

# BUTTERFLIES OF PEDERNALES, MICHOACÁN, MEXICO, WITH NOTES ON SEASONALITY AND FAUNISTIC AFFINITIES (LEPIDOPTERA: PAPILIONOIDEA AND HESPERIOIDEA)

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**ABSTRACT.**— A list of 205 species of butterflies and skippers is presented for Pedernales, Michoacán, in western Mexico. The fauna belongs to five families: Nymphalidae with 31% of the total number of species, Hesperiidae with 28%, Lycaenidae 24%, Pieridae 11% and Papilionidae 7%. A low species richness and a high species richness seasonality, which seem to be related to the dry and humid seasons, respectively, was found. The fauna in the area has a clear affinity to that of the Pacific Slope and especially to other localities of the Balsas Basin.

**RESUMEN.**— El presente trabajo es el primer listado lepidopterofaunístico para una localidad en el estado de Michoacán basado en recolecciones sistemáticas. Un total de 205 especies son registradas por primera vez para Pedernales, Michoacán. Aunque la lista no es completa, se considera que continen alrededor de un 80-85% del total de especies presente en el área. Del total de especies, un 31% pertenece a la familia Nymphalidae, 28% a Hesperiidae, 24% a Lycaenidae, 11% a Pieridae y 7% a Papilionidae, composición que concuerda con datos reportados para regiones neotropicales. Durante 1986, se encontraron dos épocas bien claras en cuanto a su riqueza específica con base en la presencia de imagos, una baja que va de enero a junio, y otra alta de julio a diciembre. Al comparar el número total de especies presentes por mes contra el diagrama ombrotémico, se encontró relación entre la época húmeda y alta riqueza específica y entre la época seca y baja riqueza. Si bien, esta correspondencia no es exacta, ya que los dos períodos de riqueza se encuentran desplazados ligeramente a la derecha de sus correspondientes épocas de humedad. Los meses de mayor riqueza son octubre y septiembre, al final de la época húmeda y el de menor riqueza es abril, justo después del mes más seco. Un análisis de afinidades con otras faunas utilizando el índice de Simpson y métodos fenéticos dio como resultado dos fenogramas, uno para cada superfamilia, el de Papilionoidea con un índice de correlación cofenética muy pobre ( $r = 0.65$ ) y el de Hesperioidea pobre ( $r = 0.77$ ). Se encontraron dos conglomerados de localidades para la Papilionoidea, uno formado por localidades de la vertiente del Golfo y el Soconusco, Chiapas, y otro únicamente de localidades de la vertiente del Pacífico. El Valle de México no quedó incluido en ningún conglomerado. En el caso de Hesperioidea, sólo se observa el conglomerado de las localidades del Pacífico. En ambos fenogramas, Pedernales aparece más cercano a Rancho Viejo-Tepoztlán, Morelos que a ninguna otra localidad.

**KEY WORDS:** Anacardiaceae, Burseraceae, Caribbean, distribution, Ebenaceae, fauna, Gramineae, Hesperiidae, Leguminosae, Lycaenidae, Mesoamerica, Moraceae, Neotropical, Nymphalidae, Papilionidae, Pieridae, Rubiaceae, Rutaceae, Sapindaceae, Sapotaceae, taxonomy, zoogeography.

Regional lists of butterflies are of great importance, because they provide basic information to taxonomists, zoogeographers and ecologists showing when and where to look for certain taxa. Unfortunately, this sort of work is not often accomplished (Clench, 1979). There are just a few Lepidoptera papers dealing with the fauna of western Mexico, and of these, only two deal with localities within Michoacán State. The first papers were by Brown (1943; 1944a, b, c; 1945), based upon material collected during the second and third expeditions of Hoogstraal in 1939 and 1940, where 60 species of Papilionoidea were reported. The second paper, by Mather (1967), reports 31 species of Hesperioidae. The object of this study was to examine butterfly species richness in a Michoacán locality resulting from the first study based upon systematic collections. In addition to the importance of having a regional list, the study area itself is important because it is located in the Balsas River Basin, a very important district from a zoogeographic standpoint (Hoffmann, 1940; Halffter,

1976), for which only one paper has been published (de la Maza, 1975, 1976). Another aim of this study was to conduct a comparative analysis of the butterfly fauna of Pedernales with other Mexican localities. Finally, it is intended that this paper serve as a baseline for studying future changes of the faunistic composition in the area.

## STUDY AREA

The area studied in this paper is a narrow strip located in central Michoacán, in the south end of "Municipio de Tacambaro" (Fig. 1),  $19^{\circ}07'30''$  -  $19^{\circ}10'00''$  north latitude and  $101^{\circ}26'57''$  -  $101^{\circ}28'25''$  west longitude. Due to its location on the south slope of the Volcanic Transversal Axis, the elevation varies from 1100m in the north to 850m in the south. From a floristic standpoint, it is located in the Caribbean Region, within the Balsas Depression province (Rzedowski, 1978) and faunistically in the Nayarit-Guerrero province, according to Alvarez and Lachica

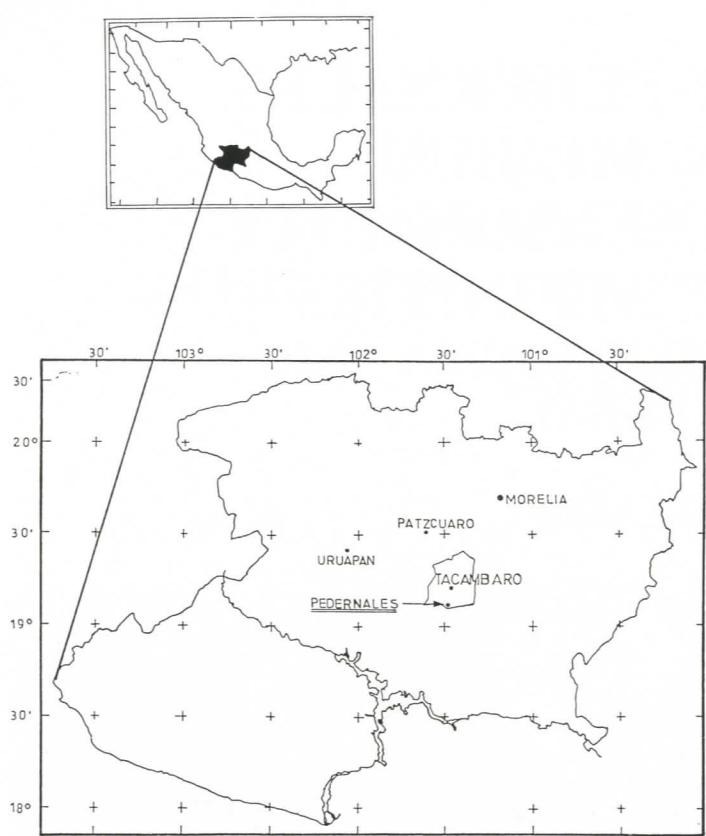


Fig. 1. Localization of study area (modified from Correa [1979:41])

(1974). The weather is warm subhumid, with the coldest month having an average temperature over 18°C. Summer rains are predominant, with winter rains comprising less than 5% of the annual total, resulting in a quotient precipitation/temperature between 43.2 and 55.3. The annual fluctuation of average temperatures is 5 to 7°C and there is a Ganges temperature march (CETENAL, 1970). A dry period from November to May and a wet period from June to October are observed in the ombrotermic diagram (Fig. 2). Seven soil types are present in the area, being predominant cromic vertisol, ranker, oxic andosol and litosol, the textural classes are fine and medium. Despite the destruction of the original vegetation in the great majority of the zone, two kinds of vegetation types can be distinguished (*sensu* Rzedowski, 1978): subdeciduous tropical forest and deciduous tropical forest (Fig. 3). The former is restricted to the humid ravines, and some of the typical trees are *Enterolobium cyclocarpum* (Jackg.) "parota", *Pithecellobium dulce* Roxb. "pinzán", *Inga spuria* "jinicuil" (Leguminosae), *Masticodendron capiri* "capiri" (Sapotaceae), *Thouindium decandrum* (H. et B.) "charapo" (Sapindaceae) and *Ficus* spp. "sirandas" (Moraceae). The deciduous tropical forest occupies the rest of the area except for the agricultural lands; the most striking trees of this vegetation belong to the genera *Acacia* (Leguminosae) and *Bursera* ("copales") (Burseraceae). In the flat lands is grown "sugar cane" (*Saccharum officinarum*) (Gramineae), and in small plots fruit trees such as "mango" (*Mangifera* sp., Anacardiaceae), "banana" (*Musa* sp., Musaceae), "black zapote" (*Diospyros ebanaster*, Ebenaceae), "coffee" (*Coffea* sp., Rubiaceae) and several citrus trees (*Citrus* spp., Rutaceae).

