

09 BUTTERFLIES (LEPIDOPTERA: PAPILIONOIDEA)

CHECKLIST RESERVA BIOLÓGICA SAN FRANCISCO (PROV. ZAMORA-CHINCHIPE, S. ECUADOR)

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INTRODUCTION

Because of their diurnal activity, conspicuousness, and aesthetic appeal, butterflies represent the best studied group among all Lepidoptera. This is reflected in the level of our knowledge of both their taxonomy and their distribution and ecology. Butterflies are usually defined as comprising both the regular butterflies (superfamily Papilionoidea), which form a monophyletic clade containing the five families Papilionidae, Pieridae, Nymphalidae, Riodinidae, and Lycaenidae, and the skippers (superfamily Hesperioidea) (Scoble 1992, Kristensen 1999). The latter group, although very species-rich and often abundant in the Neotropics and hence in the study area, has not been included for the purpose of this checklist. Contrary to most moths (see Fiedler *et al.*, this volume), reasonably reliable species inventories are available for butterflies for most Neotropical countries and some regions, but such lists at the local level remain scarce, especially so for montane Andean rain forests (as opposed to the better explored but species-poor *paramós*).

METHODS

In the research projects targeting Lepidoptera diversity in the RBSF study area (see Fiedler *et al.*, this

volume), butterflies were never a defined focus. Therefore butterfly surveys were largely undertaken in a non-quantitative, irregular manner. Consequently, the checklist presented here cannot be regarded as complete or comprehensive in any way, but merely represents a state of the art inventory based on occasional recordings and samples that were made mostly from 1999 to 2001. Most observations were done along the trail networks in the area, with a focus on the “camino canal”, at elevations of about 1800–1900 m, and close to the Bombuscaro station of the Podocarpus National Park (1000–1200 m). On these occasions butterflies were netted and identified, but without keeping quantitative records.

We also used two approaches to survey specialist butterfly guilds with other methodologies. First, the guild of butterflies that is attracted to rotting fruit as an adult food resource was monitored using standard bait traps (equipped with banana as bait) during 3 months in the year 1999 (Kling 2000). Secondly, pharmacophagous Ithomiini were monitored in such traps. Ten species of these butterflies were attracted by using either withered inflorescences or crushed dried roots of *Prestonia amabilis* Morales (Apocynaceae) which contain pyrrolizidine alkaloids (PAs, Brehm *et al.* 2007).

The altitudinal range is given, but without further indication of zonation, since our sparse data preclude any meaningful assessment in that regard. For the

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same reasons, no indication is made as to the vegetation types inhabited by the observed species.

Literature consulted for identification included the volumes of Seitz (1919-1925), as well as several relevant taxonomic treatises, in combination with faunistic works on the Ecuadorian fauna (e.g., Racheli & Pariset 1993, Racheli 1996, Pinas & Manzano 1997, Racheli & Racheli 1997, 2001, 2003, Bollino & Onore 2001). Classification and nomenclature largely follow the recent Neotropical catalogue of Lamas (2004). As with other chapters in this volume, families are presented in traditional systematic order, but all taxa within each family, or subfamily, are strictly listed in alphabetical order.

RESULTS AND DISCUSSION

Altogether we have observed thus far 245 species of true butterflies (Papilionidae: 5 spp., Pieridae: 40 spp., Riodinidae: 26 spp., Lycaenidae: 22 spp., Nymphalidae: 152 spp.). This list must be considered as a first, very preliminary glimpse at an extremely rich butterfly fauna inhabiting the montane rain forests of southern Ecuador. Even for the RBSF study area this list is still very incomplete, and can be expected to grow considerably with further sampling. The species recorded so far represent only a fraction (probably not even 50%) of the total butterfly fauna of the area. If not significantly increased, such a butterfly assemblage would reflect a rather species-poor fauna compared with other rich butterfly faunas surveyed from the Andean region.

Reasons for this incompleteness are:

- insufficient sampling effort; with the two exceptions noted above, no regular, focused recording and sampling has yet occurred for butterflies;
- the inaccessibility and steepness of the terrain renders classical approaches such as netting butterflies along transect paths almost impossible;
- only a few butterfly guilds can be reliably recorded by traps baited with specific resources (rotting fruits, PAs), and this has so far been done with limited spatial and temporal replication;
- there is a distinct sampling bias due to the elusiveness and flight habits of particular groups, especially the Lycaenidae and Riodinidae, which also include many species that fly in tree canopies or set up highly local territories. This is also the reason for not including Hesperidae in the present list.

