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CATALOGUE AND BIOGEOGRAPHY OF THE LEPIDOPTERA OF ECUADOR

I - SATURNIIDAE

WITH A DESCRIPTION OF A NEW SPECIES OF *MEROLEUCA* PACKARD

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INTRODUCTION

The entomofauna of the Republic of Ecuador is certainly the most varied and numerically the largest in South America in relation to the land surface area (281,341 sq. km. (*) or about 108,300 sq. miles). This is essentially due to the unique geographic position of the country and to the configuration of its relief, which allow it to receive, on its small but remarkably diversified territory, contributions from two major faunal zones: the Guiano-Amazonian and the Andean. The fact that the latter presents significant differences at different elevations of each slope, increases the complexity and the richness of the fauna as a whole.

Those biogeographical data were stated in a previous work (Lemaire, 1977) in which their prominent role in the variety and abundance of the fauna was underscored; the representation of the Saturniidae was then evaluated to be 220 species. In the last ten years, additional collecting has increased this total to the 267 species cited in this catalogue. This represents nearly one third of the total neotropical fauna of Saturniidae, which is estimated to be 850 species (Lemaire, in press).

Comparison of the fauna of Ecuador with the fauna of the three other neotropical countries of the Andes (Colombia, Perú, Bolivia), each having land surface areas at least four times greater than Ecuador, would be premature. Additional field work is necessary in these countries in order to equal the knowledge we have with Ecuador.

* National Geographic Atlas.

Nevertheless, it seems that only Colombia, which has a geographical situation comparable with Ecuador, (with much more complexity in the cordilleras), may support a larger fauna. Perú with its desert or semidesert coastal region and Bolivia which faces the Amazonian Basin exclusively are deprived totally or partially of the faunistic contribution of the Pacific slope. The fauna of both countries, especially the latter, is thus less diversified and probably numerically inferior.

HISTORY OF THE COLLECTING IN ECUADOR

The entomological exploration of the countries of the Andes, particularly Ecuador, began much later than that of the West Indies and Brazil, mostly because of the difficulties encountered with travel into the interior. The fauna of Surinam, that Maria Sybil Merian began to illustrate in the last quarter of the 17th century, was already well known by the end of the following century, especially through the work of Cramer (1775-1782). With the exception of a few insects collected in 1802 during the voyage of Humboldt and Bonpland in the tropical regions of the New World **, it was not until the end of the 19th century that the first material was received from Ecuador. Thus no Saturniidae, and as far as is known, no member of the Lepidoptera, were named from Ecuador by Hübner or by the great classical lepidopterists of the middle of the 19th century, including Herrich-Schäffer, Walker and Boisduval.

The first original descriptions of Saturniidae from this country were published nearly simultaneously by three authors: Maassen (1890), Druce (1890) and Dognin (1889-1891) and were based on material provided from different sources.

The four species described by Maassen were based on specimens collected by Alfons Stübel between 1870 and 1874. This famous German geographer and geologist explored the volcanoes of Pichincha, Antisana, Cotopaxi and Quilindaña, collecting at elevations between 3000 and 4000m. These were probably the first Ecuadorian Saturniidae to reach Europe; part of them are still preserved at the Museum of Natural History of the Humboldt-Universität in Berlin.

In the same year, Druce described two species of Saturniidae from Ecuador (a third taxon was described in 1911) based on specimens in his own collection received from Buckley, a professional collector who visited the country twice, the first trip as early as 1868 (Brown 1941: 811). The types are now deposited in the British Museum (Nat. Hist.).

Up until 1924, Dognin had provided the most significant contribution to the knowledge of the Lepidopterofauna of South America, especially Ecuador. He described a considerable number of new species (works cited above and Dognin 1910-1923), mostly of Heterocera from Ecuador, but only 11 Saturniidae. In his work on the Lepidoptera of Loja and vicinity (1887-1896), Dognin recorded 1643 species received by 1894 from his correspondent the Abbé Théophile Gaujon, a lazarist monk residing in Loja. Dognin's collection was acquired by the National Museum of Natural History (U.S.N.M.), where all the type specimens are preserved.

Other authors have also described species of Saturniidae from Ecuador: W. Rothschild (one), Schaus (three), Gschwandner (one), Strand (one), Bouvier (four), Forbes (one), Oiticica and Michener (one) (see References), increasing to 30 the number of species*** described between 1889 and 1950. This relatively small number was due to the late arrival of material from Ecuador, whereas the majority of the species were known from the neighboring countries, especially from Perú where numerous foreign travelers and resident collectors conducted an important entomological activity before the middle of the 19th century (Lamas 1980).

Edgar and Felix Pratt, Ockenden and Fassl, all of whom contributed so much to Andean material, never traveled in Ecuador.

** Latreille (1809) described *Nymphalis pavon*, dedicated to the Spanish botanist José Antonio Pavón, from specimens collected by Humboldt and Bonpland in the Loja region (Lamas, 1980: 20).

*** Only the species currently considered valid are referred to here. Five subspecies were also described during the same period.

In this country, as in all tropical regions, collectors (most of them professionals working for traders), were first interested in butterflies, that were the most in demand commercially. Although the Saturniidae are among the more spectacular Lepidoptera, only few notable collectors cited by F.M. Brown (1941) have collected this family:

-Marc de Mathan collected in western Ecuador (Balzapamba) about 1890 on the behalf of Ch. Oberthür. The greatest part of the collection of the latter was purchased by the B.M.N.H.

-Paul Rivet, later the founder of the "Musée de l'Homme" in Paris, traveled as a naturalist with a scientific mission of the French Army (1901-1905). A few Saturniidae collected from Ambato are in the collection of the Muséum national d'Histoire naturelle, Paris.

-W.H. Rosenberg was a professional collector living at the time in Paramba (IMBABURA). R. Miketta, J. Fleming, F. von Buchwald collected for him in Occidente, the first two in the vicinity of Paramba, the other in the Quevedo region (LOS RIOS), between 1896 and 1914. These Saturniidae are now in the collection of W. Rothschild at the B.M.N.H.

-C. J. Coxey and Mrs. J. Rorer, amateur entomologists, stayed in Macas immediately after 1920 and sent some Saturniidae to W. Schaus. These moths are preserved in the U.S.N.M.

The most significant contribution of this period, together with the work of Dognin, was the publication of a preliminary catalogue of the Lepidoptera of Ecuador by Dr. Francisco Campos R. (Professor at the "Colegio Nacional Vicente Rocafuerte" in Guayaquil) who had previously produced several papers (1898-1926) on the fauna of his country. The catalogue, which was published in two parts, recorded 2845 species: 1810 species were listed in the second volume (Heterocera) (Campos 1931), including 57 Saturniidae; among these, the eight Ceratocampinae were regarded as a distinct family, under the name of Citheroniidae, following a commonly accepted but erroneous concept.

For his work Dr. Campos could use only his personal collections, but he referred frequently to the publications of Dognin. The catalogue can be regarded as a record of the knowledge at the time. It contains several inaccuracies, including the listing of species such as *Rothschildia jorulla, Automeris naranja, Leucanella leucane,* and *Citheronia splendens*, none of which occur in Ecuador. But those misidentifications do not diminish the value of the whole work. They are quite understandable since the author had a very limited access to the literature, without the opportunity to refer to the type specimens. The collection of Dr. F. Campos appears to have been dispersed after his death but some specimens are deposited in the U.S.N.M.

Based on previous data contained in the works of Draudt (1929-1930) and those of Bouvier (1929,1931,1936 and others), Schüssler (1933a,b, 1934a,b, 1936), mentioned only 60 Saturniidae from Ecuador in his catalogue, with misidentifications similar to those of Campos.

Following World War II, about twenty more years elapsed before the opening of a new period of scientific progress. About 1965, a favorable situation began to develop which coincided with the renewed interest in the neotropical fauna of many specialized lepidopterists: H. Descimon (Nymphalidae, Riodinidae), P. Thiaucourt (Notodontidae), C. Herbulot (Geometridae), H. de Toulgoët (Arctiidae), X. Lesieur (Ctenuchidae), L. Schwartz and J.M. Cadiou (Sphingidae), and C. Lemaire (Saturniidae) for the French, and S.S. Nicolay (Hesperidae and Riodinidae) Keith Brown Jr. and Dale Jenkins (Nymphalidae) among many other Americans.

The first collection of Saturniidae received by one of us (C. Lemaire) dates back to 1965 after a trip to Ecuador by the excellent Chilean entomologist L.E. Peña G. The latter returned to that country at the end of 1970 and again in 1977. Subsequent collections were made by H. Descimon on the east slope of the Andes, in the vicinity of Baños, Puyo and Tena in December 1969 and January 1970.

The senior author wishes to emphasize the fact that during the following period, if Ecuador has been the most visited of the Latin American countries by the French entomologists, it is due to the presence in Quito of Nadia and George Venedictoff. Their hospitality and knowledge of the land have been invaluable in organizing successful expeditions, such as those in the beginning of 1975 by H. Descimon, C. Herbulot, P. Thiaucourt, C. Lemaire,

and in 1983 of the latter two. Each time more than twenty stations on both slopes of the Andes were visited, and for the Saturniidae, 193 species were collected during these trips.