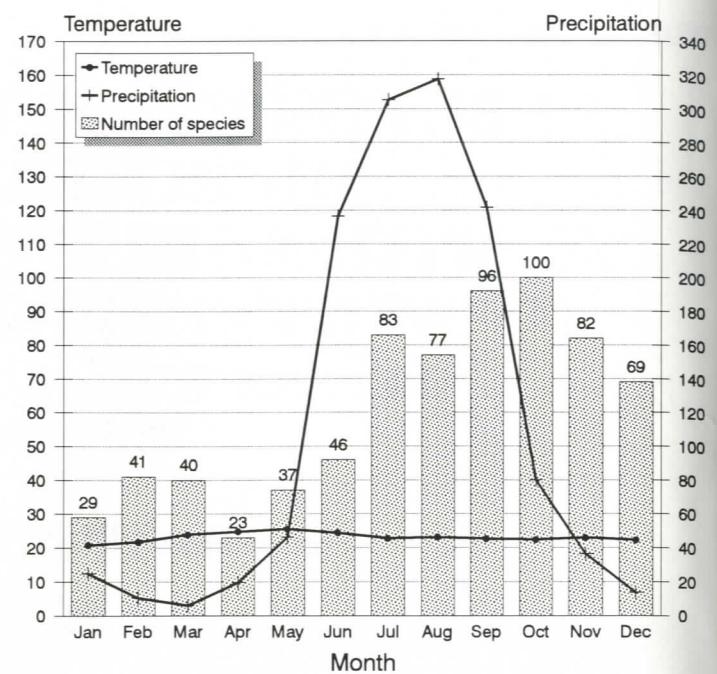


Fig. 2. Climate of Pedernales and total number of species found per month. (CETENAL, 1970. Station 16-010).

## METHODS

Monthly visits were performed from February 1986 to January 1987, in addition to previous visits in 1984 and 1985, that in total amounted to 42 collecting days. Specimens were collected with aerial nets, and by traps with rotten fruit (as described by Rydon, 1964). Part of the material was conserved in glassine envelopes in tin-coated boxes, and the rest was mounted with entomological pins following Beutelspacher's (1983b) directions.

Identifications were by comparison with material of the Colección Entomológica del Instituto de Biología (UNAM, Mexico) and with the works of Beutelspacher (1984), Comstock (1961), Godman and Salvin (1878-1901), Higgins (1981), Jenkins (1983), McAlpine (1971), L. Miller (1974) and Seitz (1924). Genitalic preparations were made following Hardwick (1950) and Borror *et al.* (1981).

Due to the lack of a comprehensive systematic arrangement for the Neotropical butterflies, several sources were used: Ackery (1984), Ackery and Vane-Wright (1984), Beutelspacher (1984), DeVries *et al.* (1985), Hodges *et al.* (1983), Hoffmann (1940, 1941), Kristensen (1975), J. Miller (1987), L. Miller (1968), and Scott (1985).

For the comparative faunal study, Simpson's similarity index was used; and for the cluster analysis, the unweighted pair-group method using arithmetic averages (UPGMA) was employed. It was intended that for the faunal comparison all the available published papers up to 1990 were to be used [Soconusco, Chiapas (Hoffmann, 1933); Los Tuxtlas, Veracruz (Ross, 1967); Las Minas, Veracruz (Beutelspacher B., 1975), Rancho Viejo-Tepoztlán, Morelos (de la Maza, 1975, 1976); El Valle de México; Chamela, Jalisco; El Chorreadero, Chiapas (Beutelspacher, 1980, 1981, 1983a) and Teocelo, Veracruz (Llorente *et al.*, 1986)]. More recent faunistic papers (de la Maza, 1988; de la Maza *et al.*, 1989; Luis *et al.*, 1991; Vargas *et al.*, 1991) will be included in a more comprehensive phenetic study of faunal relationships (Balcazár, in prep.).



Fig. 3. Vegetation of "Arroyo Frío" Ravine, Michoacán, Mexico.

## RESULTS AND DISCUSSION

A total of 205 species of 128 genera of the five butterfly families recognized by Ackery (1984) were found in Pedernales. The results are based on more than 1850 collected and checked specimens. The months when adult specimens of the species were collected, and their number, are pointed out in the list.

Clench (1979) stated that a regional list, like the one presented here, will never be complete, but as the number of collecting man-hours in the study area increases, the closer to completeness the list becomes. Unfortunately, there is no accurate record of this parameter, and the total theoretical amount of species could not be calculated with Clench's formula (Clench, 1979). However, in Fig. 4 there is a clear decrease of the curve slope for the last collecting months, so one can suppose it is close to the asymptote. Based on this, it is considered that the list includes about 80-85% of the total number of species present in the area.

The family with the greatest number of species in the area was Nymphalidae, with 31% of the total, followed by Hesperiidae with 28%, Lycaenidae 24%, Pieridae 11%, and Papilionidae 7%. These data agree with those of Heppner (1987) for these families in the Neotropical region, with the exception that Hesperiidae and Lycaenidae exchange positions. The numbers of species reported for other localities in faunistic studies like the present are shown in Table 1. Although these studies are very heterogeneous in techniques, duration and collecting effort, as well as the study area size, elevation and number of vegetation associations, the

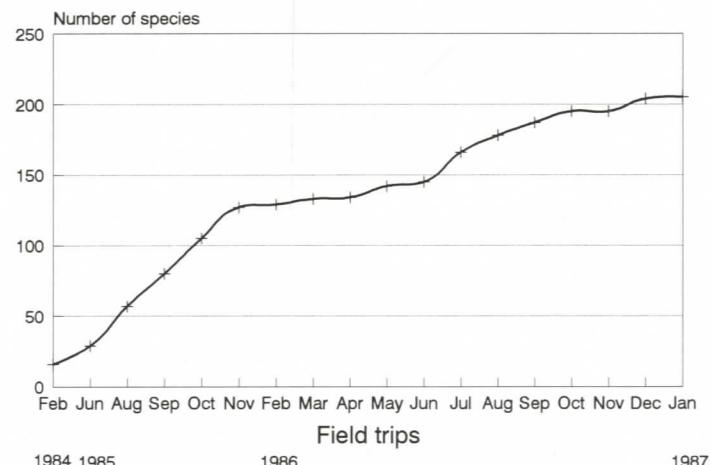


Fig. 4. Cumulative number of species collected in the study area.

reported number of species can be considered representative of their respective areas. Out of the localities of the Gulf Slope [which is richer in species numbers, (Hoffmann, 1940)], Pedernales is the third richest locality, surpassed only by "Rancho Viejo-Tepoztlán", Morelos, and "El Soconusco", Chiapas, which represent larger areas and include more vegetation associations. It is interesting to show that in Pedernales, an area of approximately 12km<sup>2</sup>, a Papilioidea number is found equivalent to 30%

TABLE 1. Number of species reported for similar faunistic works in Mexico.

### PAPILIONOIDEA

#### Total taxa:

Las Minas, Ver.:	94	Racho Viejo-Tepoztlán, Mor.:	183
Teocelo, Ver.:	302	Pedernales, Mich.:	144
Soconusco, Chis.:	156	Chamela, Jal.:	104
Tuxtla, Ver.:	359	Valle de México:	106
Chorreadero, Chis.:	141		

#### Shared taxa:

	Min.	Teo.	Soc.	Tux.	Cho.	R.V.	Ped.	Cha.	V.M.
Min.	---								
Teo.	80	---							
Soc.	34	109	---						
Tux.	67	212	117	---					
Cho.	42	97	69	95	---				
R.V.	53	103	51	92	66	---			
Ped.	45	90	50	83	58	102	---		
Cha.	28	63	47	65	52	65	63	---	
V.M.	42	65	34	54	44	67	52	39	---

### HESPERIOIDEA

#### Total taxa:

Pedernales, Mich.:	57	Valle de México:	55
Racho Viejo-Tepoztlán, Mor.:	107	Las Minas, Ver.:	33
Chamela, Jal.:	45	Soconusco, Chis.:	33
Chorreadero, Chis.:	36		

#### Shared taxa:

Ped.	R.V.	Cha.	Cho.	V.M.	Min.	Soc.
Ped.	---					
R.V.	39	---				
Cha.	23	27	---			
Cho.	17	20	13	---		
V.M.	15	26	8	5	---	
Min.	13	17	9	5	12	---
Soc.	11	13	9	7	7	8

of the total known for the US and Canada (Miller and Brown, 1981), and that almost all the species can be found in the "Arroyo Frío" ravine, which is less than 500m long.

It is very difficult to get random non-selective samples for butterflies that do not favor one species over another and bias the measure of relative abundance (Shapiro, 1975). This becomes clear from the number of collected and observed specimens, a commonly reported phenomenon in the tropics (Owen, 1971; Lamas, 1981). There is a great number of species represented by only one specimen, while just for a few species many specimens were collected. Out of 250 species, 67 were represented in the sample by just one specimen and 78% of the species are represented by 10 or fewer specimens. The most abundant species were *Eurema daira* (Godart) (Pieridae), with 139 specimens, followed by *Chlosyne lacinia* (Geyer) (Nymphalidae), with 69 (Fig. 6).