The proportion of species recorded here for each family or subfamily compared with the known total number for Ecuador does not appear to be very high

nor to indicate a particular regional diversity hotspot, as opposed to the case in some moth groups (Brehm *et al.* 2005). Despite these shortcomings, a few characteristics can already be recognized, especially in comparison with results of the moth surveys carried out here (see Fiedler *et al.*, this volume). With regard to altitudinal zonation, peaks of species richness at family or higher taxonomic level will be reached for most butterfly groups at lower altitudes, i.e., between 1000 and 1500 m, rather than at medium or higher elevations. Thus elevational diversity patterns in butterflies differ clearly from some moth families, particularly the Geometridae (Brehm *et al.* 2003, Fiedler *et al.* 2008).

Typical montane elements with higher levels of species richness above 1500 m include the genera *Catantactia*, *Colias*, *Leodonta*, and *Leptophobia* (Pieridae), *Greta*, *Napeogenes*, *Oleria*, and *Pteronymia* (Nymphalidae: Danaeinae, Ithomiini), *Corades*, *Pedaliodes*, and *Pronophila* (Nymphalidae: Satyrinae), some species-groups within the genera *Dismorphia* (Pieridae), *Altinote*, *Epiphile*, *Memphis*, *Perisama* (Nymphalidae), as well as many Riodinidae and Lycaenidae. The presence of these taxa around RBSF underpins the montane, cloud-forest aspect of the butterfly fauna, whereas typical lowland taxa (such as *Morpho* or most *Brasolini* species) reach the upper margin of their distributional range in the RBSF forest.

Overall, the preliminary checklist presented here should serve as a motivation for further studies towards a deeper understanding of the butterfly diversity of the RBSF area, especially with regard to variations and habitat preferences at small spatial scales. This will also be indispensable in assessing the impact of land-use on butterfly diversity in the Andean montane forest zone (see Fiedler *et al.* 2007 for moths in this regard) and in deriving appropriate management and conservation suggestions.

VOUCHER INFORMATION

Vouchers of butterfly species recorded in this study are deposited in the collections of PUCE (Quito, Ecuador) and SMNS (Stuttgart, Germany). Digitized photographs of selected specimens are available upon request from the authors.