From 1971 to 1985 Nadia Venedictoff collected moths and butterflies at many locations on both sides of the Andes. By joint agreement between the Pontificia Universidad Católica del Ecuador (P.U.C.E., Quito) and the Allyn Museum of Entomology, her collection has been divided into two parts. As the collection is studied at the Allyn Museum (part of the Florida Museum of Natural History) at Sarasota, specimens are sent back to P.U.C.E. to constitute a reference collection of the Lepidopteran fauna of Ecuador. All students and entomologists are given access to both collections.

A valuable contribution of material was made by the young French entomologist Thierry Porion, whose two field trips in Ecuador from November 1978 to February 1979 and from March to April 1980 brought excellent results. In the last of his trips, he was accompanied by Denis Bertrand. The majority of this material is in the collection of C. Lemaire in the Muséum national d'Histoire naturelle, Paris.

Other interesting collections have been made in western Ecuador, especially in Tinalandia, and on the Amazonian slope, east of Tulcán and around Coca and Macas by S. McKamey, a student at the University of North Carolina, Raleigh.

Finally, we cannot omit the important contribution of the Velastegui family, Elias, the father, his son and daughter, Segundo Velastegui and Rosario Velastegui de Lafebre, his granddaughter Guillermina Clarke (Billy, the daughter of the American entomologist William Clarke Macintyre), all professional collectors based for a long time in Baños and for Guillermina in Misahualli. Also, Peter Wilson, an agronomical engineer, collected in the tea plantation of the Hacienda Sangay, near Metzera, in the upper Pastaza. Part of this material is deposited in the Lemaire collection.

The scientific studies of the last 20 years have been particularly constructive. Material from all the 19 continental provinces (there are no known Saturniidae on the Galapagos Islands) has made possible the description of one new genus, 24 new species and eight new subspecies (Lemaire 1975 a, 1975 b, and following notes) and to bring from 60 (at the time of Schüssler's *Lepidopterorum Catalogus*) to more than 260 the number of Saturniidae now known to occur in Ecuador.

This progress resulted from an intensification of the field research and from an increased interest by taxonomists in neotropical fauna. However, it could not have been accomplished without two important changes of the collecting conditions as compared to the preceding period. First, the new invention of easily portable light electric generators, allowing the use of mixed lamps or mercury vapor lamps, and second, the development of the road network, which has been extended to regions previously inaccessible. The latter point will be discussed in Appendix I (page 43).

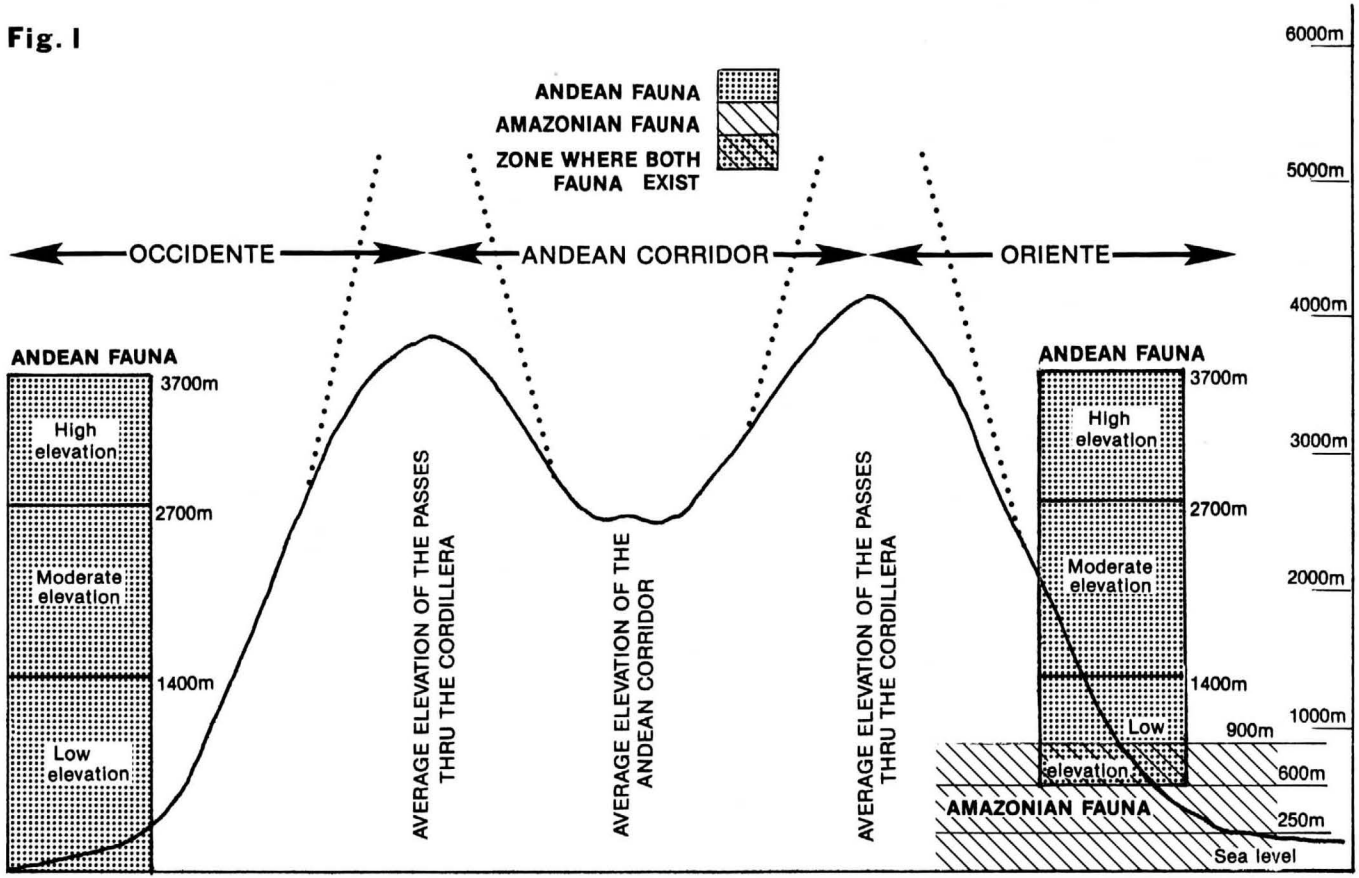
BIOGEOGRAPHY

In Ecuador as in every mountainous region, the relief appears to be the determining factor of the partitioning of species. We will review briefly here the essential characteristics of the biogeography of the area (see also Lemaire 1977).

Schematically, the country is crossed from north to south by a more or less wide central high valley called the Andean Corridor with an average elevation of 2500m. This corridor is bordered on its sides by two parallel cordilleras which include the summits of the volcanoes Cayambe, Antisana, Cotopaxi, Altar, and Sangay for the eastern side and Cotacachi, Pichincha, Illiniza, and Chimborazo for the western one. They range between 5000m and 6000m and above for the Chimborazo (6310m).

The opposite slopes of the two mountain ranges overlook the Amazonian Plain to the east (called Oriente) and the Pacific Ocean Coast which is preceded by a tropical plain to the west, (called Occidente). The result is the division of the country into three main regions (Fig. 1) and a nearly symmetrical situation on each side of the central corridor. The elevation of the latter is high enough to constitute an obstacle to faunal interchange except perhaps further south where the elevation is noticeably lower. The relief in Ecuador

Fig. I


ANDEAN FAUNA
AMAZONIAN FAUNA
ZONE WHERE BOTH FAUNA EXIST
OCCIDENTE
ANDEAN CORRIDOR
ORIENTE
6000m
5000m
4000m
3000m
2000m
1000m
ANDEAN FAUNA
3700m
High elevation
2700m
Moderate elevation
1400m
Low elevation
AVERAGE ELEVATION OF THE PASSES THRU THE CORDILLERA
AVERAGE ELEVATION OF THE ANDEAN CORRIDOR
AVERAGE ELEVATION OF THE PASSES THRU THE CORDILLERA
ANDEAN FAUNA
3700m
High elevation
2700m
Moderate elevation
1400m
Low elevation
900m
600m
AMAZONIAN FAUNA
250m
Sea level

is much less complicated than in Colombia or Bolivia where several parallel cordilleras are separated by isolated valleys, or in Perú where the Andean cordilleras have compartmentalized ridges.

1. ANDEAN CORRIDOR

The average elevation is 2500m to 3000m and it decreases to 2000m at Loja. The region is densely populated with numerous urban centers including Quito, the capital of the country, and other cities along the Panamerican Highway, mainly between Cuenca and the border with Colombia. The "Panamericana" is also called locally "La Avenida de los volcanes". The original vegetation, which has been completely destroyed by man, is replaced now by a prairie with low grass and some clusters of diminutive trees, as well as imported eucalyptus and vegetables or cereal grains. To the south there is more diverse flora, especially in the valley of the León River, where there is a zone of dry forest, and near Saraguro, where there are patches of primary humid forest. To the extreme north (region of Tulcán) there are also areas of "páramos" at elevations above 3500m.