### SEASONALITY

Two clear cut seasons were found in Pedernales, based on species [adult] richness: a low season from January to June, and

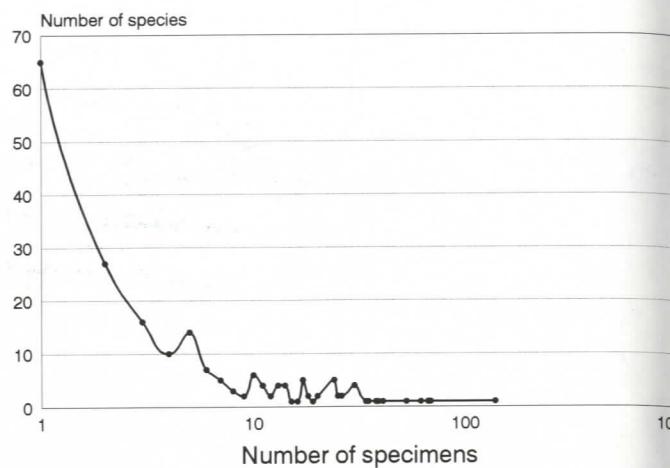


Fig. 5. Number of specimens collected per species in Pedernales, Michoacán.

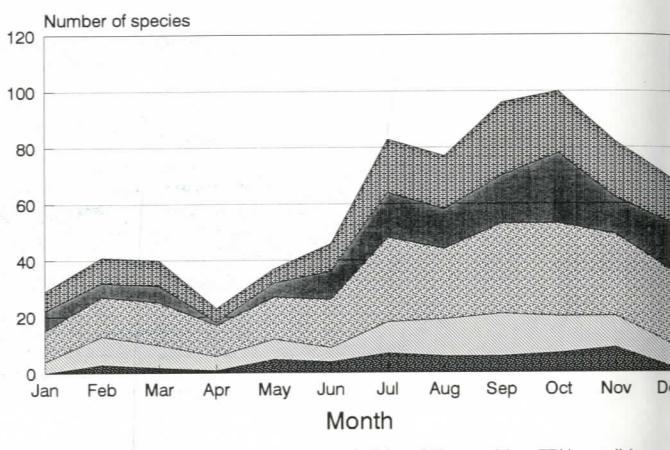
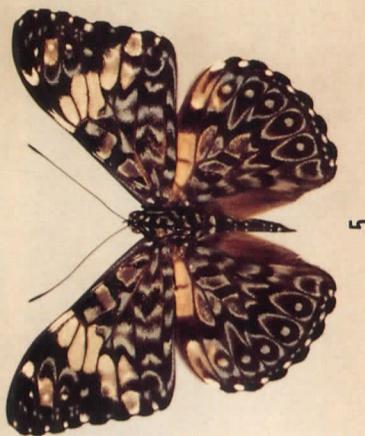


Fig. 6. Areas diagram showing the behavior of families species richness along a year in Pedernales.

a high richness season from July to December (Fig. 2). There is a relationship between the wet season with high species richness and between the dry season and low richness, but this relationship is not exact, since both richness periods lag behind precipitation periods. The months with higher richness are October and November, at the end of the humid period. The month with lowest richness is April, just right after the driest month. This pattern is followed in general by Papilionoidea. For all the families the richness periods start just after the beginning of the wet season in July, and reach their higher richness peaks at the end (Pieridae,

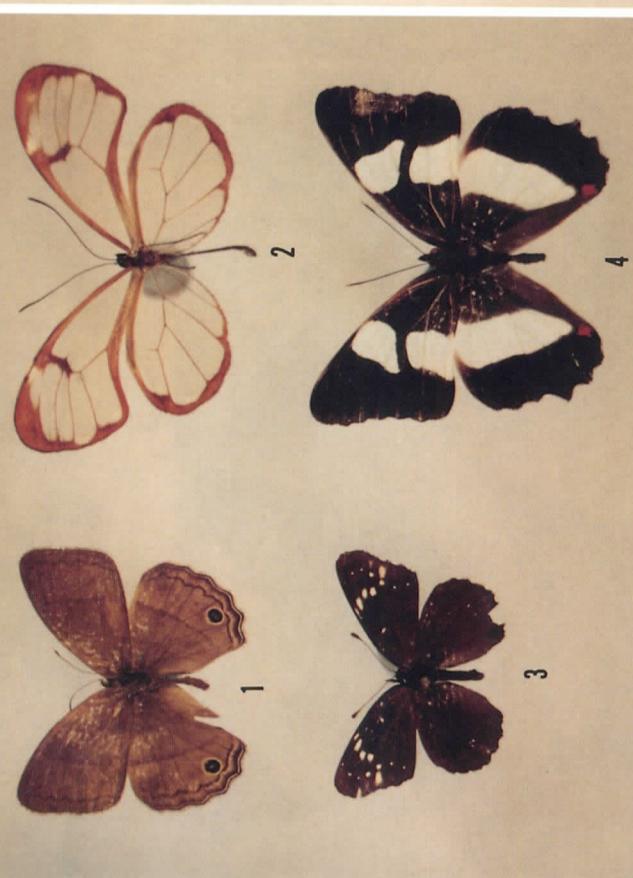
Fig. 7. SATYRINAE: 1. *"Euptychia" polyphemus cyclops* (Butler); ITHOMINAE: 2. *Greta morgane* (Geyer); NYMPHALINAE: 3. *Chlosyne riobalte* Bauer; 4. *Pyrrhogrya nearea hypsenoer* (Godman & Salvin); 5. *Hamadryas amphinome mexicana* (Lucas); 6. *Prepona demophoon pallantias* Fruhstorfer; THECLINAE: 7. *Pseudoelycaena damo* (Druce); 8. *Pantheides battus* (Reakirt); 9. *P. meton* (Cramer); 10. *Oenomaus ortygus lauta* (Draudt); "THECLA" mycon Godman & Salvin; 12. *Ocaria orcicia* (Hewitson); 13. *"Thecla" tephraeus* (Geyer); 14. *"Thecla" syedra* Hewitson; 15. *Ipidecla miadora* Druce; RIODININAE: 16. *Rhetus arcius beutelspacherii* Llorente; 17. *Calephelis perditalis* (Barnes & McDunnough); 18. *Baeotis hisbon zonata* Felder; *Melanis pixe* (Boisduval).



