BUTTERFLIES OF MISMALOYA, JALISCO, AND ADJACENT PARTS OF BANDERAS BAY AND SOUTHERN NAYARIT, MEXICO

Andrew D. Warren
Department of Entomology, Oregon State University, Corvallis, Oregon, USA
97331-2907

and

Jorge E. Llorente-Bousquets
Museo de Zoología, Facultad de Ciencias, Universidad Nacional Autónoma de México, Apdo. Postal 70-399, México 04510 D.F., México

ABSTRACT
The butterfly species occurring in the Banderas Bay region of southern Nayarit and northern Jalisco, México, are listed. Vernacular English names have been included for all species, many of which are prepared here. All species known to occur in Mismaloya, Jalisco, are indicated. It is known as the richest site in Jalisco in terms of overall butterfly diversity, with 315 species recorded to date. Species considered likely to be found in the area in the future are included, mostly being species known from areas to the north or south of Banderas Bay, in similar habitats below 1000m elevation. A total of 505 species are estimated to eventually be found in the Banderas Bay area in the future, while the true butterfly diversity along Mismaloya River could be as great as 430 species. Based on these numbers, despite being the best known site in the state for butterflies, the butterfly fauna in Mismaloya is estimated to be about 75% known.

RESUMEN
Se presenta una lista de mariposas de Bahía de Banderas, ubicada al sur del estado de Nayarit y al norte del estado de Jalisco, México. Se incluyen además los nombres comunes en inglés para todas las especies, muchos de ellos aquí se proponen. En la lista se señalan todas aquellas especies que se sabe se encuentran en Mismaloya, uno de los sitios con mayor riqueza específica para Jalisco; hasta ahora se han registrado 315 especies. Se incluyen también aquellas especies que pueden existir en la zona, esto en base a su distribución en áreas aledañas del sur o norte de la Bahía, cuyos hábitats son similares y se encuentran por debajo de los 1,000 msnm. De las 505 especies que se estima existan en Bahía de Banderas, la diversidad de mariposas en Río Mismaloya puede ser de 430. Con base en estas estimaciones, y a pesar de que Mismaloya es una de las zonas del estado mejor conocidas, la fauna de mariposas de esta región se conoce en un 75%.

This list is based primarily on data reported in the Butterflies of Jalisco, México, (see Llorente et al., [1995]; Vargas et al., 1996; Warren et al., 1996), and in the introductory review of Mismaloya butterflies by Warren (1997). This area has received a great deal of attention from butterfly enthusiasts recently due to its accessibility from the Puerto Vallarta International Airport, excellent local accommodations, and the growing pool of knowledge about the diversity and distribution of butterflies in the area. This list is intended to be used as a reference for visiting butterfly enthusiasts to facilitate species determinations, and also to focus future searches for additional species. Skipper nomenclature used in this list follows that of Warren (in press). Common names agree with names recognized by the North American Butterfly Association wherever possible, although many modifications have been made when necessary. New common
names coined here are intended to be tentative; better suggestions for names of many taxa will undoubtedly be made in the future.

Additional records for Mismaloya and the Banderas Bay area which were not presented in previous lists have been generated from recently determined specimens and photo-documented sightings, mostly determined by the senior author. In 1996, 258 species of butterflies were reported from Mismaloya (Vargas et al., 1996). Currently, 315 species are known to occur along Mismaloya creek, making it the richest site in Jalisco, in terms of overall known butterfly diversity. Other areas in Jalisco that may actually have a greater diversity of butterfly species than the Mismaloya area are less accessible to butterfly enthusiasts, and therefore less frequently surveyed. Single canyons in the Sierra de Manantlán, mountains shared between Colima and Jalisco, probably host a greater diversity of butterfly species than Mismaloya, but we are still lacking many skipper records from that region. It should be noted, however, that we still lack records for butterflies from the Mismaloya area from the months of May, June, and July. We have very few records from August, and September, when there are surely additional species to be found, and have very few hairstreak records in general.

For the purposes of this listing, Banderas Bay includes all localities in Municipios Puerto Vallarta and El Tuito, Jalisco, under 1000m elevation only, and all localities in Municipio Bahía de Banderas, Nayarit. Unconfirmed species considered likely to eventually be found in the Banderas Bay and Mismaloya areas are mostly species known from under 1000m elevation in tropical forest habitats to the north in Municipios Compostela, Xalisco, San Blas, and Tepic, Nayarit, in addition to being known from south of the Banderas Bay area. (An inventory of the butterflies of Nayarit is in preparation by authors and additional staff from the Museo de Zoología, Facultad de Ciencias, at UNAM.) The fauna directly to the south of the Bay area, in Municipios Tomatlan and Purificación, Jalisco, remain almost totally unknown (much of this area is above 1000m elevation), but the faunas of Municipios Casimiro Castillo, Tuxcacueso, and Autlan de Navarro (Vargas et al., 1996) and La Huerta (Beutelspacher, 1982) are much better known. In the entire region from Municipio Tepic, Nayarit, in the north to Municipio Casimiro Castillo, Jalisco, in the south above 1000m elevation, up to 80 additional butterfly species can be expected. These species have not been listed herein as they appear to be restricted to higher-elevation forest habitats and apparently tend not to stray.

The listing of hypothetical species that should eventually be found in the bay area enables us to estimate how well we know the overall butterfly diversity of the area. Of course there will certainly be species that are found in the Bay area in the future that are otherwise unknown from all surrounding areas, and unique species to other areas will also be found, so these numbers will always be changing. With 382 butterfly species already known from the Bay area, and 505 predicted, the Bay area (as a whole) is about 75% known in terms of overall probable butterfly diversity. To estimate the number of butterfly species that may eventually be found in the Mismaloya area, we assume that 85% of the species that occur in the Bay area will eventually be found in the Mismaloya area (some species restricted to drier areas in Nayarit may not turn up around Mismaloya). Under this assumption, about 430 species of butterflies should eventually be found in the Mismaloya area. Therefore, despite the fact that 315 species of butterflies are already known from Mismaloya, it is estimated to be only about 75% known. Searches for new species should be concentrated at the higher elevational extremes of the Mismaloya area (around El Eden and beyond), during dry periods
(May, June, July), and in the less accessible parts of every habitat, especially shaded areas. Future surveys hoping to add to our knowledge of the butterflies of the Bay area should concentrate on Hairstreaks (Theclinae) and Skippers (Hesperiidae), where several additional species will undoubtedly be found. In terms of overall Banderas Bay area diversity, the Theclinae are only about 41% known and the Hesperiidae are about 75% known, so there is indeed still much work to be done. The Papilionoidea, excluding the Theclinae, are about 80% known, stressing the need to concentrate on small butterflies.

species recorded from the vicinity of Mismaloya, Chino's Paradise and El Eden, along Mismaloya River. Species known from nearby areas (including Boca de Tomatlan, Chico's Paradise, Rio las Juntas, Puerto Vallarta, Jal. and Nuevo Vallarta, Bucerias and El Guamuchil, Nayarit) but not from Mismaloya are not marked.