The saturniid fauna in this region is poor with few species known: *Copaxa medea, C. semioculata, Cerodirphia cutteri,* and *Paradirphia geneforti.*

2. ORIENTE

This area receives a double contribution of fauna, first from the Andes and second from the Amazonian Plain. The Andean region can be schematically divided into three different faunistic zones, each one corresponding to an altitudinal level, with the Amazonian fauna sympatric at the lowest elevation.

The minimum and maximum elevation for each faunistic community vary with the latitude, and a given species regarded as endemic of a particular zone rarely occupies the entire range at the indicated elevations.

Infrequently, the partitioning of species may overlap on two levels. (See also the case of Lumbaquí, Appendix I page 49)

A. Andean region

a) High elevation (2700-3700m).

The elevation of 3700m is the highest which has been surveyed in Ecuador, but it does not constitute the top elevation for the Saturniidae. Some species are said to have been captured at the elevation of 4100m during the travels of Stübel (Maassen 1890: 50) but the locality "Pichincha" is not precise. Some specimens have been collected at an elevation of 4000m in Colombia, in the Sierra Nevada de Santa Marta (Lemaire 1978: 54) and at 4300m in Perú (Lemaire 1977: 241).

Thus far collecting in this zone has been restricted to the humid forest exclusively. Further field work of the alpine zones and the "páramo" remains to be undertaken.

Representative species:

Ceratocampinae.	*Bathyphlebia flavior*
Hemileucinae.	*Gamelioides elainae, Erythromeris obscurior, Meroleuca (Meroleucoides) nata*
Saturniinae.	*Copaxa semioculata orientalis*

Representative localities:

Road from Salcedo to Napo km 49, 3500m
Road from Gualaceo to Méndez km 36.4, 2900m

The elevation of 2700m appears to be the highest level for the Ceratocampinae, at least for the species represented in Ecuador. The Arsenurinae are totally absent at this elevation.

b) Moderate elevation (1400-2700m).

This zone corresponds approximately to the two levels of vegetation described by Acosta Solis (1968) under the names of meso and submesothermic forest but the definition of this altitudinal zone is restricted in his work to 1800-2800m. The corrections in this catalogue, especially for the lowest level, were determined from altitudinal data pertaining to the species involved.

As with the previous zone, the middle altitudinal zone as accepted in this catalogue, is composed exclusively of tropical rain forest which is much denser and diverse. This biotope is one to which the Saturniidae are the best adapted; the four subfamilies are represented here by the exclusively Andean genera (*Bathyphlebia, Rachesa, Meroleuca, Hirpida*) as well as the non-specialized ones (*Eacles, Citheronia, Automeris, Dirphia, Copaxa, Rothschildia*). The Arsenurinae, with only one species endemic at this elevation (*Arsenura cymonia*), are still not numerous, but certain taxa (*Rhescyntis hippodamia, Paradaemonia platydesmia, Copiopteryx semiramis*) can reach the mesothermic forest up to 1800m.

Representative species:

	Mesothermic zone (1400-2000m)	Submesothermic zone (2000-2700m)
Arsenurinae.	*Arsenura cymonia*	
Ceratocampinae.	*Bathyphlebia eminens*	*Bathyphlebia flavior*
	Rachesa reventador	*Rachesa nisa*
Hemileucinae.	*Automeris boops*	*Automeris alticola*
	Leucanella contei	*Cerodirphia flavoscripta*
Saturniinae.	*Copaxa expandens*	

Representative localities:

Mesothermic zone (1400-2000m): Puente Azuela 1530m
Cordillera de Huacamayos 1700/1800m
Submesothermic zone (2000-2700m): Cosanga/Tena km 6, 2150m; km 10.2, 2230m
Road Gualaceo to Méndez km 55, 2180m

c) Low elevation (pre-Andean Zone) (600-1400m).

This zone includes the submacrothermic forest and the lowest part of the mesothermic forest according to the concept of Acosta Solis (1968). The area is remarkable for having the highest number of species living in it as a result of an endemic pre-Andean fauna along with the Amazonian fauna, which is present without a noticeable decline up to 1200m to 1400m. The pre-Andean fauna proper inhabits this zone from the Cordillera de Merida down to Bolivia, but its inability to adapt itself to a lower elevation prevents its expansion down into the Amazonian Basin. Thus the five species mentioned below were all captured in Lumbaquí (829m), but none of them occur in Lago Agrio (250m) less than 50 km downstream along the Aguarico River. By contrast, all the species which have been found at Lago Agrio have been also collected at Lumbaquí.

Representative species:

Arsenurinae. *Arsenura rebeli, Rhescyntis descimoni*
Ceratocampinae. *Eacles callopteris*
Hemileucinae. *Automeris amanda*
Saturniinae. *Copaxa cineracea*

Representative localities:

Lumbaquí 829m, Hacienda Sangay 900m, Limón 900m

B. Amazonian region

The fauna of this habitat has the most widespread range in neotropical America and probably of the world. It extends through Ecuador and into all the Andean countries, with the Amazonian forest reaching up the slopes of the cordillera to an elevation of about

1400m as we have just indicated. Unlike in some other groups of Lepidoptera (particularly the Nymphalidae), the Saturniidae usually lack intraspecific geographical variation in this area. By contrast, differences were noted (Lemaire 1977: 270) in the Guiana subregion, which possesses its own endemics that number about 20 species among a total of approximately 120 known Guiano-Amazonian species. The four subfamilies are present in that region but no Saturniinae can be considered to be a Guiano-Amazonian endemic at the specific rank.

Representative species:

Arsenurinae. *Arsenura ciocolatina, A. mossi, A. thomsoni, Paradaemonia samba*
Ceratocampinae. *Eacles guyanensis, E.barnesi, Citheronia hamifera, Adelowalkeria plateada, A. torresi, A. eugenia, Ptiloscola photophila*
Hemileucinae. *Automeris liberia, Pseudautomeris lata, Gamelia rindgei, Dirphia fraterna, Cerodirphia speciosa*
Saturniinae. *Rothschildia erycina erycina, R. hesperus hesperus*

Representative localities:
Lago Agrio 250m, Coca 250m, Dureno 230m

3. OCCIDENTE

It has already been shown (Fig. 1) that the relief presents a nearly symmetrical configuration on both slopes on each side of the Andean Corridor, at least from the Colombian border to the north of Loja. So we find the same faunistic zones on the Pacific slopes as on the Amazonian with about the same altitudinal divisions. However, the fauna is not as rich numerically because of the absence of the Amazonian contribution. If we do not take into account the polytopic fauna (widely adapted species with a range overlapping several geographical regions; for further discussion see below), the lepidopteran population of the Occidente is noticeably different from that of the Oriente with the disparity still more marked at lower elevations.

The few species which are common to the two slopes generally occur at similar elevations. One notable exception is *Automeris grammodes* which flies at moderate elevations in Oriente (1600-2000m) and at low elevations in Occidente (650m).

These different observations are valid for the zones of humid forest of the Andean sector. In Occidente and in some points of the Andean Corridor, there exist stretches of dry forest important enough to shelter a specialized fauna which will be object of a distinct analysis.

A. Andean region

a) High elevation (2700-3700m)

The data related to this range of elevations are practically non-existent for the Pacific slope. The mountain passes generally are at a lower elevation than in Oriente, and, as the agriculture is more developed, the roads rarely offer convenient places for collecting in this zone for which the fauna still remains poorly known.

Representative species:

Hemileucinae. *Meroleuca (Meroleucoides) flavodiscata*
Saturniinae. *Copaxa semioculata orientalis* (common to both slopes)

Representative locality:
Old Road from Quito to Santo Domingo de los Colorados km 26, 3200m

b) Moderate elevation (1400-2700m)

As in Oriente, this zone has two levels of vegetation (mesothermic and submesothermic) with very noticeable differences at extreme elevations.

The collecting stations are more numerous here than in the preceding zone, but almost

exclusively concentrated on a relatively narrow sector situated to the west of Quito. This is primarily due to the road accessibility. As in the Oriente in the same zone, the fauna includes Andean genera such as *Bathyphlebia, Rachesa, Meroleuca* and also non-specialized genera. The former inhabit almost exclusively the mesothermic forest. The Arsenurinae are absent. Several species are common to the two slopes where they live at equivalent elevations *e.g.: Rachesa breteuili, Automeris abdominalis, Copaxa andensis.*

Representative species:

Mesothermic zone (1400-2000m)	Submesothermic zone (2000-2700m)
Ceratocampinae. Citheronia equatorialis	*Bathyphlebia rufescens*
Hemileucinae. Pseudodirphia herbuloti	*Automeris caucensis*
	Dirphia proserpina

Representative localities:
Mesothermic zone: old road from Quito to Santo Domingo de los Colorados km 77/78, 1620m (=La Palma)
Submesothermic zone: same road km 34, 2600m

c) Low elevation, sea level to 1400m

In the Occidente the Andean fauna does not encounter the same limits of its expansion into the lower elevations as in the Oriente where, below about 600m, it is replaced totally by the Amazonian fauna. The Andean fauna thus extends to sea level wherever a tropical rain forest exists. However, we shall see that in southern Occidente this expansion is limited by an irregularly wide dry coastal and subcoastal stretch, where the fauna is different.

