

## A CATALOGUE OF THE TASMANIAN LEPIDOPTERA-RHOPALOCERA

By

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*Hobart, Tasmania*

### INTRODUCTION

The many additions to the list of the Tasmanian butterflies, and the nomenclatorial changes consequent on a study of the literature, have placed additional and increasing difficulties in the path of students of this fascinating group. The references are scattered widely through journals here and abroad, and no detailed catalogue dealing solely with the Tasmanian species has ever been compiled.

Hardy (1916) and Turner (1926, 1939) published valuable lists of the species then known to be found in the State, but neither gave references to the literature nor adopted the trinomial system of nomenclature.

Tasmanian species had of course been included in catalogues prepared by workers on the Australian fauna. Semper's excellent list of the specimens in the Godeffroy Museum at Hamburg (1879) followed the monumental work of Kirby in 1871, from which Masters extracted the Australian species to form his 1873 catalogue. Miskin in 1891 prepared a catalogue which covered a vast amount of literature, perhaps never fully appreciated because so many extra-Australian references were included. The latest author, Waterhouse, in 1903 published a list which in many ways has formed the basis of subsequent classification, though the trinomial system was adopted only in the *Papilionidae*, and no complete list of references was attempted.

The standard works of Waterhouse and Lyell (1914) and Waterhouse (1932) placed the nomenclature on a proper basis, but later work is dispersed and often difficult of access.

The classification here adopted may seem strange when compared with that of Waterhouse or Seitz, but there can be no disagreement as to the need to bring our lists into line with work that has been done here and elsewhere. Zoologists generally agree that classification should begin with the most primitive forms and proceed to the most specialised, whereas some Australian authors begin with the most specialised groups and pass to the most primitive, others have begun with the less specialised *Papilionidae*, proceeded to the most highly specialised family, the *Satyridae*, and thence passed in more or less haphazard sequence to the primitive *Hesperiidae*. Let me add that Australian authors are not alone in these unscientific arrangements, the practice has been general, with but few notable exceptions. In England, Tutt, in the early years of this century, used this natural order, and more recently Warren (1947) emphasised

the logical nature of a classification that ascends in specialisation. The latter author also gives good reasons for regarding the *Satyridae* as the most highly specialised of all butterfly groups.

I have adopted Warren's arrangement for our comparatively few species, including only those references dealing with Tasmanian forms or which specifically mention Tasmania, excluding many Australian and other works concerned with areas outside this State or having no bearing on the local species.

The type and fixation of each genus is given and the present location of all types, so far as known to me, is included in an attempt to complete the work for all groups which Waterhouse in 1937 carried out so thoroughly for the *Hesperiidae*. The opportunity has also been taken to fix the exact type locality in a number of species where this has been in doubt, so that sub-specific population studies may be advanced.

Throughout the original spelling of specific names is retained, and in listing the literature under each species, the generic and specific names are not repeated where these are similar to the previous quotation.

Distribution records given are within the political boundaries of the State, including King and Flinders Islands, but ignoring the wider distribution outside these limits where this occurs.

During the years of research on a contemplated larger work on the Australian *Rhopalocera* I have personally consulted all but a few of the references given, where this has not been possible I have in great part depended on my friend A. Musgrave, whose help I acknowledge elsewhere.

Though fully conscious of the errors likely in work that must be done in leisure hours, I trust they are few and not serious in effect. I should appreciate help in noting omissions or in gaining additional information which could be incorporated in a work on the larger fauna of Australia.

#### ACKNOWLEDGMENTS

The distributional records owe much to a number of friends whose help in accumulating material I have acknowledged in various publications during the past ten years.

Dr. W. Bryden, the Director, Tasmanian Museum, and Miss E. M. Geddes, Librarian, have aided me in obtaining books and in providing facilities for study. I am indebted to my friend A. N. Burns, Curator of Insects, National Museum of Victoria, for ready help whenever I have appealed to him, while in the study of the literature I have had valued assistance from my friends W. A. Rainbow, formerly Librarian, and A. Musgrave, Curator of Entomology, Australian Museum, Sydney, the latter's "*Bibliography of Australian Entomology*" has been an invaluable aid throughout years of research.

Finally my thanks are an inadequate return for the constant help in field and library given by my wife, her interest and assistance has made this work possible.

## Order LEPIDOPTERA

## Family: HESPERIIDAE

## Sub-Family: TRAPEZITINAE

Genus: TRAPEZITES Hübner [1823] Zuträge z.s. exot. Schmett. 2: 10.

Type: *Trapezites symmomus* Hübner [1823] (sole species)( *Trapezites* Hübner [1819] Verz. bek. Schmett. (7): 112) (M.S. name for one unpublished species)*Steropes* Boisduval 1832 in d'Urville Voy "Astrolabe" Entom. I (Lepid.): 167.Type: *Papilio iacchus* Fabricius 1775 (fixed by Lindsey 1925 Ann. ent. Soc. Amer. 18: 101).*Patlasingha* Watson 1893. Proc. zool. Soc. Lond. 1893: 74-75.Type: *Hesperia phigalia* Hewitson 1868 (fixed by author).*T. lutea lutea* (Tepper) 1882. South Australia.

T. LUTEA GLAUCUS Waterhouse and Lyell 1914

*Trapezites luteus glaucus* Waterhouse and Lyell 1914, Butt. Australia: 177. pl. 34, f. 661; pl. 37, f. 739 ♂ ♀. *Trapezites glaucus* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Trapezites luteus* forma *glaucus* Seitz 1927, Grossschmett. Erde 9: 1059. *Trapezites luteus glaucus* Waterhouse 1932, What Butt. is that?: 220. pl. 29, f. 9. *Trapezites lutea* forma *glaucus* Shepard 1936 in Strand Lepid. Catal. 77: 6. *Trapezites luteus* race *glaucus* Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (3/4): 113. *Trapezites lutea glaucus* Couchman 1947, Rec. Queen Vict. Mus. 2 (1): 5-6 (early stages). Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 210. *lutea* (nec Tepper 1882)

*Trapezites lutea* Meyrick and Lower 1902, Trans. Roy. Soc. South. Aust. 26: 90-91 (pt.). Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 44 (pt.). Lower 1911, Trans. Roy. Soc. South Aust. 35: 137 (pt.). *Anisynta lutea* Turner 1926, Pap. Proc. Roy. Soc. Tas. 1925: 123.

*petalia* (nec Hewitson 1868)

*Telesto petalia* Plötz 1884, Entom. Zeit. Stettin 45: 380. *Trapezites petalia* Seitz 1927, Grossschmett. Erde 9: pl. 167g (8).

Type Localities: Beauty Point. Launceston. Cressy. Karoola. Hobart. (Waterhouse and Lyell.) The holotype ♂ is from Hobart, 28th Dec. 1888, collected by J. J. Walker, I designate this the type locality.

Holotype ♂ and Allotype ♀: Australian Mus.

Distribution: Northern and eastern coastal areas to an altitude of c. 1,000 feet.

Genus: ANISYNTE Lower 1911 Trans. Roy. Soc. South Aust. 35: 141.

Type: *Cyclopides cynone* Hewitson 1874 (fixed by author).

## A. DOMINULA DOMINULA (Plötz) 1884

*Telesto dominula* Plötz 1884, Entom. Zeit. Stettin 45: 379. ♂. *Hesperilla dominula* Miskin 1891, Ann. Queensl. Mus. 1: 81. *Telesto dominula* Meyrick and Lower 1902, Trans. Roy. Soc. South Aust. 26: 61. *Hesperilla dominula* Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 42. Lower 1911, Trans. Roy. Soc. South Aust. 35: 133. Waterhouse and Lyell 1912, Vict. Nat. 28: 225. *Motasingha dominula* Waterhouse and

Lyell 1914, Butt. Australia: 197 (pt.) (nec figs.). Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Turner 1926, *loc. cit.* 1925: 123 (pt.). Seitz 1927, Grossschmett. Erde 9: 1056 (pt.) pl. 168*b* (8, 9), 171*d* (3, 4). Waterhouse 1927, Proc. linn. Soc. N.S.W. 52 (3/4): 278 (pt.). *Motasingha d. dominula* Waterhouse 1932, *loc. cit.* 57 (3): 225. *Anisynta dominula* Waterhouse 1932, Aust. Zool. 7 (3): 199, 200. *Anisynta d. dominula* Waterhouse 1932, What Butt. is that?: 236. *Motasingha dominula* Waterhouse 1933, Rec. South Aust. Mus. 5 (1): 57. *Anisynta dominula* Shepard 1936 in Strand Lepid. Catal. 77: 12. *Anisynta d. dominula* Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (3/4): 114. *Anisynta dominula* Waterhouse 1938, *loc. cit.* 63 (5/6): 451. Couchman 1946, Pap. Proc. Roy. Soc. Tasm. 1945: 52. Burns [1948], Mem. Nat. Mus. (1947) 15: 106. *Anisynta d. dominula* Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 212.

*drachmophora* (nec Meyrick 1885)

*Telesto drachmophora* Meyrick and Lower 1902, Trans. Roy. Soc. South Aust. 26: 61-62 (pt.).

Type Locality: Tasmania (Plötz); probably near Launceston (Waterhouse).

Holotype ♂: Not known.

Distribution: Northern and eastern coastal areas to an altitude of c. 1,000 feet.

#### A. DOMINULA PRIA (Waterhouse) 1932

*Motasingha dominula pria* Waterhouse 1932, Proc. linn. Soc. N.S.W. 57 (3): 225 ♂. *Anisynta dominula pria* Waterhouse 1932, What Butt. is that?: 236. Shepard 1936 in Strand Lepid. Catal. 77: 12. Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (3/4): 114. Couchman 1946, Pap. Proc. Roy. Soc. Tasm. 1945: 52-53 ♀. Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 212.

*dominula* (nec Plötz 1884)

*Motasingha dominula* Hardy 1918, Pap. Proc. Roy. Soc. Tasm. 1917: 68. Turner 1926, *loc. cit.*, 1925: 123 (pt.). Turner 1939, *loc. cit.*, 1938: 106.

Type Localities: Cradle Mountain (Waterhouse ♂); Cradle Mt. (Couchman neallotype ♀).

Waterhouse's reference to 5000 feet is an error, the specimens were taken at c. 3000 feet.

Holotype ♂: Australian Mus. Neallotype ♀: Tasmanian Mus.

Distribution: Western and central mountains at an altitude of 2500-3500 feet.

Genus: *HESPERILLA* Hewitson 1868. Descr. 100 new spec. Hesp. (2): 37.

Type: *Hesperia ornata* Leach 1814 (fixed by author).