[ ] = species not yet recorded from Banderas Bay area, but are considered likely to be found there in the future.

SKIPPERS (141 species known from Mismaloya, 170 species known from Bay area and 223 species possible for Bay area.)

HESPERIIDA

<table>
<thead>
<tr>
<th>Hesperiidae</th>
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<tbody>
<tr>
<td>Pyrrhopyginae</td>
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<tr>
<td>Firetips</td>
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<tr>
<td>*Gold-tint Firetip</td>
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<tr>
<td>[Yellow-bottomed Firetip]</td>
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<tr>
<td>*Steeley Firetip</td>
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<td>*Blue-collar Firetip</td>
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<tr>
<td>Red-collar Firetip</td>
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<tr>
<td>Common Myscelus</td>
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<tr>
<td>Spreadwing Skippers</td>
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<tr>
<td>*Window-winged Skipper</td>
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<tr>
<td>*Guava Skipper</td>
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<tr>
<td>[Rainbow Skipper]</td>
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<tr>
<td>*Common Ghost-Skipper</td>
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<tr>
<td>[Austin's Ghost-Skipper]</td>
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<tr>
<td>[Western Ghost-Skipper]</td>
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<tr>
<td>*Nervous Skipper</td>
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<tr>
<td>*Mercurial Skipper</td>
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<tr>
<td>Unspined Silverdrop</td>
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<tr>
<td>*Spined Silverdrop</td>
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<tr>
<td>Suffused Silverdrop</td>
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<tr>
<td>Wind's Silverdrop</td>
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</tbody>
</table>
DUGESIANA

[Broken Silverdrop]  [Epargyreus exoletus crassus Evans 1952]
[Epargyreus sp. undescribed]

*Hamock Skipper  Polygonum leu arizonense (Skeen 1911)
*Manuel’s Skipper  Polygonus manueli Bell & W. P. Comstock 1948
*White-striped Longtail  Chioptodes callita albofasciatus (Hewit. 1867)
*Zilla Longtail  Chioptodes zilla (Butl. 1872)
*Gold-spotted Agama  Agama spixi (Hewit. 1867)
*Tailed Agama  Agama metopis (late 1824)
*Mottled Longtail  Typhedamus undulatus (Hewit. 1867)
*Gold-tufted Skipper  Typhedamus amput (Godd. & Sal. 1893)
*Eight-spotted Longtail  Polythrix octomaculata (Sepp 1848)
*Acme Longtail  Polythrix axine (Hewit. 1867)

[Mexican Longtail]  [Polythrix mexicanus H. A. Freeman 1969]
*Caratan Mottled-Skipper  Codaracta carata Evans 1952
*Crescent Mottled-Skipper  Codaracta alcina (Hewit. 1867)
*Common Mottled-Skipper  Codaracta melon (Godd. & Sal. 1893)
*Sally’s Mottled-Skipper  Codaracta sallyae A. D. Warren 1995
[Golden Mottled-Skipper]  [Codaracta bryaxis (Hewit. 1867)]
[False Mottled-Skipper]  ["Codaracta" hyst (Dyer 1916)]
*Common Greenbright  Urbana proutae proutae (L. 1758)
*Bluish Greenbright  Urbana vitrea (Herm. 1897)
*Bell’s Greenbright  Urbana belli (Hayward 1935)

[Spot-banded Greenbright]  [Urbana prouta Evans 1952]
*Emerald Greenbright  Urbana esmeraldes (Butl. 1877)
*Scarce Greenbright  Urbana evora Evans 1952
*Montane Greenbright  Urbana prodicus Bell 1956
*Tinted Greenbright  Urbana est (Evans 1952)
*Dorante Longtail  Urbana dorantes dorantes (Stoll 1790)
*Teleus Longtail  Urbana teleus (Hibetor 1821)
*Bowen Longtail  Urbana proce (Ploetz 1881)
*Plain Longtail  Urbana simpliceps (Stoll 1790)
*White-tailed Longtail  Urbana doryasas chaetae (Godd. & Sal. 1893)
*Two-barred Flasher  Astrapias fulgerator azul (Reak. 1867)
*Gilbert’s Flasher  Astrapias aleator hoeggeri (Ploetz 1882)
*Small-spotted Flasher  Astrapias regia (Butl. 1870)
*Yellow-tipped Flasher  Astrapias anaphus anaphus Evans 1952
[White-spotted Flasher]  [Astrapias enoros (Stoll, 1781)]
[Yellow-edged Flasher]  [Astrapias phaloesus (Godd. & Sal. 1893)]
*Steady Flasher  Narcosis parisi helen (Evans 1952)
*Broad Banded-Flasher  Autochiton neis (Geyer 1832)
[Halupas Cloudwing]  [Hesia jalapa (Ploetz 1882)]
*Coyote Cloudwing  Achalarus torquatus (Ploetz 1882)
*White-edged Cloudwing  Achalarus albociliatus albociliatus (Mab. 1877)
*Potito’s Skipper  Cabareos potitillo (Lucas 1857)
*Tufted Redeye  Oxyba calathana calathana (Godd. & Sal. 1894)
*Fritschi’s Flat  Celasnorrhina fritschi (Bailey 1880)
*Stola Flat  Celasnorrhina stola Evans 1952
*Falcate Skipper  Spathilepia clausa (Cr. 1775)

