15), Barcant (1970, no. 43)

Greta andromica trifenestra Fox: Fox (1941) TL

Greta andromica trifenestrata Fox: D'Abrera (1984) [misspelling]

Ithomiini - Godyridina

Hypoleria ocalea ocalea (Doubleday, 1847)

Heterosais ocalea (Doubleday): Guppy (1904)

Hypoleria ocalea (Doubleday): Kaye (1921, no. 14), Barcant (1970, no. 36), D'Abrera (1984),
Drummond and Brown (1987)

Hypoleria ocalea ocalea (Doubleday): Beccaloni et al. (2008)

SATYRINAE

Morphini

Antirrhoea philoctetes philoctetes (Linnaeus, 1758)

Antirrhoea philoctetes (Linnaeus): Kaye (1921, no. 105)

Antirrhoea philoctetes (Linnaeus): Barcant (1970, no. 2), DeVries et al. (1985), Beccaloni et al. (2008)

Antirrhoea philoctetes (Linnaeus): Urich and Emmel (1990b)

Morpho helenor (Cramer, 1776) *insularis* Fruhstorfer, 1912

Morpho peleides insularis Fruhstorfer: Fruhstorfer (1912b) TL, Stollmeyer (1933), Barcant (1970,
no. 130), Barcant (1981), Urich and Emmel (1991a), D'Abrera (1984), Cock (2004a)

Morpho achilles insularis Fruhstorfer: Kaye (1921, no. 93), Beccaloni et al. (2008)

Morpho corydon nesophila Le Moult and Real: Le Moult and Réal (1962-1963) TL [synonym]

Morpho tobagoensis trinitas Le Moult and Real: Le Moult and Réal (1962-1963) TL [synonym]

Morpho tobagoensis trinitas f. *nitens* Le Moult and Real: Le Moult and Réal (1962-1963) TL
[synonym]

Morpho tobagoensis trinitas f. *laticincta* Le Moult and Real: Le Moult and Réal (1962-1963) TL
[synonym]

Brassolini

Brassolis sophorae sophorae (Linnaeus, 1758)

Brassolis sophorae sophorae (Linnaeus): Kaye (1921, no. 94)
Brassolis sophorae (Linnaeus): Guppy (1911), Graf (1942), Barcant (1970, no. 131), Beccaloni et al. (2008)

Note 16

- Caligo brasiliensis* (C. Felder, 1862) *minor* Kaye, 1904
Caligo eurylochus [sic] *minor* Kaye: Kaye (1904) TL
Caligo eurilochus minor Kaye: Kaye (1921, no. 99), Barcant (1970, no. 135), Stradling (1976)
Caligo eurilochus phryasus Fruhstorfer: Fruhstorfer (1912a) TL [synonym]
Caligo eurilochus (Cramer): Quesnel (2003) [misidentification]
Caligo brasiliensis minor Kaye: Quesnel and Stradling (2012)
- Caligo illioneus illioneus* (Cramer, 1775)
Caligo saltus Kaye: Kaye (1904) TL, Guppy (1904), Urich (1912) [synonym]
Caligo illioneus saltus Kaye: Kaye (1921, no. 101), Box (1953), Barcant (1970, no. 137), Stradling (1976), Preston and Preston (1983), Cock (2004a), Quesnel and Stradling (2012)
Caligo illioneus (Cramer): Quesnel (2003), Beccaloni et al. (2008)
Caligo illioneus polyxenus Stichel: D'Abrera (1987a) [synonym]
Caligo illioneus illioneus (Cramer): Beccaloni et al. (2008)
- Caligo teucer* (Linnaeus, 1758) *insulanus* Stichel, 1904
Caligo teucer insulanus Stichel: Stichel (1903-1904) TL, Kaye (1921, no. 100), Barcant (1970, no. 136), Stradling (1976), D'Abrera (1987a), Beccaloni et al. (2008), Quesnel and Stradling (2012)
Caligo teuer (Linnaeus): Quesnel (2003) [misspelling]
- Catoblepia berecynthia berecynthia* (Cramer, 1777)
Catoblepia berecynthia berecynthia (Cramer): Kaye (1921, no. 103), Boos (1986a), D'Abrera (1987a)
Catoblepia berecynthia (Cramer): Barcant (1970, no. 134)
- Dynastor darius* (Fabricius, 1775) *anaxarete* (Cramer, 1776)
Dynastor darius darius (Fabricius): Kaye (1921, no. 95), Barcant (1970, no. 139), Urich and Emmel (1991c), Beccaloni et al. (2008) [misidentification of subspecies]
- Note 17
- Dynastor macrosiris macrosiris* (Westwood, 1851)
Dynastor macrosiris macrosiris Westwood: Kaye (1921, no. 96)
Dynastor macrosiris (Westwood): Barcant (1970, no. 140), Urich and Boos [1981], Urich and Emmel (1991b), Beccaloni et al. (2008)
- Note 18
- Eryphanis automedon automedon* (Cramer, 1775)
Eryphanis polyxena polyxena (Meerburgh): Kaye (1921, no. 102), Barcant (1970, no. 138), Stradling (1976), Preston and Preston (1983) [synonym]
Eryphanis automedon (Cramer): Quesnel (2003), Quesnel and Stradling (2012)
Eryphanis automedon automedon (Cramer): D'Abrera (1987a), Beccaloni et al. (2008)
- Opsiphanes cassiae cassiae* (Linnaeus, 1758)
Opsiphanes cassiae (Linnaeus): Caracciolo (1889), Guppy (1904)
Opsiphanes cassiae cassiculus Stichel: Kaye (1921, no. 98), Barcant (1970, no. 133), Preston and Preston (1983) [synonym]
Opsiphanes cassiae cassiae (Linnaeus): D'Abrera (1987a), Bristow (1991), Beccaloni et al. (2008)
- Opsiphanes cassina* C. Felder and R. Felder, 1862 *merianae* Stichel, 1902
Opsiphanes cassina merianae Stichel: Kaye (1921, no. 97), Barcant (1970, no. 132), D'Abrera (1987a), Bristow (1991), Beccaloni et al. (2008)
- Selenophanes cassiope cassiope* (Cramer, 1775)
Selenophanes cassiope cassiope (Cramer): Boos (1979), Bristow (1982)
- Note 19

Haeterini

- Pierella hyalinus hyalinus* (Gmelin, 1790)
Pierella hyalinus (Gmelin): Kaye (1921, no. 104), Fountaine (unpublished), D'Abrera (1988)
Pierella hyalinus fusimaculata F.M. Brown: Brown (1948) TL [synonym], Barcant (1970, no. 1),

Urich and Emmel (1990a)

Pierella hyalinus hyalinus (Gmelin): Beccaloni et al. (2008)

Satyrini

Caeruleptychia brixius (Godart, [1824])

Euptychia brixiola Butler: Kaye (1921, no. 125), Barcant (1970, no. 24) [synonym]

Cissia brixiola (Butler): Singer and Ehrlich (1993) [synonym]

Cepheuptychia cephus (Fabricius, 1775)

Euptychia cephus (Fabricius): Kaye (1921, no. 121), Barcant (1970, no. 20), D'Abrera (1988)

Cissia cephus (Fabricius): Singer and Ehrlich (1993)

Chloreuptychia arnaca (Fabricius, 1776)

Euptychia arnaea (Fabricius): Kaye (1921, no. 124), Barcant (1970, no. 23) [misspelling]

Cissia arnaea (Fabricius): Singer and Ehrlich (1993) [misspelling]

Chloreuptychia arnaca (Fabricius): Beccaloni et al. (2008)

Cissia myncea (Cramer, 1780) *isolata* (Kaye, 1921)

Euptychia myncea (Cramer) *isolata* Kaye: Kaye (1921, no. 112) TL

Euptychia myncea (Cramer): Barcant (1970, no. 10), D'Abrera (1988)

Euptychia palladia (Butler) Barcant (1970, no. 13) [misidentification, see Singer et al. (1983)]

Cissia myncea (Cramer): Singer et al. (1983), Singer and Ehrlich (1993), Beccaloni et al. (2008)

Note 20

Cissia palladia (Butler, 1867)

Euptychia palladia Butler: Kaye (1921, no. 114)

Cissia palladia (Butler): Singer et al. (1983), Singer and Ehrlich (1993), Beccaloni et al. (2008)

Euptychia pallidia Butler: D'Abrera (1988) [misspelling]

Cissia penelope (Fabricius, 1775)

Euptychia penelope (Fabricius) Kaye (1921, no. 115), Barcant (1970, no. 14)

Cissia penelope (Fabricius): Singer et al. (1983), Singer and Ehrlich (1993), Beccaloni et al. (2008)

Cissia terrestris (Butler, 1867)

Euptychia terrestris Butler: Kaye (1921, no. 113), Barcant (1970, no. 12)

Cissia terrestris (Butler): Singer and Ehrlich (1993)

Note 21

Cissia themis (Butler, 1867)

Euptychia themis Butler: Kaye (1921, no. 116), Barcant (1970, no. 15)

Cissia themis (Butler): Singer and Ehrlich (1993)

Erichthodes antonina (C. Felder and R. Felder, 1867)

Euptychia erichto Butler: Kaye (1921, no. 119), Barcant (1970, no. 18) [misspelling of synonym *erichtho* Butler]

Cissia erichto (Butler): Singer and Ehrlich (1993) [misspelling of synonym *erichtho* Butler]

Hermeuptychia hermes (Fabricius, 1775)

Euptychia hermes (Fabricius): Kaye (1921, no. 118), Barcant (1970, no. 17)

Cissia hermes (Fabricius): Singer and Ehrlich (1993)

Hermeuptychia hermes (Fabricius): Beccaloni et al. (2008)

Magneuptychia lea (Cramer, 1777)

Euptychia junia (Cramer): Kaye (1921, no. 122), Barcant (1970, no. 21) [synonym]

Cissia junia (Cramer): Singer and Ehrlich (1993) [synonym]

Euptychia lea (Cramer): D'Abrera (1988)

Magneuptychia lea (Cramer): Beccaloni et al. (2008)

Magneuptychia libye (Linnaeus, 1767)

Euptychia libye (Linnaeus): Kaye (1921, no. 123), Barcant (1970, no. 22)

Cissia libye (Linnaeus): Singer and Ehrlich (1993)

Magneuptychia libye (Linnaeus): Beccaloni et al. (2008)

Magneuptychia modesta (Butler, 1867)

Cissia alcinoe (C. Felder and R. Felder): Singer and Ehrlich (1993)