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	Locality	Elevation (range in m)	Frequency	Chorotype
LEPIDOPTERA				
Papilionidae [5 spp.]				
PAPILIONINAE				
Leptocircini				
<i>Mimoides xeniades</i> (Hewitson, 1867)	B	1200	s	A
<i>Protographium agesilaus</i> (Guérin & Percheron, 1835)	B	1000	s	Am-C, S
Troidini				
<i>Battus madyes</i> (Doubleday, 1846)	A	1800	s	A-s
<i>Parides erithalion</i> (Boisduval, 1836)	A, B	1000-1900	+	Am-C, S
Papilionini				
<i>Papilio (Pterourus) euterpinus</i> (Godman & Salvin, 1868)	A	1900	s	A-s
Pieridae [40 spp.]				
DISMORPHIINAE [9 spp.]				
<i>Dismorphia arcadia</i> (Felder & Felder, 1862)	A	1800	s	A
<i>Dismorphia lewyi</i> (Lucas, 1852)	A	1800-1900	r	A
<i>Dismorphia lysis</i> (Hewitson, 1869)	B	1000-1400	r	A
<i>Dismorphia teresa</i> (Hewitson, 1869)	A	1800	s	End
<i>Dismorphia</i> cf. <i>theucharila</i> (Doubleday, 1848)	B	1200-1600	s	Am-C, S
<i>Lieinix nemesis</i> (Latreille, [1813])	A, B	1100-1900	+++	Am-C, S
<i>Patia orise</i> (Boisduval, 1836)	B	1000-1100	s	Am-S
<i>Pseudopieris nebemia</i> (Boisduval, 1836)	B	1000-1100	s	Am-C, S
<i>Pseudopieris viridula</i> (Felder & Felder, 1861)	B	1000-1100	s	A
COLIADINAE [11 spp.]				
<i>Aphrissa statira</i> (Cramer, 1777)	B	1000-1100	r	Am-C, S
<i>Colias (Colias) dimera</i> Doubleday, 1847	A	1900	s	A-s
<i>Colias (Zerene) cesonia</i> (Stoll, 1790)	A	1900	s	Am
<i>Eurema (Eurema) agave</i> (Cramer, 1775)	B	1100-1600	r	Am-C, S
<i>Eurema (Eurema) reticulata</i> (Butler, 1871)	B	1100-1600	s	End
<i>Eurema (Eurema) xanthochlora</i> (Kollar, 1850)	A, B	1100-1900	++	Am-C, S
<i>Eurema (Pyrisitia) leuce</i> (Boisduval, 1836)	B	1000-1100	+	Am-C, S
<i>Eurema (Pyrisitia) nise</i> (Cramer, 1775)	A	1900	s	Am-C, S
<i>Phoebis (Phoebis) argante</i> (Fabricius, 1775)	B	1000-1100	r	Am-C, S
<i>Phoebis (Phoebis) neocypris</i> (Hübner, [1823])	A, B	1000-1900	r	Am-S
<i>Phoebis (Rhabdodryas) trite</i> (Linnaeus, 1771)	B	1000-1100	s	Am-C, S
PIERINAE [20 spp.]				
<i>Catasticta albofasciata</i> Lathy & Rosenberg, 1912	C	3000-3200	r	A-s
<i>Catasticta corcyra</i> (Felder & Felder, 1859)	A	1800-1900	r	A-s
<i>Catasticta discalba</i> Brown & Gabriel, 1939	A	1800-1900	r	End
<i>Catasticta ferra</i> Brown & Gabriel, 1939	A	1850	s	A-s
<i>Catasticta flisa</i> (Herrich-Schäffer, [1858])	B	1000-1100	r	Am-C, S
<i>Catasticta</i> cf. <i>reducta</i> Butler, 1896	B	1000-1100	s	A
<i>Catasticta</i> cf. <i>suasa</i> Röber, 1908	A	1800-1900	r	A
<i>Catasticta susiana</i> (Hopffer, 1874)	A	1900	s	A-s
<i>Glutophrissa drusilla</i> (Cramer, 1777)	B	1000-1100	r	Am-C, S

	Locality	Elevation (range in m)	Frequency	Chorotype
<i>Leodonta tellana</i> (Hewitson, 1860)	A	1800	s	A
<i>Leodonta zenobia</i> (Felder & Felder, 1865)	A	1850	s	A
<i>Leptophobia aripa</i> (Boisduval, 1836)	B	1350	s	Am-C, S
<i>Leptophobia cinerea</i> (Hewitson, 1867)	A, B	1000-1850	r	A
<i>Leptophobia eleone</i> (Doubleday, 1847)	A	1800-2100	+++	A
<i>Leptophobia eleusis</i> (Lucas, 1852)	B	1000-1100	r	A
<i>Leptophobia olympia</i> (Felder & Felder, 1861)	A, B	1000-1900	r	A
<i>Leptophobia tovaria</i> (Felder & Felder, 1861)	A, B	1000-1900	++	A
<i>Melete lycimnia</i> (Cramer, 1777)	B	1000-1100	r	Am-C, S
<i>Pereute callinira</i> Staudinger, 1884	B	1200	s	A
<i>Perrhybris lorena</i> (Hewitson, 1852)	B	1000-1100	++	A

Nymphalidae [152 spp.]

APATURINAE [5 spp.]

<i>Doxocopa agathina</i> (Cramer, 1777)	B	1000-1100	s	Am-S
<i>Doxocopa cyane</i> (Latreille, [1813])	A, B	1000-1900	+++	Am-C, S
<i>Doxocopa elis</i> (Felder & Felder, 1861)	B	1000-1100	+++	A
<i>Doxocopa laurentia</i> (Godart, [1824])	B	1000-1400	++	Am-S
<i>Doxocopa zunilda</i> (Godart, [1824])	B	1000-1100	r	Am-S

BIBLIDINAE [33 spp.]