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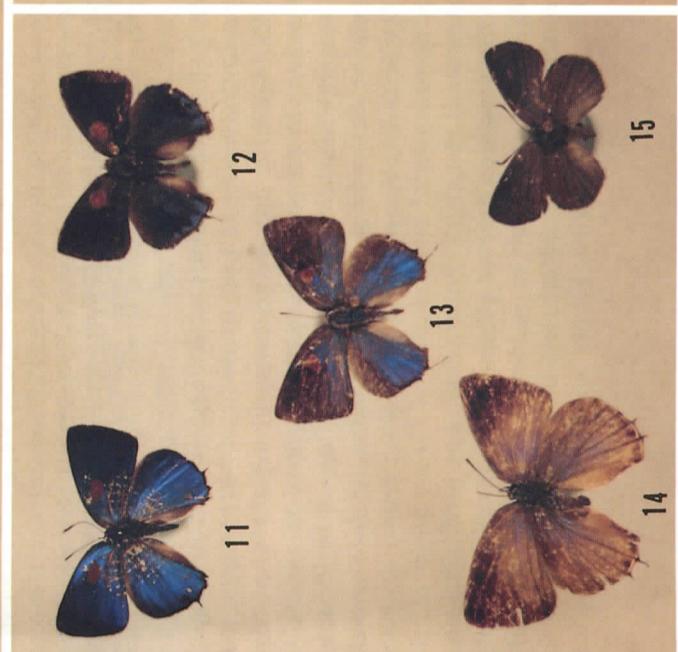
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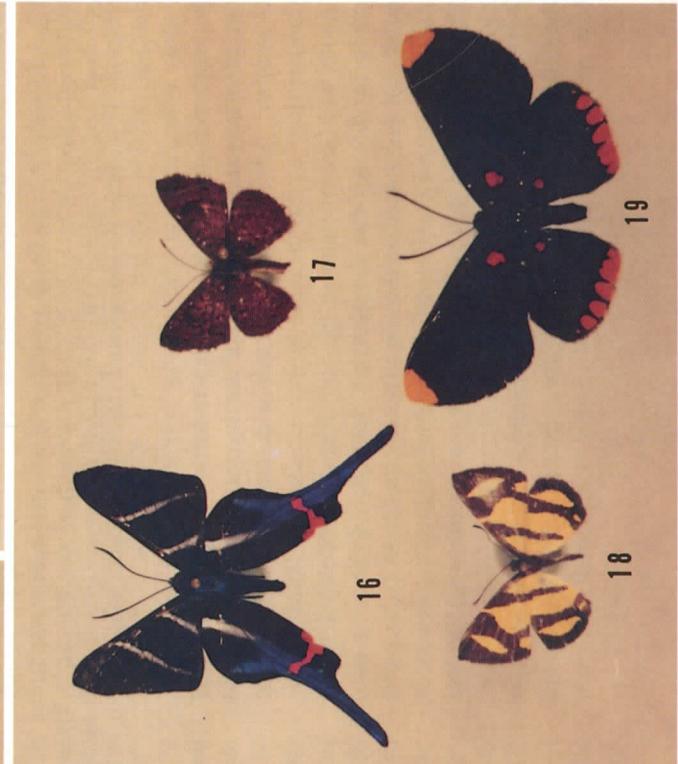
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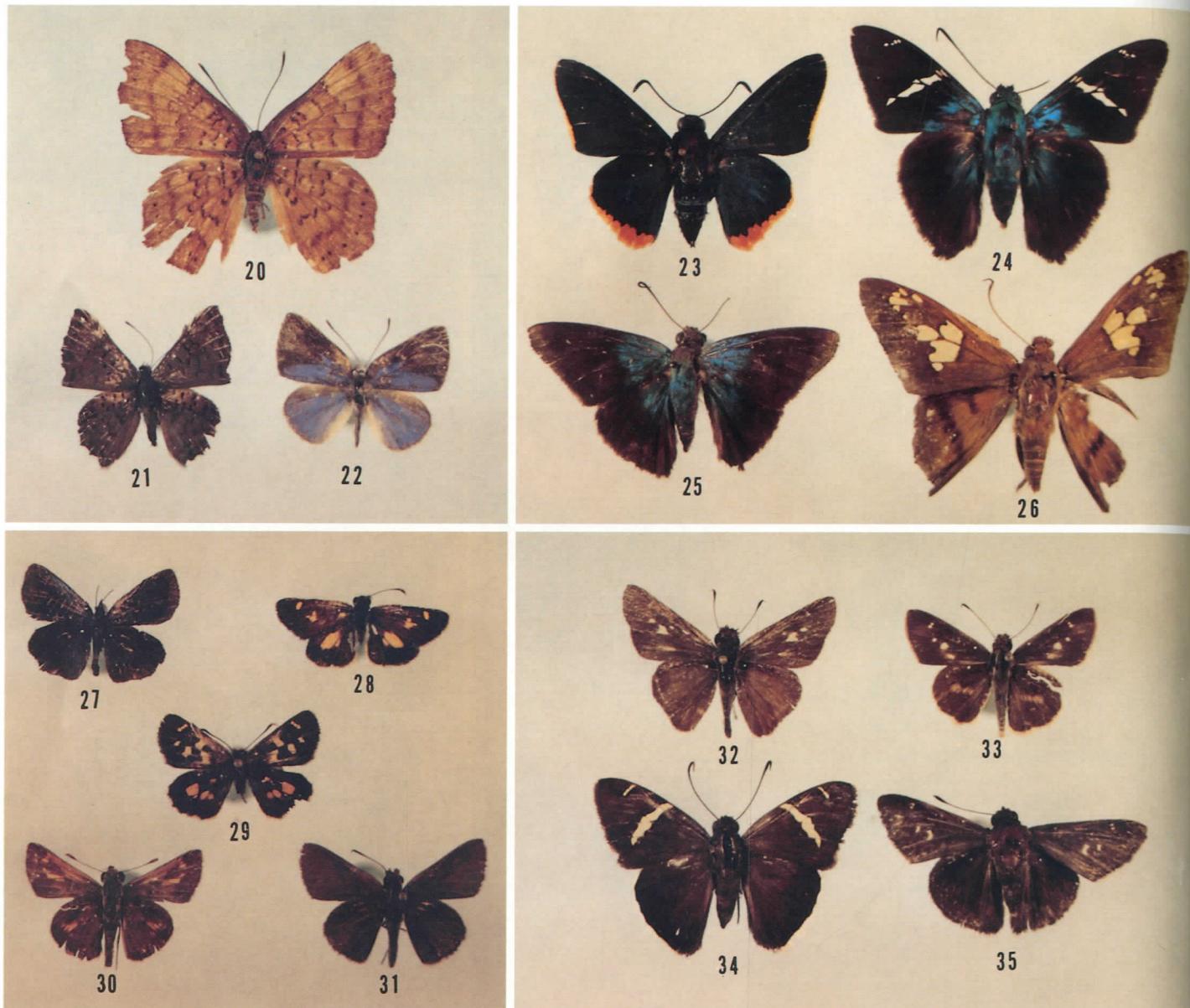


Fig. 8. RIODININAE: 20. *Emesis mandana* (Cramer); 21. *Lasaia sessilis* Schaus; 22. *Theope pedias isia* Godman & Salvin; PYRRHOPYGINAE: 23. *Pyrrhopyge chalybea chalybea* Scudder; PYRGINAЕ: 24. *Astraptes fulgerator* (Walsch); 25. *Typhedanus ampyx* (Godman & Salvin); 26. *Nascus phocus* (Cramer); 27. *Pholisora mejicanus* (Reakirt); HETEROPTERINAЕ: 28. *Dalla faula faula* (Godman); 29. *D. bubobon* Dyar; HESPERIINAЕ: 30. *Mellana helva* (Möschler); 31. *Vidius perigenes* (Godman); 32. *Nyctelius nyctelius nyctelius* (Latrelle); 33. *Vettius fantasos* (Stöll); PYRGINAЕ: 34. *Autochton neis* (Geyer); HESPERIINAЕ: 35. *Atrytonopsis deva* (Edwards).

September, Nymphalidae and Lycaenidae in October), with only one exception at the beginning of the dry season (Papilionidae in November). After the two first months of the dry season, the four families show a clear decrease in species richness. January is the month with lowest richness for both Pieridae and Papilionidae, while for Lycaenidae the richness continues decreasing until April. For Nymphalidae there are two low points in January and April. Hesperioidae (Hesperiidae) show the lowest richness in April and May, while September is the month with highest richness (Fig. 7) for that family.

These findings agree with the general idea that the life cycle of the butterflies, and consequently their species richness, is essen-

tially governed in the tropics by an alternation between rainy and dry seasons (Emmel and Leck, 1969; Owen, 1971; Austin, 1978; Wolda, 1988), as opposed to temperate regions where sharp differences in temperature and photoperiod characterize the seasonality (Shapiro, 1975). The findings cannot be considered conclusive due to the short length of the study, since according to Wolda (1988) this is only possible if the pattern is repeated year by year.

Apparently about 55% of the species were bi- or multivoltine in 1986, which is a common phenomenon in the tropics (Wolda 1988). It was not possible to establish if the species collected or observed on just a few opportunities were resident or migrant; but

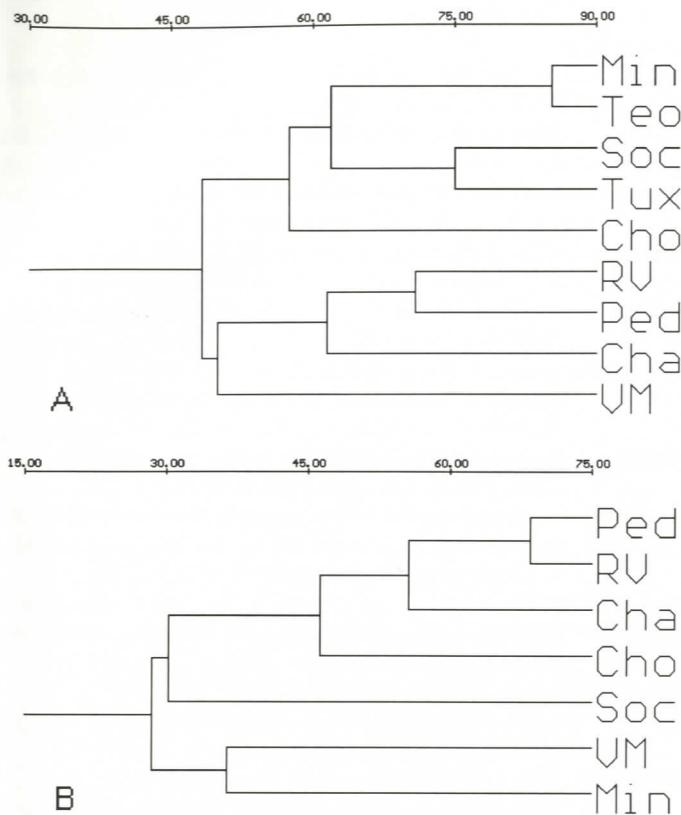


Fig. 9. Phenograms for the Mexican localities compared using Simpson's index: A. Papilionoidea ( $r=0.65$ ). B. Hesperioidae ( $r=0.77$ )

at least in November and December, some non-resident species could have been attracted by the foliage and flowers that were still present in the subdeciduous tropical forest.