The fauna of this zone has the center of its range in western Colombia and all the taxa recorded from the Ecuadorian Occidente are also known from Colombia at the corresponding elevations. The southern limit of this faunistic group is situated in southern Ecuador where it is still well represented around Zaruma; to the north many of its elements extend up through Central America where some species reach México (*e.g. Citheronia (Citheronioides) collaris, Automeris belti*). It must be noted that about thirty species known in Colombia are not yet recorded from the corresponding zone in Ecuador, but this may be partially due to insufficient field work in northern Ecuador.

For example, numerical comparison of the fauna of two stations: VALLE Anchicaya 800m, in Colombia and PICHINCHA Tinalandia 700m, in Ecuador where the collecting has been equally extensive, greatly favors the former.

The Andes form a barrier which is an obstacle for fauna of the two slopes represented at lower elevations. Unlike that of the two previous levels, this fauna does not include elements in common with the Amazonian slope except for the polytopic species.

Representative species:

Arsenurinae. Arsenura archianassa
Ceratocampinae. Citheronia bellavista. Citheronia (Citheronioides) collaris
Hemileucinae. Automeris postalbida. A. belti. Pseudodirphia regia. Rhodirphia carminata
Saturniinae. Copaxa rufinans

Representative localities:
Tinalandia 650 to 750m, Balzapamba 800m

B. Semi-arid zones (dry forest)

The species mentioned in the previous zones are essentially inhabitants of the humid and tropical rain forest with the exception of those specialized to the diverse conditions encountered in the Andean Corridor. However, in the southwest of Ecuador exists limited extensive dry forest with an associated endemic fauna which, regarding the Saturniidae, should not be neglected (7 species and 2 subspecies presently known). This type of biotope, which is still relatively little collected, is found mainly on the southern Pacific side and in an isolated high valley west of Loja; and we have noted it also in the valley of the

León River in the Andean Corridor. It also exists in the northwest of Perú (Piura Province).

Contrary to what can be observed in the tropical rain forest, the fauna living in the semi-arid zone does not show noticeable altitudinal differences; thus *Rothschildia jorulloides* has been captured at as diverse levels of altitude as 300-400m, 1750m, and 2100m.

It must be noted that the majority of this fauna is closely related to the species occuring in western México, in areas of similar vegetation; *e.g. Automeris andicola* which is the only representative in South America of the Central American group of *A. randa.*

Representative species:

Ecuador		Corresponding species in México
Arsenurinae.	*Caio harrietae*	*Caio richardsoni*
Ceratocampinae.	*Citheronia guayaquila*	*Citheronia lobesis*
	Syssphinx thiaucourti	*Syssphinx colloida*
Hemileucinae.	*Automeris andicola*	*Automeris tridens*

Representative localities:

Road from Guayaquil to Manta, 9km north of Cascol, 400m
Road from Loja to Catamayo, km 25.5, 1700m

4. POLYTOPIC FAUNA

The taxa in the three groups discussed above all belong to a faunistic system that appertain to a given region: Andes, Amazon, or dry forest, which make up the endemic core. The limits of their geographical ranges are imposed on them by a combination of climatic and other ecological factors peculiar to each region. A number of species are not restricted by these limitations and are adapted to more diversified ecosystems, which allow them to range over several, (up to six) instead of a single, geographical regions. *Eacles imperialis* is known from Canada to Argentina, *Citioica anthonilis* and *Adeloneivaia jason* range from México to Argentina. Such species which are called "polytopic" are to be added to the endemic core when measuring the entire population of a given region.

Some of the polytopic species are phenotypically quite homogeneous throughout their distribution and do not show significant geographical variation: *e.g. Dysdaemonia boreas, Eacles penelope*, and *Syssphinx molina*; others, on the contrary, are subject to much variation and present subspecifically distinct populations, *e.g. Titaea tamerlan, Eacles imperialis, E. masoni, E. ormondei, Rothschildia erycina.* Most of the subspecies are endemic to a given region but some of these can also be polytopic: *e.g. Copiopteryx semiramis andensis* occurs in both north-central Venezuela and the West Andes.

Among 46 polytopic species recorded in Ecuador (Lemaire 1977: 286), 24 are considered here as integrally polytopic, 19 of these are common to both slopes.

One significant peculiarity of polytopic species is their nearly total absence above 1000m.

Representative species (integrally polytopic and common to both slopes):

Arsenurinae.	*Dysdaemonia boreas, Grammopelta lineata*
Ceratocampinae.	*Citheronia phoronea, Syssphinx molina, Adeloneivaia boisduvalii*
Hemileucinae.	*Automeris hamata, Gamelia abasia, Hyperchiria nausica, Dirphia avia*

These nine species are present in Ecuador at Tinalandia (Occidente) and at Lumbaquí (Oriente); they are also present in western Colombia and in all the Guiano-Amazonian region.

CATALOGUE*

ARSENURINAE

ARSENURA Duncan, 1841
Aricia Herrich-Schäffer, [1853]

1. **armida** (Cramer, 1779)
   cassandra (Cramer, 1779)
   erythrinae (Fabricius, 1781)
   México to Bolivia and S.E. Brazil
   Oriente (l. el.). Limoncocha. Lumbaquí. Loreto (Rd to). Puerto Napo. Misahuallí. Río Arajuno. Río Anzú. Satza Yacu. Santa Clara. Puyo. Mera. Madre Tierra. Topo. Río Negro. Sangay. Limón km 16/17.
2. **archianassa** Draudt, 1930
   a) **archianassa** Draudt, 1930
   Costa Rica to S.W. Ecuador
   Occidente (l. el., wet). Los Bancos. Santo Domingo. Tinalandia.
   b) **porioni** Lemaire, 1980
   W. Ecuador
   Occidente (l. el.,dry). Cascol. Chontamarca.
3. **mossi** Jordan, 1922
   Amazonian
   Oriente (l. el.). Lumbaquí. Sangay.
4. **ciocolatina** Draudt, 1930
   Guiano-Amazonian
   Oriente (l. el.). Río Aguarico. Shushufindi. Lumbaquí. Misahuallí. Río Arajuno. Satza Yacu. Sangay. Río Pumayacu (Macas). Yantzaza/Gualaquiza. Cumbaratza. Los Tayos.
5. **albopicta** Jordan, 1922
   Guiano-Amazonian
   Oriente (l. el.). Lumbaquí. Shushufindi. Misahuallí. Sangay.
6. **rebeli** Gschwandner, 1920
   oweni Schaus, 1921
   E. Andean
   Oriente (l. and m. el.). Loreto (Rd to). Río Anzú. Mera. Río Negro. Baños. Río Napo. Sangay. Santa Rosa. Limón km 16/17. Gualaquiza/Limón. Yantzaza/Gualaquiza.
7. **sylla** (Cramer, 1779)
   a) **sylla** (Cramer, 1779)
   sylla pelias (Jordan, 1911)
   Guiano-Amazonian
   Oriente (l. el.). Lumbaquí.
8. **thomsoni** Schaus, 1906
   Guiano-Amazonian
   Oriente (l. el.). Lumbaquí.
9. **batesii** (R.Felder & Rogenhofer, 1874)
   a) **batesii** (R.Felder & Rogenhofer, 1874)
   crenulata Schaus, 1921 (1)
   Guiano-Amazonian
   Oriente (l. el.). Lumbaquí. Sangay. Limón km 16/17.

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*Abbreviations: l. el. = low elevation
m. el. = moderate elevation
h. el. = high elevation
// these signs separate the regions (Occidente//Andean Corridor//Oriente)

b) **arcaei** Druce, 1886
México to S.W. Ecuador
Occidente (l. el.). Tinalandia. Cascol. Chontamarca. Naranjal.
c) **aurantiaca** Lemaire, 1980
W. Ecuador
Occidente (l. el.). "Río Bamba" (2)

10. **ponderosa** W. Rothschild, 1895
a) **ponderosa** W. Rothschild, 1895
Amazonian
Oriente (l. el.). El Auca. Lumbaquí. Sangay. Limón km 16/17.

11. **cymonia** (W. Rothschild, 1907)
E. Andean
Oriente (m. el.). Puente Azuela. Baeza 2002m. Cord. Huacamayos 1700/1800m. Baños. Gualaquiza/Limón. Loja/Zamora km 28.5.

CAIO Travassos & Noronha, 1968

12. **championi** (Druce, 1886)
México to Panamá. N. Venezuela. W. Andean
Occidente (l. el.). Chontamarca.

13. **harrietae** (Forbes, 1944)
S.W. Ecuador. N.W. Perú
Occidente (l. el.,dry). Cascol. Puná (Isla de).