Biblidini

<i>Callicore excelsior</i> (Hewitson, [1858])	B	1000-1100	r	Am-S
<i>Callicore lycia</i> (Doubleday, [1847])	B	1000-1100	s	Am-C, S
<i>Callicore tolima</i> (Hewitson, 1852)	B	1000-1200	r	Am-C, S
<i>Catonephele chromis</i> (Doubleday, [1848])	A	1800-2400	++	A
<i>Catonephele numilia</i> (Cramer, 1775)	B	1000-1100	r	Am-C, S
<i>Catonephele salambria</i> (Felder & Felder, 1861)	B	1000-1100	r	A
<i>Diaethria clymena</i> (Cramer, 1775)	B	1000-1200	++	Am-C, S
<i>Diaethria eluina</i> (Hewitson, [1855])	B	1000-1100	r	Am-S
<i>Diaethria neglecta</i> (Salvin, 1869)	A, B	1000-1900	++	Am-S
<i>Epiphile boliviana</i> Röber, 1914	A	1800-2400	r	A
<i>Epiphile oreia</i> (Hübner, [1823])	A, B	1100-2400	r	Am-C, S
<i>Eunica</i> cf. <i>carias</i> (Hewitson, [1857])	A	1750-1900	s	A
<i>Eunica norica</i> (Hewitson, 1852)	B	1000-1100	r	Am-C, S
<i>Eunica</i> cf. <i>pomona</i> (Felder & Felder, 1867)	B	1000-1100	s	Am-C, S
<i>Hamadryas amphichloe</i> (Boisduval, 1870)	A	1950	s	Am-S
<i>Hamadryas feronia</i> (Linnaeus, 1758)	A	>1700		Am
<i>Hamadryas fornax</i> (Hübner, [1823])	A	1800	s	Am-C, S
<i>Orophila diotina</i> (Hewitson, 1852)	A	1800-1900	s	A-s
<i>Panacea prola</i> (Doubleday, [1848])	B	1200	s	Am-S
<i>Perisama bomplandii</i> (Guérin-Méneville, [1844])	A, B	1000-1800	r	A
<i>Perisama clisithera</i> (Hewitson, 1874)	B	1400	s	A
<i>Perisama humboldtii</i> (Guérin-Méneville, [1844])	A	1900	s	A
<i>Perisama</i> cf. <i>ouma</i> Dognin, 1891	A	1800-1900	s	A
<i>Perisama tryphena</i> (Hewitson, [1857])	A	2400	s	A
<i>Pyrrhogyra</i> cf. <i>edocla</i> Doubleday, [1848]	B	1000-1100	r	Am-C, S
<i>Temenis laothoe</i> (Cramer, 1777)	B	1000-1100	s	Am-C, S