20
BUTTERFLIES OF MISMALOYA, BANDERAS BAY AND SOUTHERN NAYARIT

[Acacia Skipper] [Copia hippalas hippalas (W. H. Edw. 1882)]
*Mimosa Skipper
Copia calchas (Herr-Sch. 1869)
Caicus Skipper
Copia caicus mocnas (W. H. Edw. 1882)
*Choricus Skipper
Tellima dischoria (Schaus 1902)
*Fides Skipper
Tellima dischoria Bell 1949
[Stained Skipper]
*Arteurotia trithemnis Butl. & Druse 1872
*Celea Tufted-Skipper
Polyctor cleus Evans 1953
*Purplish Tufted-Skipper
Notoptera rubescens (Müschler 1876)
Immaculate Tufted-Skipper
Pachyneuria lobica (Pötzl. 1882)
*Glazed Tufted-Skipper
Pellicia arina Evans 1953
*Morning Glory Tufted-Sk.
Pellicia dimidativa Herr.-Sch. 1870
Red-studded Skipper
Noctuaia septio (Godm. & Sal. 1899)
*Cryptic Skipper
Noctuaia bipuncta (Pötzl. 1884)
*Hook-tipped Bolla
Bolla orcinus (Godm. & Sal. 1896)
*Spanulate Bolla
Bolla eutheia (Pötzl. 1884)
Rough-tipped Bolla
Bolla evippe (Godm. & Sal. 1896)
[Finn-tipped Bolla]
[Bolla subapicata (Schaus 1902)]
[Mottled Bolla]
Bolla clytia (Godm. & Sal. 1897)
[Many-spotted Bolla]
Bolla litus (Dyar 1912)
*Western Scallopwing
Staphylus tierra Evans 1953
*Aztec Scallopwing
Staphylus oaxaca (Scudder 1872)
Coastal Scallopwing
Staphylus sp. undescribed
[Gold-tout Scallopwing]
Staphylus vulgata (Müschler 1879)
[Equal Scallopwing]
Staphylus iguala (Williams & Bell 1940)
*Variegated Skipper
Gorgylius begga pyralis (Müschler 1876)
*Bruised Skipper
Zera hyacinthina hyacinthina (Mab. 1877)
*Ventral Blue-Skipper
Quadrus cerialis (Stoll 1872)
*Tanned Blue-Skipper
Quadrus lugubris lugubris (R. Feld. 1869)
*Blue-rudded Skipper
Systrota rubricola Evans 1953
*Shining Blue-Skipper
Paches polia (Mab. 1888)
*Orange-spotted Skipper
Asarnes sallei (C. Feld. & R. Feld. 1867)
*Hoary Skipper
Carphesia canescens canescens (R. Feld. 1869)
Black-spot Skipper
Carphesia fasciata (Mab. 1891)
[Northern Mexican-Skipper]
Zohera marginata H. A. Freeman 1979
*Dark Mylon
Mylon menippus (Fabr. 1777)
*Pale Mylon
Mylon pelopsidas (Fabr. 1793)
[Bold Mylon]
Mylon laevis (Hewit. 1868)
*Glossy-winged Skipper
Xenophasia myxus (Stoll 1780)
*Clio Skipper
Clio clio (Fabr. 1787)
*Large Sparwing
Antigonus neophila (Latr. 1813)
*Common Sparwing
Antigonus erosa (Hübner 1812)
*Dark Sparwing
Antigonus funebris (R. Feld. 1869)
*Texas Powdered-Skipper
Syntama pulverulenta (R. Feld. 1869)
*Sandy Skipper
Zopyron sandice Godm. & Sal. 1896
*Giant Sicklewing
Achlyodes basius heros (Ehrm. 1909)
*Northern Sicklewing
Eunis similis (W. H. Edw. 1871)
*Hermit Skipper
Gratia stigmatismata stigmatismata (Mab. 1883)
Brown-banded Skipper
Timonokes rupestriscatus rupestriscatus (Pötzl. 1884)

21
**Dugesiana**

<table>
<thead>
<tr>
<th>Type of Skipper</th>
<th>Scientific Name</th>
<th>References</th>
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<tbody>
<tr>
<td>Three-banded Skipper</td>
<td>Timochares trifasciata trifasciata</td>
<td>(Hewit. 1868)</td>
</tr>
<tr>
<td>Tropical Duskywing</td>
<td>Anistrus semipenetratus</td>
<td>(Butl. &amp; Drue 1872)</td>
</tr>
<tr>
<td>Dark Duskywing</td>
<td>Anistrus robigus</td>
<td>(Pilote 1884)</td>
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<tr>
<td>Bent-tip Duskywing</td>
<td>Cycloglypha thoratibialis</td>
<td>(Fabr. 1793)</td>
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<tr>
<td>Black-patched Duskywing</td>
<td>Ebriaecus anacron</td>
<td>(Staud. 1876)</td>
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<tr>
<td>Black-spotted Duskywing</td>
<td>Chiomara mitrata</td>
<td>(Motschler 1878)</td>
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<tr>
<td>White-patched Duskywing</td>
<td>Chiomara georgina georgina</td>
<td>(Reak. 1868)</td>
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<td>False Duskywing</td>
<td>Geosta inquisa</td>
<td>(Butl. &amp; Drue 1872)</td>
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<tr>
<td>Funereal Duskywing</td>
<td>Erynnis funeralis</td>
<td>(Scudder &amp; Burgess 1870)</td>
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<tr>
<td>[Juvenile's Duskywing]</td>
<td>Erynnis juvelalis</td>
<td>(W. H. Edw. 1833)</td>
</tr>
<tr>
<td>[Mournful Duskywing]</td>
<td>Erynnis tristis tainta</td>
<td>(W. H. Edw. 1833)</td>
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<tr>
<td>[White Checkered-Skipper]</td>
<td>Pyrgus albigens</td>
<td>(Pilote 1884)</td>
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<tr>
<td>[Tropical Checkered-Sk.]</td>
<td>Pyrgus allius</td>
<td>(L. 1767)</td>
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<tr>
<td>[Desert Checkered-Skipper]</td>
<td>Pyrgus philetas W. H. Edw. 1881</td>
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<tr>
<td>[Turk's-cap White-Skipper]</td>
<td>Heliopes macoira</td>
<td>(Reak. 1867)</td>
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<td>[Laviana White-Skipper]</td>
<td>Heliopes laviana laviana</td>
<td>(Hewit. 1868)</td>
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<tr>
<td>[Veined White-Skipper]</td>
<td>Heliothis arsate</td>
<td>(L. 1758)</td>
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<td>[Alana White-Skipper]</td>
<td>Heliothes alana</td>
<td>(Reak. 1868)</td>
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<tr>
<td>[Erichson's White-Skipper]</td>
<td>Heliothetes domicilla domicilla</td>
<td>(Erichson 1848)</td>
</tr>
</tbody>
</table>