## FAUNAL AFFINITIES

The faunistic papers published for Mexican butterflies are extremely heterogeneous as to collecting effort, collecting techniques, or for the altitude and longitude extensions and vegetation associations. In addition to this, it is necessary to consider the nomenclatural discrepancies. To prepare the data base for analysis, it was intended to unify the different nomenclatural criteria, work with the lowest taxonomic levels (i.e. subspecies) and identify synonyms. Because of this, it is necessary to consider the findings as preliminary, to be polished in the future, with respect to areas considered, as well as for new faunistic papers and the historic interpretation of their relationships.

I consider biogeographic similarity, in the sense of Sanchez and Lopez (1988), that is, "how much the taxonomic composition of a faunistic sample is similar to that of another with which it is compared". Sanchez and Lopez considered, too, that Simpson's index is strong enough to make accurate measurements of the faunistic similarity under both extremes of pressure by disproportion of the fauna size and by the number of shared taxa (cf. Hengeveld, 1990).

The similarity indexes obtained for the different pair-groups of localities were used for the cluster analysis, by means of the

arithmetic average clustering method. An analysis for each superfamily was performed because not all the papers included Hesperioidae. In each case, just one phenogram was found (Fig. 9): that for Papilionoidea with a very poor cophenetic correlation index ( $r = 0.65$ ) and poor for Hesperioidae ( $r = 0.77$ ).

Two clear clusters were found for Papilionoidea: a) Las Minas-Teocelo-El Soconusco-Los Tuxtlas and b) Rancho Viejo-Pedernales-Chamela. The first cluster constituted by localities of the Gulf slope, with the exception of El Soconusco. The second cluster includes just localities of the Pacific Slope. Valle de Mexico is out of both clusters, and El Chorreadero, although relatively far from the first cluster, is closer to it than to the Pacific cluster.

These clusters agree perfectly with the Neotropical areas recognized by Hoffmann (1933): the Gulf and Pacific Mexican Regions. Three of the four Gulf localities (Las Minas, Teocelo and Los Tuxtlas) are relatively close to each other and their affinities are obvious. El Soconusco, although geographically located on the Pacific Slope, shows a clear relation to the Gulf localities, as was pointed out by Hoffmann (1933), and possibly due to the similarity of climate and vegetation of this region of the Chiapas State with the Gulf region, that is clearly different from the rest of the Pacific Slope, which is much drier.

All the Pacific localities share a similar climate and have in common, at least in part, the deciduous tropical forest. The affinity between Pedernales and Rancho Viejo is very clear due to their geographic proximity, and because both are located in the Balsas Basin.

El Chorreadero, located in the dry central region of Chiapas, and with deciduous tropical forest, is out of the Gulf cluster. The relationship with this cluster may be because it is close to the Chiapas Highlands, a fact that permits certain continuity of some species distributed in the Gulf (Beutelspacher, 1983b).

Mexico Valley, an area out of the true Neotropical region does not cluster either with the Pacific nor with the Gulf localities. The quite distant relationship with the Pacific fauna can be an effect of the Balsas Basin species that occasionally reach the Mexico Valley.

Just one cluster is observed for Hesperioidae, that of the Pacific localities.

The poor co-phenetic correlation values may be caused by any or a combination of the following factors: a) the effect of hybrid areas located in the transition zone between the Nearctic and Neotropical regions (i.e. Las Minas and even possibly Mexico Valley); b) the inclusion of non resident taxa (migrants, strays, etc.) basically in the faunal lists with long lasting studies (i.e. Mexico Valley, Teocelo); and c) the great heterogeneity of the faunal studies performed in Mexico.

## CONCLUSIONS

A total of 205 species are reported for the first time for Pedernales, Michoacán, as a result of the first study based on systematic collections in West Mexico. It is considered that the list (see Appendix) is not complete but includes approximately 80 to 85% of the total number of species present in the area. The fauna in Pedernales is composed of species of the five families recognized by modern authors for Papilionoidea and Hesperioidae: Papilionidae, Pieridae, Nymphalidae, Lycaenidae and

Hesperiidae which represent 7, 11, 31, 24 and 28% respectively of the total number of species. These data agree with what has been reported for the Neotropical region. A low species richness season from January to June, and a high richness season from July to December, were found, which seem to be related to the humid and dry seasons, respectively. A few species are illustrated in Fig. 7-8.

After the faunal similitude cluster analysis (Fig. 9), just one phenogram was found for each superfamily faunal lists, that for Papilionoidea with a very poor co-phenetic correlation index ( $r = 0.65$ ) and poor for Hesperioidea ( $r = 0.77$ ). Two clusters were found for Papilionoidea, the first one constituted by localities of the Gulf slope, and El Soconusco; and the second just by localities of the Pacific Slope; Valle de Mexico does not cluster with any of the groups. Hesperioidea localities phenogram only shows one cluster for Pacific localities. In both cases, Pedernales is closer to Rancho Viejo-Tepoztlán than to any other locality.

#### ACKNOWLEDGMENTS

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## APPENDIX: CHECKLIST OF PEDERNALES BUTTERFLIES

- SUPERFAMILY PAPILIONOIDEA**
- Family PAPILIONIDAE**
- Subfamily PAPILIONINAE**
- Tribe LEPTOCIRCINI  
Subtribe Leptocirciti
- PROTESILAUS* Swainson, 1832
1. *P. aconophos* (Gray), 1852  
Jul (2), Sep (1), Nov (1).
  2. *P. epidaeus fenochionis* (Godman & Salvin), 1868  
May (1), Jun (3), Jul (1).
- Tribe PAPILIONINI
- PAPILIO* Linnaeus, 1758
3. *P. polyxenes* Fabricius, 1775  
Jun (1), Jul (1), Sep (2).
  4. *P. thoas autocles* (Rothschild & Jordan), 1906  
May (1), Nov (1), Dec (1).
  5. *P. cresphontes* Cramer, 1777  
Aug (1), Nov (2).
  6. *P. pharnaces* Doubleday, 1846  
Jul (1), Oct (3), Nov (1).
  7. *P. morelius* (Rothschild & Jordan), 1906  
Oct (1).
  8. *P. garamas* (Hübner), 1834  
Nov (1).
- Tribe TROIDINI  
Subtribe Troiditi
- PARIDES* Hübner, 1819
9. *P. photinus* (Doubleday), 1844  
Feb (1), Mar (1), May (3), Jul (2), Aug (2), Oct (4), Nov (4).
  10. *P. montezuma* (Westwood), 1842  
Feb (1), May (1), Sep (1), Oct (2).
  11. *P. polyzelus trichopus* (Rothschild & Jordan), 1906  
Feb (1), Mar (2), Apr (1), May (1), Jun (3), Aug (2), Sep (2), Oct (7), Nov (4), Dec (3).
- Subtribe Battiti
- BATTUS* Scopoli, 1777
12. *B. philenor* (Linnaeus), 1771  
Aug (1).
  13. *B. polydamus* (Linnaeus), 1758  
Jun (1), Jul (1), Aug (1), Sep (2), Oct (1), Nov (1).
  14. *B. laodamas procas* (Godman & Salvin), 1890  
Jul (3), Aug (2), Sep (8), Oct (6), Nov (1).
- Family PIERIDAE**
- Subfamily DISMORPHIINAE**
- ENANTIA* Hübner, 1819
15. *E. jethys* (Boisduval), 1836  
Jan (1), Feb (1), Mar (1), Aug (2), Sep (7), Oct (10), Nov (7), Dec (2).
- Subfamily PIERINAE**
- PIERIS (Pontia)* Schrank, 1801
16. *P. protodice* (Boisduval & Leconte), 1829  
Jun (1).
- LEPTOPHOBIA* Butler, 1847
17. *L. aripa* (Boisduval), 1836  
Aug (1), Oct (3), Nov (3).
- ASCIA* Scopoli, 1777
18. *A. monuste* (Linnaeus), 1764  
Jul (7).
- Subfamily ANTHOCARINAE**
- HESPEROCHARIS* Felder, 1862
19. *H. costaricensis* Bates, 1866  
Feb (1), Jul (3), Sep (1), Oct (4), Nov (2).
- Subfamily COLIADINAE**
- ZERENE* Hübner, 1819
20. *Z. cesonia* (Stoll), 1790  
Mar (1), Apr (1), Jul (2), Aug (2), Sep (2), Oct (5), Nov (2).
- ANTEOS* Hübner, 1819
21. *A. clorinde* (Godart), 1824  
Dec (1).
- PHOEBIS* Hübner, 1819
22. *A. maerula* (Fabricius), 1775  
Feb (1).
  23. *P. sennae eubule* (Linnaeus), 1767  
Feb (1), Mar (1), Apr (1), May (1), Jul (9), Aug (4), Sep (6), Oct (20), Nov (7), Dec (5).
  24. *P. philea* (Johansson), 1763  
Aug (1), Sep (2), Oct (1).
  25. *P. argante* (Fabricius), 1775  
Feb (1), Mar (1), Jun (2), Sep (1), Oct (2), Nov (4).
  26. *P. agarithe* (Boisduval), 1836  
Jan (1), Feb (2), Apr (1), May (1), Jun (1), Jul (8), Aug (2), Oct (2), Nov (4), Dec (3).
  27. *P. rurina intermedia* (Butler), 1872  
May (1), Jul (3), Aug (3), Sep (2), Dec (1).
  28. *E. proterpia* (Fabricius), 1775  
Jul (4), Aug (13), Sep (14), Oct (5); forma *gundlachia* Poey, 1851, Feb (1), Oct (15), Nov (15).
- Subfamily NYMPHALIDAE**
- Subfamily ITHOMIINAE**
- GRETA* Hemming, 1934
37. *G. morgane* (Geyer), 1837  
Feb (5), Aug (1), Oct (9), Nov (3), Dec (1).
- Subfamily DANAINAE**
- Tribe Danaini  
Subtribe Danaina
- DANAUS* Kluk, 1802
38. *D. plexippus plexippus* (Linnaeus), 1758  
Nov (2), Dec (1).
  39. *D. gilippus thersippus* Bates, 1863  
Jan (1), Feb (3), Mar (1), Apr (1), May (2), Jun (3), Jul (2), Aug (1), Sep (1), Oct (2), Dec (1).
  40. *D. eresimus montezuma* (Talbot), 1943  
Nov (1).
- Tribe Euploeiini  
Subtribe Itunina
- Subfamily LYCOREINAE**
41. *L. cleobaea atergatis* (Doubleday), 1847  
Feb (2), Mar (2), Oct (1).
- Subfamily BRASSOLINAE**
- OPSIPHANES* Doubleday, 1849
42. *O. boisduvalii* Westwood, 1849  
Jan (1), Mar (1), Jul (1), Sep (1), Oct (2).