Note 22

- Magneuptychia newtoni* (A. Hall, 1939)
Euptychia newtoni Hall: Kaye (1940, footnote)
Magneuptychia libye (Linnaeus): Urich [1980b] [misidentification]
- Magneuptychia ocypete* (Fabricius, 1776)
Euptychia ocypete (Fabricius): Kaye (1940, no. 112a), Barcant (1970, no. 11)
Cissia ocypete (Fabricius): Singer and Ehrlich (1993) [misspelling]
Euptychia ?terrestris Butler: D'Abbrera (1988)
- Pareuptychia lydia* (Cramer, 1777)
Euptychia calpurnia (C. Felder and R. Felder): Kaye (1940, no. 111a), Barcant (1970, no. 9), Rooks [1980], Preston and Preston (1983) [synonym]
Cissia calpurnia (C. Felder and R. Felder): Singer and Ehrlich (1993) [synonym]
- Pareuptychia ocirrhoe* (Fabricius, 1776) n. ssp. Lamas MS
Euptychia hesione (Sulzer): Kaye (1921, no. 111), Barcant (1970, no. 8) [synonym]
Cissia hesione (Sulzer): Singer and Ehrlich (1993) [synonym]
Pareuptychia ocirrhoe (Fabricius): Beccaloni et al. (2008)
 Note 23
- Pareuptychia ocirrhoe ocirrhoe* (Fabricius, 1776)
 Note 24
- Pareuptychia* sp. ?nov.
 Note 25
- Pharneuptychia* sp. ?nov.
 Note 26
- Posttaygetis penelea* (Cramer, 1777)
Taygetis penelea (Cramer): Kaye (1921, no. 110), Barcant (1970, no. 7), Preston and Preston (1983)
- Taygetis echo* (Cramer, 1775) n. ssp. L.D. Miller MS
Taygetis echo (Cramer): Kaye (1921, no. 107), Barcant (1970, no. 4)
Taygetis cleopatra C. Felder and R. Felder: Kaye (1921, no. 108), Barcant (1970, no. 5)
 [misidentified female of *echo*]
 Note 27
- Taygetis rufomarginata* Staudinger, 1888 *tapulunmi* Brévignon, 2005
Taygetis virgilia (Cramer): Preston and Preston (1983) [misidentification]
 Note 28
- Taygetis laches* (Fabricius, 1793)
Taygetis andromeda (Cramer): Kaye (1921, no. 109), Barcant (1970, no. 6) [preoccupied name]
 Note 29
- Taygetis virgilia* (Cramer, 1776)
Taygetis virgilia (Cramer): Kaye (1921, no. 106), Barcant (1970, no. 3)
 Note 28
- Yphthimoides renata* (Stoll, 1780)
Euptychia renata (Stoll): Kaye (1921, no. 117), Barcant (1970, no. 16)
Cissia renata (Stoll): Singer and Ehrlich (1993)
Yphthimoides renata (Stoll): Beccaloni et al. (2008)

CHARAXINAE

Anaeini

- Consul fabius* (Cramer, 1776) *ochraceus* (Butler, 1874)
Protogonius hippona trinitatis Röber: Röber (1916) TL [synonym]
Protogonius ochraceus Butler: Guppy (1904), Kaye (1921, no. 85), Fontaine (unpublished)
Anaea fabius (Cramer): Barcant (1970, no. 122), Comstock (1961)
Consul fabius ochraceus (Butler): D'Abbrera (1988)
- Siderone galanthis galanthis* (Cramer, 1775)
Siderone marthesia (Cramer): Kaye (1921, no. 87), Fontaine (unpublished), Comstock (1961), Cock (2004a) [synonym]
Siderone marthesia f. cancellariae A. Hall: Hall (1935) TL [synonym]

Anaea marthesia (Cramer): Barcant (1970, no. 123) [synonym]

Siderone galanthis galanthis (Cramer): Beccaloni et al. (2008)

Note 30

Zaretis ellops (Ménétriés, 1855)

Zaretis isidora (Cramer): Kaye (1921, no. 88) [misidentification]

Anaea itys (Cramer): Barcant (1970, no. 121), Neild (1996) [misidentification]

Zaretis itys itys (Cramer): Cock (2004a) [misidentification]

Zaretis ellops (Ménétriés): Neild (1996), Willmott and Hall (2004), Cock (2006a)

Fountainea ryphea ryphea (Cramer, 1775)

Anaea phidile Geyer: Kaye (1921, no. 84), Fontaine (unpublished) [misidentification of subspecies]

Anaea ryphea ryphea (Cramer): Comstock (1961), Barcant (1970, no. 120)

Fountainea ryphea ryphea (Cramer): D'Abrera (1988), Neild (1996), Cock (2004a)

Memphis acidalia acidalia (Hübner, [1819])

Memphis arachne (Cramer): Neild (1996) [synonym]

Note 31

Memphis laertes (Cramer, 1775)

Anaea eribotes halli Kaye: Kaye (1914) TL, Kaye (1921, no. 82) [synonym]

Anaea eribotes (Fabricius): Comstock (1961), Barcant (1970, no. 118), Raby (1984) [preoccupied name]

Memphis halli (Kaye): Neild (1996) [synonym]

Memphis laertes (Cramer): Beccaloni et al. (2008)

Memphis moruus moruus (Fabricius, 1775)

Anaea morvus (Fabricius): Kaye (1921, no. 81), Raby (1984) [misspelling]

Anaea morvus morvus (Fabricius): Comstock (1961), Barcant (1970, no. 117) [misspelling]

Memphis morvus boisduvali (Comstock): Neild (1996) [different subspecies]

Memphis moruus (Fabricius): Beccaloni et al. (2008)

Memphis pithyusa (R. Felder, 1869) *morena* (A. Hall, 1935)

Anaea pethyusa (R. Felder): Kaye (1921, no. 83) [misspelling]

Anaea pithyusa (R. Felder): Barcant (1970, no. 119)

Memphis pithyusa (R. Felder): Neild (1996), De Gannes (2011)

Memphis pithyusa morena (A. Hall): Cock and De Gannes (2012)

Preponini

Archaeoprepona amphimachus (Fabricius, 1775) *amphiktion* (Fruhstorfer, 1916)

Prepona meander (Cramer): Kaye (1921, no. 92), Barcant (1970, no. 128) [misidentification]

Archaeoprepona amphimachus Fabricius: Papworth [1981], Preston and Preston (1983), Raby (1984), Beccaloni et al. (2008)

Archaeoprepona amphimachus amphimachus (Fabricius): D'Abrera (1987b)

Archaeoprepona amphimachus amphiktion Fruhstorfer: Neild (1996)

Note 32

Archaeoprepona demophon demophon (Linnaeus, 1758)

Prepona demophon (Linnaeus): Kaye (1921, no. 89), Barcant (1970, no. 126)

Archaeoprepona demophon (Linnaeus): Papworth [1981], Preston and Preston (1983), Beccaloni et al. (2008)

Archaeoprepona demophon muson Fruhstorfer: Neild (1996) [different subspecies]

Archaeoprepona demophoon (Hübner, [1814]) *andicola* (Fruhstorfer, 1904)

Prepona antimache (Hübner): Kaye (1921, no. 90), Barcant (1970, no. 127) [misidentification of subspecies]

Archaeoprepona demophoon Hübner: Papworth [1981], Preston and Preston (1983), Raby (1984), Beccaloni et al. (2008)

Archaeoprepona demophoon ilmatur (Fruhstorfer): D'Abrera (1987b) [misspelling of *ilmatar*, a synonym of different ssp.]

Archaeoprepona demophoon oligotaenia (Röber, 1928): Neild (1996) [synonym]

Archaeoprepona meander (Cramer, 1775) *megabates* (Fruhstorfer, 1916)

Archaeoprepona meander (Cramer): Papworth [1981], Preston and Preston (1983), Raby (1984), Beccaloni et al. (2008)

Archaeoprepona meander meander (Cramer): D'Abbrera (1987b)

Archaeoprepona meander mendax (Bryk, 1938): Neild (1996) [synonym]

Prepona laertes (Hübner, [1811]) complex sp. 1

Prepona laertes demodice (Godart): Kaye (1921, no. 91), Barcant (1970, no. 129, common form with variable purple flush) [valid ssp. in Lamas 2004]

Prepona pseudojoiceyi trinitensis Le Moulton: Le Moulton (1932) TL [synonym of ssp. *louisia* Butler in Lamas 2004]

Prepona omphale Hübner: Papworth [1981], Preston and Preston (1983) [synonym of ssp. *laertes* in Lamas 2004]

Prepona pseudojoiceyi Le Moulton: D'Abbrera (1987b) [synonym of ssp. *demodice* in Lamas 2004]

Prepona laertes louisia Butler: Beccaloni et al. (2008) [misidentification of subspecies]

Note 33

Prepona laertes (Hübner, [1811]) complex sp. 2

Prepona laertes demodice (Godart): Barcant (1970, no. 129, rare form with minimal purple flush) [valid ssp. in Lamas 2004]

Note 33

BIBLIDINAE

Cyrestini

Marpesia chiron (Fabricius, 1775) *marius* (Cramer, 1779)

Megaleura chiron (Fabricius): Kaye (1921, no. 65)

Marpesia chiron (Fabricius): Barcant (1970, no. 96), Preston and Preston (1983)

Marpesia petreus petreus (Cramer, 1776)

Megaleura peleus (Sulzer): Kaye (1921, no. 63) [preoccupied name]

Marpesia petreus (Cramer): Barcant (1970, no. 95), Beccaloni et al. (2008)

Marpesia zerynthia dentigera (Fruhstorfer, 1907)

Megaleura coresia (Godart): Kaye (1921, no. 64) [synonym]

Marpesia coresia (Godart): Barcant (1970, no. 97) [synonym]

Marpesia zerynthia Hübner: Neild (1996)

Note 34

Biblidini

Biblis hyperia hyperia (Cramer, 1779)

Didonis biblis (Fabricius): Kaye (1921, no. 49) [preoccupied name]

Biblis hyperia (Cramer): Barcant (1970, no. 80), Beccaloni et al. (2008)

Mestra hersilia hersilia (Fabricius, 1776)

Cystineura cowiana Butler: Butler (1902) TL [synonym]

Cystineura cana Erichson: Kaye (1921, no. 51), Fontaine (unpublished) [synonym]

Mestra hypermestra cana (Erichson): Barcant (1970, no. 79), Neild (1996) [synonym]

Mestra cana (Erichson): D'Abbrera (1987a), Cock (2004a)

Mestra dorcas hersilia (Fabricius): Lamas (2004), Beccaloni et al. (2008)

Mestra hersilia hersilia (Fabricius): Warren et al. (2013)

Note 35

Catonephele acontius acontius (Linnaeus, 1771)

Catonephele acontius (Linnaeus): Barcant (1970, no. 112), Raby (1984), Cock (1984), Beccaloni et al. (2008)

Catonephele antinoe (Godart, [1824])

Catonephele antinoe (Godart): Barcant (1970, no. 113), Jenkins (1985)

Catonephele numilia numilia (Cramer, 1775)

Catonephele numilia numilia (Cramer): Kaye (1921, no. 52), Jenkins (1985), D'Abbrera (1987b), Beccaloni et al. (2008)

Catonephele numilia (Cramer): Barcant (1970, no. 111), Urich (1980a), Cock (1984)

Note 36

Catonephele numilia (Cramer, 1775) *esite* (R. Felder, 1869)

Catonephele numilia (Cramer) *penthia* (Hewitson): Kaye (1921, no. 52) [synonym]

Catonephele numilia (Cramer): Barcant (1970, no. 111), Urich (1980a), Cock (1984)

Catonephele numilia esite (R. Felder): Jenkins (1985), D'Abbrera (1987b)

Note 36

Eunica alpais alpais (Godart, [1824])

Eunica excelsa (Godman and Salvin): Barcant (1970, no. 84) [misidentification of subspecies]

Eunica alpais alpais (Godart): Neild (1996)

Note 37

Eunica amelia amelia (Cramer, 1777)

Eunica amelia amelia (Cramer): Jenkins (1990), Neild (1996)

Note 38

Eunica anna (Cramer, 1780)

Note 39

Eunica malvina malvina H.W. Bates, 1864

Eunica malvina H.W. Bates: Kaye (1921, no. 55), Barcant (1970, no. 81), Beccaloni et al. (2008)

Eunica malvina malvina Bates: Jenkins (1990)

Eunica monima (Stoll, 1782)

Eunica monima modesta (H.W. Bates): Kaye (1940, no. 55a), Barcant (1970, no. 85), Preston and Preston (1983) [*modesta* is a synonym of *monima*]

Eunica monima (Cramer): Neild (1996), Jenkins (1990), Beccaloni et al. (2008)

Eunica mygdonia mygdonia (Godart, [1824])

Eunica mygdonia (Godart): Kaye (1921, no. 53), Barcant (1970, no. 82), Beccaloni et al. (2008)