DYSDAEMONIA Hübner, [1819]

14. **boreas** (Cramer, 1775)
auster (R.Felder & Rogenhofer, 1874)
México to Bolivia and Central Brazil
Occidente. Oriente (l. el.). Tinalandia. // Lumbaquí. Sangay. Limón km 16/17. (almost everywhere in the country at low elevations.)

TITAEA Hübner, [1823]

15. **tamerlan** (Maassen, 1869)
a) **amazonensis** Lemaire, 1980
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Río Napo. Sangay.
b) **nobilis** (Schaus, 1912)
tamerlan var. *andicola* (Bouvier, 1927)
tamerlan form *columbiana* (Draudt, 1930)
avangareza (Schaus, 1932)
México to Panamá. W. Andean
Occidente (l. el., wet). Los Bancos. Tinalandia.
c) **guayaquila** (Schaus, 1932)
raveni (F. Johnson & Michener, 1948)
S.W. Ecuador. N.W. Perú (Piura)
Occidente (l. el., dry). Cascol. Puná (Isla de).

16. **lemoulti** (Schaus, 1905)
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Río Napo. Misahuallí. Satza Yacu. Sangay. Limón km 16/17.

17. **timur** (Fassl, 1915)
    Guiano-Amazonian
    Oriente (l. el.). Lumbaquí. Archidona. Sangay.

PARADAEMONIA Bouvier, 1925

18. **platydesmia** (W. Rothschild, 1907)
    castanea (W. Rothschild, 1907) (n. syn.) (3)
    despinayi (Bouvier, 1923)
    Costa Rica to Bolivia
    Oriente (l. el.). Lumbaquí. Cord. Huacamayos 1700/1800m. Río Napo. Misahuallí. El Ahuano. Río Arajuno. Satza Yacu. Río Puni yacu. Sangay.
19. **ruschii** May & Oiticica, 1943
    Brazil (Espírito Santo). Ecuador
    Oriente (l. el.). Sangay.
20. **samba** (Schaus, 1906)
    Guiano-Amazonian
    Oriente (l. el.). Lumbaquí. Sangay. Gualaquiza.
21. **nycteris** (Jordan, 1922)
    E. Andean. Brazil (Mato Grosso)
    Oriente (l. el.). Cononaco. Sangay.

RHESCYNTIS Hübner, [1819]
Machaerosoma W. Rothschild, 1907

22. **hippodamia** (Cramer, 1777)
    a) **hippodamia** (Cramer, 1777)
    martii (Perty, 1833)
    norax var. *guianensis* Bouvier, 1924
    Guiano-Amazonian
    Oriente (l. and m. el.). Lumbaquí. Cord. Huacamayos 1700/1800m. Misahuallí. Santa Rosa. Limón km 16/17. Gualaquiza/Limón. Loja/Zamora km 39.
    b) **colombiana** Bouvier, 1927
    hippodamia form *pomposa* (Draudt, 1930)
    W. Andean
    Occidente (l. el.). Quito/Santo Domingo km 77 (Old Rd). Tinalandia. Toachi. Chontamarca.
23. **hermes** (W. Rothschild, 1907)
    Guiano-Amazonian
    Oriente (l. el.). Lumbaquí. Río Puni yacu. Sangay.
24. **descimoni** Lemaire, 1975
    E. Ecuador
    Oriente (l. el.). Lumbaquí. Río Anzú. Apuya. Río Upano. Santa Rosa.

COPIOPTERYX Duncan, 1841

25. **semiramis** (Cramer, 1775)
    a) **semiramis** (Cramer, 1775)
    form *igoryi* (Gagarin, 1934)
    Guiano-Amazonian
    Oriente (l. el.). Lumbaquí. Loreto (Rd to). Sangay.

b) andensis (Lemaire, 1974)
N. Central Venezuela. W. Andean
Occidente (l. el.). Tinalandia. Chontamarca.

26. jehovah (Strecker, 1874)
Guiano-Amazonian
Oriente (l. el.). Alama # 1. Cononaco. Sangay.

LOXOLOMIA Maassen, 1869

27. johnsoni Schaus, 1932
serpentina zwechti May, 1934
Amazonian
Oriente (l. el.). Sangay.

GRAMMOPELTA W. Rothschild, 1907
Anuropteryx Bouvier, 1928

28. lineata (Schaus, 1906)
cervina W. Rothschild, 1907
convergens (Bouvier, 1928)
form *niepelti* Draudt, 1930
Guiano-Amazonian. W. Andean
Occidente. Oriente (l. el.). Los Bancos. Tinalandia. // Lumbaquí.

CERATOCAMPINAE

EACLES Hübner, [1819]
Ceracampa Kirby & Spence, 1828
Basilona Boisduval, 1868
Crenudia Burmeister, 1880

29. imperialis (Drury, 1773)
a) cacicus (Boisduval, 1868)
imperialis var. *approximans* Bouvier, 1923
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Loreto (Rd to). Río Anzú. Satza Yacu. Limón km 16/17.
b) anchicayensis Lemaire, 1971
W. Andean
Occidente (l. el.). Tinalandia. Cascol.

30. guianensis Schaus, 1905
Guiano-Amazonian
Oriente (l. el.). Lumbaquí.

31. barnesi Schaus, 1905
Panamá. Guiano-Amazonian
Oriente (l. el.). Río Aguarico. Shushufindi. Lumbaquí.

32. penelope (Cramer, 1775)
cybele (Olivier, 1790)
majestalis Draudt, 1930
Costa Rica to Bolivia. S.E. Brazil

Oriente (4) (l. el.). Lumbaquí. Limoncocha. Río Anzú. Apuya. Satza Yacu. Mera.

33. **masoni** Schaus, 1896
    a) **tyrannus** Draudt, 1930
        W. Andean
            Occidente (l. el.). Quito/Santo Domingo km 77 (Old Rd). Tinalandia. Cascol. Chontamarca.
    b) **fulvaster** W. Rothschild, 1907
        guinlei Oiticica, 1941
            Guiano-Amazonian. S.E. Brazil
                Oriente (l. el.). Lumbaquí. Tena. Misahuallí. Apuya. Satza Yacu. Limón km 16/17. Gualaquiza/Limón.
34. **callopteris** W. Rothschild, 1907
        E. Andean
            Oriente (l. el.). Lumbaquí. Sangay. Santa Rosa. Zamora.
35. **ormondei** Schaus, 1889
    a) **niepelti** Draudt, 1930
        W. Andean
            Occidente (l. el.). Quito/Santo Domingo km 77 (Old Rd). Tinalandia. Chontamarca.
    b) **peruviana** Bouvier, 1927
        ormondei amazonica Schüssler, 1936
            Guiano-Amazonian
                Oriente (l. el.). Lago Agrio. Lumbaquí. El Auca. Tena. Misahuallí.
    c) **violacea** Lemaire, 1975
        E. Andean
            Oriente (m. el.). Puente Azuela. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Río Negro. Gualaquiza/Limón.
36. **adoxa** Jordan, 1910
        Guiano-Amazonian
            Oriente (l. el.). Lumbaquí. Limón km 16/17.

BATHYPHLEBIA R. Felder & Rogenhofer, 1874

37. **johnsoni** Oiticica & Michener, 1950
        E. Andean. (Perú: Apurimac)
            Andean Corridor (h. el.). South of Oña.
38. **flavior** Oiticica & Michener, 1950
        E. Andean. (Perú: Huanuco. Junín)
            Andean Corridor. Oriente (m. el.). Loja/Catamayo km 15. // Cosanga/Tena km 6, km 10.2. Gualaceo/Méndez km 55.
39. **rufescens** Oiticica & Michener, 1950
        W. Ecuador
            Occidente (m. el.). Tulcán/Maldonado km 63.5. Nono/Los Bancos km 37. Nono/Nanegal km 3.6. Quito/Puerto Quito km 41. Quito/Santo Domingo km 34 (Old Rd). Balzapamba/Guaranda km 22. Gun.
40. **eminens** (Dognin, 1891)
        Andean
            Oriente (5) (m. el.). Puente Azuela. Baeza 2002m. Cosanga/Tena km 6, km 10.2. Gualaceo/Méndez km 55. Loja/Zamora km 39.