	Locality	Elevation (range in m)	Frequency	Chorotype
Cyrestini				
<i>Marpesia chiron</i> (Fabricius, 1775)	B	1000-1100	+	Am-C, S
<i>Marpesia corinna</i> (Latreille, [1813])	A, B	1000-1900	++	Am-S
<i>Marpesia crethon</i> (Fabricius, 1776)	B	1000-1100	s	Am-S
<i>Marpesia furcula</i> (Fabricius, 1776)	B	1000-1100	+++	Am-S
<i>Marpesia livius</i> (Kirby, 1871)	B	1000-1600	+	Am-C, S
<i>Marpesia marcella</i> (Felder & Felder, 1861)	B	1000-1100	r	Am-C, S
<i>Marpesia zerynthia</i> Hübner, [1823]	A, B	1000-1900	++	Am-C, S
CHARAXINAE [4 spp.]				
Anaeini				
<i>Memphis ambrosia</i> (Druce, 1874)	A	1800-2375	++	Am-S
<i>Memphis offa</i> (Druce, 1877)	A	2350	s	A
<i>Memphis</i> sp. [cf. <i>moruus</i> (Fabricius, 1775)]	B	1000-1300	r	Am-C, S
Preponini				
<i>Noreppa chromus</i> (Guérin-Méneville, [1844])	A	1800-2350	++	A
DANAINAE [27 spp.]				
Danaini				
<i>Lycorea halia</i> (Hübner, 1816)	B	1000-1100	s	Am-C, S
Ithomiini				
Dircennina				
<i>Ceratinia tutia</i> (Hewitson, 1852)	B	1000-1100	s	Am-C, S
<i>Dircenna adina</i> (Hewitson, [1855])	A	1800-1900	s	Am-S
<i>Episcada apuleia</i> (Hewitson, 1868)	A	1800-1900	r	A
<i>Pteronymia alissa</i> (Hewitson, 1869)	A	1750-1900	s	A
<i>Pteronymia teresita</i> (Hewitson, 1863)	A	1750-1900	s	A
<i>Pteronymia zerlina</i> (Hewitson, 1855)	A	1800-1900	r	A
Godyridina				
<i>Godyris duillia</i> (Hewitson, 1854)	B	1000-1100	s	A
<i>Greta alphisiboea</i> (Hewitson, 1869)	B	1800-2000	s	End
<i>Greta andromica</i> (Hewitson, [1855])	B	1800-2000	s	Am-C, S
<i>Greta ortygia</i> (Weymer, 1890)	B	1800-2000	r	A
Ithomiina				
<i>Ithomia agnosia</i> Hewitson, [1855]	B	1000-1100		Am-S
<i>Ithomia avella</i> Hewitson, 1854	A	1800-2100	r	A
<i>Ithomia lagusa</i> Hewitson, [1856]	A	1800-1900	s	A
Mechanitina				
<i>Mechanitis mazaesus</i> Hewitson, 1860	B	1000-1200	s	Am-S
Melinaeina				
<i>Melinaea menophilus</i> (Hewitson, [1856])	B	1000-1200	r	Am-S
<i>Patricia demylus</i> (Godman & Salvin, 1879)	A	1800-2100	r	A
Napeogenina				
<i>Hyaliris antea</i> (Hewitson, 1869)	A	1800-2000	r	A
<i>Hyaliris mestra</i> (Hopffer, 1874)	B	1000-1100		A
<i>Hyaliris praxilla</i> (Hewitson, 1870)	A	1800-2000	+	A
<i>Hypothyris euclea</i> (Godart, 1819)	A, B	1000-2000	+++	Am-C, S
<i>Hypothyris mansuetus</i> (Hewitson, 1869)	B	1000-1200	+	A