Eunica mygdonia mygdonia (Godart): Jenkins (1990)

Eunica orphise (Cramer, 1775)

Eunica orphise (Cramer): Kaye (1921, no. 54), Barcant (1970, p. 276: probably not a Trinidad species)

Note 40

Eunica sydonia sydonia (Godart, [1824])

Eunica sydonia caresa (Hall): Barcant (1970, no. 83) [misidentification of subspecies]

Note 41

Eunica volumna (Godart, [1824]) *celma* (Hewitson, 1852)

Eunica venusia (Felder): Kaye (1940, no. 55a), Barcant (1970, p. 276) [different subspecies]

Euneca [sic] *celma* (Hewitson): French [1980]

Note 42

Hamadryas amphinome amphinome (Linnaeus, 1767)

Peridromia amphinome (Linnaeus): Kaye (1921, no. 47)

Hamadryas amphinome (Linnaeus): Barcant (1970, no. 88), Beccaloni et al. (2008)

Hamadryas amphinome amphinome (Linnaeus): Jenkins (1983), Neild (1996)

Hamadryas februa (Hübner, [1823]) *ferentina* (Godart, [1824])

Ageronia februa icilia Fruhstorfer: Fruhstorfer (1916) TL [synonym]

Ageronia ferentina (Godart): Kaye (1921, no. 44)

Hamadryas ferentina (Godart): Barcant (1970, no. 86)

Hamadryas februa ferentina (Godart): Neild (1996), Jenkins (1983), D'Abbrera (1987a), Cock (2004a), Beccaloni et al. (2008)

Hamadryas feronia feronia (Linnaeus, 1758)

Ageronia feronia (Linnaeus): Guppy (1894)

Ageronia feronia insularis Fruhstorfer: Fruhstorfer (1916) TL **syn. nov.**

Peridromia feronia (Linnaeus): Kaye (1921, no. 45)

Hamadryas feronia (Linnaeus): Barcant (1970, no. 87), D'Abbrera (1987a), Beccaloni et al. (2008)

Hamadryas feronia farinulenta (Fruhstorfer): Jenkins (1983) [different subspecies]

Hamadryas feronia ferentulina: Cock (2004a) [misspelling of *farinulenta*]

Note 43

- Hamadryas iphthime iphthime* (H.W. Bates, 1864)
Peridromia iphthime (Bates): Kaye (1921, no. 46), Barcant (1970, p. 276)
 Note 44
- Hamadryas laodamia* (Cramer, 1777) *saurites* (Fruhstorfer, 1916)
Peridromia arethusa (Cramer): Kaye (1921, no. 48) [synonym]
Hamadryas arethusa (Cramer): Barcant (1970, no. 89), Preston and Preston (1983) [synonym]
Hamadryas laodamia saurites (Fruhstorfer): Jenkins (1983), D'Abbrera (1987a), Neild (1996)
Hamadryas laodamia laodamia (Cramer): Beccaloni et al. (2008) [misidentification of subspecies]
- Pyrrhogyra crameri crameri* Aurivillius, 1882
Pyrrhogyra crameri crameri Aurivillius: Kaye (1940, no. 50a), Neild (1996)
Pyrrhogyra crameri (Aurivillius): Barcant (1970, no. 99), Cock [1981a]
- Pyrrhogyra neaerea* (Linnaeus, 1758) *kheili* Fruhstorfer, 1908
Pyrrhogyra tipha (Linnaeus): Kaye (1921, no. 50), Barcant (1970, no. 98) [synonym]
Pyrrhogyra neaerea kheili Fruhstorfer: Neild (1996), Beccaloni et al. (2008)
- Temenis laothoe* (Cramer, 1777) *hondurensis* Fruhstorfer, 1907
Temenis laothoe (Cramer): Kaye (1921, no. 57), Barcant (1970, no. 114), Beccaloni et al. (2008)
Temenis laothoe pseudoariadne [sic] Fruhstorfer: Barcant (1970, no. 114 var.) [misspelling of *pseudariadne*, a synonym]
Temenis laothoe laothoe (Cramer): D'Abbrera (1987b)
Temenis laothoe hondurensis Fruhstorfer: Neild (1996)
 Note 45
- Dynamine aerata* (Butler, 1877) *Lamas* n. ssp. Venezuela
Dynamine aerata (Butler): Neild (1996)
 Note 46
- Dynamine agacles* (Dalman, 1823) *core* Rober, 1915
Dynamine agacles (Dalman): Kaye (1921, no. 66), Barcant (1970, no. 72)
Dynamine agacles core Rober: Neild (1996)
- Dynamine arene* Hübner, [1823]
Dynamine arene (Hübner): Kaye (1921, no. 71), Barcant (1970, no. 77), D'Abbrera (1987b), Neild (1996), Cock (2004a)
- Dynamine artemisia* (Fabricius, 1793) *ackeryi* Neild, 1996
Dynamine artemisia (Fabricius): Kaye (1921, no. 69), Fountaine (unpublished), Barcant (1970, no. 76), Cock (2004a)
Dynamine artemisia ackeryi Neild: Neild (1996)
 Note 47
- Dynamine postverta* (Cramer, 1779)
Dynamine mylitta (Cramer): Kaye (1921, no. 70), Fountaine (unpublished), Barcant (1970, no. 78), Cock (2004a) [synonym]
Dynamine postverta (Cramer): Neild (1996)
- Dynamine setabis setabis* (Doubleday, 1849)
Dynamine setabis (Doubleday): Kaye (1921, no. 68), Neild (1996)
Dynamine setebis (Doubleday): Barcant (1970, no. 75) [misspelling]
 Note 48
- Dynamine theseus* (C. Felder and R. Felder, 1861)
Dynamine theseus (C. Felder and R. Felder): Kaye (1921, no. 67), Barcant (1970, no. 73), Neild (1996), Beccaloni et al. (2008)
- Callicore astarte* (Cramer, 1779) *antillena* (Kaye, 1914)
Catagramma astarte antillena Kaye: Kaye (1914) TL, Kaye (1921, no. 59), Barcant (1970, no. 92), D'Abbrera (1987b)
- Callicore texa* (Hewitson, [1855]) *kayei* (A. Hall, 1917)
Catagramma kayei A. Hall: Hall (1917) TL
Catagramma maimuna kayei (Hall): Kaye (1921, no. 60), Barcant (1970, no. 93), D'Abbrera (1987b)
Callicore texa kayei (A. Hall): Neild (1996), Beccaloni et al. (2008)
- Diaethria clymena* (Cramer, 1775) *aurelia* (Guenée, 1872)

- Callicore aurelia* (Guenée): Kaye (1921, no. 58), Fontaine (unpublished), Barcant (1970, no. 91)
Diaethria clymena aurelia (Guenée): Neild (1996), Cock (2004a), Beccaloni et al. (2008)
Haematera pyrame (Hübner, [1819]) *rubra* Kaye, 1904
Haematera pyramus rubra Kaye: Kaye (1904) TL, Kaye (1921, no. 61), Barcant (1970, no. 90)
Callidula pyramus pyramus Hübner: D'Abbrera (1987b)
Haematera pyrame rubra Kaye: Neild (1996), Beccaloni et al. (2008)

APATURINAE

- Doxocopa laure* (Drury, 1773) *mima* (Fruhstorfer, 1907)
Chlorippe laure (Drury): Kaye (1921, no. 80)
Chlorippi [sic] *laure lauricola* Kaye: Kaye (1925) TL, Kaye (1940 no. 80), Barcant (1970, no. 100)
[synonym]
Doxocopa laure mima (Fruhstorfer): Beccaloni et al. (2008)

NYMPHALINAE

Coeini

- Colobura annulata* Willmott, Constantino and J. Hall, 2001
Colobura annulata Willmott, Constantino and J. Hall: Willmott et al. (2001), Cock (2005a)
Colobura dirce dirce (Linnaeus, 1758)
Gynaecia dirce (Linnaeus): Guppy (1894), Kaye (1921, no. 62)
Colobura dirce (Linnaeus): Barcant (1970, no. 115)
Colobura dirce dirce (Linnaeus): Beebe (1952), Willmott et al. (2001), Cock (2005a), Beccaloni et al. (2008)
Historis acheronta acheronta (Fabricius, 1775)
Coea acheronta (Fabricius): Kaye (1940, no. 86a)
Historis acheronta (Fabricius): Barcant (1970, no. 125), Urich (1988), Beccaloni et al. (2008)
Historis odius (Fabricius, 1775) *dious* Lamas, 1995
Aganisthos odius (Fabricius): Kaye (1921, no. 86) [synonym]
Historis odius orion (Fabricius): Barcant (1970, no. 124), Cock (2004a) [synonym]
Historis odius dious Lamas: Beccaloni et al. (2008)
Smyrna blomfieldia blomfieldia (Fabricius, 1781)
Smyrna blomfieldia (Fabricius): Barcant (1970, no. 116)
Note 49

Nymphalini

- Hypanartia lethe lethe* (Fabricius, 1793)
Hypanartia lethe (Fabricius): Kaye (1921, no. 39), Fontaine (unpublished), Barcant (1970, no. 65),
Cock (2004a), Beccaloni et al. (2008)
Vanessa cardui (Linnaeus, 1758)
Cynthia cardui (Linnaeus): Kaye (1921, no. 34)
Vanessa cardui (Linnaeus): Barcant (1970, no. 94)

Kallimini

- Anartia amathea* (Linnaeus, 1758)
Anartia amalthea (Linnaeus): Kaye (1921, no. 41) [misspelling]
Anartia amathea (Linnaeus): Poulton (1939), Barcant (1970, no. 63), Neild (2008)
Anartia amathea amathea (Linnaeus): Lamas (2004)
Note 50
Anartia jatrophae jatrophae (Linnaeus, 1763)
Anartia jatrophae (Linnaeus): Kaye (1921, no. 40), Barcant (1970, no. 62), Beccaloni et al. (2008)
Hypolimnna misippus (Linnaeus, 1764)
Hypolimnna misippus (Linnaeus): Kaye (1921, no. 56), Barcant (1970, no. 61)
Junonia zonalis C. Felder and R. Felder, 1867
Junonia noveboracensis (Cramer): Kaye (1921, no. 42) [part]

Precis lavinia zonatis (C. Felder and R. Felder): Barcant (1970, no. 67) [misspelling; part]
Notes 51, 52

Junonia genoveva genoveva (Cramer, 1780)

Junonia genoveva (Cramer): Kaye (1921, no. 42) [part]

Precis lavinia zonatis (C. Felder and R. Felder): Barcant (1970, no. 67) [misspelling of *zonalis*; part]
Note 51

Junonia litoralis Brévignon, 2009

Note 53

Siproeta epaphus epaphus (Latreille, [1813])

Metamorpha epaphus (Latreille): Barcant (1970, no. 60), Stradling (1980), Preston and Preston (1983)

Siproeta epaphus epaphus (Latreille): Beccaloni et al. (2008)

Siproeta stelenes (Linnaeus, 1758) *meridionalis* (Fruhstorfer, 1909)

Victorina steneles (Linnaeus): Kaye (1921, no. 43) [misspelling]

Victorina stelenes (Linnaeus): Fontaine (unpublished), Poulton (1939), Cock (2004a)

Metamorpha stelenes (Linnaeus): Barcant (1970, no. 59)

Siproeta stelenes stelenes (Linnaeus): Beccaloni et al. (2008) [misidentification of subspecies]

Melitaeini

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

Chlosyne saundersii (Doubleday): Kaye (1921, no. 38), Barcant (1970, no. 66)

Chlosyne lacinia (Geyer): Neck (1973)