## Subfamily SATYRINAE

- MANATARIA* Kirby, 1900  
 43. *M. maculata* (Hopffer), 1874  
   Sep (2), Nov (1).  
*CYLLOPSIS* Felder, 1869  
 44. *C. perplexa* Miller, 1974  
   Jul (1).  
 45. *C. nayarit* Chermock, 1947  
   Sep (2), Oct (1), Nov (1).  
*TAYGETIS* Hübner, 1918  
 46. *T. weymeri* Draudt, 1912  
   Oct (1).  
*"EUPTYCHIA"* Hübner, 1816  
 47. "*E.*. *fetna* (Butler), 1869  
   Aug (1), Sep (1).  
 48. "*E.*. *similis* (Butler), 1866  
   Jul (1), Aug (9), Sep (3), Oct (1).  
 49. "*E.*. *hermes* (Fabricius), 1793  
   Jan (1), feb (1), Apr (1), May (6), Jun  
   (2), Jul (1), Aug (9), Sep (8), Oct (8),  
   Dec (4).  
 50. "*E.*. *polyphemus cyclops* (Butler)  
   May (2), Oct (1).  
*PINDIS* Felder, 1869  
 51. *P. squamistriga* Felder, 1869  
   Jul (1), Aug (2), Sep (1), Oct (1).

## Subfamily MORPHINAE

- MORPHO* Fabricius, 1807  
 52. *M. polyphemus polyphemus* Doubleday &  
   Hewitson, 1849  
   Jan (1), Feb (1), Mar (1), Apr (1), May  
   (1), Jun (3), Jul (1), Aug (4), Oct (8),  
   Nov (6), Dec (1).

## Subfamily CHARAXINAE

- PREPONA* Boisduval, 1836  
 53. *P. demophoon pallantias* Fruhstorfer, 1916  
   Mar (1), Jul (1).  
*ARCHAEOPREPONA* Fruhstorfer, 1916  
 54. *A. demophon occidentalis* Descimon, Mast  
   de Maeght & Stoffel, 1973  
   Jun (1).  
 55. *A. demophoon gulina* (Fruhstorfer), 1904  
   Aug (1), Nov (1).  
*HYPNA* Hübner, 1819  
 56. *H. clytemnestra mexicana* (Hall), 1917  
   Sep (1).  
*ANAEA* Hübner, 1819  
 57. *A. aidea* (Guérin-Ménéville), 1844  
   Jul (2), Oct (2), Nov (2).  
*MEMPHIS* Hübner, 1819  
 58. *M. pithyusa* (Felder), 1869  
   Jul (1).

## Subfamily HELICONIINAE

- AGRAULIS* Boisduval & Leconte, 1833  
 59. *A. vanillae incarnata* (Riley), 1926  
   Oct (1).

- DIONE* Hübner, 1819  
 60. *D. juno huascama* (Reakirt), 1866  
   Jul (3), Oct (1), Nov (1).  
 61. *D. moneta poeyii* (Butler), 1873  
   Nov (3), Dec (1).

- DRYAS* Hübner, 1807  
 62. *D. iulia delila* (Fabricius), 1775  
   Jan (1), Feb (3), Mar (2), Apr (1), May  
   (1), Aug (2), Oct (4), Nov (2), Dec (2).  
*HELICONIUS* Kluk, 1802  
 63. *H. charitonius vazquezae* Comstock &  
   Brown, 1950  
   Jan (1), Feb (1), Mar (3), Apr (1), May  
   (1), Jun (1), Jul (1), Aug (1), Sep (1),  
   Oct (3), Nov (4), Dec (1).

## Subfamily NYMPHALINAE

- Tribe Nymphalini  
*NYMPHALIS* Kluk, 1802  
 64. *N. antiopa* (Linnaeus), 1758  
   Nov (1).  
*HYPANARTIA* Hübner, 1821  
 65. *H. lethe* (Fabricius), 1793  
   Oct (1).

## Tribe Hypolimnini

- JUNONIA* Hübner, 1819  
 66. *J. coenia* (Hübner), 1822  
   Jul (1), Aug (2), Nov (1), Dec (1).  
*ANARTIA* Hübner, 1819  
 67. *A. jatrophae* (Johansson), 1763  
   Mar (1), Apr (1), Jul (2), Aug (3), Sep  
   (2), Oct (5), Nov (3), Dec (1).  
 68. *A. fatima venusta* Fruhstorfer, 1907  
   Jan (1), Feb (3), Mar (14), Apr (1),  
   May (2), Jun (3), Jul (2), Aug (8), Sep  
   (10), Oct (12), Nov (13), Dec (1).

- SIPROETA* Hübner, 1823  
 69. *S. stelenes biplagiata* (Fruhstorfer), 1907  
   Jan (1), Feb (1), Mar (6), Apr (1), May  
   (1), Jun (1), Jul (1), Aug (1), Sep (2),  
   Oct (5), Nov (4), Dec (1).  
 70. *S. epaphus* (Latreille), 1811  
   Jan (1), Feb (1), Sep (2), Dec (2).

## Tribe Argynnini

- EUPTOIETA* Doubleday, 1848  
 71. *E. claudia* (Cramer), 1776  
   Aug (1), Sep (1).  
 72. *E. hegesia hoffmanni* Comstock, 1944  
   Jul (5), Aug (12), Sep (5), Oct (3), Nov  
   (1).

## Tribe Melitaeini

- ANTHANASSA* Scudder, 1875  
 73. *A. texana* (Edwards), 1863  
   Feb (1), Mar (1), Jun (1), Jul (3), Aug  
   (2), Sep (6), Oct (6), Nov (8), Dec (2).

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74. *A. ptolyca* (Bates), 1864  
   Mar (1), Apr (1), May (2), Jun (1), Sep  
   (1).  
 75. *A. ardys* (Hewitson), 1864  
   Mar (1), Jun (2), Dec (2).  
 76. *A. alexon* (Godman & Salvin), 1889  
   Aug (2), Sep (4), Oct (1), Nov (2), Dec  
   (1).  
 77. *A. sp*  
   May (1), Sep (1), Dec (2).  
*PHYCIODES* Hübner, 1819  
 78. *P. pictus* Edwards, 1865  
   May (1), Jun (1), Jul (1), Dec (2).  
 79. *P. pallescens* (Felder), 1869  
   Dec (3).  
*CHLOSYNE* Butler, 1870  
 80. *C. ehrenbergii* (Hübner), 1833  
   Jun (1), Jul (1).  
 81. *C. lacinia* (Geyer), 1837  
   Jun (1), Jul (13), Aug (32), Sep (12),  
   Oct (3), Nov (8).  
 82. *C. hyperia* (Fabricius), 1793  
   Apr (1), May (2), Jun (3), Jul (1), Aug  
   (1), Sep (3), Oct (14), Nov (5).  
 83. *C. riobalsensis* Bauer, 1960  
   Jul (1).  
*THESSALIA* Scudder, 1875  
 84. *T. theona* ssp.  
   Jul (2).  
*MICROTIA* Bates, 1864  
 85. *M. elva elva* Bates, 1864  
   Jun (2), Jul (3), Aug (4), Sep (9), Oct  
   (5), Nov (1).  
*TEXOLA* Higgins, 1958  
 86. *T. elada ulrica* (Edwards), 1877  
   Jan (1), May (1), Jul (8), Aug (14), Sep  
   (3), Oct (7), Nov (1), Dec (4).  
 87. *T. coracara* (Dyar), 1912  
   Jul (4), Sep (19), Oct (7).