CITHERONIA Hübner, [1819]

CITHERONIA (CITHERONIA) Hübner, [1819]

Eruca Edwards, 1771 (nomen oblitum)
Ceratocampa Harris, 1833
Dorycampa Duncan, 1841

41. **hamifera** W. Rothschild, 1907
    a) **hamifera** W. Rothschild, 1907
        hamifera fuscalis W. Rothschild, 1907
        brissotii var. *guayanensis* Bouvier, 1927
            Guiano-Amazonian with extension of the range to N.W. Argentina (Salta)
                Oriente (l. el.). Lago Agrio. Lumbaquí. Limoncocha. Misahuallí. Sangay. Limón km 16/17. Río Pumayacu (Macas).
42. **guayaquila** Schaus, 1927
        W. Ecuador. N.W. Perú (Piura)
            Occidente (l. el., dry). Cascol. Quevedo.
43. **bellavista** Draudt, 1930
    a) **bellavista** Draudt, 1930
        El Salvador to N.W. Venezuela (Lara). W. Andean
            Occidente (l. el.). Santo Domingo. Tinalandia.
    b) **cinerea** Lemaire, 1982
        W. Ecuador
            Occidente (l. el., dry). Cascol. Chontamarca. Naranjal.
44. **andina** Lemaire, 1971
        E. Andean
            Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Río Salado. Cord. Huacamayos 1700/1800m. Satza Yacu. Río Negro. Mera. Sangay. Santa Rosa. Limón km 16/17. Gualaquiza/Limón.
45. **aroa** Schaus, 1896
        consobrina W. Rothschild, 1907
        mogya Schaus, 1920
        mexicana var. *brasiliensis* Bouvier, 1927
            N. Venezuela to Bolivia and S.E. Brazil
                Oriente (l. el.). San Miguel. Lumbaquí. Misahuallí. Satza Yacu. Sangay. Limón km 16/17.
46. **equatorialis** Bouvier, 1927
            W. Andean
                Occidente (l. and m. el.). Cuicocha/Pucará km 39. Quito/Santo Domingo km 77 (Old Rd). Tandapi. La Tavadonga. Chontamarca. Balzapamba.
47. **phoronea** (Cramer, 1779)
            Panamá to Perú and S.E. Brazil
                Occidente. Oriente (l. el.). Santo Domingo. Tinalandia. Toachi. Tandapi. // Lumbaquí. Misahuallí. Satza Yacu.

CITHERONIA (CITHERONIOIDES) Lemaire, 1988

48. **collaris** W. Rothschild, 1907
        lamata Schaus, 1933
            México to Panamá. W. Andean
                Occidente (l. el.). Santo Domingo. Tinalandia. Chontamarca.

PROCITHERONIA Michener, 1949

49. **fenestrata** (W. Rothschild, 1907)
            Guiano-Amazonian
                Oriente (l. el.). Lumbaquí. Limón km 16/17.

SCHAUSIELLA Bouvier, 1930

50. longispina (W. Rothschild, 1907)
Amazonian
Oriente (l. el.). San Miguel.

51. carabaya (W. Rothschild, 1907)
E. Andean
Oriente (m. el.). Puente Azuela. Cord. Huacamayos 1700/1800m.

OTHORENE Boisduval, 1872
Oiticicia Michener, 1949

52. hodeva (Druce, 1904)
rubra Schaus, 1904
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Chaula Yacu. Sangay. Limón km 16/17.

53. purpurascens (Schaus, 1905)
purpurascens intermedia W. Rothschild, 1907
form *intensiva* (Draudt, 1930)
mixio (Travassos & May, 1943)
México to Bolivia and S.E. Brazil
Occidente. Oriente (l. and m. el.). Santo Domingo. Tinalandia. Toachi. Chontamarca. Las Chinchas/Zaruma km 4. // Lumbaquí. Limón km 16/17.

CICIA Oiticica, 1944
Ciattia Travassos & Noronha, 1965

54. pelota (Schaus, 1905)
Guiano-Amazonian
Oriente (l. el.). Rues Jungle Hotel. Lumbaquí. Misahuallí.

SYSSPHINX Hübner, [1819]
Sphingicampa Walsh, 1864
Psephopaectes Grote & Robinson, 1867
Ceroderes Boisduval, 1872
Bouvierina Michener, 1949
Kanzia Travassos & Noronha, 1965

55. molina (Cramer, 1780)
simulatilis (Grote & Robinson, 1867)
grandis (Grote & Robinson, 1867)
petersii Schröder, 1901
agenor (Bouvier, 1923)
propinqua (Bouvier, 1923)
molina obtusa Strassberger, 1932
molina purpurpunctata Lampe, 1986
México to Bolivia and Argentina
Occidente. Oriente (l. el.). Tinalandia. Cascol. // Lumbaquí. Madre Tierra. Sangay. Limón km 16/17. (almost everywhere in the country at low elevations)

56. quadrilineata (Grote & Robinson, 1867)
a) occlusa (Dognin, 1916)

quadrilineata var. *unimacula* (Dognin, 1916)
cananche (Bouvier, 1927)
babaulti (Bouvier, 1929)
W. Andean with extension of the range to E. Colombia
Occidente (l. el.). Santo Domingo. Tinalandia. C.C. Río Palenque. Naranjal.

57. **thiaucourti** (Lemaire, 1975)
W. Ecuador
Occidente (l. and m. el., dry). Cascol. Loja/Catamayo km 28.1.

58. **amena** (Travassos, 1941)
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Puente Azuela. Misahuallí. Río Napo. Limón km 16/17.

59. **bidens** (W. Rothschild, 1907)
centrimacula (Strand, 1912)
E. Andean
Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Río Negro. Río Topo. Limón km 16/17. Gualaquiza/Limón.

ADELONEIVAIA Travassos, 1940

60. **subangulata** (Herrich-Schäffer,[1855])
a) **subangulata** (Herrich-Schäffer, [1855])
bombacis (Herrich-Schäffer, [1858])
obscura (Bouvier, 1924)
Costa Rica to Bolivia and S.E. Brazil
Oriente (l. el.). Rues Jungle Hotel. Lumbaquí. Puente Azuela. Limoncocha. Río Napo. Misahuallí. Río Anzú. Apuya. Satza Yacu.

61. **acuta** (Schaus, 1896)
var. *boliviana* (Bouvier, 1927)
Venezuela to Paraguay
Oriente (l. el.). Rues Jungle Hotel. Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Loreto (Rd to). El Ahuano. Río Napo. Apuya. Satza Yacu. Río Negro. La Jullita. Madre Tierra. Limón km 16/17. Cumbaratza. Los Tayos.

62. **catoxantha** (W. Rothschild, 1907)
a) **catoxantha** (W. Rothschild, 1907)
maroniana (Bouvier, 1927)
Guiano-Amazonian
Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Apuya. Río Puni yacu. Santa Clara. Puyo/Macas (near Río Pastaza). Sangay. Limón km 16/17. Yantzaza/Gualaquiza.

63. **boisduvalii** (Doûmet, 1859)
carisma (Schaus, 1906)
guianensis (Bouvier, 1923)
marginata (Bouvier, 1923)
Costa Rica to Bolivia and S.E. Brazil
Occidente. Oriente (l. el.). Los Bancos. Tinalandia. Toachi. // Lumbaquí. Puerto Napo. Apuya. Río Anzú. Satza Yacu. Santa Clara. Sangay.

64. **pelias** (W. Rothschild, 1907)
confusa Travassos & Noronha, 1965
Guiano-Amazonian

Oriente (l. el.). Lumbaquí. El Auca. Río Napo. Misahuallí. Satza Yacu. Río Upano. Limón km 16/17.

65. **jason** (Boisduval, 1872)
    a) **jason** (Boisduval, 1872)
        montezuma (Packard, 1905)
        albipuncta Travassos & May, 1943
            Mexico to Bolivia and S.E. Brazil
                Occidente. Oriente (l. el.). Los Bancos. Santo Domingo. Tinalandia. // Rues Jungle Hotel. Lumbaquí. Río Salado. Río Napo. Misahuallí. Río Anzú. Satza Yacu. Río Pumayacu (Macas). Limón km 16/17.
    b) **nigripunctata** Lemaire, 1982
            W. Ecuador
                Occidente (l. el., dry). Cascol. Chontamarca. Naranjal.

ADELOWALKERIA Travassos, 1941

66. **eugenia** (Druce, 1904)
        comstocki (Fleming, 1945)
            Guiano-Amazonian with an extension of the range to N. Central Venezuela
                Oriente (l. el.). Sangay.
67. **plateada** (Schaus, 1905)
        tristygma amazonica (W. Rothschild, 1907)
            Guiano-Amazonian
                Oriente (l. el.). Lumbaquí. Misahuallí.
68. **torresi** Travassos & May, 1941
            Guiano-Amazonian
                Oriente (l. el.). Lumbaquí.

RACHESA Michener, 1949

69. **breteuili** (Bouvier, 1927)
        caucensis Lemaire, 1969
            Andean
                Occidente. Oriente (m. el.). Nono/Nanegal km 25. Quito/Santo Domingo km 77 (Old Rd). Tinalandia. Tandapi. Las Chinchas/Zaruma km 4. // Puente Azuela. El Chaco. Cord. Huacamayos 1700/1800m. Mera. Loja/Zamora km 39.
70. **nisa** (Druce, 1904)
            E. Andean
                Oriente (m. el.). Cosanga/Tena km 6, km 10.2. Gualaceo/Méndez km 55.
71. **reventador** Lemaire, 1975
            E. Andean
                Oriente (m. el.). Puente Azuela. Cord. Huacamayos 1700/1800m.

CITIOICA Travassos & Noronha, 1965

72. **anthonilis** (Herrich-Schäffer, [1854])
        anthonilis analis (W. Rothschild, 1907)
        ocarona (Schaus, 1933)
        grisescens (C.C. Hoffmann, 1942)

México to Bolivia and S.E. Brazil
Oriente (l. el.). Rues Jungle Hotel. Lumbaquí. Shushufindi. Loreto (Rd to). Tena. Río Napo. Misahuallí. Apuya. Río Anzú. Satza Yacu. Santa Clara. Limón km 16/17. Gualaquiza/Limón. Santa Rosa. Río Upano.