Chlosyne lacinia saundersi (Doubleday): Cock (1984), Beccaloni et al. (2008)

Castilia ofella (Hewitson, [1864])

Eresia ofella Hewitson: Kaye (1940), Barcant (1970, no. 68)

Castilia ofella (Hewitson): Higgins (1981), Cock (1984), D'Abrera (1987a)

Note 54

Eresia clio clio (Linnaeus, 1758)

Eresia clio (Linnaeus): Barcant (1970, no. 69)

Eresia clara Bates: Higgins (1981), Cock (1984) [synonym]

Eresia clio clio (Linnaeus): Lamas (2004), Neild (2008)

Note 55

Janatella leucodesma (C. Felder and R. Felder, 1861)

Phyciodes leucodesma (C. Felder and R. Felder): Kaye (1921, no. 37), Hall (1928-1930), Barcant (1970, no. 70)

Janatella leucodesma (C. Felder and R. Felder): Higgins (1981), Cock (1984), D'Abrera (1987a), Beccaloni et al. (2008)

Note 54

Tegosa claudina (Eschscholtz, 1821)

Phycioides liriopae claudina (Eschscholtz): Kaye (1921, no. 36), Barcant (1970, no. 71)

Phycioides liriopae thymetus (Fabricius): Hall (1928-1930) [preoccupied name]

Tegosa similis Higgins: Higgins (1981), Cock (1982b, 1984), D'Abrera (1987a) [replacement name for *thymetus*]

Tegosa claudina (Eschscholtz): Beccaloni et al. (2008)

Note 56

LIMENTITIDINAE

Adelpha barnesia Schaus, 1902 *trinita* Kaye, 1914

Adelpha phylaca trinita Kaye: Kaye (1914) TL, Kaye (1921, no. 75), Barcant (1970, no. 103)

Adelpha trinita Kaye: D'Abrera (1987b)

Adelpha leucas trinita Kaye: Neild (1996)

Adelpha barnesia trinita Kaye: Willmott (2003), Beccaloni et al. (2008)

Adelpha cytherea (Linnaeus, 1758) *insularis* Fruhstorfer, 1913

Adelpha cytherea insularis Fruhstorfer: Fruhstorfer (1913-1920) TL, Kaye (1921, no. 76), Barcant

- (1970, no. 104), Neild (1996), Willmott (2003)
Adelpha cytherea (Linnaeus): D'Abrera (1987b)
Adelpha iphicleola (H.W. Bates, 1864) *leucates* Fruhstorfer, 1915
Adelpha iphicla [sic] *daceleia* Fruhstorfer: Fruhstorfer (1915a) TL [synonym]
Adelpha iphicla (Linnaeus): Kaye (1921, no. 77), Barcant (1970, no. 101), Aiello (1984), Cock (2004a)
[in part; misidentification]
Adelpha iphicleola leucates Fruhstorfer: Willmott (2003)
Adelpha iphicleola (H.W. Bates): Beccaloni et al. (2008) [and/or *A. iphiclus*]
Note 57
Adelpha iphiclus iphiclus (Linnaeus, 1758)
Adelpha iphicla (Linnaeus): Kaye (1921, no. 77), Fontaine (unpublished), Barcant (1970, no. 101)
[in part]
Adelpha iphiclus iphiclus (Linnaeus): Neild (1996), Willmott (2003)
Adelpha iphiclus (Linnaeus): Beccaloni et al. (2008) [and/or *A. iphicleola*]
Note 57
Adelpha lycorias (Godart, [1824]) *lara* (Hewitson, 1850)
Adelpha lara (Hewitson): Kaye (1921, no. 79), Fontaine (unpublished), Barcant (1970, no. 110),
Aiello (1984), D'Abrera (1987b), (Cock 2004a)
Adelpha lycorias lara (Hewitson): Neild (1996), Willmott (2003), Beccaloni et al. (2008)
Adelpha malea (C. Felder and R. Felder, 1861) *aethalia* (C. Felder and R. Felder, 1867)
Adelpha velia trinina Kaye: Kaye (1914) TL, Kaye (1921, no. 74), Barcant (1970, no. 106) [synonym]
Adelpha trinina Kaye: D'Abrera (1987b)
Adelpha malea aethalia (C. and R. Felder): Willmott (2003)
Adelpha melona (Hewitson, 1847) *leucocoma* Fruhstorfer, 1915
Adelpha melona (Hewitson): Kaye (1921, no. 72), D'Abrera (1987b)
Adelpha melona nonsecta Kaye: Kaye (1925, 1940 no. 72) TL, Barcant (1970, no. 108) [synonym]
Adelpha melona leucocoma Fruhstorfer: Willmott (2003), Beccaloni et al. (2008)
Adelpha messana (C. Felder and R. Felder, 1867) *delphicola* Fruhstorfer, 1910
Adelpha aethalia (C. Felder and R. Felder): Barcant (1970, no. 107) [misidentification]
Adelpha messana delphicola Fruhstorfer, *A. thesprotia* (C. and R. Felder) or *A. erotia* (Hewitson)
(UNS needed for ID): Willmott (2003)
Note 58
Adelpha naxia (C. Felder and R. Felder, 1867) *hieronica* Fruhstorfer, 1913
Adelpha naxia (C. Felder and R. Felder): Kaye (1921, no. 78), Barcant (1970, no. 102)
Adelpha naxia hieronica Fruhstorfer: Fruhstorfer (1913-1920) TL, Willmott (2003), Beccaloni et al.
(2008)
Adelpha plesaure Hübner, 1823 *symona* Kaye, 1925
Adelpha plesaure Hübner: Kaye (1921, no. 73)
Adelpha phliassa symona Kaye: Kaye (1925) TL, Kaye (1940, no. 73), Barcant (1970, no. 105)
Adelpha plesaure symona Kaye: Neild (1996), Willmott (2003), Cock (2004a), Beccaloni et al. (2008)
Adelpha seriphia (C. Felder and R. Felder, 1867) *barcanti* Willmott, 2003
Adelpha seriphia (C. Felder and R. Felder): Kaye (1940, no. 71a), Barcant (1970, no. 109)
Adelpha seriphia barcanti Willmott: Willmott (2003) TL, Cock (2004b)

HELICONIINAE

Argynnini

- Euptoieta hegesia* (Cramer, 1779) *meridiana* Stichel, 1938
Euptoieta hegesia (Cramer): Kaye (1921, no. 33), Barcant (1970, no. 64)

Acraeini

- Actinote pellenea* Hübner, 1821 *trinitatis* Jordan, 1913
Actinote pellenea trinitatis Jordan: Jordan (1913) TL, Kaye (1921, no. 16), Barcant (1970, no. 29),
D'Abrera (1987a), Beccaloni et al. (2008)
Actinote byzas var. *insularis* Oberthür: Oberthür (1917) TL [synonym]

- Actinote pellenea* Hübner: Cock (1984)
Actinote thalia thalia (Linnaeus, 1758)
Actinote anteas Doubleday: Kaye (1921, no. 17), Fontaine (unpublished), Barcant (1970, no. 30),
 Cruttwell (1974), Preston and Preston (1983), Cock (1984), D'Abrera (1987a) [misidentification]
Actinote anteas anteas Doubleday: Cock (2004a) [misidentification]
Actinote thalia (Linnaeus)?: Beccaloni et al. (2008)
Actinote thalia thalia (Linnaeus): Neild (2008)
- Heliconiini
Agraulis vanillae vanillae (Linnaeus, 1758)
Dione vanillae (Linnaeus): Kaye (1921, no. 31)
Agraulis vanillae vanillae (Linnaeus): Michener 1942, Alexander (1961a, b), Brower *et al.* (1963),
 Cock (2004a), Beccaloni et al. (2008)
Agraulis vanillae (Linnaeus): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 57), Benson
 et al. (1976)
Dione juno juno (Cramer, 1779)
Dione juno (Cramer): Kaye (1921, no. 30), Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no.
 56), D'Abrera (1984), Benson et al. (1976)
Dione juno juno (Cramer): Alexander (1961a, b), Beccaloni et al. (2008)
Dryadula phaetusa (Linnaeus, 1758)
Colaenis phaerusa (Linnaeus): Kaye (1921, no. 28) [misspelling]
Dryadula phaetusa phaetusa (Linnaeus): Alexander (1961a, b)
Dryadula phaetusa (Linnaeus): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 54), Benson
 et al. (1976), Beccaloni et al. (2008)
Dryas iulia (Fabricius, 1775) *alcionea* (Cramer, 1779)
Colaenis iulia (Fabricius): Kaye (1921, no. 29), Fontaine (unpublished), Poulton (1939),
 [misspelling]
Dryas iulia (Fabricius): Beebe *et al.* (1960), Flemming (1960), Benson et al. (1976)
Dryas iulia iulia (Fabricius): Alexander (1961a, b), Beccaloni et al. (2008) [misidentification of
 subspecies]
Calaenis iulia (Fabricius): Barcant (1970, no. 55)
Dryas iulia alcionea (Cramer): Clench (1975)
Dryas julia julia (Fabricius): D'Abrera (1984), Cock (2004a) [misspelling]
Philaethria dido dido (Linnaeus, 1763)
Metamorpha dido (Linnaeus): Kaye (1921, no. 32)
Philaethria dido dido (Linnaeus): Alexander (1961a), Beccaloni et al. (2008), Constantino and Salazar
 (2010)
Philaethria dido (Linnaeus): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 58), Preston
 and Preston (1983), D'Abrera (1984), Beccaloni et al. (2008)
Philaethria dido complex: Benson et al. (1976)
Laparus doris (Linnaeus, 1771) n. ssp. Neukirchen MS
Heliconius doris doris (Linnaeus): Kaye (1921, no. 20, with f. *eratonius* Staudinger and an un-named
 form), Alexander (1961a, b), Brower *et al.* (1963), Beccaloni et al. (2008)
Heliconius doris (Linnaeus): Beebe *et al.* (1960), Cook and Brower (1969), Barcant (1970, no. 44),
 D'Abrera (1984),
Laparus doris (Linnaeus): Benson et al. (1976), Beccaloni et al. (2008)
 Note 59
Eueides aliphera aliphera (Godart, 1819)
Eueides aliphera aliphera (Godart): Kaye (1921, no. 27)
Heliconius aliphera aliphera (Godart): Alexander (1961a, b), Beccaloni et al. (2008)
Heliconius aliphera (Godart): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 53)
Eueides aliphera (Godart): D'Abrera (1984), Cock (2004a), Benson et al. (1976), Beccaloni et al.
 (2008)
Eueides isabella isabella (Stoll, 1781)