#### H. IDOTHEA IDOTHEA (Miskin) 1889

*Trapezites idothea* Miskin 1889, Proc. Roy. Soc. Queensl. 6 (3): 152 ♀. *Telesto idothea* Meyrick and Lower 1902, Trans. Roy. Soc. South Aust. 26: 68-69 (early stages). *Hesperilla idothea* Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 43. Rainbow 1907, Guide study Aust. Butt.: 225. text f.; 227, f. 163; 228 (early stages). Lower 1911, Trans. Roy. Soc. South Aust. 35: 123 (pt.). Waterhouse and Lyell 1914, Butt. Australia:

187. pl. 35, f. 716, 717, 718. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Waterhouse 1923, Proc. linn. Soc. N.S.W. 48 (1): 22 (early stages). Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 123. Tillyard 1926, Ins. Aust. and N. Zeal.: 457. pl. 44, f. 4. Seitz 1927, Grossschmett. Erde 9: 1057. Waterhouse 1927, Proc. linn. Soc. N.S.W. 52 (3): 278. *Hesperilla i. idothea* Waterhouse 1932, *loc. cit.*, 57 (3/4): 227. *Hesperilla idothea* Waterhouse 1932, Aust. Zool. 7 (3): 200. *Hesperilla i. idothea* Waterhouse 1932, What Butt. is that?: 243. pl. 32, f. 8, 8A (early stages). *Hesperilla idothea* Waterhouse 1933, Rec. South Aust. Mus. 5 (1): 54. *Hesperilla i. idothea* Waterhouse 1934, Proc. linn. Soc. N.S.W. 59 (5/6): 414. *Hesperilla idothea* Shepard 1936 in Strand Lepid. Catal. 77: 25. *Hesperilla i. idothea* Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (3/4): 117. *Hesperilla idothea* Waterhouse 1938, *loc. cit.*, 63 (5/6): 451.

*clara* (nec Waterhouse 1932)

*Hesperilla idothea clara* Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 217 (pt.).

*dispar*

*Telesto dispar* Kirby 1893, Ann. Mag. nat. Hist. (6) 12: 435-436 ♂ ♀. Meyrick and Lower 1902, Trans. Roy. Soc. South Aust. 26: 67-68.

Type Locality: Victoria (Miskin). Kirby's types were also described from Victoria.

Holotype ♀: South Australian Mus. The types of *dispar* are in the Brit. Mus. (Nat. Hist.).

Distribution: From Strahan to South Bruny through Hobart to Scottsdale, from sea level to c. 1000 feet.

*H. donnyisa donnyisa* Hewitson 1868. Sydney (Waterhouse 1941).

H. DONNYISA AURANTIA Waterhouse 1927

*Hesperilla donnyisa aurantia* Waterhouse 1927, Proc. linn. Soc. N.S.W. 52 (3): 279-280. pl. 26, f. 5, 21, 22 ♂ ♀. Waterhouse 1932, What Butt. is that?: 241. Shepard 1936 in Strand Lepid. Catal. 77: 26. Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (3/4): 118. Waterhouse 1941, *loc. cit.*, 66 (3/4): 217. Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 218. Burns 1951, Mem. Nat. Mus. 17: 83, 87-88, 95.

*donnyisa* (nec Hewitson 1868)

*Telesto donnyisa* Meyrick and Lower 1902, Trans. Roy. Soc. South Aust. 26: 64-65 (pt.). *Hesperilla donnyisa* Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 43 (pt.). Rainbow 1907, Guide study Aust. Butt.: 231 (pt.). Lower 1911, Trans. Roy. Soc. South Aust. 35: 122-123 (pt.). Waterhouse and Lyell 1914, Butt. Australia: 188 (pt.). Hardy 1918, Pap. Proc. Roy. Soc. Tasm. 1917: 68. Turner 1926, *loc. cit.*, 1925: 123. Turner 1939, *loc. cit.*, 1938: 106.

Type Locality: Tasmania, Eaglehawk Neck.

Holotype ♂ and Allotype ♀: Australian Mus.

Distribution: Throughout the island from sea level to 3500 feet.

*H. chrysotricha chrysotricha* (Meyrick and Lower) 1902. West Australia.

H. CHRYSOTRICHA PLEBEIA Waterhouse 1927

*Hesperilla chrysotricha plebeia* Waterhouse 1927, Proc. linn. Soc. N.S.W. 52 (3): 281. pl. 26, f. 23, 24 ♂. Waterhouse 1932, What Butt. is that?: 242, pl. 32, f. 6. Shepard 1936 in Strand Lepid. Catal. 77: 27. Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (3/4): 118. Couchman 1949, Pap. Proc. Roy. Soc. Tasm. 1948: 66-67, 71, pl. 1, f. 5, 6 ♀. Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 219.

*cyclospila* (nec Meyrick and Lower 1902)

*Hesperilla chrysotricha cyclospila* Waterhouse and Lyell 1914, Butt. Australia: 188 (pt.). pl. 34, f. 632. *Hesperilla cyclospila* Hardy 1918, Pap. Proc. Roy. Soc. Tasm. 1917: 67. Turner 1926, loc. cit., 1925: 123.

Type Localities: Bridport (Waterhouse ♂). Latrobe (Couchman neallotype ♀).

Holotype ♂: Australian Mus. Neallotype ♀: Tasmanian Mus.

Distribution: North, East and south-east coastal and river shores.

H. CHRYSOTRICHA LUNAWANNA Couchman 1949

*Hesperilla chrysotricha lunawanna* Couchman 1949, Pap. Proc. Roy. Soc. Tasm. 1948: 68, 71 ♂ ♀.

*plebeia* (nec Waterhouse 1927)

*Hesperilla chrysotricha plebeia* Couchman 1947, Pap. Proc. Roy. Soc. Tasm. 1946: 29-30. pl. 1, f. 1-4.

Type Locality: Lunawanna, South Bruny Island.

Holotype ♂ and Allotype ♀: Tasmanian Mus.

Distribution: Coastal shores of D'Entrecasteaux Channel.

*H. chaostola chaostola* (Meyrick) 1888. Blackheath, N.S.W.

H. CHAOSTOLA LEUCOPHAEA Couchman 1946

*Hesperilla chaostola leucophaea* Couchman 1946, Pap. Proc. Roy. Soc. Tasm. 1945: 51-52 ♂ ♀. Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 220.

*chaostola* (nec Meyrick 1888)

*Telesto chaostola* Meyrick and Lower 1902, Trans. Roy. Soc. South Aust. 26: 65-66 (pt.) (♀ only). *Hesperilla chaostola* Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 42 (pt.). Lower 1911, Trans. Roy. Soc. South Aust. 35: 132 (pt.). Waterhouse and Lyell 1914, Butt. Australia: 187 (pt.). Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 123. Waterhouse 1933, Rec. South Aust. Mus. 5 (1): 54 (pt.).

Type Locality: Kingston.

Holotype ♂ and Allotype ♀: Tasmanian Mus.

Distribution: Eastern coastal areas.

Genus: *PASMA* Waterhouse 1932, Aust. Zool. 7 (3): 198, 200.

Type: *Pasma tasmanica* Miskin, Waterhouse 1932 (= *Hesperilla tasmanicus* Miskin 1889) (fixed by author).

#### P. TASMANICUS (Miskin) 1889

*Hesperilla tasmanicus* Miskin 1889, Proc. Roy. Soc. Queensl. 6 (3): 149-150. ♂. ("♀" in err.) Miskin 1891, Ann. Queensl. Mus. 1: 81. *Trapezites tasmanicus* Meyrick and Lower 1902, Trans. Roy. Soc. South Aust. 26: 96-97. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 45. *Anisynta tasmanicus* Lower 1911, Trans. Roy. Soc. South Aust. 35: 141. *Anisynta tasmanica* Waterhouse and Lyell 1914, Butt. Australia: 183. pl. 37, f. 750, 751. Hardy 1918, Pap. Proc. Roy. Soc. Tasm. 1917: 68. Turner 1926, *loc. cit.*, 1925: 123. *Anisynta tasmanicus* Seitz 1927, Grossschmett. Erde 9: 1060. *Anisynta tasmanica* Waterhouse 1927, Proc. linn. Soc. N.S.W. 52 (3/4): 277. *Pasma tasmanica* Waterhouse 1932, Aust. Zool. 7 (3): 198, 200. Waterhouse 1932, What Butt. is that?: 221. pl. 29, f. 13 (early stages). *Pasma tasmanicus* Shepard 1936 in Strand Lepid. Catal. 77: 13-14. Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (3/4): 114. *Anisynta tasmanica* Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106. *Pasma tasmanica* Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 222.

*comma*

*Telesto comma* Kirby 1893, Ann. Mag. nat. Hist. (6) 12: 436. ("♀" in err.)

Type Localities: Tasmania (Miskin). Victoria (Kirby).

Holotype ♂ (nec ♀): Queensland Mus. Holotype ♂ of *comma* (nec ♀): Brit. Mus. (Nat. Hist.).

Distribution: Generally distributed from sea level to 3000 feet.

#### Sub-Family: *HESPERIINAE*

Genus: *TARACTROCERA* Butler [1870] Catal. diurn. Lepid. Fabr. Brit. Mus.: 279.

Type: *Hesperia maevius* Fabricius 1793 (fixed by author).

*Bibla* Mabilie 1904 in Wytsmann Genera Insect. 17b: 122.

Type: *Hesperia papyria* Boisduval 1832 (sole species).

#### T. PAPYRIA PAPYRIA (Boisduval) 1832

*Hesperia papyria* Boisduval 1832 in d'Urville Voy. "Astrolabe" Ent. 1 (Lepid.): 166 ♂. Westwood 1852 in Doubleday Genera diurn. Lepid. (2): 527. *Taractrocera papyria* Kirby 1871, Synon. Catal. diurn. Lepid.: 626. Masters 1873, Catal. diurn. Lepid. Aust.: 24. Semper 1879, J. Mus. Godeffroy 5 (14): 193. Miskin 1891, Ann. Queensl. Mus. 1: 82, Addenda. Watson 1893, Proc. zool. Soc. Lond. 1893: 94. *Apaustus papyria* Meyrick and Lower 1902, Trans. Roy. Soc. South Aust. 26: 98-100 (early stages). Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 46. *Bibla papyria* Mabilie 1904 in Wytsmann Genera Insect. 17b: 122. Lower 1911, Trans. Roy. Soc. South Aust. 35: 145 (early stages). *Taractrocera p. papyria* Waterhouse and Lyell 1914, Butt. Australia: 200. pl. 32, f. 580, 581. *Taractrocera papyria* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Turner 1926, *loc. cit.*, 1925: 123. Evans 1926, J. Bombay nat. Hist. Soc. 31: 625. Evans 1927, Ident. Indian Butt. ed. 1: 260. *Bibla papyria* Seitz 1927, Grossschmett. Erde 9: 1076. pl. 170h (1, 2). *Taractrocera p. papyria* Waterhouse 1932, Proc. linn. Soc. N.S.W. 57 (3/4): 228.

Waterhouse 1932, What Butt. is that?: 249 (early stage). pl. 32, f. 18, 18A. Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (3/4): 120. *Taractrocera papyria* Shepard 1936 in Bryk Lepid. Catal. 90: 204. Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106.

This widely spread species has received other names based on specimens from elsewhere in Australia.

Type Locality: New Holland (Boisduval). Sydney (designated by Waterhouse 1937).

Holotype ♂: Not known. Waterhouse suggests it is probably in the Mus. Nat. d'Hist. nat. Paris.

Distribution: Coastal areas from sea level to 2000 feet.