	Locality	Elevation (range in m)	Frequency	Chorotype
<i>Napeogenes harbona</i> (Hewitson, 1869)	A	1800-2000	+	A
<i>Napeogenes lycora</i> (Hewitson, 1870)	A	1800-2000	r	A
Oleriina				
<i>Megoleria orestilla</i> (Hewitson, 1867)	A	1800-2000	r	A
<i>Oleria athalina</i> (Staudinger, 1884)	A	1800-2000	r	A
<i>Oleria estella</i> (Hewitson, 1868)	B	1000-1200	r	A
HELICONIINAE [19 spp.]				
Acraeini				
<i>Abananote euryleuca</i> (Jordan, 1910)	B	1000-1200	r	A
<i>Abananote radiata</i> (Hewitson, 1868)	A	1750-1900	r	A
<i>Actinote pellenea</i> Hübner, [1821]	A, B	1450-1900	+	Am-S
<i>Altinote alcione</i> (Hewitson, 1852)	B	1000-1200	r	A
<i>Altinote dicaeus</i> (Latreille, [1817])	A, B	1000-1900	++	A
<i>Altinote negra</i> (Felder & Felder, 1862)	A, B	1000-2000	+++	A
<i>Altinote neleus</i> (Latreille, [1813])	A, B	1000-2100	++	A
<i>Altinote tenebrosa</i> (Hewitson, 1868)	A	1750-1900	r	A
Heliconiini				
<i>Dione glycera</i> (Felder & Felder, 1861)	A	1750-3100	r	A
<i>Dione juno</i> (Cramer, 1779)	A, B	1350-2000	+	Am-C, S
<i>Dryas iulia</i> (Fabricius, 1775)	B	1350	s	Am-C, S
<i>Eueides aliphera</i> (Godart, 1819)	A, B	1000-1900	r	Am-C, S
<i>Heliconius charitonia</i> (Linnaeus, 1767)	B	1000-1100	s	Am-C, S
<i>Heliconius doris</i> (Linnaeus, 1771)	B	1000-1100	r	Am-C, S
<i>Heliconius melpomene</i> (Linnaeus, 1758)	B	1000-1200	r	Am-C, S
<i>Heliconius numata</i> (Cramer, 1780)	B	1000-1200	++	Am-S
<i>Heliconius sara</i> (Fabricius, 1793)	B	1000-1100	r	Am-C, S
<i>Heliconius telesiphe</i> Doubleday, 1847	A	1750-2100	++	A
<i>Podotricha telesiphe</i> (Hewitson, 1867)	A, B	1400-1900	r	A
LIBYTHEINAE [1 sp.]				
<i>Libytheana carinenta</i> (Cramer, 1777)	A	1750-1900	s	Am-C, S
LIMENITIDINAE [10 spp.]				
<i>Adelpha alala</i> (Hewitson, 1847)	A, B	1000-1900	+	A
<i>Adelpha</i> cf. <i>boeotia</i> (Felder & Felder, 1867)	B	1000-1200	r	Am-C, S
<i>Adelpha cytherea</i> (Linnaeus, 1758)	B	1000-1200	r	Am-C, S
<i>Adelpha delinita</i> Fruhstorfer, 1913	B	1000-1200	r	Am-C, S
<i>Adelpha epione</i> (Godart, [1824])	B	1000-1200	r	Am-S
<i>Adelpha irmina</i> (Doubleday, [1848])	B	1000-1200	r	A
<i>Adelpha lycorias</i> (Godart, [1824])	A, B	1000-1900	++	Am-S
<i>Adelpha saundersii</i> (Hewitson, 1867)	A, B	1000-1800	r	A
<i>Adelpha sichaeus</i> (Butler, 1866)	B	1000-1200	+	A
<i>Adelpha thessalia</i> (Felder & Felder, 1867)	B	1000-1200	+	Am-S
MORPHINAE [6 spp.]				
Brassolini				
<i>Caligo oberthurii</i> (Deyrolle, 1872)	A	1850	s	A
<i>Caligo oileus</i> (Felder & Felder, 1861)	A	1850	s	Am-S

	Locality	Elevation (range in m)	Frequency	Chorotype
<i>Caligo prometheus</i> (Kollar, 1850)	A	1800-2000	r	A
<i>Eryphanis zolvizora</i> (Hewitson, 1877)	A	1800-2000	r	A
<i>Narope anartes</i> Hewitson, 1874	A	2000	r	A
Morphini				
<i>Morpho telemachus</i> (Linnaeus, 1758)	B	1000-1100	s	Am-S
NYMPHALINAE [16 spp.]				
Cocini				
<i>Historis acheronta</i> (Fabricius, 1775)	B	1000-1100	r	Am-C, S
<i>Historis odius</i> (Fabricius, 1775)	B	1000-1100	s	Am-C, S
Kallimini				
<i>Anartia amathea</i> (Linnaeus, 1758)	B	1000-1600	+	Am-C, S
<i>Anartia jatrophae</i> (Linnaeus, 1763)	B	1450	s	Am-C, S
<i>Metamorpha elissa</i> (Hübner, [1819])	B	1000-1100	s	Am-S
<i>Siproeta epaphus</i> (Latreille, [1813])	A, B	1000-1900	r	Am-C, S
<i>Siproeta stelenes</i> (Linnaeus, 1758)	B	1000-1200	r	Am-C, S
Melitaeini				
<i>Eresia cf. clio</i> (Linnaeus, 1758)	B	1000-1100	r	Am-S
<i>Gnathotriche mundina</i> (Druce, 1876)	A	1800-1900	s	A
<i>Tegosa anieta</i> (Hewitson, 1864)	B	1000-1100	++	Am-C, S
<i>Telenassa jana</i> (Felder & Felder, 1861)	A, B	1000-1900	r	A
Nymphalini				
<i>Hypanartia dione</i> (Latreille, [1813])	A, B	1000-1900	r	Am-C, S
<i>Hypanartia lethe</i> (Fabricius, 1793)	A, B	1000-1900	++	Am-S
<i>Hypanartia lindigii</i> (Felder & Felder, 1862)	A	1800-3000	r	A
<i>Vanessa braziliensis</i> (Moore, 1883)	A	1800-2000	r	Am-S
<i>Vanessa myrinna</i> (Doubleday, 1849)	A	1800-1900	s	Am-S
SATYRINAE [31 spp.]				
Haeterini				
<i>Cithaerias pireta</i> (Stoll, 1780)	B	1000-1100	s	Am-S
<i>Pierella hyceta</i> (Hewitson, 1859)	B	1000-1100	r	A
<i>Pseudohaetera hypaesia</i> (Hewitson, 1854)	A	1850	s	A
Satyrini				
<i>Cissia</i> sp. 1	A	2000-2400	+++	
<i>Corades argentata</i> Butler, 1868	A	2200-2400	s	A
<i>Corades chelonis</i> Hewitson, 1863	A	2200-2400	s	A
<i>Corades enyo</i> Hewitson, [1849]	A	1800-2400	++	A
<i>Corades medeba</i> Hewitson, 1850	A	1800-2400	++	A
<i>Corades pannonia</i> Hewitson, 1850	A	2200-2400	++	A
<i>Daedalma dinias</i> Hewitson, 1858	A	2200-2400	+	A
<i>Eretris ocellifera</i> (Felder & Felder, 1867)	A	1800-2000	+	A
<i>Eretris porphyria</i> (Felder & Felder, 1867)	A	2400	r	A
<i>Euptychia</i> sp. 1	A	1800-2000	+++	
<i>Euptychia</i> sp. 2	A	1800-2000	r	
<i>Fosterinaria inornata</i> (Felder & Felder, 1867)	A	1800-2400	+	A
<i>Lasiophila orbifera</i> Butler, 1868	A	1800-2400	+++	A
<i>Lymanopoda panacea</i> (Hewitson, 1869)	A	1800-2000	+++	A