- Eueides isabella isabella* (Stoll): Kaye (1921, no. 26, with ab. *huebneri* Ménétriés, a Colombian subsp.), D'Abrera (1984)
- Heliconius isabella isabella* (Stoll): Alexander (1961a, b), Brower *et al.* (1963)
- Heliconius isabella* (Stoll): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 52)
- Eueides isabella* (Stoll): Benson *et al.* (1976)
- Heliconius isabella huebneri* Ménétriés: Beccaloni *et al.* (2008) [misidentification of subspecies]
- Heliconius erato* (Linnaeus, 1758) *adana* J.R.G. Turner, 1967
- Heliconius hydara* ab. *adana* Seitz: Seitz (1913) TL
- Heliconius hydara* (Hewitson): Fountaine (unpublished)
- Heliconius hydarus hydarus* f. *vitellina* Stichel: Stichel (1919) TL [synonym]
- Heliconius erato hydara* Hewitson: Kaye (1921, no. 24) [misidentification of subspecies], Alexander (1961a, b), Brower *et al.* (1963), Cock (2004a), Beccaloni *et al.* (2008)
- Heliconius erato* (Linnaeus): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 49), Turner (1971), Benson *et al.* (1976), Beccaloni *et al.* (2008)
- Heliconius erato adana* Turner: Turner (1967) TL [making Seitz's infrasubspecific name available]
- Heliconius ethilla ethilla* Godart, 1819
- Heliconius ethilla metalilis* Butler f. *depuncta* Boulet and Le Cerf: Boulet and Le Cerf (1909) TL [synonym]
- Heliconius numata ethilla* (Godart): Kaye (1921, no. 18, with forms *metalilis*, *numismaticus*, *numata* and *guiensis*), Alexander (1961a), Brower *et al.* (1963)
- Heliconius numata* (Cramer): Beebe *et al.* (1960) Flemming (1960), Sheppard (1963), Turner (1968), Beccaloni *et al.* (2008) [misidentification]
- Heliconius ethilla* (Godart): Cook and Brower (1969), Ehrlich and Gilbert (1973), Benson *et al.* (1976), Beccaloni *et al.* (2008)
- Heliconius ethillus ethillus* (Godart): Barcant (1970, no. 47) [misspelling; yellow form]
- Heliconius ethillus metalilis* Butler: Barcant (1970, no. 47) [misspelling; brown form]
- Heliconius ethilla ethilla* (Godart): Benson (1971), D'Abrera (1984)
- Note 60
- Heliconius hecale* (Fabricius, 1776) *barcanti* K.S. Brown, 1976
- Heliconius antiochus* (Linnaeus): Kaye (1921, no. 22) [misidentification]
- Heliconius hecali cleari* A. Hall: Barcant (1970, no. 50) [misspelling of *hecale* and *cleari*]
- Heliconius hecale barcanti* K.S. Brown: Brown (1976)
- Note 61
- Heliconius melpomene* (Linnaeus, 1758) *flagrans* Stichel, 1919
- Heliconius amaryllis flagrans* Stichel: Stichel (1919) TL
- Heliconius melpomene euryades* Riffarth: Kaye (1921, no. 19), Alexander (1961a, b), Brower *et al.* (1963), Cock (2004a), Beccaloni *et al.* (2008) [misidentification of subspecies]
- Heliconius euryades* Riffarth: Fountaine (unpublished)
- Heliconius melpomene* (Linnaeus): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 48), D'Abrera (1984), Benson *et al.* (1976), Beccaloni *et al.* (2008)
- Heliconius ricini* (Linnaeus, 1758) *insulanus* (Stichel, 1909)
- Eueides ricini* (Linnaeus, 1758) *insulanus* (Stichel): Stichel (1909) TL
- Eueides ricini* (Linnaeus): Kaye (1921, no. 25)
- Heliconius ricini insulana* (Stichel): Alexander (1961a, b), Beccaloni *et al.* (2008)
- Heliconius ricini* (Linnaeus): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 51), D'Abrera (1984), Benson *et al.* (1976)
- Heliconius sara* (Fabricius, 1793) *williami* Neukirchen, 1994
- Heliconius sara thamar* Hübner: Kaye (1921, no. 23) [synonym of ssp. *sara*], Alexander (1961a, b), Brower *et al.* (1963)
- Heliconius sara* (Fabricius): Beebe *et al.* (1960), Flemming (1960), Barcant (1970, no. 46), Benson *et al.* (1976)
- Heliconius sara williami* Neukirchen: Neukirchen (1994) TL
- Heliconius sara sara* (Fabricius): Beccaloni *et al.* (2008) [misidentification of subspecies]
- Heliconius wallacei* Reakirt, 1866 *kayei* Neustetter, 1929

- Heliconius wallacei wallacei* Reakirt: Kaye (1921, no. 21), Alexander (1961a), Beccaloni et al. (2008) [misidentification of subspecies]
Heliconius wallacei latus Kaye: Kaye (1925) TL, Kaye (1940, no. 21) [preoccupied name]
Heliconius wallacei kayei Neustetter: Neustetter (1929) TL [replacement name for *Heliconius wallacei latus* Kaye]
Heliconius wallacei Reakirt: Beebe et al. (1960), Flemming (1960), Barcant (1970, no. 45), D'Abbrera (1984), Benson et al. (1976), Beccaloni et al. (2008)

Notes

Note 1. *Enantia lina acutipennis* Butler

G. Lamas (pers. comm. 2013) advises that the correct date of publication of Herbst is 1791, not 1792 as stated in Lamas (2004).

Note 2. *Anteos clorinde* (Godart)

Kaye first recorded this large and obvious species from Trinidad in a footnote in Kaye (1940). Barcant (1970, p. 184) states 'This butterfly may have a unique distinction in Trinidad in its claim to recent introduction. There is little or no reference to its presence in Trinidad prior to the 1930s and to me it was then an unknown ... *A. chlorinde* [sic] first made itself known in scarce numbers in 1932, flying among countless numbers of *A. maerula* which appeared in that year ... Since that time the species has shown a regular and remarkable advance both in numbers and its more or less total occupation of the island. Today it is a fairly common resident in nearly all localities with little tendency to migration and its main attraction lies in Cassia and Ixora flowers.' Thus, this species may well be a recent arrival in the island.

Note 3. *Phoebis argante* DJH01 and DJH02

Janzen et al. (2009) demonstrate that in Costa Rica, *P. argante* as previously recognised comprises two species, distinguishable in adult markings, male genitalia and the early stages, but do not definitively resolve what names should be applied to each; although it seems likely that *P. argante* DJH01 is the true *P. argante* (Fabricius, 1775), and *P. argante* DJH02 is *P. larra* (Fabricius, 1798). Barcant (1970, plate 11.3) illustrates the male of *P. argante* DJH02. Both species (or very similar South American species) occur in Trinidad.

Note 4. *Pyrisitia proterpia* (Fabricius)

This species is apparently no longer present in Trinidad. Kaye (1921, 1940) did not record it. Barcant (1970, p. 81) wrote 'I have not seen it appear since 1927, when a series of six were taken in a newly hatched state just south of the Hollow in the Queen's Park Savannah (F. Ambard). Another taken in the Hollow (May 1927, M.B.)'. There do not seem to have been any records since then, although there is one undated female from Trinidad in BMNH ex coll. H. Stichel, acquired in 1934. This seems to be an example of a temporary establishment that went extinct, although possibly it is a long term rare resident that became extinct.

Note 5. *Eurema albula marginella* (C. Felder and R. Felder)

Although Warren et al. (2013) treat the Trinidad population as ssp. *albula* (TL Suriname) it is a better match to ssp. *marginella* (TL Venezuela). The material in the BMNH from Suriname and French Guiana shows that the male has the UPH margin narrowly or very narrowly dark, whereas in Trinidad and much of Venezuela it is relatively broadly dark, matching the type of *marginella*, while Guyana is somewhat intermediate. Similarly in the female, material from Surinam and French Guiana has at most a weak UPH dark border, whereas Trinidad and Venezuela material has a weak to moderate border.

Note 6. *Leucidia elvina* (Godart)

Leucidia exigua Prittwitz is a synonym of *L. elvina* (Godart), which only occurs in southeast Brazil and Argentina, so cannot be a Trinidad species. Kaye (1921) introduced the name *L. exigua* to the Trinidad list, stating that it can be recognized by 'its very feeble flight and small size.' This is likely to be a mis-

identification for *L. brephos* (Hübner) which Kaye (1921, 1940) did not record. Barcant (1970) includes both *L. exigua* and *L. brephos*, but while *L. brephos* is correctly identified, the name *L. exigua* seems to have been applied to very small specimens of *E. albula* with reduced dark markings.

Note 7. *Eurema दौरा lydia* (C. Felder and R. Felder)

This is a new record from Trinidad, which was previously confused with *Eurema elathea vitellina*. There are old specimens of both species from both Trinidad and Tobago in the BMNH. Kaye would have seen some of these and hence he wrote 'Very variable and seasonally dimorphic as well as being sexually dimorphic. The black stripe along inner margin of male forewing is very variable and can be either straight, curved, heavy or slender, absent or united with outer margin' (Kaye 1921). Similarly, Barcant (1970, p. 82) wrote 'Klots' Field Guide to North America gives two forms described by Ploey [sic] under the species *E. दौरा*, both of which occur in Trinidad ...' and uses these names (incorrectly) for the legend to plate 26. Both species are variable and sexually dimorphic, although my superficial observations suggest that seasonal variation is continuous rather than dimorphic.

Note 8. *Itaballia demophile calydonia* (Boisduval)

The late J.H. Robert (in correspondence with A.F.E. Neild) has suggested that what is currently treated as ssp. *calydonia* may prove to be a valid species, highlighting the differences in the hind wing underside dark marginal border. He also raised the possibility that both fly in Trinidad, noting that Barcant (1970) observed that *I. demophile* occurs in two different sizes, which may represent *demophile* and *calydonia*. The limited amount of material that I have examined from Trinidad has the markings of *calydonia*, so the sympatric occurrence of the two taxa in Trinidad seems unlikely. Hence, pending a more careful examination of this question, *calydonia* is accepted as a subspecies of *I. demophile* here.

Note 9. *Libytheana carinenta carinenta* (Cramer)

This is not a resident species; the food plants, *Celtis* spp. are very rare and localised. It is rarely migrant into Trinidad, but sometimes in large numbers (Barcant 1970).

Note 10. *Lycorea halia* (Hübner)

G. Lamas will describe a new subspecies of *L. halia* from Trinidad, and type material in the BMNH has already been labelled up accordingly.

Note 11. *Danaus plexippus nigrippus* (Haensch)

The division of *D. plexippus* into two subspecies, the migratory *D. p. plexippus* found in Mexico and North America, and the non-migratory *D. p. megalippe* found in south-eastern USA, the Caribbean, Central America and South America north of the Amazon, has been widely recognised until recently (Smith *et al.* (2005) and references therein). However, some authors have subdivided the non-migratory subspecies, recognising that *megalippe* is restricted to the main Caribbean islands, while the mainland subspecies is *nigrippus* (e.g., Lamas 2004, Hay-Roe *et al.* 2007). There have been two molecular studies on *D. plexippus*. Smith *et al.* (2005) did not specifically address this question in their study on the classification of *Danaus* butterflies, whereas Brower and Jeansonne (2004) did. The latter study, based on mitochondrial DNA sequences, included specimens from both Trinidad and Tobago, and concluded that there was no justification to recognise any subspecies of *D. plexippus*. Since the conclusions of Brower and Jeansonne (2004) do not seem to have been widely taken up (e.g. Hay-Roe *et al.* 2007, Warren *et al.* 2013), *nigrippus* is used here, noting that the question is not resolved.

Note 12. *Melinaea crameri aurantia* W.T.M. Forbes

This is considered a vagrant species for Trinidad, known from only a single specimen from Port of Spain, November 1950, now in the Angostura-Barcant Collection (Barcant 1970, p. 275). This individual matches the Sucre subspecies *aurantia* (as treated by Neild 2008), so most probably this is a vagrant from the Paria Peninsula.

Note 13. *Mechanitis polymnia kayei* R.M. Fox

The part of the type series in the BMNH shows some variation in the markings, including some overlap

with ssp. *bolivarensis* R.M. Fox from Venezuela (as treated by Neild 2008).

Note 14. *Ithomia iphianassa iphianassa* Doubleday

This species is still only known from a single specimen from Staubles Bay in 1921 (Barcant 1970, p. 172, plate 15), so is considered a vagrant.