73. **homoea** (W. Rothschild, 1907)
E. Andean
Oriente (m. el.). Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Río Negro. Gualaquiza/Limón.

PTILOSCOLA Michener, 1949
Gabi Travassos & Noronha, 1965

74. **dargei** Lemaire, 1971
Central America. W. Ecuador
Occidente (l. el.). Chontamarca.
75. **descimoni** Lemaire, 1971
Panamá. W. Ecuador
Occidente (l. el.). Santo Domingo.
76. **photophila** (W. Rothschild, 1907)
lasiocampa (Bryk, 1953)
Guiano-Amazonian
Oriente (l. el.). Rues Jungle Hotel. Lumbaquí. Tena. Río Napo. Misahuallí. El Ahuano. Apuya. Río Anzú. Satza Yacu. Río Puni yacu. Limón km 16/17. Los Tayos.
77. **rorerae** (Schaus, 1928)
S.W. Ecuador. N.W. Perú
Occidente (l. and m. el., dry). Cascol. Nobol. Las Chinchas/Zaruma km 7. Loja/Catamayo km 25, km 29 (Old Rd).

HEMILEUCINAE

LONOMIA Walker, 1855

LONOMIA (LONOMIA) Walker, 1855

78. **columbiana** Lemaire, 1972
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Tinalandia. Chontamarca.
79. **descimoni** Lemaire, 1972
a) **descimoni** Lemaire, 1972
Guiano-Amazonian
Oriente (l. el.). San Miguel. Lumbaquí. Coca. Loreto (Rd to). Tena. Apuya. Satza Yacu. Santa Clara. Puyo/Macas (near Río Pastaza). Limón km 16/17. Santa Rosa. Gualaquiza/Limón. Cumbaratza. Zamora.
80. **achelous** (Cramer, 1777)
a) **achelous** (Cramer, 1777)
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Misahuallí. El Ahuano. Río Napo. Río Anzú. Mera. Sangay. Limón km 16/17.

LONOMIA (PERIGA) Walker, 1855

81. **cluacina** Druce, 1886
    a) elsa Lemaire, [1973]
        W. Andean
            Occidente (l. el.). Endesa. Tinalandia.
82. **occidentalis** Lemaire, 1972
        Andean
            Occidente. Oriente (l. and m. el.). Quito/Santo Domingo km 77 (Old Rd). Tinalandia. // Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Gualaceo/Méndez km 55. Gualaquiza/Limón.
83. **parvibulbacea** Lemaire, 1972
        E. Andean
            Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Río Jondachi. Mera. Puyo/Baños (near Río Pastaza). Limón km 16/17. Gualaquiza/Limón. Zamora.
84. **bispinosa** Lemaire, 1972
        E. Andean
            Oriente (l. and m. el.). Cord. Huacamayos 1700/1800m. Sangay. Limón km 16/17.
85. **galbimaculata** Lemaire, 1972
        E. Andean
            Oriente (l. and m. el.). Puente Azuela. Cord. Huacamayos 1700/1800m. Río Jondachi. Puente Jondachi. Río Blanco. Limón km 16/17. Gualaquiza/Limón.
86. **inexpectata** Lemaire, 1972
        Guiano-Amazonian
            Oriente (l. el.). Dureno.
87. **angulosa** Lemaire, 1972
        Guiano-Amazonian
            Oriente (l. el.). Limón km 16/17.

HIRPIDA Draudt, 1929

88. **gaujoni** (Dognin, 1894)
        choba (Druce, 1904)
        nigrolinea (Druce, 1906)
            E. Andean
                Oriente (m. and h. el.). Sebundoy. Puente Azuela. Río Salado. Papallacta/Baeza km 10. Cosanga/Tena km 6, km 10.2. Cord. Huacamayos 1700/1800m. Gualaceo/Méndez km 41, km 55.

CATACANTHA Bouvier, 1930

89. **stramentalis** (Draudt, 1929)
            E. Andean
                Oriente (l. and m. el.). Lumbaquí. Cord. Huacamayos 1700/1800m. Río Anzú. Satza Yacu. Puyo/Baños (near Río Pastaza). Madre Tierra. Río Upano. Limón km 16/17. Loja/Zamora km 39. Zamora.

AUTOMERIS Hübner, [1819]
    Protaumeris Packard, 1903
    Agliopsis Bouvier, 1929

Automeroides Michener, 1949

90. janus (Cramer, 1775)
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Sangay. Limón km 16/17. Zamora.

91. exigua Lemaire, 1977
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Los Bancos. Santo Domingo. Tinalandia. Chontamarca. Naranjal.

92. metzli (Sallé, 1853)
janus var. *collateralis* Conte, 1906
México to W. Ecuador
Occidente (l. el.). Santo Domingo. Tinalandia.

93. egeus (Cramer, 1775)
zelleri (Grote & Robinson, 1868)
draudti Röber, 1934
umbracticus Eckerlein, 1935
boops form *egeides* Bouvier, 1936
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Satza Yacu. Sangay. Limón km 16/17.

94. boops (R. Felder & Rogenhofer, 1874)
E. Andean. N. Central Venezuela to N. Perú
Oriente (m. el.). Puente Azuela. Cord. Huacamayos 1700/1800m. Loreto (Rd to).

95. postalbida Schaus, 1900
larra form *panamensis* Draudt, 1929
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Los Bancos. Santo Domingo. Tinalandia. C.C. Río Palenque. Balzapamba. Chontamarca.

96. moresca Schaus, 2-IV-1906
crassus Conte, [31-XII]-1906
Guiano-Amazonian
Oriente (l. el.). Lumbaquí.

97. phrynon Druce, 1897
orneates Druce, 1897
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Endesa. Chontamarca.

98. andicola Bouvier, 1930
S.W. Ecuador. N. Perú
Occidente (m. el., dry). Loja/Catamayo km 28, km 29.

99. hamata Schaus, 2-IV-1906
angulatus Conte, [31- XII]-1906
insolens Bouvier, 1927
hippodice Draudt, 1929
form *columbiana* Draudt, 1929
form *panamensis* Draudt, 1929
México to Bolivia and S.E. Brazil
Occidente. Oriente (l. el.). Garrapata. Los Bancos. Tinalandia. // Lago Agrio. Lumbaquí. Río Latas. Apuya. Mera. Madre Tierra. Limón km 16/17. Yantzaza/Gualaquiza. Los Tayos.

100. duchartrei Bouvier, 1936
vergnei Bouvier, 1936
Costa Rica. Panamá. W. and E. Andean. Amazonian
Occidente. Oriente (l. and m. el.). Tinalandia. Chontamarca. // Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Río Jondachi. Archidona. Satza Yacu. Sangay. Limón km 16/17.

Gualaquiza/Limón.

101. jucunda (Cramer, 1779)
oblonga (Walker, 1855)
junonia (Walker, 1855)
titania (R. Felder & Rogenhofer, 1874)
divergens (Boisduval, 1875)
flavomarginatus Conte, 1906
sinuatus Conte, 1906
morescoides Bouvier, 1927
Panamá. Colombia. Venezuela. Ecuador
Occidente. Oriente (l. el.). Tinalandia. // El Jaguar.

102. cinctistriga (R. Felder & Rogenhofer, 1874)
godartii var. *peruviana* Bouvier, 1929
godartii rubiginosa Bouvier, 1930
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Río Napo. Apuya. Satza Yacu.

103. fieldi Lemaire, 1969
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Santo Domingo. Tinalandia. C.C. Río Palenque. Naranjal.

104. midea (Maassen, 1885)
a) midea (Maassen, 1885)
aspersus Bouvier, 1927
sybilla Bouvier, 1929
Guiano-Amazonian
Oriente (l. el.). Satza Yacu. Río Anzú. Los Tayos.

105. liberia (Cramer, 1780)
megalops (Walker, 1865)
erisichton (Boisduval, 1875)
oweni (Dognin, 1896)
proximus var. *guyanensis* Bouvier, 1929
erisichton form *strandi* Schüssler, 1934
illustris form *geayi* Bouvier, 1936
Guiano-Amazonian with an extension of the range to N. Central Venezuela
Oriente (l. el.). Lumbaquí. Limoncocha. Coca. Puente Azuela. Puente Jondachi. Río Pununo. Río Latas. El Ahuano. Apuya. Satza Yacu. Mera. Río Upano. Río Pumayacu (Macas). Limón km 16/17. Gualaquiza/Limón. Los Tayos.

106. banus (Boisduval, 1875)
a) proxima Conte, 1906
coresus ecuadora Weymer, 1908
W. Ecuador
Occidente (l. el.). Balzapamba. Río Yanayacu (near Cochancay). Chontamarca. Naranjal.
b) argentifera Lemaire, 1966
W. Andean
Occidente (l. el.). San Javier de Cachabí. Nanegal. Los Bancos. Quito/Santo Domingo km 77 (Old Rd). Santo Domingo. Tinalandia.