	Locality	Elevation (range in m)	Frequency	Chorotype
<i>Mygona</i> sp. 1	A	1800-2000	r	A
<i>Oressinoma typhla</i> Doubleday, [1849]	B	1000-1100	r	A, Am-S
<i>Oxeoschistus leucopilos</i> Staudinger, 1876	A	1800-2400	+	A
<i>Panyapedaliodes muscosa</i> (Thieme, 1905)	A			A
<i>Parapedaliodes parepa</i> (Hewitson, 1862)	A			A
<i>Parataygetis albinotata</i> (Butler, 1867)	A	1800-2200	++	A
<i>Pedaliodes montagna</i> Adams & Bernard, 1981	A	1800-2400	++	A
<i>Pedaliodes phrasa</i> Grose-Smith & Kirby, 1894	A	1800-2000	r	A
<i>Pedaliodes porina</i> (Hewitson, 1862)	A	1800-2000	+++	A
<i>Pedaliodes praxithea</i> (Hewitson, 1870)	A	2200-2400	+++	A
<i>Pedaliodes tucca</i> Thieme, 1905	A	1800-2000	s	A
<i>Pronophila orcus</i> (Latreille, [1813])	A	2200-2400	+	A
<i>Pronophila unifasciata</i> Lathy, 1906	A	1800-2200	++	A
<i>Steroma bega</i> Westwood, [1850]	A	1800-2400	++	A
<i>Taygetis chrysozone</i> Doubleday, [1849]	A	1800-2200	r	A
<i>Taygetomorpha puritana</i> (Weeks, 1902)	A	1800-2000	s	A

Riodinidae [26 spp.]

EUSELASIINAE [3 spp.]

<i>Euselasia archelaus</i> Seitz, 1916	B	1000-1100	r	A
<i>Euselasia eusepus</i> (Hewitson, [1853])	B	1000-1100	+	Am-S
<i>Euselasia</i> cf. <i>fervida</i> (Butler, 1874)	A	1850	s	A

RIODININAE [23 spp.]