Note 15. *Pteronymia aletta aletta* (Hewitson)

This species was first recorded from Trinidad by Kaye (1914): 'specimens in Mr. H. J. Adams' collection which were taken in St. Ann's Valley by G.E. Tryhane. Caracciolo took the species also in 1906.' Tryhane's specimens on which this record was based are in the BMNH (2♂, 3♀ St. Ann's Valley), as well as a male from Tabaquite and a male and female labelled Trinidad; none of these have dates of collection. Barcant (1970, p. 172) wrote 'I have a strong measure of doubt whether this should be listed as a Trinidad species. I have never seen it in the island, in the wild nor in any collection'. I am aware of no records from the original ones at the beginning of the last century, and this seems to be a resident species in Trinidad that has become extinct.

Note 16. *Brassolis sophorae sophorae* (Linnaeus)

The subspecies of *Brassolis sophorae* are unclear and need further study (Garzón-Orduña and Penz 2009). The present nomenclature follows that in the collection of the BMNH, where specimens from Trinidad are curated as ssp. *sophorae*.

Note 17. *Dynastor darius anaxarete* (Cramer)

The subspecies of *Dynastor darius* are currently being evaluated (Garzón-Orduña and Penz 2009). The present nomenclature follows that in the collection of the BMNH, where a male from Trinidad (W.E. Broadway) is curated as ssp. *anaxarete*, described from Surinam.

Note 18. *Dynastor macrosiris macrosiris* (Westwood)

Casagrande (in Lamas 2004) recognises four subspecies, but the subspecies of *D. macrosiris* are currently being evaluated (Garzón-Orduña and Penz 2009). The present nomenclature is based on the type locality (French Guiana) of the nominate subspecies, as the collection of the BMNH collection is not divided into subspecies.

Note 19. *Selenophanes cassiope cassiope* (Cramer)

A small number of records since Boos (1979) indicate that this is a rare resident species.

Note 20. *Cissia myncea isolata* (Kaye)

Kaye (1921) named the Trinidad population: 'Trinidad specimens of this species have a distinct look to those from Guiana. They are smaller and darker, and the ocellated spots on the underside are usually smaller. It is possible that fresh specimens from Guiana would be as dark as the comparatively fresh Trinidad specimens, but in size there is a distinct reduction in all the specimens I have seen. I propose calling the island form *Euptychia myncea*, subsp. *isolata*.' In the collection of the BMNH, *isolata* is treated as a variety rather than a subspecies, but this does not seem to be a published change, and the name was overlooked in Lamas (2004). Examining the collection of the BMNH, I saw little justification for treating the Trinidad population as a distinct subspecies, but retain the name pending a critical examination of the question.

Note 21. *Cissia terrestris* (Butler)

D'Abbrera (1988) illustrates a Trinidad specimen as *?terrestris*. This is the species treated here as *Magneuptychia ocyete*.

Note 22. *Magneuptychia modesta* (Butler)

The name *M. modesta* has not appeared in the Trinidad literature before. My identification is based on the BMNH collection and the treatment by Brévignon (2008). The BMNH series is variable; many have spots in spaces 4 and 5 without a black centre, and a few have double spotting as observed in one of my specimens. I sent photos of my specimens to Prof. M. Singer, who confirmed (pers. comm. 2013)

that they are the same species which he treated as *Cissia alcinoe*.

Note 23. *Pareuptychia ocirrhoe* (Fabricius)

Lamas (2004) indicates that the Trinidad population of *P. ocirrhoe* is a separate undescribed ssp. There is a long series in the BMNH which shows that adults have a much reduced UPF white area compared to material of the nominate subspecies from Venezuela and the Guyanas, supporting this view. However, specimens from Tobago (BMNH, J. Morrall, author's collections) appear to be the nominate subspecies.

Note 24. *Pareuptychia ocirrhoe ocirrhoe* (Fabricius)

Since the 1990s the nominate subspecies has been captured in northern Trinidad, in the hills around Port of Spain (J. Morrall). This appears to represent an introduction, most likely from Tobago. At the moment the two subspecies appear to be persisting side by side, without blending, which would suggest they may actually represent separate species. This appears to be a wonderful opportunity to carry some intriguing evolutionary ecology studies.

Note 25. *Pareuptychia* sp.

A new record (S. Alston-Smith) from Inniss Field, which previously may have been overlooked as small specimens of *P. ocirrhoe* (Trinidad ssp.). It resembles *P. binocula* (Butler) somewhat, but the male genitalia do not match those shown by Brévignon (2008) for this, or other *Pareuptychia* species, nor those illustrated by Forster (1964) for *P. hesionides* Forster and *P. metaleuca* (Boisduval) which might be expected to occur in Trinidad. A more comprehensive revision of the genus is needed.

Note 26. *Pharneuptychia* sp. ?nov.

This is a new record from Chacachacare Island only, discovered by S. Alston-Smith. Identification by A. Neild (pers. comm. 2012); this species which occurs in Venezuela will be dealt with in the next volume of *Butterflies of Venezuela*.

Note 27. *Taygetis echo* (Cramer)

Listed as an undescribed subspecies on the authority of the late L.D. Miller in Lamas (2004), the Trinidad population still lacks a subspecies name. Two Tobago specimens in the BMNH are similar to those from Trinidad.

Note 28. *Taygetis rufomarginata tapulunmi* Brévignon and *T. virgilia* Cramer

These two species have been confused under the name *T. virgilia* in Trinidad usage: one with the underside uniform brown, straight lines on the hindwing, and no rufous margin to the hind wing upperside (*T. rufomarginata tapulunmi*), and the other with the underside more reddish brown apart from the much paler submarginal area, convex lines on the hind wing, and a rufous margin to the hind wing upperside (*T. virgilia*) (Brévignon 2005, 2008). Neither is common in Trinidad, but equally, neither is rare. Barcant (1970, plate 13) applies the name *T. virgilia* correctly, so I assume Kaye (1921) did too. However, in the 1980s I had the names transposed and so believe the record by Preston and Preston (1983) is misapplied.

Note 29. *Taygetis laches* (Fabricius)

Taygetis laches (= *andromeda*) is now recognised to be two species: *T. laches* and *T. thamyra* (Janzen et al. 2009, Brévignon 2008). I have only seen *T. laches* from Trinidad (confirmed by comparison of the genitalia with those illustrated in Brévignon (2008)), but *T. thamyra* might also occur when more material is examined or careful search is made.

Note 30. *Siderone galanthis galanthis* (Cramer)

According to Hall (1935), this species occurs in two forms in Trinidad: the nominate form and form *cancellariae*, in which the male resembles the female and the deep intense red forewing band is partially interrupted. The material in A. Hall's collection in BMBN divides clearly into the two forms. However, the single male type is actually a female, matching the two female types, so this appears to a form restricted to the female. Barcant (1970) considers the female to be continuously variable both in markings and colour 'brown or pink centrally with no black band to top wing as shown in the male' and by

omission implies that the male is relatively constant, matching my limited observations.

Note 31. *Memphis acidalia acidalia* (Hübner)

This species was previously confused with *Memphis moruus*, but Neild (1996) reported *M. acidalia* from Trinidad in the BMNH, and there are also confirmed specimens of *M. moruus* there.

Note 32. *Archaeoprepona amphimachus amphiktion* Fruhstorfer

The use of subspecies *amphiktion* rather than *amphimachus* is based on the treatment in Neild (1996).

Note 33. *Prepona laertes* (Hübner, [1811])

The taxonomy of the species or group of species treated as *P. laertes* is complex and yet to be satisfactorily resolved (A. Neild pers. comm. 2013, D. Bonfanti, pers. comm. 2013). There are four subspecies and many names currently treated as *P. laertes* (Lamas 2004), one of which, *Prepona pseudojoiceyi trinitensis* Le Moulton, was described from Trinidad, and has been treated as a synonym of *Prepona laertes louisa* Butler (Lamas 2004). Simply following the checklist, this name would be applied to the commoner form in Trinidad, but it is not that simple.

Barcant (1970) recognised two forms of this species in Trinidad: the commoner (Barcant 1970, plate 12) has a variable purple flush to the upper surface, and with pale yellow androconia hair pencils on the hind wing upper surface (resembling *P. laertes amesia* Fruhstorfer f. *dives* Fruhstorfer, Figs. 1151 and 1152 in Neild 1996), while the other rarer one has little or no purple flush and browner hair pencils (resembling *P. laertes amesia* f. *amesia* Fruhstorfer, Fig. 1154 and 1152 in Neild 1996). These represent two different species (A. Neild pers. comm. 2013), but pending revision of the group (which D. Bonfanti is working on), it is not yet clear which names should apply to these two taxa.

Note 34. *Marpesia zerynthia zerynthia* Hübner

This species is still only known from a single specimen from Pitch Lake around 1922 (Barcant 1970, p. 275), and so is considered a vagrant.

Note 35. *Mestra hersilia hersilia* (Fabricius)

Although Lamas (2004) treats *M. hersilia* as a subspecies of *M. dorcas*, as discussed in the introduction above, Warren et al. (2013) is followed here.

Note 36. *Catonephele numilia* (Cramer)

The female is present as two 'subspecies', *numilia* and *esite* in Trinidad; although Jenkins (1985) refers to this as intergradation at the border zone, local collectors consider it to be a case of dimorphism within a single population. The female form *esite* seems to be generally the less common of the two. This situation merits further study to evaluate whether the two forms interbreed, since if not, the sympatric occurrence of the two subspecies implies they should be treated as separate species. Jenkins (1985) suggests that intermediate forms also occur at the border zone, but I have not examined enough material from Trinidad to assess this.

Note 37. *Eunica alpais alpais* (Godart)

A vagrant species; since the original two captures at the top of the Arima-Blanchisseuse Road in 1934 (Barcant 1970), I have heard of one other at Las Cuevas Bay, around 1980 (J. Whellan in lit.). This seems to be a vagrant species in Trinidad.

Note 38. *Eunica amelia amelia* (Cramer)

There is only a single male specimen known from Trinidad. It is an early specimen, probably from the 19th century, now in the BMNH and labelled only Trinidad. This specimen is illustrated by Neild (1996, plate 477). If this is a genuine record, then this is a vagrant species in Trinidad.

Note 39. *Eunica anna* (Cramer)

This is a new record from Trinidad by S. Alston-Smith, who discovered a very localised population near Matura.

Note 40. *Eunica orphise* (Cramer)

Kaye (1921) includes this species on the basis of a specimen captured by A. Hall. Barcant (1970, p. 276) considers this not to be a Trinidad species. Hall's specimen, a male, is in the BMBN. It seems reasonable to consider this a unique vagrant.

Note 41. *Eunica sydonia sydonia* (Godart)

Kaye (1921, 1940) did not record this species, but Barcant (1970, p. 187) considered it 'a very rare species becoming even scarcer. In former years specimens of both sexes could be found occasionally in the valleys around Port of Spain, sucking the sap of decaying fruit; favourite, Pomme-a-Raque. August 1932 Fondes Arnandes.' A. Hall collected a male and female from St. Ann's, Nov-Dec 1931 (BMBN). I am not aware of any records subsequent to those of Barcant, and so conclude this is either a vagrant or occasional migrant, perhaps temporarily established in the early 1930s.

Note 42. *Eunica volumna celma* (Hewitson)

Kaye (1940) notes 'a single female amongst the unarranged specimens at the Experimental Station', and raises doubt as to its authenticity, as does Barcant (1970, p. 276). This may be the female specimen in MGCL (which hold's Kaye's collection) labelled Trinidad (Jenkins 1990). Jenkins suggests that it is mislabelled as it is so far separated from the known distribution of this subspecies (Colombia and Amazonian Brazil to Bolivia). However, it is found in southern Venezuela albeit rarely (Neild 1996), although there seem to be no records from the Guianas. A 1974 record from Aripo Savannah (French 1980) suggests this may be a genuine, but very rare, vagrant in Trinidad.