**Skipperlings**

| Oregonia | Pirrus penosa | (Dyar 1918) |
| Dardarina | Dardarina dardarina | (Hewit. 1877) |
| Fauls | Dallofoa | (Godd. 1900) |
| Silvered Skippering | Dallo divinitum | (Dyar 1913) |

**Grass Skippers**

| Bold Faceted-Skipper | Synapto syracis | (Godd. 1901) |
| Texas Faceted-Skipper | Synapto pecta | Evans 1955 |
| [Faded Faceted-Skipper] | Synapto shiva | Evans 1955 |
| [Western Faceted-Skipper] | Synapto silina | Evans 1955 |
| *Golden Skipper | Zaspatys mythicus | (Godd. 1900) |
| *Immaculate Skipper | Anthohipus insignis | (Pilote 1882) |
| *Redundant Skipper | Corticea corticea | (Pilote 1883) |
| *Ubiquitous Skipper | Callimorpha saturna | (Herr. Sch. 1869) |
| [Gray Skipper] | Masisiles hoestum | (Godd. 1901) |
| *Ina Skipper | Methoniopsis ina | (Pilote 1882) |
| [False Roadside-Skipper] | Riparia floria | (Godd. 1900) |
| *Aecia Skipper | Plocmilla aecias | (Stoll 1781) |
| *Jeweled Skipper | Phanes alevic | (Geyer 1832) |
| [Pale-rayed Skipper] | Vialis perigene | (Godd. 1900) |
| *Violet-patched Skipper | Monca tyraea | (Pilote 1883) |
| [Julia's Skipper] | Nastra julia | (H. A. Freeman 1945) |
| *Fawn-spotted Skipper | Cymenies trevisa | (Mab. 1891) |
| *Inca Skipper | Vehillia inca | Seudder 1872 |
| *Butler's Skipper | Mniastus albiflata | (Butl. 1877) |
*Nitir Skipper  
*Remus Skipper  
[Rita Skipper]  
*Clouded Skipper  
*Liria Skipper  
*Valda Skipper  
*Simple Skipper  
*Fantastic Skipper  
[Moody Skipper]  
[Smeared Ruby-eye]  
[White-patched Ruby-eye]  
*Green-backed Ruby-eye  
Broad-banded Ruby-eye  
Silver-studded Ruby-eye  
*Joanna's Skipper  
*Canna Skipper  
[Osca Skipper]  
Zygia Skipper  
*Hidden-ray Skipper  
*Tropical Least Skipper  
*Southern Skipper  
*Fiery Skipper  
Subreticulate Skipper  
*Whirlabout  
*Southern Broken Dash  
*Common Glasswing  
[Golden Glasswing]  
De la Maza's Skipper  
*Yellow-stained Skipper  
*Bright Meliana  
*Common Meliana  
Coastal Meliana  
*Sullied Meliana  
[Light-green Meliana]  
[Mayar Meliana]  
[Nuller's Meliana]  
Guardpost Skipper  
Creamy-Striped Skipper  
Toltec Roadside-Skipper  
[Largest Roadside-Skipper]  
*Violet-clouded Skipper  
*Eufala Skipper  
*Brazilian Skipper  
*Ocola Skipper

Mnaisheus nitra  Evans 1955
Remella remus  (Fabr. 1798)
[Remelia sp. undescribed]
[Remelia rio  Evans 1955]
[Parphorus sp. undescribed]
Lerema accius  (J. E. Smith 1979)
Lerema lirz  Evans 1955
Morus valeria valda  Evans 1955
Tigatis simplex  (Bell 1930)
Vettius fantasos  (Stoll 1780)
[Thoos modiaus  (Mab. 1889)]
Argos argus  (Muschler 1879)
[Tromba xanthura  (Gedom. 1901)]
[Corysta porcous  (Cr. 1777)]
Perichares philetes adela  (Hewit. 1867)
Ozes cynthisca  (Swainson 1821)
Lyca argentea  (Hewit. 1866)
Joanna joana  Evans 1955
Quinta cannot  (Herr.-Sch. 1869)
[Rhathon osca  (Plötz 1883)]
Mucia yogis  (Plötz 1886)
Congo chyliana  (Butl. 1877)
Ancyloxysphe arine  (W. H. Edw. 1871)
Copaeodes minima  (W. H. Edw. 1870)
Hyelphe phyleus phyleus  (Drury 1773)
Polites subrepticulus  (Plötz 1883)
Polites vibex praecorps  (Scudder 1872)
Wallengeria otho otho  (J. E. Smith 1797)
Pompeia pompeia  (Lar. 1824)
Pompeia darea  (Plötz 1883)
Anatrytone masai  (H. A. Freeman 1969)
[Poanes inimica  (Butl. & Deuce 1872)]
Quasimellina aurora  (Bell 1942)
Quasimellina exulata  (Plötz 1883)
Quasimellina agnesae  (Bell 1959)
Quasimellina balta  (Bell 1942)
Quasimellina myron  (Gedom. 1900)
Quasimellina nyanaya  (Bell 1941)
Quasimellina mulleri  (Bell 1942)
Euphyes peneia  (Gedom. 1900)
Metron crysogaster  (Butl. 1870)
Amblyscites toleta toleta  Scudder 1872
[Amblyscites folia  Gedom. 1900]
Lerodea araba  (W. H. Edw. 1882)
Lerodea eulata  (W. H. Edw. 1869)
Calpodes ethius  (Stoll 1782)
Panoquina ocola  (W. H. Edw. 1863)
**PAPILIONIDAE**

**Triodininae**

*Pipevine Swallowtail* Battus philenor philenor (L. 1771)

*Polydamas Swallowtail* Battus polydamas polydamas (L. 1758)

*Eracon Swallowtail* Battus eracon (Godd. & Sal. 1897)

*Green-patch Swallowtail* Battus lazamamas topaz (Godd. & Sal. 1897)

*Phoenix Cattleheart* Parides phoinas phoinas (Doubleday 1844)

*Montezuma Cattleheart* Parides montezuma montezuma (Westw. 1842)

*Rosy-spotted Cattleheart* Parides erithaloes trichopes (Rothschild & Jordan 1906)

**Papilioninae**

*Long-tailed Kite-Swallowtail* Protographium epiloma tipicis (Rothschild & Jordan 1906)

Dark Kite-Swallowtail Protographium philolaus philolaus (Boehd. 1836)

[Evasive Kite-Swallowtail] Protographium agesilao forii (Rothschild & Jordan 1906)

Red-studded Swallowtail Mimoidea thymдраea aconophos (Gray 1853)

Ilus Swallowtail Mimoidea ilis ocellidas (Vázquez 1957)

*Pink-spotted Swallowtail* Priamides pharnaces (Doubleday 1846)

*Ruby-spotted Swallowtail* Priamides anchisiades sara (Fabr. 1793)

*Torquatus Swallowtail* Trolides torquata mastai (Beutelspacher 1976)

Ornython Swallowtail Calaisides ornithion sp.