<i>Amarynthis meneria</i> (Cramer, 1776)	B	1000-1100	s	Am-S
<i>Ancyluris aulestes</i> (Cramer, 1777)	B	1000-1200	+	Am-S
<i>Ancyluris formosissima</i> (Hewitson, 1870)	B	1000-1100	r	A
<i>Baeotis bacaenis</i> Hewitson, 1874	B	1000-1100	r	A
<i>Calospila parthaon</i> (Dalman, 1823)	A	1800-1900	s	Am-S
<i>Chalodeta theodora</i> (Felder & Felder, 1862)	B	1000-1100	r	Am-S
<i>Charis anius</i> (Cramer, 1776)	B	1000-1100	r	Am-S
<i>Emesis mandana</i> (Cramer, 1780)	B	1000-1100	r	Am-S
<i>Hyphilaria anophthalma</i> (Felder & Felder, 1865)	A	1800-1900	r	A
<i>Hyphilaria anthias</i> (Hewitson, 1874)	B	1000-1100	r	Am-S
<i>Lasaia moeros</i> Staudinger, 1888	B	1000-1100	s	A
<i>Melanis passiena</i> (Hewitson, 1870)	A	2075	s	A
<i>Mesosemia</i> cf. <i>thymetus</i> (Cramer, 1777)	B	1000-1100	s	Am-S
<i>Mesosemia zorea</i> Hewitson, 1869	A	1800-1900	s	A
<i>Nabida coenoides</i> (Hewitson, 1870)	A, B	1000-1800	s	A
<i>Napaea nepos</i> (Fabricius, 1793)	A	1800-1900	s	Am-S
<i>Necyria bellona</i> Westwood, 1851	A	1750-1900	r	A
<i>Nymphidium ascolia</i> Hewitson, [1853]	B	1000-1100	r	Am-S
<i>Setabis</i> cf. <i>myrtis</i> (Westwood, 1851)	B	1000-1100	s	Am-S
<i>Sisema alectryo</i> Westwood, 1851	A, B	1000-1900	r	A
<i>Sisema aristoteles</i> (Latreille, [1809])	A	1750-1900	++	A
<i>Siseme pallas</i> (Latreille, [1809])	A	1800-1900	s	A
<i>Teratophthalma maenades</i> (Hewitson, 1858)	A	1810	s	A

	Locality	Elevation (range in m)	Frequency	Chorotype
Lycaenidae [22 spp.]				
POLYOMMATINAE				
<i>Leptotes cassius</i> (Cramer, 1775)	A	1800	s	Am-S, -C
THECLINAE				
<i>Arawacus ellida</i> (Hewitson, 1867)	A	1800-1900	s	Am-S
<i>Arawacus separata</i> (Lathy, 1926)	B	1200		Am-S
<i>Brangas felderi</i> (Goodson, 1945)	A	2140		A
<i>Calycopis</i> cf. <i>pisiss</i> (Godman & Salvin, 1887)	B	1040		Am-S, -C
<i>Celmia celmus</i> (Cramer, 1775)	B	1040		Am-S
<i>Contrafacia abola</i> (Hewitson, 1867)	A	1800		Am-S, -C
<i>Contrafacia imma</i> (Prittwitz, 1865)	A	1800		Am-S, -C
<i>Dicya iambe</i> (Godman & Salvin, 1887)	A	1800-1900	s	Am-S, -C
<i>Johnsonita</i> sp. nov.	A	1800-1900	r	
<i>Lamasina rhaptissima</i> (Johnson, 1991)	B	1200	s	A
<i>Laothus</i> sp.	B	1000-1100	s	
<i>Micandra</i> cf. <i>aegides</i> (Felder & Felder, 1865)	A	1800	s	A
<i>Ocaria thales</i> (Fabricius, 1793)	B	1000-1100	s	Am-S
<i>Ostrinotes gentiana</i> (Druce, 1907)	B	1000-1100	s	Am-S
<i>Rekoa meton</i> (Cramer, 1779)	B	1000-1100	s	Am-S
<i>Salazaria</i> cf. <i>sala</i> (Hewitson, 1867)	A	1800	s	A
<i>Strymon davara</i> (Hewitson, 1868)	A	1800	s	A
<i>Strymon</i> sp. nov.	A	1820	s	
<i>Theritas paupera</i> (Felder & Felder, 1865)	A	1800-1900	s	A
<i>Timaeta timaeus</i> (Felder & Felder, 1865)	A	1750-1900	r	A
<i>Tmolus ecbion</i> (Linnaeus, 1767)	B	1360	s	Am-S, -C