Note 43. *Hamadryas feronia feronia* (Linnaeus)

Jenkins (1983) and Lamas (2004) treat *insularis* Fruhstorfer (1916), described from Trinidad, as a synonym of the Central American subspecies *farinulenta* Fruhstorfer. However, here I follow Neild (1996) in treating the material from Trinidad and Venezuelan material as the nominate subspecies, rather than as ssp. *farinulenta*. Although implicit in Neild's (1996) treatment, it was not formally stated that *insularis* Fruhstorfer is a synonym of *feronia* Linnaeus, **syn. nov.**, and not of *farinulenta* Fruhstorfer.

Note 44. *Hamadryas iphthime iphthime* (H.W. Bates)

Kaye (1921) notes that A. Hall took this species in Trinidad, although Barcant (1970, p. 276) lists it as very unlikely. However, there is a female specimen from Trinidad in Hall's collection in BMBN, collected February 1901, with no precise locality. It seems possible that collectors would have overlooked this species as *H. feronia*. There seems no reason to doubt the authenticity of the specimen, but it is not clear whether it represents a vagrant specimen or an uncommon overlooked resident.

Note 45. *Temenis laothoe hondurensis* Fruhstorfer

Neild (1996) treated *T. laothoe columbiana* Fruhstorfer (TL Colombia) as a synonym of *T. laothoe hondurensis* Fruhstorfer (TL Honduras), but Lamas (2004) treats them as separate subspecies. A comparison of Trinidad specimens with the types of both subspecies shown in Warren *et al.* (2013) indicates that Trinidad material of this species is a good match to *hondurensis*, and not to *columbiana*.

Note 46. *Dynamine aerata* (Butler)

This species was first noticed from Trinidad when Neild (1996) reported that there are three males in the BMNH. These three males were collected at Port of Spain, February [18]97 by Dr. Rendall. Dr. Rendall made a useful collection of butterflies and day flying moths, and there seems no reason to doubt these records. I know of no other records. This species might be overlooked as large individuals of *D. artemisia*, and so its current status merits further investigation.

Note 47. *Dynamine artemisia ackeryi* Neild

Males from Trinidad match ssp. *ackeryi* Neild, but females are transitional in appearance to the nominate subspecies, which Neild (1996) treats as occurring in Venezuela, but G. Lamas (pers. comm. 2013) considers to be restricted to south-eastern Brazil, Paraguay and northern Argentina.

Note 48. *Dynamine setabis setabis* (Doubleday)

Kaye (1921) records this species from Trinidad on the basis of two males captured Ariapita Road, December 1911 by Miss M. E. Fountaine. These specimens are not in the BMNH, and if they are in FNCN, I missed them (Cock 2004a). Barcant (1970, p. 163) wrote 'Now a rather scarce species. In the 1930s it could be taken fairly regularly in the Chancellor Road vicinity.' There is a male *D. setabis* in the Angostura-Barcant Collection labelled *D. ines*. I am aware of no records of this rather distinctive species since the 1930s, suggesting it may now be extinct in Trinidad.

Note 49. *Smyrna blomfieldia blomfieldia* (Fabricius)

This species was not known to Kaye (1921, 1940), and Barcant (1970, p. 88) considers this a 'great rarity in Trinidad with recordings only from St. Ann's, the Arima District and Forest Reserve'. There have been no records since these and this species is probably no longer resident – if it ever was. It may be considered a vagrant, potentially breeding for a generation or two. The food plants are Urticaceae, including *Urera* spp. (Muyschondt and Muyschondt 1978), which occur in Trinidad (Freeman and Williams 1928).

Note 50. *Anartia amathea* (Linnaeus)

Although Lamas (2004) recognises four subspecies of *A. amathea*, Neild (2008) treats *A. amathea* as a somewhat variable monotypic species. However, Blum et al. (2003) found that *Tpi* and allozyme data suggest that Caribbean (i.e. Trinidad and Grenada) populations of *A. amathea* are genetically distinct from Central American (i.e. Panama) populations. Nevertheless, we follow Neild (2008), but note that if subspecies were to be accepted, the Trinidad population would belong to the nominate subspecies, described from Surinam.

Note 51. *Junonia zonalis* C. Felder and R. Felder and *J. genoveva* (Cramer)

In line with common practice until recently, Kaye (1921) and Barcant (1970) treated these two taxa as a single variable species. Turner and Parnell (1985) demonstrated that there were two species of *Junonia* in Jamaica (which they treated as *J. evarete* (Cramer) and *J. genoveva* (Cramer)) separated by markings, habitat and food plants. Neild (2008) provides a detailed analysis of the names and found that Turner and Parnell (1985) had transposed these two species names by matching Jamaican phenotypes to the original species from Surinam. Neild (2008) designated neotypes for both species to ensure stability going forward. Brévignon and Brévignon (2012) built on this and in a detailed study of the biology, male genitalia and adult markings demonstrated a group of four species in French Guiana (as well as *J. litoralis*; see note 53). No one seems to have studied the *Junonia* spp. of Trinidad carefully as yet, but the two species, *Junonia zonalis* (with the underside of the antenna club pale; ♀ plate 14.12 in Barcant 1970) and *J. genoveva* (with the distal part of the underside of the antenna club dark; ♂ plate 18.5 in Barcant 1970), both occur in Trinidad. Based on the antenna colour, *J. zonalis* might be confused with *J. evarete*, *J. wahlbergi* Brévignon and *J. divaricata* C. Felder and R. Felder, all of which occur in French Guiana (Brévignon and Brévignon 2012), but do not seem to occur in Trinidad, and *J. genoveva* might be confused with *J. litoralis* (note 53). The Trinidad food plant record of *Ruellia tuberosa* (Acanthaceae) (F.C. Urich in Beccaloni et al. 2008) may be referred to *J. zonalis*, but the food plants of the Trinidad species need further study to confirm this.

Note 52. *Junonia zonalis* C. Felder and R. Felder

The Trinidad population, which seems relatively constant, resembles Figs. 177-8 in Neild (2008), with a dark brown uph discal area with no trace of blue-green. Based on the treatment by Neild (2008), it would have been appropriate to call it *J. evarete zonalis* Felder and Felder. Neild (2008) designated a lectotype for *zonalis* from Cuba, and considered this to match the majority of northern and western Venezuelan specimens. However, Brévignon and Brévignon (2012) raise *zonalis* to species level. At that time, they treated the nominate form as restricted to the Greater Antilles, but its range does extend to Venezuela (C. Brévignon, pers. comm. 2013).

Note 53. *Junonia litoralis* Brévignon

This species was recently described from French Guiana (Brévignon 2009), and is also known from Venezuela (Brévignon and Brévignon 2012). It is the only mainland species of the genus to feed on

black mangrove, *Avicennia germinans* (Acanthaceae) (Brévignon 2009, Brévignon and Brévignon 2012), although *J. neildi* Brévignon (which Turner and Parnell (1985) treated as *P. evarete*) does so in the Greater and Lesser Antilles (Brévignon 2004). This is a new island record for Trinidad, collected on the inland edge of Caroni Swamp (S. Alston-Smith, M.J.W. Cock).

Note 54. *Castilia* and *Janatella*

In a recent study of the molecular phylogeny of Phyciodina, Wahlberg and Freitas (2007) found that *Castilia* and *Janatella*, two genera introduced by Higgins (1981), are amongst several genera polyphyletic or nested within the genus *Eresia*. They suggested that they should be synonymised with *Eresia*, but did not formally do so.

Note 55. *Eresia clio clio* (Linnaeus)

This species is only known from one specimen from Trinidad (Barcant 1970, p. 173). Contrary to what Barcant states, this species is not restricted to western South America, but occurs in Venezuela and has been reported from the Paria Peninsula (Neild 2008). Hence it is not unreasonable to consider the single record from Trinidad a vagrant.

Note 56. *Tegosa claudina* (Eschscholtz)

Higgins (1981) introduced the name *T. similis* to replace the unavailable homonym *thymetus* Fabricius, 1787, giving the distribution from Mexico to Argentina including Trinidad. Higgins' Trinidad record was based on one or more dissected males. Further material was identified by dissection in the 1980s and published by Cock (1982b, 1984). However, Freitas (1991) reared broods from single females of *T. claudina*, and showed that *T. similis* fell within the range of variation of that species, based on morphology of genitalia and wing pattern variation. Hence the two are now treated as synonyms in Lamas (2004) and here, although some more recent publications retain the name *T. similis* (e.g. Wahlberg and Freitas 2007).

Note 57. *Adelpha iphicles iphicles* (Linnaeus) and *A. iphicleola leucates* Fruhstorfer

Willmott (2003) recognises both species as occurring in Trinidad, but acknowledges they are so similar that some specimens cannot be reliably allocated to one or the other on known characters. He lists 11 specimens of *A. iphicles iphicles* from Caura, Cochrane, Macqueripe Bay, Siparia and Tabaquite, and 77 specimens of *A. iphicleola leucates* from all parts of the island; clearly the latter is more common. The early stages of the two species are anticipated to be more or less identical, but careful vouchered studies might be useful. DNA barcoding has confirmed that these are two separate, but closely related species in Mexico (Prado et al. 2011), and should be further evaluated elsewhere for this difficult species pair.

Note 58. *Adelpha messana delphicola* Fruhstorfer

Barcant (1970, p. 132) records this species from Trinidad for the first time, but his identification as *A. aethalia* was in error (Neild 1996, Willmott 2003). Barcant stated that his 'pair of *aethalia* come from the St. Ann's Ridge 1600 feet, Sept. 1958'. There are two males and a female in the Angostura-Barcant Collection; one male is shown with the underside visible (K. Caesar photograph), on which the name given here is based (confirmed by K. Willmott, 2013).

Note 59. *Laparus doris* (Linnaeus)

Lamas (2004) indicated that that W. Neukirchen recognised a distinct subspecies of *L. doris* from Trinidad. Names are frequently applied to morphs or forms of Heliconiinae rather than to interbreeding populations. In Trinidad, *L. doris* comprises a trimorphic population, which is treated in the BMNH (curated by K.S. Brown Jr.) as follows: f. *delila* (Hübner), the red form (slightly variable yellow spots mid UPF, most with spots beyond the cell, but not all; one H. Caracciolo specimen in BMNH with dark dusting to UPF yellow spots; red rays UPH rather constant), f. *viridana*(?) Stichel, the green form (extent of green rays UPH slightly variable; UPF constant) and f. *doris* (Linnaeus) (the blue form; blue rays slightly variable; one A. Hall specimen from Arima in BMNH with very reduced blue area and no rays; UPF constant). The type of *viridana* is from Colombia, and the discal green rays UPH are more extensive (Ackery and Smiles 1976) than is the case in Trinidad specimens.

Note 60. *Heliconius ethilla ethilla* (Godart)

This species occurs in two sympatric forms in Trinidad: *ethilla* and *metalilis*, which Turner (1968) refers to as the yellow form and brown form respectively. These are listed as subspecies in Lamas (2004). The two forms interbreed but remain distinct, the colour difference being defined by a single locus (Turner 1968). Hence, there is a single interbreeding dimorphic population in Trinidad, which might be treated as a local subspecies, but for the moment might best be referred to as *H. ethilla ethilla* (Godart) with forms *ethilla* (Godart) and *metalilis* (Butler).

In his discussion of the forms of *H. ethilla*, which he refers to as *H. numata ethilla*, Kaye (1921) mentions forms *numata* Cramer and *guiensis* Riffarth from Trinidad. These are synonyms of *H. numata*, a separate, similar and very variable species not recorded from Trinidad, but known from the nearby mainland. In the absence of any confirmed records of *H. numata* from Trinidad, these are considered to be local variants of *H. ethilla*, although the possibility of *H. numata* also occurring in Trinidad should not be completely discounted.