Broad-banded Swallowtail Calaisides atyntus bajaeritis (Brown & Faulkner 1992)

Citrus Swallowtail Calaisides undrungus sp.

**TRUE BUTTERFLIES** 74 species known from Mismaloya, 212 species from Bay area, and 282 species possible for Bay area.)
*Thoa Swallowtail  
*Giant Swallowtail  
[Three-tailed Swallowtail]  
*Avocado Swallowtail  
*Victorine Swallowtail

Whites & Sulphurs

PIERIDAE

Dismorphiinae

*Tiger-Striped Mimic-White  
*De la Maz's Mimic-White  
[Dark Mimic-White]

Sulphurs

Colladiinae

*Southern Dogface  
*White Angled-Sulphur  
*Yellow Angled-Sulphur  
*Large Orange Sulphur  
*Apricot Sulphur  
*Tailed Sulphur  
*Orange-barred Sulphur  
*Cloudless Sulphur  
*Trite Sulphur  
*Mealy Sulphur  
*Lyside Sulphur  
*Sleppy Orange  
*Dina Yellow  
*Little Yellow  
*Mimosia Yellow  
*Tailed Orange  
[[Little White]]  
*Boisdoual's Yellow  
*Barred Yellow  
*Mexican Yellow  
*Salome Yellow  
*Dainty Sulphur

Whites

Pierinae

*Costa Rican White  
[Gray White]  
*Crescent White  
*Florida White  
Mountain White  
*Viard White

Butterflies of Mismaloya, Banderas Bay and Southern Nayarit

Hesperocharis costaricensis passion  
[Pereute charops leonias Llorente 1986]

Hesperocharis costaricensis passion  
[Perite charops leonias Llorente 1986]

Melete lycimnia isandra  
Boisd. 1836

Glutophilus drusila tenius  
Lamas 1981

Leptophthisis arqua elodia  
Boisd. 1836

Plisitallia viardi laugere  
Godan. & Sal. 1889

25
DUGESIANA

*Great Southern White  Ascia monaste monaste  (L. 1764)
*Giant White  Ganyra josephina josepha  (Sal. & Godm. 1868)

Brush-footed Butterflies  NYMPHALIDAE

Longwings & Fritillaries  Heliconiinae

*Juno Longwing  Dione junio haussenia  (Reak. 1866)
*Mexican Silverspot  Dione monsa posizi  Butl. 1873
*Gulf Fritillary  Agraulis vanillae incarnata  (Riley 1926)
*Julia  Dryas iulia modesta  (Riley 1926)
*Zebra Longwing  Heliconia charithonia vanekae  W. P. Comstock & F. M. Brown 1950
*Crimson-patched Longwing  Heliconius erato punctata  Bezetspacher 1992
*Imenius Longwing  Heliconius iamenius telchini  Doubleday 1847
*Variegated Fritillary  Euptoieta claudia daunus  (Herbst 1798)
*Mexican Fritillary  Euptoieta hegissa hoffmanni  W. P. Comstock 1944

Nymphalinae

[Question Mark]  [Polygonia interrogationis  (Fab. 1798)]
[Mexican Comma]  [Polygonia g-argenterum  (Doubleday 1848)]
[American Lady]  [Vanessa virginianais  (Drury 1773)]
*Red Peacock  Anartia amathea colima  L. Lasius 1995
*White Peacock  Anartia jatrophae luteipeeta  Frusteforfer 1907
*Orange-tipped Peacock  Siproeta epaphus epaphus  (Latre. 1813)
*Malachite  Siproeta stelenes biplagista  (Frusteforfer 1907)
*Buckeye  Junonia genovana nigrofusca  B. & McD. 1916
(includes pale coastal form)

Checkerspots & Crescent  Melitacini

*Glorious Patch  Chlosyne gloriae  Bauer 1960
*Hippodrome Patch  Chlosyne hippodrome hippodrome  (Geyer 1837)
*Bordered Patch  Chlosyne lucinia crocalle  (W. H. Edw. 1874)
Red-spotted Patch  Chlosyne marina dryope  (Godm. & Sal. 1894)
*De la Mazas Patch  Chlosyne mozaem  L. Miller & Rotger 1979
[Rossia Patch]  [Chlosyne rossia montana  (Hali 1924)]
[Rare Checkerspot]  [Telexia anomalus anomalus  (Godm. & Sal. 1897)]
[Elada Checkerspot]  [Telexia elada elada  (Hewit. 1868)]
*Elf  Microcia elva elva  Bates 1864
*Pallescens Crescent  Phyciodes pallescens  (B. Feld. 1869)
*Alexon Crescent  Anthanaass alexon  (Godm. & Sal. 1889)
*Aclys Crescent  Anthanaass ardy  (Hewit. 1864)
*Turcis Crescent  Anthanaass turcis Bates 1864
Darkened Crescent  Anthanaass potylica amator  (Hali 1929)
[Montana Crescent]  [Anthanaass cortes  (Hali 1917)]
[Texan Crescent]  [Anthanaass texana texana  (W. H. Edw. 1863)]