Genus: *OCYBADISTES* Heron 1894, Ann. Mag. nat. Hist. (6) 14: 105-106.

Type: *Ocybadistes walkeri* Heron 1894 (fixed by author).

*O. walkeri walkeri* Heron 1894. Damma Island.

#### O. WALKERI SOTHIS Waterhouse 1933

*Ocybadistes walkeri sothis* Waterhouse 1933, Proc. linn. Soc. N.S.W. 58 (5/6): 465-466. ♂ ♀. Waterhouse 1937, loc. cit. 62 (3/4): 122. Evans 1949, Catal. Hesp. Europe, Asia and Aust.: 366.

*flavovittata* (nec Latreille 1824)

*Padraona f. flavovittata* Waterhouse and Lyell 1914, Butt. Australia: 203 (pt.). pl. [42], f. 859. *Padraona flavovittata* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Turner 1926, loc. cit., 1925: 123. *Padraona f. flavovittata* Waterhouse 1932, Proc. linn. Soc. N.S.W. 57 (3/4): 232-233. Waterhouse 1932, What Butt. is that?: 253-254 (early stages). pl. 33, f. 9, 9A.

*walkeri* (nec Heron 1894)

*Ocybadistes walkeri* Lower 1911, Trans. Roy. Soc. South Aust. 35: 148-149 (pt.) (early stages). *Telicota walkeri* Seitz 1927, Grossschmett. Erde 9: 1079 (pt.). pl. 172a (6, 7). *Ocybadistis* (sic) *walkeri* Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 58, 106.

Type Locality: Sydney.

Holotype ♂ and Allotype ♀: Australian Mus.

Distribution: North-west, north and eastern coastal areas from sea level to c. 750 feet.

#### *Suniana lascivia lascivia* (Rosenstock) 1885

This species, noted by Meyrick and Lower (1902), Lower (1911), Hardy (1916) and Turner (1926) from Tasmania has no place in our records. I showed in 1947 (Rec. Queen Vict. Mus. 2 (1): 6) that records were evidently based on two specimens from Sydney now in the Tasmanian Mus., carrying G. A. Waterhouse's labels. Field work by a number of collectors in the subsequent eight years has only made it more certain that this species is not Tasmanian.



## Family: PAPILIONIDAE

## Sub-Family: PAPILIONINAE

Genus: GRAPHIUM Scopoli 1777, Intro. Hist. nat.: 433.

Type: *Papilio sarpedon* Linn. 1758 (fixed by Hemming 1933, Entom. Lond. 66: 199)*Zetides* Hübner [1819] Verz. bek. Schmett. (6): 85.Type: *Papilio sarpedon* Linn. 1758 (fixed by Scudder 1875, Proc. Am. Acad. Arts Sci. Boston 10: 292)*Chlorisses* Swainson 1833, Zool. Illustr. (2) 2: pl. 89.Type: *Papilio sarpedon* Linn. 1758 (sole species)

## G. MACLEAYANUS MACLEAYANUS (Leach) 1814

*Papilio macleayanus* Leach 1814, Zool. Misc. 1: 17. pl. 5. ♀. Godart 1819, Ency. Meth. Hist. nat. (Zool.) 9 (1): 47. *Iphiclides macleayanus* Hübner [1824] Zutr. z. s. exot. Schmett. 3: pl. [87], f. 501, 502. ♂. Hübner [1827]-[1831] loc. cit. 3: 26. *Papilio macleayanus* Boisduval 1832 in d'Urville Vol. "Astrolabe" Ent. 1 (Lepid.): 42. Boisduval [1836] (Roret's Suite à Buffon) Lepid. 1: 229. Doubleday 1846, Genera diurn. Lepid. (1): 14. Gray [1853] Catal. Lepid. Ins. Brit. Mus. 1: 27. Kirby 1871, Synon. Catal. diurn. Lepid.: 561. Masters 1873, Catal. diurn. Lepid. Aust.: 2. Olliff 1888, Ann. Mag. nat. Hist. (6) 1: 358-359. pl. 20, f. 2-2c (early stages). Olliff 1889, Aust. Butt.: 35. *Papilio macleaynus* (sic) Miskin 1891, Ann. Queensl. Mus. 1: 5-6. *Papilio macleayanus* Olliff and Forde 1893 in Scott Aust. Lepid. 2: 31. pl. 20 (early stages). Rothschild 1895, Novit. Zool. 2: 424. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 38. Rainbow 1907, Guide study Aust. Butt.: 202-206. text figs. 144, 145 (early stages). Froggatt 1907, Aust. Ins.: 226. Jordan 1909 in Seitz Grossschmett. Erde 9: 92. pl. 42a (2), 42b (3). Waterhouse and Lyell 1914, Butt. Aust.: 116. pl. 29, f. 555. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Hardy 1918, loc. cit. 1917: 68. Turner 1926, loc. cit. 1925: 122. Tillyard 1926, Ins. Aust. and N. Zeal.: 460. pl. 40, f. 2. Bryk 1930 in Strand Lepid. Catal. 37: 261. Waterhouse 1932, What Butt. is that?: 40-41 (early stages), pl. 5, f. 6. *Iphiclides macleayanus* Hemming 1937, Hübner 1: 474. *Papilio macleayanus* Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 127. Barrett and Burns 1951, Butt. Aust. and N. Guinea: 17-19. pl. 2, f. 6.

*scottianus*

*Papilio scottianus* Felder, C. 1862, Vehr. z.-bot. Ges. Wien 12: 489. Felder, C. and R. 1864, Reise d. "Novara" Zool. 2 (1): 73. Kirby 1871, Synon. Catal. diurn. Lepid.: 561.

Type Locality: Port Jackson (Leach).

Holotype ♀: Not known.

Distribution: Throughout the State in rain-forest areas from sea level to 5000 feet.

## Family: PIERIDAE

Sub-Family: *PIERINAE*

Genus: *PIERIS* Schranck 1801, Fauna Boica 2 (1): 152, 161.

Type: *Papilio brassicae* Linn. 1758 (fixed by Latreille 1810, Consid. gén. Anim. Crust. Arachn. Ins.: 440.)

*Ganoris* Dalman 1816 K. Vet. Akad. Handl. 1816 (1): 61.

Type: *Papilio brassicae* Linn. 1758 (fixed by author)

*Andropodum* Hübner 1822, Syst. Alph. Verz.: 2-5, 7-9.

Type: *Papilio brassicae* Linn. 1758 (fixed by Hemming 1933, Entom. Lond. 66: 199)

*Tachyptera* Berge 1842, Schmetterlingsbuch: 19, 92-105.

Type: *Papilio brassicae* Linn. 1758 (fixed by Hemming 1934, Entom. Lond. 67: 38)

## P. RAPAE RAPAE (Linn.) 1758

*Papilio rapae* Linn. 1758, Syst. Nat. ed. 10: 468. *Pieris r. rapae* Talbot 1932 in Strand Lepid. Catal. 53: 233-237. *Pieris rapae* Evans 1940, Tasm. J. Agric. 11 (4): 202-204. text. figs. Pearse 1941 in Dannreuther, Entom. Lond. 74: 188-189. Williams 1941, loc. cit. 74: 189-190. Evans 1943, Insect Pests: 80-81. 27, f. 37 (early stages). Evans 1943 in Dannreuther, Entom. Lond. 76: 262.

Distribution: This butterfly unfortunately occurs everywhere in the State.

I have seen it west of the DuCane Range in the Mountain Reserve, more than twenty miles from road or garden plot that would shelter a possible foodplant.

Full generic references are to be found in Talbot (1939: 413); the same author (1932: 233-237) has listed the references to this species before it became established in Australia. I have not included these, nor attempted the enormous economic literature.

Migrant and vagrant species include three *Pierinae*; *Eurema smilax* (Don.) noted by Pearse (1941) and Evans (1943); *Anapheis java teutonia* (Fabr.), noted by Hardy (1916), Williams (1941), Evans (1943) and Barret and Burns (1951); and *Appias paulina ega* (Boisduval), recorded by Turner (1926). These three species are casual visitors only, without any possibility of becoming established in the island.

Another possible vagrant is *Danaus chrysippus petilia* (Stoll) 1790 (*Danaidae*). Waterhouse and Lyell (1914: 17-18) include Zeehan among the localities for this species, doubtless noted by W. K. Findlay. Hardy (1916: 146) copies this, and Waterhouse (1937: 8) repeats his note, but Turner omits the species from his list. The register of the Waterhouse Coll. in the Aust. Museum contains a note under *Danaida chrysippus petilia*, "KL00163, 1 ♀ Zeehan, Tas. Feb. or Mar. 1907. per G. Lyell." I know of no subsequent record, or of any other specimen from this State.

## Family: LYCAENIDAE

## Sub-Family: LYCAENINAE

Genus: CANDALIDES Hübner [1819] Verz. bek. Schmett. (5): 73.

Type: *Rusticus adolescens xanthospilos* Hübner [1817] (fixed by Scudder 1875, Proc. Amer. Acad. Arts Sci. Boston 10: 133)*Erina* Swainson 1833, Zool. Illustr. (2) 3: pl. 134.Type: *Erina erinus* Swainson 1833 (= *Papilio erinus* Fabricius 1775) (type by tautonomy)*Holochila* Felder, C. 1862, Verh. zool.-bot. Ges. Wien 12 (1): 490.Type: *Holochila absimilis* Felder 1862 (fixed by Waterhouse 1903: 145) (nom. preocc.)

## C. ACASTA (Cox) 1873

*Lycaena acasta* Cox 1873, Entom. Lond. 6: 402. ♂. *Plebeius acasta* Kirby 1877, Synon. Catal. diurn. Lepid. Suppl.: 769. *Candalides acasta* Waterhouse 1903, Proc. linn. Soc. N.S.W. 28 (1): 186-187. pl. 2, f. 19; pl. 3, f. 7. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 23. Waterhouse and Turner 1905, Proc. linn. Soc. N.S.W. 29 (4): 800. Waterhouse and Lyell 1914, Butt. Australia: 81. pl. 17, f. 344, 345. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Grünberg 1921 in Seitz Grossschmett. Erde 9: 852. Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 121. Waterhouse 1932, What Butt. is that?: 133. pl. 19, f. 11, 11A. Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 115. Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106.

*Lycaena canescens* Miskin 1890, Proc. linn. Soc. N.S.W. (2) 5 (1): 35. Tasmania;

*Holochila anita* Semper 1879, J. Mus. Godeffroy 5 (14): 163. "Sidney, Cap York";

*Lycaena maerens* Rosenstock 1885, Ann. Mag. nat. Hist. (5) 16: 377. Melbourne,

are all names referable to this species.

Type Locality: South Australia.

Holotype ♂: Brit. Mus. (Nat. Hist.).

Distribution: Generally distributed throughout the State from sea level to 1000 feet.

Genus: LAMPIDES Hübner [1819] Verz. bek. Schmett. (5): 70.