Note 61. *Heliconius hecale barcanti* K.S. Brown

A vagrant species, still only known from a single male specimen taken at Rio Claro in August 1951 (Barcant 1970, p. 106). Brown (1976) described this subspecies from the Paria Peninsula, Venezuela, and by reference to the illustration in Barcant (1970, plate 5), and suggests the Trinidad specimen was a vagrant from the Paria Peninsula.

Species not recognised from Trinidad

The following species are considered to have been erroneously recorded from Trinidad.

PIERIDAE

COLIADINAE

Leucidia elvina (Godart, 1819)

Leucidia exigua Prittwitz: Kaye (1921, no. 272), Barcant (1970, no. 175), Preston and Preston (1983)
[misidentifications]

See Note 6 above.

NYMPHALIDAE

SATYRINAE

Morphini

Morpho deidamia (Hübner, [1819]) ?ssp.

Morpho deidamia (Hübner): Guppy (1994)

Morpho menelaus (Linnaeus, 1758) ?ssp.

Morpho menelaus (Linnaeus): Guppy (1994)

The late Nicholas Guppy reports catching two specimens of *M. deidamia* and one of *M. menelaus* at the top of Emperor Valley in 1936 or 1937 when he was about 11 years old (Guppy 1994). No one else has seen these species from Trinidad before or since. I do not accept them as resident Trinidad species, but have no satisfactory explanation for the three specimens. I discussed their possible origin or affiliations with A. Neild. *Morpho deidamia* occurs in neighbouring Venezuela as the very distinctive subspecies *M. d. guaraura* Le Cerf (= *lecerfi* Le Moulton) (Neild 2008). Contrary to what Guppy (1994) wrote, the dorsal surface of his *M. deidamia* does not resemble ssp. *guaraura*, rather a typical continental Guianan specimen of the nominate subspecies. As P. Blandin notes in Guppy (1994), Guppy's specimen of *M. menelaus* does not resemble *M. menelaus orinocensis* Le Moulton from the relatively close Orinoco Delta, and it too looks like the Guianan nominate subspecies. Hence, Guppy's specimens could not have strayed from the Paria Peninsula of Venezuela, and are most likely of Guianan origin. It seems extremely unlikely that three vagrant specimens of two different *Morpho* spp. from inland Guiana could turn up at Port of Spain together. Could mainland specimens have been added to Guppy's collection at a later date? Could it have been the resident *M. helenor* that Guppy remembered collecting in the 1930s? It would be helpful to examine Guppy's collection; if specimens had contemporary data labels attached they would be relatively plausible, but this seems unlikely as Guppy (1994) was only able

to indicate the date of capture from memory. On balance, it seems appropriate to disregard these two records without any better confirmation.

Satyrini

Ypthimoides celmis (Godart, [1824])

Euptychia celmis (Godart): Kaye (1921, no. 120), Barcant (1970, no. 19)

Ypthimoides celmis has been recorded from Trinidad, as *Euptychia celmis* (Kaye 1921, Barcant 1970). I have not been able to confirm the identity of this species in Trinidad, as the true *Y. celmis* seems to be restricted to south of the Amazon. Kaye (1921) wrote 'Not rare. Botanical Gardens (*J. H. Hart.*)'. Barcant (1970) did not know this species, which he referred to as 'particularly scarce' and there are no putative specimens in the Angostura-Barcant Collection. Hart's specimens have not been located in the BMNH or in W.J. Kaye's material in MCLB. It is likely that Kaye misidentified this species, and another species such as *Cissia modesta* was intended, but labelled historical material is needed to validate this hypothesis.

BIBLIDINAE

Biblidini

Dynamine ines (Godart, [1824])

Dynamine ines (Godart): Barcant (1970, no. 74)

At present, I have no evidence that *D. ines* is a Trinidad species. Barcant (1970, pp. 173-4) provides the only record. He wrote 'Very rare in Trinidad. More likely in northern hilly areas but with no firm habitat. It has been recorded from the St. Ann's district (A. Hall)'. There are no specimens of *D. ines* (or *D. setabis*) from Trinidad in Hall's collection in BMBN or in the BMNH, but there is a male *D. setabis* collected Trinidad, Oct-Dec 1920 by A. Hall in MCLB from the W.J. Kaye collection. It is strange that Kaye (1921, 1940) did not record it (although this is true of some species that A. Hall caught in the early 1930s, e.g. *Castilia ofella*). A male in the Angostura-Barcant Collection labelled as *D. ines* is actually *D. setabis*, whereas there are no specimens identified as *D. setabis* in that collection, indicating that Barcant probably had the two transposed and inadvertently added an incorrect record.

NYMPHALINAE

Melitaeini

Anthanassa frisia frisia (Poey, 1832)

Anthanassa frisia (Poey): Higgins (1981)

Higgins (1981) treated *A. frisia* as a monotypic species and included Trinidad in its distribution, although it is otherwise only known from the Greater Antilles, Bahamas and southern USA. Higgins (1981) treated *A. dubia* (A. Hall, 1929) described from Venezuela, *A. hermas* (Hewitson, 1864) described from Brazil, *A. taeniata* (Rober, 1913) described from Peru and *A. tulcis* (H.W. Bates, 1864) described from Guatemala as separate closely related species, but Lamas (2004) treated them all as subspecies of *A. frisia*. Neild (2008) supported this treatment for *A. frisia dubia*, which he reports from northern Venezuela including Sucre. Hence, if any subspecies of *A. frisia* were to occur in Trinidad, it would be *A. frisia dubia* and not *A. frisia frisia*. Since Higgins (1981) referred to Trinidad in relation to ssp. *frisia* and not ssp. *dubia*, and given that the nearest populations of ssp. *frisia* are in the Greater Antilles, it seems most likely that his record of *A. frisia frisia* from Trinidad represents an error or a mislabelled specimen.

Janatella hera (Cramer, 1779)

Phyciodes ianthe (Fabricius): Kaye (1921, no. 35) [synonym]

Kaye (1921) includes this species stating: 'The only specimen I have seen was one taken by Mr. P. L. Guppy, at Tunapuna. It is a very large individual with an exceptionally wide expanse of wing.' This specimen has not been located; it is not in the BMNH or MCLB. Kaye (1940) did not remove this species from the Trinidad list, but Barcant (1970) does not mention it. Fabricius described *ianthe* from French Guiana (Lamas 2004), so it would not be surprising for it to occur in Trinidad. However, more likely the record represents a misidentification for *Castilia ofella*, which Kaye did not record until his 1940 additions, but unless the original specimen can be located this is only a hypothesis.

Tegosa anieta anieta (Hewitson, 1864)

Warren et al. (2013) list this species as occurring in Trinidad, but I have not traced any specimens to support this record, so discount it until supported with reliable specimens. Given that *T. a. anieta* is common in the Venezuelan coastal range (Neild 2008) this species might occur in Trinidad, but have been overlooked.

Discussion and Conclusions

This checklist includes 206 species of butterflies of the three families, but about 14 (7%) of these are not resident. As indicated in the notes above, 11-12 species are considered to be very unusual vagrants from the adjacent mainland (Table 1), while at least three others are migratory, without long term resident populations (Table 2).

Table 1. Vagrant species of Papilionidae, Pieridae and Nymphalidae recorded from Trinidad.

	Number of records	Last record
NYMPHALIDAE		
Danainae		
<i>Melinaea crameri aurantia</i> W.T.M. Forbes	1	1950
<i>Ithomia iphianassa iphianassa</i> Doubleday	1	1921
Biblidinae		
<i>Marpesia zerynthia zerynthia</i> Hübner	1	c. 1922
<i>Eunica alpais alpais</i> (Godart)	3	c. 1980
<i>Eunica amelia amelia</i> (Cramer)	1	Before 1900
<i>Eunica orphise</i> (Cramer)	1	Before 1921
<i>Eunica sydonia sydonia</i> (Godart)	Unclear	?1932
<i>Eunica volumna celma</i> (Hewitson)	2	1974
<i>Hamadryas iphthime iphthime</i> (H.W. Bates) ¹	1	1901
Nymphalinae		
<i>Smyrna blomfildia blomfildia</i> (Fabricius)	?3	Unclear
<i>Eresia clio clio</i> (Linnaeus)	1	?1920s
Heliconiinae		
<i>Heliconius hecale barcanti</i> K.S. Brown	1	1951

¹This species may be overlooked rather than vagrant (see note 44 above).

The island of Trinidad has had a small number of resident butterfly collectors active almost continuously over the last 100 years, as well as a large number of visiting collectors and researchers. The information presented here represents what the author has been able to compile from published accounts, his own collecting (1978-1982 and occasional visits since then), and what he has learnt from some of these collectors. Although there are likely to be more unpublished records of unusual species that are not included, there is enough information here to indicate small changes in the composition of the Trinidad fauna in these larger butterflies.

Three species appear to have gone extinct within Trinidad, but not elsewhere (*Pyrisitia proterpia*, *Pteronymia aletta*, *Dynamine setabis*) and two seem to have become established and widespread last century (*Anteos clorinde*, *Siproeta epaphus*). The theory of island biogeography postulates that islands achieve an equilibrium level of species where the number becoming extinct is equal to the number becoming newly established (MacArthur and Wilson 1967). This position is inevitably compromised by the activities of humans. Species are becoming extinct more rapidly due to human activities, primarily habitat destruction, while human activities also facilitate the introduction of new species by establishing

Table 2. Migratory species of Papilionidae, Pieridae and Nymphalidae recorded from Trinidad, some of which may establish short or long-term populations (based on information in Barcant (1970)).

PAPILIONIDAE	
<i>Battus ingenuus</i> (Dyar)	Normally resident
PIERIDAE	
<i>Anteos maerula</i> (Fabricius)	Normally resident
<i>Aphrissa statira statira</i> (Cramer)	Normally resident
NYMPHALIDAE	
Libytheinae	
<i>Libytheana carinenta carinenta</i> (Cramer)	Migrant only
Biblidinae	
<i>Marpesia petreus petreus</i> (Cramer)	Normally resident
<i>Marpesia chiron marius</i> (Cramer)	Normally resident
<i>Eunica monima</i> (Stoll)	Migrant or temporarily resident
Nymphalinae	
<i>Historis acheronta acheronta</i> (Fabricius)	Migrant or temporarily resident

pathways of introduction which deliberately or accidentally facilitate the introduction of non-indigenous species (Wittenberg and Cock 2001). Over the last 120 years or so, it seems likely that human activities had a role in the posited extinction of the three species in Trinidad, but there is nothing to suggest that they had a role in the two new establishments.

The fact that only a very small number of larger butterfly species appear to have become extinct in Trinidad in the last 120 years, suggests that habitat loss is not as yet causing biodiversity loss on the scale that some feared (e.g. Roegner (2003) but see Cock (2005b)). Although there has been significant habitat loss in Trinidad, including some noted localities for butterfly collecting, there seems to be enough left that extinction is not yet obvious in these families. This should not be considered an opportunity for complacency, rather an affirmation of the importance of ensuring that adequate habitat is protected into the future. Probably the most loss of habitat (including man-made habitats) has been in the vicinity of Port of Spain. It is unlikely to be a coincidence that two of the apparently extinct species, *Pyrisitia proterpia* and *Dynamine setabis*, were only recorded from the vicinity of the city. Larsen (2008) made a more comprehensive assessment of extinction of West African butterflies as a whole and came to the conclusion that in spite of enormous habitat losses, no species had yet gone extinct. That species do seem to have become extinct in Trinidad, is likely to be a reflection of what happens when changes over a relatively small area are examined. Certainly, butterflies do seem to be effective representative species to monitor changes in mobile invertebrates. Hence, it is important to maintain checklist inventories of biodiversity such as butterflies.

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