## Tribe Epicaliini

- DYNAMINE* Hübner, 1819  
 88. *D. mylitta* (Cramer), 1779  
   Dec (1).  
*TEMENIS* Hübner, 1816  
 89. *T. laothoe hondurensis* Fruhstorfer, 1907  
   Jan (1), Jul (4), Sep (2), Oct (5), Dec  
   (2).  
*PYRRHOGYRA* Hübner, 1816  
 90. *P. nearea hypsenor* (Godman & Salvin),  
   1884  
   Feb (1), Mar (1), Apr (1), May (1), Jun  
   (2), Aug (2), Sep (2), Oct (4), Nov (2),  
   Dec (1).  
 91. *P. edocla aenaria* Fruhstorfer, 1908  
   Sep (1), Dec (2).  
*CYCLOGRAMMA* Doubleday, 1847  
 92. *C. bacchis* Doubleday, 1849  
   Oct (1).

- Tribe **Euryteliini**
- MESTRA** Hübner, 1825  
93. *M. amymone* (Ménétriés), 1857  
Sep (1).
- Tribe **Ageroniini**
- HAMADRYAS** Hübner, 1806  
94. *H. atlantis lelaps* (Godman & Salvin), 1883  
Nov (1).  
95. *H. amphinome mexicana* (Lucas), 1853  
Sep (1).
- Tribe **Coloburini**
- SMYRNA** Hübner, 1823  
96. *S. blomfieldia datus* Fruhstorfer, 1908  
Feb (1), May (2), Aug (3), Sep (1), Oct (2), Nov (2), Dec (1).
- Tribe **Marpesiini**
- MARPESIA** Hübner, 1818  
97. *M. chiron* (Fabricius), 1775  
Nov (1).  
98. *M. petreus* (Cramer), 1776  
Feb (4), Mar (2), Jun (1), Jul (2), Aug (1), Oct (2), Nov (5), Dec (1).
- Subfamily **LIBYTHEINAE**
- LIBYTHEANA** Michener, 1943  
99. *L. carinata mexicana* Michener, 1943  
Jul (2).
- Family LYCAENIDAE
- Subfamily THECLINAE
- OCARIA** Clench, 1970  
100. *O. orricia* (Hewitson), 1868  
Aug (1).  
**MINISTRYMON** Clench, 1961  
101. *M. azia* (Hewitson), 1873  
May (1).  
**OENOMAUS** Hübner, 1819  
102. *O. ortygus lauta* (Draudt), 1919  
Oct (1), Dec (1).  
**THEREUS** Hübner, 1819  
103. *T. zebina guadala* Schaus, 1902  
May (1), Jul (1), Aug (1).  
**CALYCOPIS** Scudder, 1876  
104. *C. beon* (Cramer), 1780  
Dec (1).  
**CALLOPHRYS** Billberg, 1820  
105. *C. herodotus* (Fabricius), 1793  
Sep (1).  
**PSEUDOLYCAENA** Wallengren, 1859  
106. *P. damo* (Druce), 1875  
Mar (1), Jul (1), Aug (5), Sep (3), Oct (2), Nov (1).
- Tribe **Everini**
- EVERES** Hübner, 1819  
126. *E. comyntas* (Godart), 1824  
Jan (2), Feb (1), May (1), Jul (1), Oct (2), Nov (2).
- ARAWACUS Kaye, 1904  
107. *A. jada* (Hewitson), 1867  
Jun (1), Jul (1), Sep (2), Oct (2).  
**STRYMON** Hübner, 1818  
108. *S. yojoa* (Reakirt), 1866  
Jul (1).  
109. *S. sedecia* (Hewitson), 1874  
Nov (1).  
**PANTHIADES** Hübner, 1819  
110. *P. battus jalan* (Reakirt), 1869  
Jul (1), Aug (1), Dec (1).  
**REKOA** Kaye, 1904  
111. *R. meton* (Cramer), 1779  
May (1), Aug (1), Oct (1), Dec (1).  
**MICHAELUS** Nicolay, 1979  
112. *M. jebus* (Godart), 1822  
Jan (1).  
"THECLA" Fabricius, 1807  
113. "T". *mycon* Godman & Salvin, 1887  
Jan (2), Jun (2), Oct (1), Dec (2).  
114. "T". *tephraeus* (Geyer), 1837  
Sep (1), Dec (1).  
115. "T". *syedra* Hewitson, 1867  
Sep (1), Nov (1).  
116. "T". *canus* Druce, 1907  
Jul (2).  
117. "T". *basilides* (Geyer), 1837  
Oct (1).  
118. "T". sp1  
Dec (2).  
119. "T". sp2  
Dec (1).  
120. "T". sp3  
Dec (1).  
**IPIDECLA** Dyar, 1917  
121. *I. miadora* Dyar, 1917  
Jul (1).
- Subfamily POLYOMMATINAE
- Tribe Zizeerini
- ZIZULA** Chapman, 1910  
122. *Z. cyna* (Edwards), 1881  
Jun (1), Sep (3), Nov (1).
- Tribe Lampidini
- LEPTOTES** Scudder, 1876  
123. *L. cassius* (Cramer), 1775  
Jan (3), Feb (2), Mar (1), Jul (2), Aug (1), Sep (4), Oct (6), Nov (2), Dec (3).  
124. *L. marina* (Reakirt), 1868  
Jan (1), Jun (1), Jul (2), Aug (1), Sep (2), Oct (2), Nov (1).  
**HEMIARGUS** Hübner, 1818  
125. *H. zachaeina* (Butler & Druce), 1872  
Feb (1), Mar (1), Jun (1), Jul (12), Aug (3), Sep (3), Oct (7), Nov (4), Dec (3).
- Tribe Everini
- CELASTRINA** Tutt, 1906  
127. *C. ladan gozora* (Boisduval), 1870  
Oct (1).
- Subfamily RIODININAE
- Tribe Euribyini
- CREMNA** Doubleday, 1847  
128. *C. umbra* (Boisduval), 1870  
Oct (1).
- Tribe Ancylyurini
- RHETUS** Swainson, 1829  
129. *R. arcus beutelspacherii* Llorente, 1988  
Jul (1), Oct (1), Dec (1).  
**CALEPHELIS** Grote & Robinson, 1869  
130. *C. sinaloensis* Mc Alpine, 1971  
Oct (1).  
131. *C. perditalis* (Barnes & McDunnough), 1919  
Jan (2), Feb (3), Mar (3), Apr (4), May (3), Jun (5), Jul (6), Aug (3), Sep (4), Oct (5), Nov (3), Dec (2).  
**LASAIA** Bates, 1868  
132. *L. sula* Staudinger, 1888  
Jun (1), Jul (1).  
133. *L. sessilis* Schaus, 1890  
Sep (1), Oct (1).  
**MELANIS** Hübner, 1819  
134. *M. pixe* (Boisduval), 1836  
Aug (2), Sep (1), Oct (3), Nov (1), Dec (3).  
135. *M. cepheise* (Ménétriés), 1855  
Aug (1), Sep (3).  
**EMESIS** Fabricius, 1807  
136. *E. mandana* (Cramer), 1780  
Nov (1).  
137. *E. tegula* (Godman & Salvin), 1886  
Mar (1), Jul (1), Sep (1), Oct (2), Dec (1).  
138. *E. vulpina* (Godman & Salvin), 1886  
Jun (1), Oct (2), Dec (1).  
139. *E. poeas* (Godman & Salvin), 1901  
Sep (1), Oct (1).  
140. *E. teneida* (Felder), 1861  
Jan (1), Feb (1), Jun (1), Aug (4), Sep (4), Oct (7), Nov (4), Dec (2).  
**APODEMIA** Felder, 1865  
141. *A. multiplaga* Schaus, 1902  
Aug (1).  
142. *A. walkeri* Godman & Salvin, 1886  
Jul (1), Sep (1), Oct (1).  
**BAEOTIS** Hübner, 1816  
143. *B. hisbon zonata* Felder, 1869  
Jun (2), Nov (1).  
**ANTEROS** Hübner, 1816  
144. *A. carausius* (Westwood & Doubleday), 1851  
Mar (1).  
**CALYDNA** Doubleday, 1847  
145. *C. hegias* Felder, 1869  
Aug (1).