Type: *Papilio boeticus* Linn. 1767 (fixed by Grote 1873, Bull. Buffalo Soc. nat. Sci. 1: 179)*Cosmolyce* Toxopeus 1927, Tijdschr. Entom. 70: 268.Type: *Papilio boeticus* Linn. 1767 (sole species)

## L. BOETICUS DAMOËTES (Fabricius) 1775

*Papilio damoëtes* Fabricius 1775, Syst. Entom.: 526. Fabr. 1781, Spec. Ins. 2: 124. Fabr. 1787, Mantissa Ins. 2: 77. *Hesperia damoëtes* Fabr. 1793, Entom. Syst. 3 (1): 303. *Papilio damoëtes* Donovan 1805, Epit. nat. Hist. Ins. New Holl.: 66. pl. 31, f. 2. *Lampides boeticus damoëtes* Waterhouse 1932, What Butt. is that?: 173-174 (early stages). pl. 23, f. 15, 15A. *Lampides boeticus damoëtes* Couchman 1947, Rec. Queen Vict. Mus. 2 (1): 5.

*boeticus* (nec Linn. 1767)

*Polyommatus boeticus* Rainbow 1907, Guide study Aust. Butt.: 130-132, text f. 80, 81, 82 (early stages). pl. 3, f. 12. *Cosmolyce boeticus* Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 117 ("recently recorded from Tasmania").

Type Locality: New Holland (Fabr.). Donovan (1805) gives "Botany Bay", this can be accepted as the type locality. *L. boeticus damoëtes* flies in the Sydney district until June, and could have been taken during the "Endeavor's" visit, April 29-May 7, 1770.

Holotype: Brit. Mus. (Nat. Hist.), Banks Coll.

Distribution: Has occasionally been taken in the Hobart area, there are 6 males, 2 females in the Couchman Coll., and one pair from Launceston in the Waterhouse Coll., Aust. Mus.

Genus: ZIZINA Chapman 1910, Trans. ent. Soc. Lond. 1910: 482-483.

Type: *Polyommatus labradus* Godart 1824 (fixed by author).

*Z. otis otis* (Fabricius) 1787. China.

*Z. OTIS LABRADUS* (Godart) 1824

*Polyommatus labradus* Godart 1824, Ency. Meth. Hist. nat. (Zool.) 9 (2): 680. *Lycaena labradus* Boisduval 1832 in d'Urville Voy. "Astrolabe" Entom. 1 (Lepid.): 85. *Cupido labradus* Kirby 1871, Synon. Catal. diurn. Lepid.: 373. Masters 1873, Catal. diurn. Lepid. Aust.: 20. *Lycaena labradus* Miskin 1891, Ann. Queensl. Mus. 1: 62-63 (pt.). *Zizera labradus* Butler 1900, Proc. zool. Soc. Lond. 1900: 110 (pt.). Waterhouse 1903, Proc. linn. Soc. N.S.W. 28 (1): 214-215. pl. 3, f. 29. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 26. Rainbow 1907, Guide study Aust. Butt.: 134-136, text f. 86, 87 (early stages). pl. 3, f. 15. *Zizina labradus* Waterhouse and Lyell 1914, Butt. Australia: 105. pl. 17, f. 380, 381. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Zizera l. labradus* Seitz 1924, Grossschmett. Erde 9: 926. pl. 153d (4, 5, 6). *Zizina labradus* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 121. Tillyard 1926, Ins. Australia and N. Zeal.: 466. *Zizera labradus* Seitz 1927, Grossschmett. Erde 9: 1115. *Zizeeria l. labradus* Waterhouse 1932, What Butt. is that?: 162, pl. 22, f. 14, 14A. *Zizeeria labradus* Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 113, 118 (early stages). *Zizina labradus* Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106.

Type Locality: Port Jackson (Godart).

Holotype and Allotype: Not known.

Distribution: Generally distributed from sea level to 3500 feet. Chapman (1910: 489, 490) equated *otis* to *labradus*, but continued to use the later name for the collective species, which has a vast geographical range, with a correspondingly large nomenclature.

I have not attempted to list the many synonyms for the Australian sub-species.

Genus: NEOLUCIA Waterhouse and Turner 1905, Proc. linn. Soc. N.S.W. 29 (4): 803.

Type: "*Lycaena*" *agricola* Westwood, Waterhouse and Turner 1905 (= *Lucia agricola* Westwood [1851] (fixed by authors)).

#### N. AGRICOLA AGRICOLA (Westwood) [1851]

*Lucia agricola* Westwood [1851] in Doubleday Genera diurn. Lepid. (2): pl. 76, f. 4. *Lycaena agricola* Westwood [1852] *loc. cit.* (2): 496. *Plebeius agricola* Kirby 1871, Synon. Catal. diurn. Lepid.: 376. *Cupido agricola* Masters 1873, Catal. diurn. Lepid. Aust.: 19. Miskin 1891, Ann. Queensl. Mus. 1: 63. *Una agricola* Waterhouse 1903, Proc. linn. Soc. N.S.W. 28 (1): 234-235. pl. 3, f. 26. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 27. *Neolucia agricola* Waterhouse and Turner 1905, Proc. linn. Soc. N.S.W. 29 (4): 803. *Neolucia a. agricola* Waterhouse and Lyell 1914, Butt. Australia: 107, pl. 17, f. 370, 372. *Neolucia agricola* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Lucia a. agricola* Seitz 1926, Grossschmett. Erde 9: 930. pl. 153h (2, 3). *Neolucia agricola* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 121 (pt.). Tillyard 1926, Ins. Aust. and N. Zeal.: 466. *Neolucia a. agricola* Waterhouse 1932, What Butt. is that?: 169. pl. 23, f. 8, 8A. *Neolucia agricola* Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 113, 118 (early stages). Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106 (pt.). *Neolucia a. agricola* Barrett and Burns 1951: 156.

Type Locality: Australia (Westwood). Sydney (Waterhouse 1937.)

Holotype and Allotype: Not known.

Distribution: Northern and eastern areas of the State from sea level to c. 2000 feet.

#### N. AGRICOLA INSULANA Waterhouse and Lyell 1914

*Neolucia agricola insulana* Waterhouse and Lyell 1914, Butt. Australia: 107. pl. 17, f. 371. *Neolucia insulana* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Lucia agricola form insulana* Seitz 1927, Grossschmett. Erde 9: 1115. *Neolucia agricola insulana* Waterhouse 1932, What Butt. is that?: 169.

*agricola* (nec Westwood 1851)

*Neolucia agricola* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 121 (pt.).

Type Locality: Zeehan.

Holotype ♂ and Allotype ♀: Australian Mus.

Distribution: West Coast areas from sea level to c. 2500 feet.

#### N. HOBARTENSIS HOBARTENSIS (Miskin) 1890

*Lycaena hobartensis* Miskin 1890, Proc. linn. Soc. N.S.W. 5 (1): 38-39. ♀. Miskin 1891, Ann. Queensl. Mus. 1: 63. *Una hobartensis* Waterhouse 1903, Proc. linn. Soc. N.S.W. 28 (1): 235-236 ♂. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 28. *Neolucia h. hobartensis*

Waterhouse and Lyell 1914, Butt. Australia: 102. pl. 17, f. 373, 376. *Neolucia hobartensis* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Neolucina* (sic) *hobartensis* Hardy 1918, loc. cit., 1917: 68. *Lucia agricola hobartensis* Seitz 1924, Grossschmett. Erde 9: 930. *Neolucia hobartensis* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 121. Tillyard 1926, Ins. Aust. and N. Zeal.: 466. *Neolucia h. hobartensis* Waterhouse 1932, What Butt. is that?: 170. pl. 23, f. 9, 9A. *Neolucia hobartensis* Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 118 (early stages). Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106.

Type Locality: Hobart (Miskin). Mt. Wellington, near Hobart. (Waterhouse 1928.)

Holotype ♀: Queensland Mus. Neallotype ♂: Australian Mus.

Distribution: Alpine areas from 1000-4200 feet.

#### N. MATHEWI (Miskin) 1890

*Lycaena mathewi* Miskin 1890, Proc. linn. Soc. N.S.W. 5 (1): 38 ♂. Miskin 1891, Ann. Queensl. Mus. 1: 63. *Una mathewi* Waterhouse 1903, Proc. linn. Soc. N.S.W. 28 (1): 234, 236, pl. 2, f. 9. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 28. *Neolucia mathewi* Waterhouse and Lyell 1914, Butt. Australia: 108. pl. 17, f. 384, 385, 386. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Lucia mathewi* Seitz 1924, Grossschmett. Erde 9: 930. *Neolucia mathewi* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 121. Waterhouse 1932, What Butt. is that?: 171. pl. 23, f. 11, 11A. Waterhouse 1937, Rep. Aust. and New Zeal. Ass. adv. Sci. 23: 118 (early stages). Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106.

Type Locality: Sydney (Miskin).

Holotype ♂: Queensland Mus.

Distribution: North-east Tasmania, Flinders Island.

#### N. SERPENTATA SERPENTATA (Herrich-Schäffer) 1869

*Lycaena serpentata* Herrich-Schäffer 1869, Entom. Zeit. Stettin 30: 74. *Plebeius serpentata* Kirby 1871, Synon. Catal. diurn. Lepid.: 360. *Cupido serpentata* Masters 1873, Catal. diurn. Lepid. Aust.: 20. *Lycaena serpentata* Miskin 1891, Ann. Queensl. Mus. 1: 63. *Una serpentata* Waterhouse 1903, Proc. linn. Soc. N.S.W. 28 (1): 238. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 28. *Neolucia serpentata* Waterhouse and Lyell 1914, Butt. Australia: 108. pl. 17, f. 377, 387, 388. *Lucia serpentata* Seitz 1924, Grossschmett. Erde 9: 930. *Neolucia serpentata* Waterhouse 1932, What Butt. is that?: 171-172. pl. 23, f. 12, 12A. Waterhouse 1937, Rep. Aust. and New Zeal. Ass. adv. Sci. 23: 118. *Neolucia s. serpentata* Couchman 1954, Pap. Proc. Roy. Soc. Tasm. 88: 75.

Type Locality: Rockhampton, Queensland.

Holotype and Allotype: Not known.

Distribution: Whitemark, Flinders Island.

## N. SERPENTATA LAVARA Couchman 1954

*Neolucia serpentata lavara* Couchman 1954, Pap. Proc. Roy. Soc. Tas. 88: 75 ♂ ♀.

Type Locality: Cambridge, sea level.

Holotype ♂: Couchman Coll. Allotype ♀: Tasmanian Mus.

Distribution: Coastal mud-flats of the south-eastern area.

## Sub-Family: LUCINAE

Genus: PARALUCIA Waterhouse and Turner 1905, Proc. linn. Soc. N.S.W. 29 (4): 802.

Type: *Lucia pyrodiscus* Rosenstock 1885 (nec Doubleday 1847)  
(= *Chrysophanus aenea* Miskin 1890) (fixed by authors).