26
| BUTTERFLIES OF MISMALOYA, BANDERAS BAY AND SOUTHERN NAYARIT |

| [Blackish Crescent] | [Anthenassa argentea] (Godm. & Sal. 1882) |
|                     | [Anthenassa sp. undescribed] |
| *Gray-based Crescent | Castilia griseobasalis (Robert 1914) |
| [Guatemalan Crescent] | [Tegosa guatemalana] (Bates 1864) |
| Coloburini & Biblidini |

| *Orion                     | Historis odus dius (Lamas 1995) |
| *Blomfield's Beauty       | Smyrna blomfieldia data Frustoffer 1908 |
| *Dirc Beauty              | Colobura dirc dirc L. 1758 |
| *Red Rim                  | Biblio hyperia agantsa (Boisd. 1836) |
| [Amyname] | [Mesara dorcas amyname (Mén. 1857)] |
| *Blackened Bluewing       | Myscelia cyananche cyananche C. Feld. & R. Feld 1867 |
| *Mexican Bluewing         | Myscelia ethusa ethusa (Doyere 1840) |
| *Cynthia Bluewing         | Myscelia cyaniris alvaralii R. G. de la Maza & Diaz 1982 |
| *Coretts Banner           | Catonephele coretti R. G. de la Maza 1982 |
| *Dingy Purplewing         | Eumica monima monima (C. 1782) |
| Florida Purplewing        | Eumica tutia tutia (Herr.-Sch. 1855) |
| *Gray Cracker             | Homadryas februa fernadina (Godart 1824) |
| *Red Cracker              | Homadryas amphimone mazai Jenkins 1983 |
| *Guatemalan Cracker       | Homadryas guatemalena marmorraine (Fruhstorfer 1916) |
| [Glossarie Cracker]       | [Homadryas glauconome griese Jenkins 1983] |
| *Nearea Banner            | Pyrrhogry nearea hypstern Godm. & Sal. 1884 |
| *Laotoe Banner            | Teminis laotoe quaipayanosa R. G. de la Maza & Turrent 1985 |
| Common Banner             | Epiphile adrastra escalantes Desimoni & Masi 1979 |
| Flaviilia Banner          | Nica flavilla bachiana R. G. de la Maza & J. R. de la Maza 1985 |
| Blue-eyed Greenwing       | Dynamine dyonis Geyer 1837 |
| *Mexican Greenwing        | Dynamine postveria mexicana D'Almeida 1952 |
| [West-Mexican Eighty-eight] | [Diaethria asteria (Godm. & Sal. 1894)] |
| [Iaecis Eighty-eigh]      | [Cyclogra ammaca (Doubleday 1849)] |

Sisters & Daggerwings

| Linenitidae |
| *Spot-celled Sister | Adelphi basiloides basiloides Doubleday 1848 |
| *Celerio Sister | Adelphi celario diademata Frustoffer 1913 |
| *Band-celled Sister | Adelphi fassioni fassonia (Hewit. 1847) |
| *Massaides Sister | Adelphi iphicla massilidae Frustoffer 1916 |
| *Phylaca Sister | Adelphi phylaca phylaca Bates 1866 |
| *Massilia Sister | Adelphi serpa massilia (C. Feld. & R. Feld. 1867) |
| [Leucas Sister] | [Adelphi leucas Frustoffer 1916] |
| [Paroeca Sister] | [Adelphi paroeca emathia (R. Feld. 1869)] |
| *Ruddy Daggerwing | Marpesia petreus tehya (Fabr. 1777) |
| *Many-banded Daggerwing | Marpesia chiron mariae (Cr. 1780) |

27
<table>
<thead>
<tr>
<th>Leafwings</th>
<th>Charaxinae</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Darkened Blue-Leafwing</td>
<td>Archaeoprepus demophoen occidentalis</td>
</tr>
<tr>
<td>Silvery Blue-Leafwing</td>
<td>Archaeoprepus demophoen mexicana</td>
</tr>
<tr>
<td>[Two-shaded Blue-Leafwing]</td>
<td>[Prepona laevers octavia] Fruhstorfer 1905</td>
</tr>
<tr>
<td>*Seasonal Leafwing</td>
<td>Zaretiis elpolo ansulecta Fruhstorfer, 1909</td>
</tr>
<tr>
<td>*Pale Leafwing</td>
<td>Zaretiis callidryas (R. Feld. 1869)</td>
</tr>
<tr>
<td>*Red-striped Leafwing</td>
<td>Siderone galamhis (Cr. [1775])</td>
</tr>
<tr>
<td>[Silver-studded Leafwing]</td>
<td>[Hypna cyammosia mexicana] Hall 1917</td>
</tr>
<tr>
<td>*Tropical Leafwing</td>
<td>Anaba aidea (Guerin 1844)</td>
</tr>
<tr>
<td>*Electra Leafwing</td>
<td>Conus electra castanea Llorente &amp; Luís 1992</td>
</tr>
<tr>
<td>*Fabulous Leafwing</td>
<td>Conus fabius cecrops (Doubleday 1949)</td>
</tr>
<tr>
<td>*Pointed Leafwing</td>
<td>Fountainea eurygyle glans (Rotger, Ecalante &amp; Coronado 1965)</td>
</tr>
<tr>
<td>Angled Leafwing</td>
<td>Fountainea glycerium glycerum (Doubleday 1949)</td>
</tr>
<tr>
<td>Forrer's Leafwing</td>
<td>Memphi forrei (Godman &amp; Sal. 1884)</td>
</tr>
<tr>
<td>Pale-spotted Leafwing</td>
<td>Memphi pithysa (R. Feld. 1869)</td>
</tr>
<tr>
<td><strong>Emperors</strong></td>
<td>Apaturinae</td>
</tr>
<tr>
<td>*Dusky Emperor</td>
<td>Asteroampa idyo argus (Bates 1864)</td>
</tr>
<tr>
<td>*Silver Emperor</td>
<td>Dasocopa laeare accs (C. Feld. &amp; R. Feld. 1867)</td>
</tr>
<tr>
<td>°Pavon Emperor</td>
<td>Dasocopa pavon theodora (Lucas 1857)</td>
</tr>
<tr>
<td><strong>Morphos</strong></td>
<td>Morphinae</td>
</tr>
<tr>
<td>*White Morpho</td>
<td>Pestonia polyphemus polyphemus Westw. 1851</td>
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<tr>
<td><strong>Owl-Butterflies</strong></td>
<td>Brassolinae</td>
</tr>
<tr>
<td>°Boisduval's Owl-Butterfly</td>
<td>Optiphanes boisduvali Doubleday 1849</td>
</tr>
<tr>
<td>*Coastal Owl-Butterfly</td>
<td>Optiphanes inviae fabricii (Boisd. 1870)</td>
</tr>
<tr>
<td>Tamarinid Owl-Butterfly</td>
<td>Optiphanes tamarindis sicyon C. Feld. &amp; R. Feld. 1861</td>
</tr>
<tr>
<td><strong>Milkweed Butterflies</strong></td>
<td>Danainae</td>
</tr>
<tr>
<td>°Tropic Queen</td>
<td>Danaus eresimus montezuma Talbot 1943</td>
</tr>
<tr>
<td>°Queen</td>
<td>Danaus gilippus herityppas (Bates 1863)</td>
</tr>
<tr>
<td>°Monarch</td>
<td>Danaus plexippus plexippus (L. 1758)</td>
</tr>
<tr>
<td>°Tiger Mimic-Queen</td>
<td>Lycoris hallo atergoitis Doubleday 1847</td>
</tr>
<tr>
<td><strong>Clearwings</strong></td>
<td>Ithomiinae</td>
</tr>
<tr>
<td>°Morgane Clearwing</td>
<td>Greta morgane morgane (Geyer 1837)</td>
</tr>
<tr>
<td>[Red-Banded Clearwing]</td>
<td>[Pteronymia rufocincta (Sal. 1869)]</td>
</tr>
<tr>
<td>°Tiger-striped Clearwing</td>
<td>Melinaea ethra flavicans C. C. Hoffman 1924</td>
</tr>
</tbody>
</table>
Snouts
American Snout