- THEOPE** Doubleday, 1858  
 146. *T. pedias isia* Godman & Salvin, 1878  
   Oct (1).  
 147. *T. diores* Godman & Salvin, 1897  
   Oct (1).  
 148. *T. aff. villai* Beutelspacher, 1981  
   Oct (1).
- SUPERFAMILY HESPERIOIDEA**
- Family HESPERIIDAE
- Subfamily PYRRHOPYGINAE
- PYRRHOPYGE** Hübner, 1819  
 149. *P. chalybea chalybea* Scudder, 1874  
   Sep (2), Oct (3).
- Subfamily PYRGINAE
- EPARGYREUS** Hübner, 1819  
 150. *E. exadeus cruza* Evans, 1952  
   Aug (2), Sep (1), Oct (4), Nov (1).  
**CHIOIDES** Lindsey, 1921  
 151. *C. catillus albofasciatus* (Hewitson), 1867  
   Feb (1), Mar (1), Jun (1), Jul (3), Aug (2), Sep (1), Oct (3), Dec (1).  
**TYPHEDANUS** Butler, 1870  
 152. *T. ampyx* (Godman & Salvin), 1893  
   Jan (1), Feb (1), Mar (1), Oct (2), Nov (3), Dec (1).  
**CODATRACTUS** Lindsey, 1921  
 153. *C. bryaxis* (Hewitson), 1867  
   Jun (1), Jul (1), Aug (1).  
 154. *C. melon* (Godman & Salvin), 1893  
   Jul (1).  
**URBANUS** Hübner, 1807  
 155. *U. proteus* (Linnaeus), 1758  
   Feb (4), Sep (1), Oct (12), Nov (4), Dec (3).  
 156. *U. dorantes* (Stöll), 1790  
   Jul (3), Sep (4), Oct (2), Nov (1).  
 157. *U. teleus* (Hübner), 1821  
   Jan (2), Feb (3), Mar (2), Apr (1), Sep (1), Nov (3), Dec (2).  
 158. *U. simplicius* (Stöll), 1790  
   Jan (1), Feb (4), Mar (1), Apr (1), May (1), Jun (1), Jul (3), Aug (2), Sep (2), Oct (6), Nov (5), Dec (1).  
**ASTRAPTES** Hübner, 1819  
 159. *A. fulgerator* (Walsch), 1821  
   Mar (1), Oct (2), Nov (1), Dec (2).  
 160. *A. anaphus* (Cramer), 1777  
   Jun (1), Nov (1).  
**AUTOCHTON** Hübner, 1823  
 161. *A. neis* (Geyer), 1832  
   Sep (1).  
**ACHLARUS** Scudder, 1872  
 162. *A. albociliatus* (Mabille), 1877  
   Oct (1), Nov (1).  
**CABARES** Godman & Salvin, 1894  
 163. *C. potrillo* (Lucas), 1857  
   Oct (1), Dec (1).  
**NASCUS** Watson, 1893  
 164. *N. phocus* (Cramer), 1777
- Nov (1).  
**SPATHILEPIA** Butler, 1870  
 165. *S. clonius* (Cramer), 1775  
   Jan (1), Mar (2), Apr (2), Aug (1), Sep (3), Nov (3), Dec (2).  
**NISONIADES** Hübner, 1819  
 166. *N. ephora* (Herrich-Schäffer), 1870  
   Aug (1), Dec (1).  
 167. *N. godma* Evans, 1953  
   Jul (1).  
**STAPHYLUS** Godman & Salvin, 1896  
 168. *S. mazans* (Reakirt), 1866  
   Jan (1), Jun (2), Jul (1).  
 169. *S. azteca* (Scudder), 1872  
   Jul (1), Sep (1), Oct (1).  
 170. *S. sp. 1*  
   Sep (2).  
**ATARNES** Godman & Salvin, 1897  
 171. *A. sallaei* (Felder), 1867  
   Aug (1), Sep (1), Nov (2).  
**ANTIGONUS** Hübner, 1819  
 172. *A. funebris* (Felder), 1869  
   May (1), Jun (1), Jul (2), Oct (1).  
 173. *A. erosus* (Hübner), 1812  
   Mar (1), Aug (1), Oct (1), Nov (1).  
 174. *A. emorsa* (Felder), 1869  
   May (3), Jun (1), Jul (6), Aug (7), Dec (1).  
**SYSTACEA** Edwards, 1877  
 175. *S. pulverulenta* (Felder), 1869  
   Oct (1).  
**ZOPYRION** Godman & Salvin, 1869  
 176. *Z. sandace* Godman & Salvin, 1869  
   May (3), Jun (4), Jul (2), Aug (1), Sep (2), Oct (1), Nov (1).  
**ACHLYODES** Hübner, 1819  
 177. *A. pallida* (Felder), 1869  
   Nov (1).  
**EBRIETAS** Godman & Salvin, 1869  
 178. *E. anacreon* (Staudinger), 1876  
   Jul (1).  
**CHIOMARA** Godman & Salvin, 1894  
 179. *C. mithrax* (Möschler), 1878  
   Aug (1), Sep (2).  
**GESTA** Evans, 1953  
 180. *G. gesta* (Herrich-Schäffer), 1863  
   Aug (1), Sep (1).  
**ERYNNIS** Schrank, 1801  
 181. *E. funeralis* (Scudder & Burgess), 1870  
   Feb (1).  
**PYRGUS** Hübner, 1819  
 182. *P. oileus* (Linnaeus), 1767  
   Jan (1), Feb (1), Sep (8), Oct (5), Nov (2), Dec (2).  
 183. *P. communis* (Grote), 1872  
   Dec (1).  
**HELIOPETES** Billberg, 1820  
 184. *H. macaira* (Reakirt), 1866  
   Jul (2), Aug (1), Oct (2).  
**PHOLISORA** Scudder, 1872  
 185. *P. mejicanus* (Reakirt), 1866  
   Jul (1), Sep (1).
- Subfamily HETEROPTERINAE
- PIRUNA** Evans, 1955  
 186. *P. brunnea* (Scudder), 1872  
   Sep (1).  
**DALLA** Mabille, 1904  
 187. *D. bubobon* Dyar, 1921  
   Jul (1).  
 188. *D. faula faula* (Godman), 1900  
   Jul (2).
- Subfamily HESPERIINAE
- SYNAPTE** Mabille, 1904  
 189. *S. syraces syraces* (Godman), 1901  
   Jul (2), Aug (1).  
**CORTICEA** Evans, 1955  
 190. *C. corticea* (Plötz), 1883  
   Sep (1).  
**VIDIUS** Evans, 1955  
 191. *V. perigenes* (Godman), 1900  
   Sep (1).  
**VEHILIUS** Godman, 1900  
 192. *V. inca* (Scudder), 1872  
   Sep (2).  
**LEREMA** Scudder, 1872  
 193. *L. accius accius* (Abbot & Smith), 1797  
   Sep (2), Oct (1), Dec (3).  
**VETTIUS** Godman, 1901  
 194. *V. fantasos* (Stöll), 1780  
   May (1), Dec (2).  
**PERICHARES** Scudder, 1872  
 195. *P. philetis dolores* (Reakirt), 1868  
   Sep (5), Oct (8), Nov (2).  
**ANCYLOXYPHA** Felder, 1862  
 196. *A. arene* (Edwards), 1871  
   Jun (1), Jul (3), Aug (1), Sep (2), Oct (1), Nov (4).  
**COPAEODES** Speyer, 1877  
 197. *C. minimus* (Edwards), 1870  
   Feb (1).  
**HYLEPHYLA** Billberg, 1820  
 198. *H. phyleus phyleus* (Drury), 1773  
   Sep (1), Nov (1).  
**POLITES** Scudder, 1872  
 199. *P. athenion* (Hübner), 1825  
   Mar (1), Apr (1), Jun (1), Oct (3), Dec (5).  
**TRYTONE** Scudder, 1872  
 200. *A. delaware* (Edwards), 1863  
   Aug (1).  
**MELLANA** Hayward, 1948  
 201. *M. eulogius* Evans, 1955  
   Aug (2).  
 202. *M. helva* (Möschler), 1876  
   Aug (1), Oct (1).  
**TRYTONOPSIS** Godman, 1900  
 203. *A. deva* (Edwards), 1876  
   Aug (1).  
**NYCTELIUS** Hayward, 1948  
 204. *N. nyctelius nyctelius* (Latreille), 1824  
   Jan (4), Feb (3), Mar (1), Apr (1), Jul (1), Nov (1), Dec (1).  
**THESPIEUS** Godman, 1900  
 205. *T. macareus* (Herrich-Schäffer), 1869  
   Sep (1).