## P. AURIFER (Blanchard) [1848]

*Thecla aurifer* Blanchard [1848] in d'Urville Voy. au Pôle Sud, Zool. Atlas Ins.: pl. 3, f. 13, 14. [♂]. Chenu 1869, Ency. Hist. nat. Papillons: 280. f. 489. *Lucia aurifer* Kirby 1871, Synon. Catal. diurn. Lepid.: 337. Masters 1873, Catal. diurn. Lepid. Aust.: 18. *Lycaena aurifer* Butler 1875, Trans. ent. Soc. Lond. 1875 (1): 10. *Chrysophanus aurifer* Miskin 1890, Proc. linn. Soc. N.S.W. 5 (1): 31-32. Miskin 1891, Ann. Queensl. Mus. 1: 48. *Lucia aurifer* Waterhouse 1903, Proc. linn. Soc. N.S.W. 28 (1): 204-205. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 28. *Paralucia aurifer* Waterhouse and Lyell 1914, Butt. Australia: 112. pl. 15, f. 249, 250, 251. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Turner 1926, loc. cit., 1925: 121. *Paralucia aurifera* (sic) Tillyard 1926, Ins. Aust. and New Zeal.: 465. pl. 40, f. 8. *Lucia aurifer* Seitz 1926, Grossschmett. Erde 9: 931. *Paralucia aurifer* Waterhouse 1932, What Butt. is that?: 167. pl. 23, f. 5, 5A. Waterhouse 1937, Rep. Aust. and New Zeal. Ass. adv. Sci. 23: 119 (early stages). Barrett and Burns 1951, Butt. Aust. and New Guinea: 155. pl. 8, f. 11.

*limbaria* (nec Swainson 1833)

*Thecla limbaria* Doubleday 1847, List spec. Lepid. Ins. Brit. Mus. 2: 57. Blanchard 1853 in d'Urville Voy. au Pôle Sud, Zool. 4: 400.

*pyrodiscus* (Leach M.S.)

*Thecla pyrodiscus* (Leach M.S.) Doubleday 1847, List spec. Lepid. Ins. Brit. Mus. 2: 57 (nom. nud.).

*lucanus* (nec Fabricius 1793)

*Zeritis lucanus* Butler [1870] Catal. Lepid. Fabr. Brit. Mus.: 178.

Type Locality: Tasmania (Blanchard). Since Blanchard figured and described other insects from Hobart I designate this the type locality.

Holotype ♂: Not known.

Distribution: Northern, eastern and southern areas from sea level to c. 1100 feet.

Genus: PSEUDALMENUS Druce, H. H., 1902, Proc. zool. Soc. Lond. 1902: 116-117.

Type: *Thecla myrsilus* Doubleday and Hewitson, Druce 1902 (= *Thecla chlorinda* Blanchard [1848] (fixed by author)).

P. CHLORINDA CHLORINDA (Blanchard) [1848]

*Thecla chlorinda* Blanchard [1848] in d'Urville Voy. au Pôle Sud, Zool. Atlas Ins.: pl. 3, f. 15, 16 ♂; 17, 18 ♀. Westwood [1852] in Doubleday Genera diurn. Lepid. (2): 487. Blanchard 1853 in d'Urville Voy. au Pôle Sud, Zool. 4: 401. *Pseudalmenus chlorinda* Waterhouse 1913, Proc. linn. Soc. N.S.W. 37 (4): 701. *Pseudalmenus c. chlorinda* Waterhouse and Lyell 1914, Butt. Australia: 113. pl. [42], f. 863, 864. *Pseudalmenus chlorinda* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Turner 1926, loc. cit. 1925: 121. Tillyard 1926, Ins. Aust. and New Zeal.: 465. *Pseudalmenus c. chlorinda* Waterhouse 1928, Proc. linn. Soc. N.S.W. 53 (4): 410-411. pl. 25, f. 1-4. Waterhouse 1932, What Butt is that?: 192. pl. 26, f. 13. Burns [1948] Mem. Nat. Mus. 15 (1947): 97, 98. *Pseudalmenus chlorinda* Couchman 1948, Rec. Queen Vict. Mus. 2 (2): 95-96. *Pseudalmenus c. chlorinda* Tindale 1953, Rec. South Aust. Mus. 11 (1): 52, 55, pl. 20, f.d.

*myrsilus*

*Ialmenus myrsilus* Doubleday 1847, List spec. Lepid. Ins. Brit. Mus. (2): 28 (nom. nud.). Westwood [1851] in Doubleday Genera diurn. Lepid. (2): pl. 75, f. 3. ♀. *Thecla myrsilus* Westwood [1852] loc. cit. (2): 487. *Ialmenus myrsilus* Kirby 1871, Synon. Catal. diurn. Lepid.: 406. Masters 1873, Catal. diurn. Lepid. Aust.: 21. Olliff 1889, Aust. Butt.: 24. Miskin 1891, Ann. Queensl. Mus. I: 68 (pt.). *Pseudalmenus myrsilus* Waterhouse 1903, Proc. linn. Soc. N.S.W. 28 (1): 260-261 (pt.) pl. 3, f. 23. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 30 (pt.). Froggatt 1907, Aust. Ins.: 222 (pt.). *Ialmenus m. myrsilus* Seitz 1926, Grossschmett. Erde 9: 998. *Ialmenus myrsilus* Hemming 1941, J. Soc. bibliogr. nat. Hist. I (II): 458.

Type Locality: Tasmania (Blanchard). It is certain that the description was based on specimens from the Hobart area, the exact locality is the subject of study now in progress.

Holotype ♂ and Allotype ♀: Not known. As I have noted (1948) the types could not be found in Paris.

Distribution: Hobart district; East Coast; Launceston district.

Family: NYMPHALIDAE

Sub-Family: NYMPHALINAE

Genus: PRECIS Hübner [1819] Verz. bek. Schmett. (3): 33.

Type: *Papilio octavia* Cramer 1777 (fixed by Scudder 1875, Proc. Amer. Acad. Arts Sci. Boston 10: 256).

*P. villida villida* (Fabricius) 1787. Amsterdam Is. (Tongatabu).

P. VILLIDA CALYBE (Godart) 1819.

*Vanessa calybe* Godart 1819, Ency. Meth. Hist. nat. (Zool.) 9 (1): 317. *Precis villida calybe* Waterhouse 1932, What Butt. is that?: 88.



pl. 13, f. 2. *Precis villida* race *calybe* Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 111 (early stages). *Precis villida calybe* Barrett and Burns 1951, Butt. Aust. and N. Guinea: 135.

*villida* (nec Fabricius 1787)

*Precis villida* Butler 1901, Ann. Mag. nat. Hist. (7) 8: 197 (pt.). *Junonia villida* Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 12. Rainbow 1907, Guide study Aust. Butt.: 75-76. text f. 45, 46, 47 (early stages). 63, fig. *Precis v. villida* Fruhstorfer 1912 in Seitz Grossschmett. Erde 9: 521-522. pl. 116e (5, 6). Waterhouse and Lyell 1914, Butt. Australia: 54. pl. 5, f. 25. *Precis villida* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Watkins 1923, Entom. Lond. 56: 205, 206. Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 122. Tillyard 1926, Ins. Aust. and N. Zeal.: 463. pl. 43, f. 13. Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106.

*vellida*

*Junonia vellida* Kirby 1871, Synon. Catal. diurn. Lepid.: 188 (pt.) *Junonisa* (sic) *vellida* Masters 1873, Catal. diurn. Lepid. Aust.: 13. *Junonia vellida* Miskin 1891, Ann. Queensl. Mus. 1: 40.

Type Locality: New Holland (Godart). The Port Jackson district would certainly be the type locality.

Holotype and Allotype: Not known.

Distribution: Northern, eastern and southern areas to c. 1000 feet.

Genus: VANESSA Fabricius 1807, Mag. f. Insekt. (Illiger) 6: 281.

Type: *Papilio atalanta* Linn. 1758 (fixed by Latreille 1810, Consid. gén. Anim. Crust. Arachn. Ins. 440).

*Cynthia* Fabricius 1807, Mag. f. Insekt. (Illiger) 6: 281.

Type: *Papilio cardui* Linn. 1758. (*Vanessa* to have precedence, Intern. Comm. Zool. Nomencl. Opinion 156.)

*Pyrameis* Hübner [1819] Verz. bek. Schmett. (3) 33.

Type: *Papilio atalanta* Linn. 1758 (fixed by Scudder 1875, Proc. Amer. Acad. Arts Sci. Boston 10: 260).

*Bassaris* Hübner [1821] Samml. exot. Schmett. 2: pl. [24].

Type: *Papilio itea* Fabricius 1775 (sole species).

*V. cardui cardui* (Linn.) 1758. Europe.

V. CARDUI KERSHAWI (McCoy) 1868

*Cynthia kershawi* McCoy 1868, Ann. Mag. nat. Hist. (4) 1: 76. *Pyrameis cardui* var. *kershawii* Kirby 1871, Synon. Catal. diurn. Lepid.: 185. *Pyrameis kershawi* McCoy 1890, Nat. Hist. Victoria 2 (20): 363-367. pl. 198, f. 5, 5a, 6, 7, 7a, 7b, 8 (early stages). *Pyrameis kershawii* Miskin 1891, Ann. Queensl. Mus. 1: 39. *Pyrameis kershawi* Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 12. Rainbow 1907, Guide study Aust. Butt.: 63, figs. 70-73. text f. 41 (early stages). Froggatt 1907, Aust. Ins.: 216. *Pyrameis cardui kershawi* Fruhstorfer 1912 in Seitz Grossschmett. Erde 9: 525. Waterhouse and Lyell 1914, Butt. Australia:

56. pl. 5, f. 36. *Pyrameis kershawi* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Pyrameis cardui kershawi* Tillyard 1926, Ins. Aust. and N. Zeal.: 463. Waterhouse 1932, What Butt. is that?: 90. pl. 13, f. 5. *Vanessa cardui kershawi* Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 111 (early stages). *Pyrameis cardui kershawi* Barrett and Burns 1951, Butt. Aust. and N. Guinea: 134.

*cardui* (nec Linn. 1758)

*Pyrameis cardui* Froggatt 1907, Aust. Ins.: pl. 20, f. 6. Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 122. Turner 1939, *loc. cit.*, 1938: 106.

Type Locality: "about Melbourne and in many other parts of Australia" (McCoy). Melbourne thus is the type locality.

Holotype and Allotype: The National Museum of Victoria has two females in the Lyell Coll., one or the other of which may be the original specimen. The first, without antennae, bears a label "Victorian", which my friend A. N. Burns believes to be in the handwriting of W. Kershaw. The second, probably a female, without head, body or antennae, is labelled "*Pyrameis kershawi* (McCoy). Near Melbourne. Drawing 67." A careful search has revealed no other specimen that could possibly be the holotype, it seems that although damaged the latter is more likely to be McCoy's original specimen.

Distribution: Throughout the State from sea level to c. 3000 feet.