Libytheinae

Satyrs

*Cowboy Satyr  Cyllopsis caballeroi  Beutel & Pacheco 1982
[Nayarit Satyr]  Cyllopsis nayarit  R. Chernet 1947
[Western Satyr]  Cyllopsis suivaleides  L. Miller 1974
*Orange-patched Satyr  Euphychia feta  Butler 1870
*Common Satyr  Hermepeychia hermes  (Fabricius 1775)
[Variable Satyr]  Pindis squamistriga  R. Feld 1869
*Roby Satyr  Tatygetis ucinata  Weymer 1907
Weymer's Satyr  Tatygetis weymeri  Draudt 1912
[Tailed Satyr]  Tatygetis virginia (Cramer 1776)
[Giant Satyr]  Tatygetis mermeria  griseomarginata  L. Miller 1978
Two-pupil Satyr  Vareuptychia similis  (Butler 1867)
*One-pupil Satyr  Vareuptychia themis  (Butler 1867)
Undina Satyr  Vareuptychia undina  (Butler 1870)

Gossamer-wing Butterflies

LYCAENIDAE

Metamarks

*Ebule Metamark  Euclasia eubole  (R. Feld 1869)
*Purple-washed Eyemark  Mesosema lamachus  Hewit 1857
*Blinded Metamark  Eurybia elvina  Stichel 1910
*White-spot Metamark  Naspae umbra umbra  (Boisduval 1870)
*Arcius Bluetail  Rheas arcus  beutelriveri  Llorente 1987
*Fulmen Metamark  Colephilis fulmen  Stichel 1910
*Mather's Metamark  Colephilis matheri  McAlpine 1971
*Mexican Metamark  Colephilis mexicana  McAlpine 1971
*Montezuma Metamark  Colephilis montezuma  McAlpine 1971
*Rounded Metamark  Colephilis perditioa perditios  B. & McD. 1918
*Fatal Metamark  Colephilis nemesis nemesis  (W. H. Edw. 1871)
Red-bordered Metamark  Curis ino  Godm. & Sal. 1866
[Gold-tailed Metamark]  Curis stellii  Dyer 1912
*Brumbeee Metamark  Barotis sonata  simbola  (Boisduval 1870)
Shining Metamark  Lasia itegis  callain  Druce 1972
*Maria Metamark  Lasia maria maria  Druce 1972
[Blue Metamark]  Lasia  sula sula  Staud. 1888
*White-tipped Pixie  Melanis cephae cephas  (Mdn. 1855)
*Red-bordered Pixie  Melanis pax  sexpunctata  Sesse 1917
*Brilliant Metamark  Anteros caurasia  caurasia  Westv. 1851
*Curved-winged Metamark  Emesit esmio esmio  (Hewit 1867)
*Mandana Metamark  Emesit mandana  furor  Butl. & Druce 1872
*Falcor Metamark  Emesit tenodia  tenodia  C. Feldt & R. Feld 1861
*Vulpina Metamark  Emesit vulpina  Godm. & Sal. 1886
<table>
<thead>
<tr>
<th><strong>Hairestreaks</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>*Mexican Cyncadian</td>
<td>[Eumeus tonsa] (Godman &amp; Sal. 1824)</td>
<td></td>
</tr>
<tr>
<td>[Bossa Hairestreak]</td>
<td>[&quot;Thecla&quot; bosa] (Godman &amp; Sal. 1887)</td>
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</tr>
<tr>
<td>*Regal Hairestreak</td>
<td>Evenus regalis (Cr. 1776)</td>
<td></td>
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<tr>
<td>[Strophius Hairestreak]</td>
<td>[Allosmataia strophius] (Godart 1824)</td>
<td></td>
</tr>
<tr>
<td>*Damo Hairestreak</td>
<td>Pseudolycorea damo (Druce 1875)</td>
<td></td>
</tr>
<tr>
<td>[Mexican Arcas]</td>
<td>[Arcas cypris] (Geyer 1837)</td>
<td></td>
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<tr>
<td>[White-tipped Hairestreak]</td>
<td>[Atelides goumeri] (Godman. 1901)]</td>
<td></td>
</tr>
<tr>
<td>*Thick-veined Hairestreak</td>
<td>[Atelides polye (L. 1763)]</td>
<td></td>
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<tr>
<td>*Thick-tailed Hairestreak</td>
<td>[Thecla] ligustica (Geyer 1837)</td>
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<tr>
<td>Ligurina Hairestreak</td>
<td>[Thecla] ligurina (Hewit. 1874)</td>
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<tr>
<td>*Oppia Hairestreak</td>
<td>Themis oppia (Godman. &amp; Sal. 1887)</td>
<td></td>
</tr>
<tr>
<td>*Sito Stripe-Streak</td>
<td>Arawaca sito (Boisd. 1836)</td>
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<tr>
<td>*Creamy Stripe-Streak</td>
<td>Araraca jada (Hewit. 1867)</td>
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<tr>
<td>*Marius Hairestreak</td>
<td>Rekoa marius (Lucas 1857)</td>
<td></td>
</tr>
<tr>
<td>Roadside Hairestreak</td>
<td>Rekoa meton (Cr. 1780)</td>
<td></td>
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<tr>
<td>*Gold-bordered Hairestreak</td>
<td>Rekoa legon (Cr. 1780)</td>
<td></td>
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<tr>
<td>Smudged Hairestreak</td>
<td>Rekoa stagna (Hewit. 1867)</td>
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</tr>
<tr>
<td>*Zebina Hairestreak</td>
<td>Rekoa zebina (Hewit. 1869)</td>
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<tr>
<td>*Black Hairestreak</td>
<td>Oecia ocrasia (Hewit. 1868)</td>
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<tr>
<td>[Silver-banded Hairestreak]</td>
<td>[Chlorosyron simaeas] (Deary 1773)]</td>
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<tr>
<td>[Telea Hairestreak</td>
<td>[Chlorosyron telea] (Hewit. 1868)]</td>
<td></td>
</tr>
<tr>
<td>*Tropical Greenstreet</td>
<td>Cyanophyes herodias (Fabr. 1793)</td>
<td></td>
</tr>
<tr>
<td>[Clenhch's Greenstreet</td>
<td>[Cyanophyes anynator] (Cr. 1776)</td>
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<tr>
<td>[Cyanophyes misurous]</td>
<td>[Cyanophyes misurous] (Clench 1946)</td>
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<tr>
<td>[Mountain Greenstreet</td>
<td>[Cyanophyes longula] (Hewit. 1868)]</td>
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</tr>
<tr>
<td>*Brown Greenstreet</td>
<td>[Cyanophyes fusi (Godman. &amp; Sal. 1887)]</td>
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<tr>
<td>*Intense-blue Hairestreak</td>
<td>Pantheias batliida (C. Feld. &amp; R. Feld. 1865)</td>
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</tr>
<tr>
<td>Bitias Hairestreak</td>
<td>Pantheias bitias (Cr. 1777)</td>
<td></td>
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<tr>
<td>[Aquaarine Hairestreak</td>
<td>[Chlorosyron aquaaria (Cr. 1780)]</td>
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<tr>
<td>[Mexican-M Hairestreak</td>
<td>[Parrhassia moccetana] (Clench 1971)</td>
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<tr>
<td>[Polbetes Hairestreak</td>
<td>[Parrhassia polbetes] (Cr. 1782)]</td>
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<tr>
<td>[Hecate Hairestreak</td>
<td>[Michaelis hecate (Godman. &amp; Sal. 1887)]</td>
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<tr>
<td>*White Scrub-Hairestreak</td>
<td>Strymon albata (C. Feld &amp; R. Feld. 1865)</td>
<td></td>
</tr>
</tbody>
</table>
BUTTERFLIES OF MISMALOYA, BANDERAS BAY AND SOUTHERN NAYARIT