#### V. ITEA (Fabricius) 1775

*Papilio itea* Fabricius 1775, Syst. Entom.: 498. Fabricius 1781, Spec. Ins. 2: 82. Fabricius 1787, Mant. Ins. 2: 45. Fabricius 1793, Entom. Syst. 3 (1): 103. Donovan 1805, Epit. nat. Hist. Ins. New. Holl.: [57]. pl. 26, f. 1. *Vanessa itea* Godart 1819, Ency. Meth. Hist. nat. (Zool.) 9 (1): 321. *Bassaritis itea* Hübner [1821] Samml. exot. Schmett. 2: pl. [24]. *Vanessa itea* Boisduval 1832 in d'Urville Voy. Astrolabe Entom. I (Lepid.): 121. *Pyrameis itea* Butler [1870] Catal. diurn. Lepid. Fabr. Brit. Mus.: 78. Kirby 1871, Synon. Catal. diurn. Lepid.: 185. McCoy 1890, Nat. Hist. Victoria 2 (20): 361-363. pl. 198, f. 1, 1a-1e, 2, 3, 3a, 4 (early stages). Miskin 1891, Ann. Queensl. Mus. 1: 39. Waterhouse 1903, Mem. N.S.W. Natur. Club I: II. Rainbow 1907, Guide study Aust. Butt.: 67-68, 70. text f. 38, 39, 40 (early stages). Froggatt 1907, Aust. Ins.: 216. pl. 20, f. 5. Fruhstorfer 1912 in Seitz Grossschmett. Erde 9: 526. pl. 117d (5), 117e (1). Waterhouse and Lyell 1914, Butt. Australia: 56. pl. 5, f. 34. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Hardy 1918, *loc. cit.*, 1917: 68. Watkins 1923, Entom. Lond. 56: 205, 206. Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 122. Tillyard 1926, Ins. Aust. and N. Zeal.: 463. pl. 40, f. 12. *Papilio itea* Gabriel 1927, Catal. Type spec. Lepid. Rhop. Brit. Mus. 3: 65. *Pyrameis itea* Waterhouse 1932, What Butt. is that?: 90. pl. 13, f. 6. *Vanessa itea* Waterhouse 1937, Rep. Aust. and N. Zeal.

Ass. adv. Sci. 23: 111 (early stages). *Pyrameis itea* Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106. Barrett and Burns 1951, Butt. Aust. and N. Guinea: 134-135. text f.

Type Locality: New Zealand (Fabricius).

Holotype ♂: Brit. Mus. (Nat. Hist.).

Distribution: Throughout the State from sea level to c. 3000 feet.

## Family: DANAIDAE

### Sub-Family: DANAINAE

Genus: DANAUS Kluk 1780, Zwierz. Hist. nat. pocz. gospod. 4: 84.

Type: *Papilio plexippus* Linn. 1758 (fixed by Hemming 1933, Entom. Lond. 66: 222).

*Danaida* Latreille 1804, Nouv. Dict. Hist. nat. 24: 185, 199.

Type: *Danaida plexippus* Fabr., Latreille 1804 (= *Papilio plexippus* Linn. 1758).

*Danaïs* Latreille 1807, Mag. f. Insekt. (Illiger) 6: 291.

Type: *Papilio plexippus* Linn. 1758.

### D. PLEXIPPUS PLEXIPPUS (Linn.) 1758

*Papilio plexippus* Linn. 1758, Syst. Nat. ed. 10: 471. Cramer 1779, Utitl. Kapellen 3 (8): 24. pl. 206, f. E, F. *Anosia plexippus* Walker 1886, Entom. mon. Mag. 22: 220. *Danaïs plexippus* Olliff 1889, Aust. Butt.: 9-10, text f. *Danaida plexippus* Waterhouse 1932, What Butt. is that?: 70-71 (early stages). pl. 11, f. 1. *Danaus plexippus* Pearse 1938 in Dannreuther, Entom. Lond. 71: 237. Dannreuther 1941, loc. cit., 79: 189. Pearse 1943 in Dannreuther, loc. cit., 76: 262. *Danaida plexippus* Evans 1943, Insect Pests: 80. Barrett and Burns 1951, Butt. Aust. and N. Guinea: 70-72. text f. *Papilio plexippus* Linn. Intern. Comm. Zool. Nomencl. Opinion 282, 1954; 6 (14): 225-268. pl. 2.

*archippus* (nec Cramer 1775)

*Danaïs archippus* Miskin 1871, Entom. mon. Mag. Lond. 8: 17. *Danaida archippus* Waterhouse and Lyell 1914, Butt. Australia: 16. pl. 1, f. 1. Tillyard 1926, Ins. Aust. and N. Zeal.: 461-462. text f. Z65, 66 (early stages). *Danaida a. archippus* Hulstaert 1931 in Wytsmann Genera Ins. 193: 21.

*erippus* (nec Cramer 1775)

*Danaïs erippus* Miskin 1891, Ann. Queensl. Mus. 1: 23-24.

*menippe*

*Danaus* (*Anosia*) *menippe* Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 8. Rainbow 1907, Guide study Aust. Butt.: 44-46, 47, text f. pl. 1. text f. 21, 22 (early stages). *Danaïs menippe* Froggatt 1907, Aust. Ins.: 214.

*curassavicae*

*Danaus* (*Anosia*) *curassavicae* Bryk 1937, Lepid. Catal. 78: 42-47.

Type Locality: Kendall, New York State.

Neotype ♂: U.S. National Mus.

Distribution: Specimens have been noted in the Tasmanian and Queen Victoria Museums.

This species, known for a number of years as an occasional visitor, has suffered more than any butterfly in the world through disagreement as to its correct specific name. In Australia at various times *plexippus*, *archippus*, *erippus* and *menippe* have been in use, only *curasavicae* seems to have been left unused.

The name was fixed when the International Commission on Zoological Nomenclature accepted Corbet's proposal at its Paris meeting in July, 1948, that *plexippus* should be retained for the North American Monarch butterfly, not for the Oriental species. Subsequent discussion is merely academic, apart from the Commission's error in selecting Holland's figure of a South American specimen in the belief that it was actually the North American subspecies. This action has now been rectified, and a neotype selected and figured. The example is from New York State, figured in 1941 by Clark, H. A. "Notes on some North and Middle American Danaid Butterflies" (Proc. U.S. nat. Mus. 90: 533-536. pl. 71, f. 1.).

Tindale's remarks (1953, Rec. South Aust. Mus. 11 (1): 60) regarding this insect are erroneous, Corbet (1949, Proc. R. ent. Soc. Lond. (B) 18 (9/10): 184-190) did not select as lectotype a Chinese specimen in the Linnean Coll., actually it was Corbet's application, made in November 1947, for the restriction of the name *plexippus* to the North American butterfly which was accepted by the Commission some months later.

I have given the Tasmanian and the more important Australian references, the complete generic and specific references are listed by Hulstaert, Bryk and in the International Commission's Opinion 282.

### Family: SATYRIDAE

Genus: NESOXENICA Waterhouse and Lyell 1914, Butt. Australia: 35.

Type: *Nesoxenica leprea* Hewitson, Waterhouse and Lyell 1914 (= *Lasiommata leprea* Hewitson 1864) (sole species).

*Xeniconympha* Novickij 1923, Sborn. ent. Odd. nár. Mus. Praze 1: 60.

Type: *Lasiommata leprea* Hewitson 1864 (fixed by author).

### N. LEPREA LEPREA (Hewitson) 1864

*Lasiommata leprea* Hewitson 1864, Trans. ent. Soc. Lond. (3) 2: 249. pl. 16, f. 6, 7 ♀. *Argynnina leprea* Butler 1868, Catal. Satyridae Brit. Mus.: 166. *Xenica leprea* Kirby 1871, Synon. Catal. diurn. Lepid.: 76. Masters 1873, Catal. diurn. Lepid. Aust.: 15. *Argynnina leprea* Semper 1879, J. Mus. Godeffroy 5 (14): 189. *Xenica leprea* Olliff 1889, Aust. Butt.: 20. Miskin 1891, Ann. Queensl. Mus. 1: 30. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 18. *Xenica lepera* (sic) Fruhstorfer 1911 in Seitz Grossschmett. Erde 9: 304. *Nesoxenica l. leprea* Waterhouse and Lyell 1914, Butt. Australia: 36. pl. 12, f. 131. *Nesoxenica leprea* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Xeniconympha leprea* Novickij 1923, Sborn. ent. Odd. nár. Mus. Praze 1: 60. *Lasiom-*

*mata leprea* Riley and Gabriel 1924, Catal. Type spec. Lepid. Rhop. Brit. Mus. 1: 31. *Nesoxenica leprea* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 81 (pt.), 122 (pt.). Tillyard 1926, Ins. Aust. and N. Zeal.: 462, pl. 43, f. 8. *Xenica leprea* Gaede 1931 in Strand Lepid. Catal. 43: 82. *Nesoxenica l. leprea* Waterhouse 1932. What Butt. is that?: 120. pl. 17, f. 12. *Xeniconympha leprea* Waterhouse 1936, Proc. R. ent. Soc. Lond. (B) 5 (9): 173 (*Xeniconympha* a syn. of *Nesoxenica*). *Nesoxenica leprea* Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 107. *Nesoxenica l. leprea* Couchman 1946, Pap. Proc. Roy. Soc. Tasm. 1945: 49. Barrett and Burns 1951, Butt. Aust. and N. Guinea: 55-56. pl. 3, f. 5.

Type Locality: Australia (Hewitson). I have earlier (1946) suggested that the original specimen came from Mt. Wellington at about 2500 feet, I designate this as the type locality.

Holotype ♀: Brit. Mus. (Nat. Hist.).

Distribution: Mt. Wellington, 1500-3000 feet; Esperance River area c. 300 feet; Hastings Caves district c. 500 feet; National Park, 1000-2500 feet.

#### N. LEPREA ELIA Waterhouse and Lyell 1914

*Nesoxenica leprea elia* Waterhouse and Lyell 1914, Butt. Australia: 36. pl. 12, f. 132, 133 ♂ ♀. *Nesoxenica elia* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Hardy 1918, *loc. cit.*, 1917: 67, 68. *Nesoxenica leprea elia* Waterhouse 1932. What Butt. is that?: 121. pl. 17, f. 13. Couchman 1946, Pap. Proc. Roy. Soc. Tasm. 1945: 50. *Nesoxenica leprea* race *elia* Barrett and Burns 1951, Butt. Aust. and N. Guinea: 55. *leprea* (nec Hewitson 1864)

*Neoxenica* (sic) *leprea* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 145. *Nesoxenica leprea* Turner 1926, *loc. cit.* 1925: 81 (pt.), 122 (pt.).

Type Locality: Mt. Dundas. Mt. Magnet. (Waterhouse and Lyell.) The holotype male and allotype female came from Mt. Dundas. I designate this the type locality.

Holotype ♂ and Allotype ♀: Australian Mus.

Distribution: Cradle Mt. to Lake St. Clair west to Mt. Dundas, from c. 2500-3850 feet.

Genus: HETERONYMPHA Wallengren 1858, Öfv. Svenska Vet.-Akad. Förhandl. 15: 78.

Type: *Heteronympha merope* Fabricius, Wallengren (= *Papilio merope* Fabricius 1775). (If not selected by the author, the type species was validly fixed by Butler, 1868: 99-100, when Butler selected *merope* Fabr. as the type of his genus *Hipparchioides* and himself rejected the latter as a synonym of *Heteronympha* Wallengren.)

*Hipparchioides* Butler 1867, Ann. Mag. nat. Hist. (3) 19: 125.

Type: *Hipparchioides merope* Fabr., Butler (= *Papilio merope* Fabricius 1775) (fixed by Butler, 1868: 99).

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HETERONYMPHA Wallengren 1858. Type: *Papilio merope* Fabr. (fixed by Butler 1868, Entom. mon. Mag. 4: 195).

*H. merope merope* (Fabricius) 1775. New Holland (Fabr.). This was one of the species undoubtedly taken during Cook's stay in Botany Bay.

#### H. MEROPE SALAZAR Fruhstorfer 1911

*Heteronympha merope salazar* Fruhstorfer 1911 in Seitz Grossschmett. Erde 9: 305. Waterhouse and Lyell 1914, Butt. Australia: 37. *Heteronympha salazar* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Heteronympha merope* var. *salazar* Gaede 1931 in Strand Lepid. Catal. 43: 83. *Heteronympha merope salazar* Waterhouse 1932, What Butt. is that?: 101.

*merope* (nec Fabricius 1775)

*Hipparchioides merope* Butler 1867, Ann. Mag. nat. Hist. (3) 19: 126 (pt.). *Heteronympha merope* Kirby 1871, Synon. Catal. diurn. Lepid.: 79 (pt.). Masters 1873, Catal. diurn. Lepid. Aust.: 16 (pt.). Miskin 1891, Ann. Queensl. Mus. 1: 31-32 (pt.). Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 16 (pt.). Rainbow 1907, Guide study Aust. Butt.: 104-107 (pt.) (early stages). Froggatt 1907, Aust. Ins.: 218 (pt.). Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 121. Turner 1939, *loc. cit.*, 1938: 106.

Type Locality: Tasmania (Fruhstorfer). I designate Hobart as the type locality.

Holotype: Not known.

Distribution: Generally distributed from sea level to c. 2500 feet.

*H. penelope penelope* Waterhouse 1937. Barrington Tops, N.S.W.

#### H. PENELOPE DIEMENI Waterhouse 1937

*Heteronympha penelope diemeni* Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (5/6): 258 ♂ ♀. *Heteronympha penelope diemani* (sic) Barrett and Burns 1951, Butt. Aust. and N. Guinea: 67. *Heteronympha penelope diemeni* Tindale 1952, Trans. Roy. Soc. South Aust. 75: 25, 27.

*philerope* (nec Boisduval 1832)

*Heteronympha philerope* Masters 1873, Canal. diurn. Lepid. Aust.: 16 (pt.). Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 17 (pt.). Fruhstorfer 1911 in Seitz Grossschmett. Erde 9: 305 (pt.). Waterhouse and Lyell 1914, Butt. Australia: 39 (pt.). Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146 (pt.). Turner 1926, *loc. cit.* 1925: 121 (pt.). Waterhouse 1932, What Butt is that?: 99 (pt.). Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106 (pt.).

Type Locality: New Norfolk near Hobart. (Waterhouse.)

Holotype ♂ and Allotype ♀: Australian Mus.

Distribution: North-west, North and Eastern coastal areas from sea level to c. 2000 feet.

## H. PENELOPE PANOPE Waterhouse 1937

*Heteronympha penelope panope* Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (5-6): 258 ♂. Tindale 1952, Trans. Roy. Soc. South Aust. 75: 25, 27.

*philerope* (nec Boisdual 1832)

*Heteronympha philerope* Waterhouse and Lyell 1914, Butt. Australia: 39 (pt.). Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146 (pt.). Hardy 1918, *loc. cit.*, 1917: 68. Turner 1926, *loc. cit.*, 1925: 121 (pt.). Waterhouse 1932, What Butt. is that?: 99 (pt.). Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106 (pt.).

Type Locality: Cradle Mt., Tasmania, 2000 feet. (Waterhouse.)

Holotype ♂: Australian Mus.

Distribution: Central and Western Mountain plateau from 2000 to 3500 feet, Strahan at sea level.

*H. cordace cordace* (Geyer) 1832. Mountain ranges of southern N.S.W. (Couchman 1954).

## H. CORDACE LEGANA Couchman 1954

*Heteronympha cordace legana* Couchman 1954, Pap. Proc. Roy. Soc. Tasm. 88: 74. ♂ ♀.

*cordace* (nec Geyer 1832)

*Heteronympha cordace* Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106 (pt.).

Type Locality: Lake Leake, 1900-2100 feet.

Holotype ♂ and Allotype ♀: Hobart, Couchman Coll.

Distribution: North-eastern areas at c. 1500-2500 feet.

## H. CORDACE KURENA Couchman 1954

*Heteronympha cordace kurena* Couchman 1954, Pap. Proc. Roy. Soc. Tasm. 88: 73-74 ♂ ♀.

*cordace* (nec Geyer 1832)

*Heteronympha cordace* Hardy 1918, Pap. Proc. Roy. Soc. Tasm. 1917: 68. Turner 1926, *loc. cit.*, 1925: 121 (pt.). Waterhouse 1932, What Butt. is that?: 102 (pt.). Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106 (pt.). Burns [1948] Mem. Nat. Mus. 15 (1947): 90 (pt.). *Heteronympha c. cordace* Barrett and Burns 1951, Butt. Aust. and N. Guinea: 67-68 (pt.).

Type Locality: Cuvier River, 2500 feet.

Holotype ♂ and Allotype ♀: Hobart, Couchman Coll.

Distribution: Western plateau from the Dee River, 2200 feet to Derwent Bridge and Cradle Mt., 2400-3000 feet.

## H. CORDACE COMPTENA Couchman 1954

*Heteronympha cordace comptena* Couchman 1954, Pap. Proc. Roy. Soc. Tasm. 88: 71-73. pl. 1. f. 3, 4 ♂ ♀.

*cordace* (nec Geyer 1832)

*Heteronympha cordace* Waterhouse and Lyell 1914, Butt. Australia: 40 (pt.). Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Turner 1926, *loc. cit.*, 1925: 121 (pt.). Waterhouse 1932, What Butt is that?: 102 (pt.). Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106 (pt.).

Type Locality: Strahan, sea level.

Holotype ♂ and Allotype ♀: Hobart, Couchman Coll.

Distribution: West and South coastal areas from Strahan to Dover, sea level to c. 500 feet.

Genus: ARGYNNINA Butler 1867, Ann. Mag. nat. Hist. (3) 19: 165.

Type: *Lasiommata hobartia* Westwood [1851] (fixed by Butler 1868, Entom. mon. Mag. 4: 196.)

## A. HOBARTIA (Westwood) [1851]

*Lasiommata hobartia* Westwood [1851] in Doubleday Genera diurn. Lepid. (2): 387 ♀. *Argynnina hobartia* Butler 1867, Ann. Mag. nat. Hist. (3): 19: 165. Butler 1868, Catal. Satyridae Brit. Mus.: 165. *Xenica hobartia* Kirby 1871, Synon. Catal. diurn. Lepid.: 76. Masters 1873, Catal. diurn. Lepid. Aust.: 15. Miskin 1891, Ann. Queensl. Mus. 1: 30 (pt.). Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 17 (pt.). Rainbow 1907, Guide study Aust. Butt.: 113-114 (pt.). text f. 71 (early stages) (nec. plate). Fruhstorfer 1911 in Seitz Grossschmett. Erde 9: 304 (nec plate). *Argynnina h. hobartia* Waterhouse and Lyell 1914, Butt. Australia: 40. pl. [40], f. 826. *Argynnina hobartia* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Waterhouse 1923, Proc. linn. Soc. N.S.W. 48 (1): 18 (early stages). *Lasiommata hobartia* Riley and Gabriel 1924, Catal. Type spec. Lepid. Rhop. Brit. Mus. 1: 25. *Arginnina* (sic) *hobartia* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 82. *Xenica hobartia* Gaede 1931 in Strand Lepid. Catal. 43: 81 (pt.). *Argynnina h. hobartia* Waterhouse 1932, What Butt is that?: 119. pl. 17, f. 9. *Lasiommata hobartia* Hemming 1941, J. Soc. bibliogr. nat. Hist. 1 (11): 455. *Argynnina hobartia* Couchman 1946, Pap. Proc. Roy. Soc. Tasm. 1945: 50.

*lasus*

*Lasiommata lasus* Hewitson 1864, Trans. ent. Soc. Lond. (3) 2: 248. pl. 16, f. 5.

Type Locality: Van Diemen's Land. (Westwood.) As suggested by the name, Westwood's specimen evidently came from Hobart. I designate this the type locality.

Holotype ♀: Brit. Mus. (Nat. Hist.).

Distribution: Northern, eastern and southern areas, at altitudes from sea level to c. 2500 feet, extending westward to Derwent Bridge.



## A. TASMANICA (Lyell) 1900

*Xenica tasmanica* Lyell 1900, Vict. Nat. 17: 110-112. pl. [2], f. [1-3] ♂ ♀. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 17. Fruhstorfer 1911 in Seitz Grossschmett. Erde 9: 304. *Argynnina tasmanica* Waterhouse and Lyell 1914, Butt. Australia: 41. pl. 12, f. 127, 128. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Hardy 1918, *loc. cit.*, 1917: 68. *Arginnina* (sic) *tasmanica* Turner 1926, *loc. cit.*, 1925: 122. *Argynnina tasmanica* Tillyard 1926, Ins. Aust. and N. Zeal.: 462. pl. 43, f. 9. *Xenica tasmanica* Gaede 1931 in Strand Lepid. Catal. 43: 82. *Argynnina tasmanica* Waterhouse 1932, What Butt. is that?: 120. pl. 17, f. 10. Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 107. Couchman 1948, Rec. Queen Vict. Mus. 2 (2): 93-94.

Type Locality: Strahan.

Holotype ♂ and Allotype ♀: Australian Mus.

Distribution: West Coast areas from sea level to 3000 feet.

Genus: OREIXENICA Waterhouse and Lyell 1914, Butt. Australia: 41.

Type: *Oreixenica lathoniella* Westwood, Waterhouse and Lyell (= *Lasiommata lathoniella* Westwood [1851]) (fixed by authors).

Gaede (1931: 167) attributes this genus to Hardy (1916) and includes as the only species *flynni* Hardy (1916), a curious error.

*O. orichora orichora* (Meyrick) 1885. Mt. Kosciusko, N.S.W.

## O. ORICHORA FLYNNI Hardy 1916

*Oreixenica flynni* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 145, 146 ♀. Hardy 1918, *loc. cit.*, 1917: 67, 68. *Oreixenica orichora flynni* Tindale 1923, Trans. Roy. Soc. South Aust. 47: 342. pl. 28, f. 4-6 ♂. *Oreixenica flynni* Gaede 1931 in Strand Lepid. Catal. 43: 167. *Oreixenica orichora flynni* Waterhouse 1932, What Butt. is that?: 118. Couchman 1946, Pap. Proc. Roy. Soc. Tasm. 1945: 50. *Oreixenica orichora* race *flynni* Barrett and Burns 1951, Butt. Aust. and N. Guinea: 51. *Oreixenica orichora flynni* Couchman 1953, Proc. R. ent. Soc. Lond. (B) 22 (5/6): 84.