*Red-lined Scrub-Hair streak
  Strymon bebryca (Hewit. 1868)
*Tailless Scrub-Hair streak
  Strymon estri (Reak. 1867)
*Istapa Scrub-Hair streak
  Strymon istapa (Reak. 1867)
*Megaruss Scrub-Hair streak
  Strymon megaruss "complex" (Godart 1824)
Bromeliad Scrub-Hair streak
  Strymon serapio (Godm. & Sal. 1887)
*Vojlaa Scrub-Hair streak
  Strymon vojoa (Reak. 1867)
[Red-crescent Scrub-Hair streak]
  Strymon rufifilis (Hewit. 1877)
[Lantana Scrub-Hair streak]
  Strymon haochii (Godart 1824)
[Ziva Scrub-Hair streak]
  Strymon ziva (Hewit. 1868)
[Collucia Hair streak]
  Lamprospilus collucia (Hewit. 1877)
Ceronia Ground streak
  Kissutam ceronia (Hewit. 1877)
False-Hesperitis Ground streak
  Kissutam ab. hesperitis (Butt. & Drue 1872)
[Hesperitis Ground streak]
  Kissutam hesperitis (Butt. & Drue 1872)
[Sky-blue Ground streak]
  Kissutam sylis (Godm. & Sal. 1887)
[Mountain Ground streak]
  Kissutam guamutu (Schaus 1902)
*Ruddy Hair streak
  Electrotrumon sangala (Hewit. 1968)
[Muted Hair streak]
  Electrotrumon canus (Drue 1907)
*Dusky-blue Ground streak
  Calyptos isoeon (Butt. & Drue 1872)
*Striped Ground streak
  Calyptos clarina (Hewit. 1874)
[Shining Ground streak]
  Calyptos demonstra (Hewit. 1868)
*Red-spotted Hair streak
  Tmoluia echion (L. 1767)
Garnet-washed Hair streak
  "Thecla" phoebe (Godm. & Sal. 1887)
[Ketla Hair streak]
  "Thecla" kella (Hewit. 1869)
[Velvet-patch Hair streak]
  "Thecla" mycon (Godm. & Sal. 1887)
*[Pearly-gray Hair streak]
  Siderous tephraus (Geyer 1837)
[Thoría Hair streak]
  Siderous thoría (Hewit. 1869)
[Gargarisia Hair streak]
  Siderous gargarisia (Hewit. 1877)
*Clytie Mint streak
  Mintrishymon clytie (W. H. Edw. 1877)
*Gray Mint streak
  Mintrishymon atia (Hewit. 1873)
[Purple-webbed Mint streak]
  Mintrishymon phrinus (Geyer 1832)
*Slate-gray Hair streak
  Epideia miodata Dyar 1916
[Neora Hair streak]
  Branga neora (Hewit. 1867)
[Green Hair streak]
  Ochlys hasson (Stoll 1791)
[Sonoran Hair streak]
  Hyporizon cristula (Hewit. 1874)
*Carla Hair streak
  Erora carla (Schaus 1902)
[Tiny Green streak]
  Erora subfores (Schaus 1913)
Carnica Hair streak
  Carofritha ceronica (Hewit. 1873)
Blues
  Polyommatini
*Western Pygmy Blue
  Brephidium exilis exilis (Beisd. 1852)
*Cassius Blue
  Lepoteis castius docile (W. H. Edw. 1877)
*Marine Blue
  Lepoteis marina (Reak. 1868)
*Cyna Blue
  Zita cya cya (W. H. Edw. 1881)
*Ceraunus Blue
  Hemignius ceraunus zacharias (Butt. & Drue 1872)
*Eastern Tailed Blue
  Everes comynias (Godart 1824)

31
315 butterfly species recorded from Mismaloya area to date, 382 butterfly species recorded from Banderas Bay area, about 505 butterfly species possible for Banderas bay area.

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ITERATURE CITED


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