*orichora* (nec Meyrick 1885)

*Oreixenica orichora* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 122.

Type Locality: Cradle Mountain, 3000 feet (Hardy) ♀. Cradle Mountain at about 2000 feet. (Tindale) ♂.

Holotype ♀: Australian Mus. Neallotype ♂: South Aust. Mus.

Distribution: Western mountains from Cradle Mt. to Mt. Rufus, at altitudes of 2400-3400 feet.

## O. PALUDOSA (Lucas) 1892

*Xenica paludosa* Lucas 1892, Proc. Roy. Soc. Queensl. (1891-1892) 8 (3): 71-73 ♂ ♀. Lyell 1900, Vict. Nat. 17: 112. *Xenica lathoniella paludosa* Fruhstorfer 1911 in Seitz Grossschmett. Erde 9: 304 (pt.).

*Xenica lathoniella* var. *paludosa* Gaede 1931 in Strand Lepid. Catal. 43: 82 (pt.). *Oreixenica paludosa* Couchman 1953, Proc. R. ent. Soc. Lond. (B) 22 (5/6): 73-75.

Type Locality: Near Launceston. (Lucas.)

Holotype and Allotype: Not known. When discussing this species in 1953 I showed that Lucas' description was applicable only to a female of the *latialis* or *ptunarra* pattern and must not be regarded as a synonym of *lathoniella*, as hitherto placed by authors.

The reasons then given for not accepting the specimens in the South Australian Mus. labelled "probable type" and "probable co-type" (labelled as a result of my enquiries in 1947) I believe are still unanswerable, particularly in regard to the disparity in size when compared with Lucas' description, the absence of data and the form of pinning and setting.

The exact locality remains unknown, but subsequent collecting in the western alpine areas convinces me it may still be possible to find an insect approximating Lucas' description and size, in the alpine areas between the valley of the South Esk River and the north-eastern coastline.

#### O. LATHONIELLA LATHONIELLA (Westwood) [1851]

*Lasiommata?* *lathoniella* Westwood [1851] in Doubleday Genera diurn. Lepid. (2): 387 ♂. *Argynmina lathoniella* Butler 1867, Ann. Mag. nat. Hist. (3): 166. pl. 4, f. 6 (neururation). Butler 1868, Catal. Satyridae Brit. Mus. 1: 165. *Xenica lathoniella* Kirby 1871, Synon. Catal. diurn. Lepid.: 76. Masters 1873, Catal. diurn. Lepid. Aust.: 15. Miskin 1891, Ann. Queensl. Mus. 1: 30 (pt.). Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 17 (pt.). Rainbow 1907, Guide study Aust. Butt.: 114-115 (pt.). *Oreixenica l. lathoniella* Waterhouse and Lyell 1914, Butt. Australia: 42. pl. [40], f. 821, 822. *Oreixenica lathoniella* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. *Xenica lathoniella* Novickij 1923, Sborn. ent. Odd. nár. Mus. Praze 1: 60 (Fiji ! Err. det.). *Oreixenica lathoniella* Waterhouse 1923, Proc. linn. Soc. N.S.W. 48 (1): 18 (early stages). *Lasiommata lathoniella* Riley and Gabriel 1924, Catal. Type spec. Lepid. Rhop. Brit. Mus. 1: 30. *Oreixenica lathoniella* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 81, 122. Tillyard 1926, Ins. Aust. and N. Zeal.: 462. *Xenica lathoniella* Gaede 1931 in Strand Lepid. Catal. 43: 82 (pt.). *Oreixenica l. lathoniella* Waterhouse 1932, What Butt. is that?: 115. pl. 17, f. 2. *Xenica lathoniella* Waterhouse 1936, Proc. R. ent. Soc. Lond (B) 5 (9): 173 (note on Novickij 1923). *Oreixenica lathoniella* Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 58 (pt.), 106 (pt.). *Lasiommata?* *lathoniella* Hemming 1941, J. Soc. bibliogr. nat. Hist. 1 (11): 456. *Oreixenica l. lathoniella* Barrett and Burns 1951, Butt. Aust. and N. Guinea: 53-54. Couchman 1953, Proc. R. ent. Soc. Lond. (B) 22 (5/6): 73, 82, 83.

*paludosa* (nec Lucas 1892)

*Oreixenica lathoniella paludosa* Fruhstorfer 1911 in Seitz Grossschmett. Erde 9: 304 (pt.).

*barnardi*

*Oreixenica lathoniella* race *barnardi* Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 81-82.

Type Locality: Van Diemen's Land (Westwood) "the neighbourhood of Hobart" (Waterhouse and Lyell).

Holotype ♂: Brit. Mus. (Nat. Hist.).

Distribution: Northern, eastern and southern areas from sea level to 3500 feet.

## O. LATHONIELLA f. MAWEENA Couchman 1953

*Oreixenica lathoniella* f. *maweena* Couchman 1953, Proc. R. ent. Soc. Lond. (B) 22 (5/6): 82, 83 ♀.

Type Locality: Knocklofty, Tas., 750 feet.

Holotype ♀: Hobart, Couchman Coll.

Distribution: Throughout the State, in all subspecies and at all altitudes.

## O. LATHONIELLA LARANDA Waterhouse and Lyell 1914

*Oreixenica lathoniella laranda* Waterhouse and Lyell 1914, Butt. Australia: 42, pl. 12, f. 134: pl. [40], f. 834 ♂ ♀. *Oreixenica laranda* Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Turner 1926, *loc. cit.*, 1925: 82, 122. *Xenica lathoniella* var. *laranda* Gaede 1931 in Strand Lepid. Catal. 43: 82. *Oreixenica lathoniella laranda* Waterhouse 1932, What Butt. is that?: 116, pl. 17, f. 3. *Oreixenica lathoniella* race *laranda* Barrett and Burns 1951, Butt. Aust. and N. Guinea: 53. *Oreixenica lathoniella laranda* Couchman 1953, Proc. R. ent. Soc. Lond. (B) 22 (5/6): 73, 82, 83.

*lathoniella* (nec Westwood [1851])

*Oreixenica lathoniella* Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 58 (pt.).

Type Localities: Zeehan. Mt. Magnet. (Waterhouse and Lyell.) The holotype and allotype are labelled Zeehan. I nominate this as the type locality.

Holotype ♂ and Allotype ♀: Australian Mus.

Distribution: Western and south-western coastal areas from Waratah to Port Davey.

## O. PTUNARRA PTUNARRA Couchman 1953

*Oreixenica ptunarra ptunarra* Couchman 1953, Proc. R. ent. Soc. Lond. (B) 22 (5/6): 77-78, 81, 82, 83, 84 ♂ ♀. Couchman 1954, Pap. Proc. Roy. Soc. Tasm. 88: 75, pl. 1, f. 5, 6.

Type Locality: Miena, 3300 feet.

Holotype ♂ and Allotype ♀: Hobart, Couchman Coll.

Distribution: Great Lake area at altitudes above 2700 feet.

## O. PTUNARRA ROONINA Couchman 1953

*Oreixenica ptunarra roonina* Couchman 1953, Proc. R. Ent. Soc. Lond. (B) 22 (5/6): 78-79, 81, 82 ♂ ♀.

Type Locality: Mike Howes Marsh, 2100 feet.

Holotype ♂ and Allotype ♀: Hobart, Couchman Coll.

Distribution: Restricted to the type locality, specimens from Old Man's Head, 3350 feet; Interlaken and the Steppes, 2700 feet, are referable to *pt. ptunarra*.

## O. PTUNARRA ANGELI Couchman 1953

*Oreixenica ptunarra angeli* Couchman 1953, Proc. R. ent. Soc. Lond. (B) 22 (5/6): 79-80, text f. 2; 80 (early stages) ♂ ♀.

Type Locality: Lake Leake, 1800-2100 feet.

Holotype ♂ and Allotype ♀: Hobart, Couchman Coll.

Distribution: Lake Leake area at c. 2000 feet.

Genus: GEITONEURA Butler 1867, Ann. Mag. nat. Hist. (3) 19: 164-165.

Type: *Satyrus klugii* Guérin-Ménéville [1830] (fixed by Butler 1868, Catal. Satyridae Brit. Mus.: 166).

*Xenica* (Auctorum nec. Westwood [1851])

## G. KLUGII KLUGII Guérin-Ménéville [1830]

*Satyrus klugii* Guérin-Ménéville [1830] in Duperrey Voy. Coquille (Ins.) Atlas: pl. 17, f. 2 ♀. *Xenica klugii* Masters 1873, Catal. diurn. Lepid. Aust.: 15. Miskin 1891, Ann. Queensl. Mus. 1: 30. Waterhouse 1903, Mem. N.S.W. Natur. Club 1: 17. *Xenica kluggi* Rainbow 1907, Guide study Aust. Butt.: 110, 112-113. pl. 3, f. 1 (as *Xenica klugii*) *Xenica klugi* Fruhstorfer 1911 in Seitz Grossschmett. Erde 9: 304. pl. 93c (5). Waterhouse and Lyell 1914, Butt. Australia: 44. pl. 12, f. 137, 138. [40], f. 825. Hardy 1916, Pap. Proc. Roy. Soc. Tasm. 1916: 146. Waterhouse 1923, Proc. linn. Soc. N.S.W. 48 (1): 19 (early stages). Turner 1926, Pap. Proc. Roy. Soc. Tasm. 1925: 122. Tillyard 1926, Ins. Aust. and N. Zeal.: 462. *Xenica klugii* Gaede 1931 in Strand Lepid. Catal. 43: 81-82. *Xenica klugi* Waterhouse 1932, What Butt. is that?: 104. pl. 15, f. 11. Waterhouse 1937, Rep. Aust. and N. Zeal. Ass. adv. Sci. 23: 107. Waterhouse 1937, Proc. linn. Soc. N.S.W. 62 (5/6): 256. Turner 1939, Pap. Proc. Roy. Soc. Tasm. 1938: 106. *Geitoneura klugii* Couchman 1946, loc. cit., 1945: 51. *Geitoneura klugi klugi* Barrett and Burns 1951, Butt. Aust. and N. Guinea: 60-61 (early stages).

*Satyrus singa* Boisduval 1832 ♂ and *Satyrus philerope* Boisduval 1832 ♀ (nec ♂) are synonyms referable to the form found in the Port Jackson area.

Type Locality: Blue Mts., N.S.W. (Waterhouse 1937).

Holotype ♀: Not known.

Distribution: Throughout the State from sea level to 2500 feet.

There has been some doubt regarding the date of appearance of Guérin's plate 17, which Guérin himself, on p. 271 of the text, shows as published in Livraison 19, in November-December 1830. Mr. A. Musgrave, to whom I am indebted for this information, proposes to publish a short note on this question.

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Butler 1868, Entom. mon. Mag. 4: 196).

GEITONEURA Butler 1867. Type: *Satyrus klugii* Guérin-Ménéville [1830] (fixed by

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