107. amanda Schaus, 1900
a) subobscura Weymer, 1909
subpicta Dognin, 1923 (n. syn.) (6)
columbianus Bouvier, 1927
E. Andean. Colombia. Ecuador
Oriente (l. and m. el.). Lumbaquí. Río Salado. Puente Azuela. Cord. Huacamayos 1700/1800m. Río Negro. La Jullita. Mera. Madre

Tierra. Sangay. Gualaquiza/Limón. Loja/Zamora km 39.

108. **abdominalis** (R. Felder & Rogenhofer, 1874)
tetraomma Strand, 1920
aristei Dognin, 1923
rufobrunnea Bouvier, 1936
Andean
Occidente. Andean Corridor. Oriente (m. el.). Perucho. Nono/Nanegal km 25. Nono/Los Bancos km 37. Quito/Santo Domingo km 77 (Old Rd). Las Chinchas/Zaruma km 9. // Rd Gun/Alausi km 26. // Puente Azuela. El Chaco. Baeza. Cosanga/Tena km 6. Misahuallí. Puela.

109. **curvilinea** Schaus, 1906
maculatus Conte, 1906
Guiano-Amazonian
Oriente (l. el.). Satza Yacu.

110. **denticulata** Conte, 1906
moerens Jordan, 1910
E. Andean
Oriente (l. el.). Sangay. Río Upano. Limón km 16/17.

111. **belti** Druce, 1886
a) **zaruma** Schaus, 1921
foucheri Bouvier, 1927
equatorialis Bouvier, 1936 (n. syn.) (7)
W. Andean
Occidente (l. el.). Los Bancos. I.N.I.A.P. Santo Domingo. Quito/Santo Domingo km 77 (Old Rd). Tinalandia. Balzapamba. Chontamarca. Zaruma/Machala 850m.

112. **caucensis** Lemaire, 1976
Andean
Occidente. Oriente (m. and h. el.). Quito/Santo Domingo km 33, km 40 (Old Rd). // Papallacta/Baeza km 10. Cosanga/Tena km 6.

113. **zugana** Druce, 1886
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Endesa. Santo Domingo. Tinalandia. Quevedo. Chontamarca. Naranjal.

114. **vomona** Schaus, 1906
a) **vomona** Schaus, 1906
pupilla Draudt, 1929
E. Andean
Oriente (m. el.). Puente Azuela. Gualaceo/Méndez km 55.
b) **pichichensis** Lemaire, 1976
Ecuador
Occidente (m. el.). Quito/Puerto Quito km 57. Nono/Nanegal km 25. Nono/Los Bancos km 37. Quito/Santo Domingo km 77 (Old Rd). Balzapamba.

115. **annulata** Schaus, 2-IV-1906
a) **annulata** Schaus, 2-IV-1906
pallens Conte, [31-XII]-1906
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Misahuallí. Limón km 16/17.

116. **harrisorum** Lemaire, 1967
a) **harrisorum** Lemaire, 1967
E. Andean
Oriente (m. el.). Gualaquiza/Limón. Rd Loja/Zamora km 28.5, km 39.

117. **jivaros** Dognin, 1890
Ecuador
Occidente. Andean corridor (m. el.). "San Eduardo" (Campos 1931:

13). Las Chinchas/Zaruma km 9. // Loja. Loja/Catamayo (Old Rd) km 25.8. Celica.

118. **styx** Lemaire, 1982
Guiano-Amazonian
Oriente (l. el.). Limón km 22.5.

119. **pomifera** Schaus, 1906
E. Andean
Oriente (l. and m. el.). Puente Azuela. Baeza. Cord. Huacamayos 1700/1800m. Sangay.

120. **schwartzi** Lemaire, 1967
Guiano-Amazonian
Oriente (l. el.). Dureno. Misahuallí.

121. **orestes** (Boisduval), 1875
serpina Butler, 1878
var. *nigrescens* Bouvier, 1929
affinis Bouvier, 1929
nigrocinctus Bouvier, 1920
Guiano-Amazonian
Oriente (l. el.). Apuya. Satza Yacu.

122. **grammodes** Jordan, 1912
unifasciatus Bouvier, 1927
Andean
Occidente (l. el.). Oriente (m. el.). Nanegal. Nono/Nanegal km 25. Quito/Santo Domingo km 77 (Old Rd). Tinalandia. Chontamarca. // Baeza 2002m. Cosanga/Tena km 6. Río Negro. Mera.

123. **alticola** Lemaire, 1975
Ecuador
Oriente (h. el.). Sebundoy. La Alegría. Gualaceo/Méndez km 41.

ERYTHROMERIS Lemaire, 1969

124. **flexilineata** (Dognin, 1911)
E. Andean
Oriente (h. el.). Gualaceo/Méndez km 36.4.

125. **obscurior** Lemaire, 1975 (new status) (8)
Ecuador
Occidente. Oriente (h. el.). Tulcán/Maldonado km 63.5. // Salcedo/Napo km 49. Papallacta/Baeza km 10.

LEUCANELLA Lemaire, 1969

126. **lynx** (Bouvier, 1930)
Andean
Occidente. Oriente (m. and h. el.). Quito/Puerto Quito km 41. Quito/Santo Domingo km 33 (Old Rd). // Río Salado. Puente Azuela. El Chaco. Baeza 2002m. Cosanga/Tena km 6, km 10.2. Cord. Huacamayos 1700/1800m. Mera. Gualaceo/Méndez km 41, km 55.

127. **contempta** (Lemaire, 1967)
a) **contempta** (Lemaire, 1967)
Andean
Occidente. Andean corridor. Oriente (l. and m. el.). Quito/Santo Domingo km 77 (Old Rd). Las Chinchas/Zaruma km 7. // Hacienda Pimán. // Sebundoy. Lumbaquí. Sangay. Limón km 16/17.

128. **contei** (Lemaire, 1967)

E. Andean
Oriente (m. el.). Puente Azuela. Río Salado. Baeza 1950m. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Baños. Río Negro. Mera.

129. **memusoides** Lemaire, 1973
Ecuador
"Loja (vic. of)" (Holotype ♀, Coll. Dognin < U.S.N.M). "San Eduardo" (Campos).

130. **newmani** (Lemaire, 1967)
E. Andean
Oriente (l. and m. el.). Lumbaquí. Puente Azuela.

131. **flammans** (Schaus, 1900)
W. Andean
Occidente (l. el.). Santo Domingo. Tinalandia. Chontamarca.

132. **apollinairei** (Dognin, 1923)
[?] Amazonian (Colombia, Villavicencio, E. Ecuador)
Oriente (l. el.). Sangay.

133. **maasseni** (Möschler, 1872)
falcata (Boisduval, 1875)
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Satza Yacu. Gualaquiza.

PSEUDAUTOMERIS Lemaire, 1967

134. **antioquia** (Schaus, 1921)
W. Andean
Occidente (l. and m. el.). Quito/Santo Domingo km 77 (Old Rd). Tinalandia. Chontamarca.

135. **yourii** Lemaire, 1985
E. Ecuador
Oriente (m. el.). Baeza 2002m. Cosanga/Tena km 6. Rd Gualaceo/Méndez km 55.

136. **pohli** Lemaire, 1967
E. Andean
Oriente (l. and m. el.). Cord. Huacamayos 1700/1800m. Sangay. Gualaquiza/Limón.

137. **irene** (Cramer, 1779)
a) **irene** (Cramer, 1779)
roseus (Conte, 1906)
obliqua (Bouvier, 1936)
Costa Rica. Panamá. W. Andean. Venezuela. French Guiana
Occidente (l. el.). Paramba. Río Durango. Tinalandia. C.C. Rio Palenque.
b) **arminirene** (Strand, 1920)
rectangularis (Bouvier, 1929)
paucidentata (Bouvier, 1936)
E. Andean
Oriente (l. and m. el.). Dureno. Lumbaquí. Río Napo. Mera. Cord. Huacamayos 1700/1800m. Sangay. Logroño. Limón km 16/17. Gualaquiza/Limón.

138. **lata** (Conte, 1906)
sinuosa (Dognin, 1911)
brutus (Strand, 1911)
caesar (Bouvier, 1927)
Guiano-Amazonian
Oriente (l. el.). Río Yanayacu (Napo). Lumbaquí. Mera. Misahuallí. Río Latas. Limón. Limón km 16/17. Gualaquiza/Limón.

GAMELIA Hübner, [1819]

139. abasia (Stoll, 1781)
irmina (Stoll, 1781)
Andean. Guiano-Amazonian
Occidente. Oriente (l. el.). Tinalandia. Balzapamba. Chontamarca. // Lago Agrio. San Pedro de los Cofanes. Coca. Lumbaquí. Misahuallí. Río Anzú. Río Puni yacu. Satza Yacu. Santa Rosa. Sucúa. Limón km 16/17. Gualaquiza/Limón.

140. neidhoeferi Lemaire, 1967
E. Andean
Oriente (m. el.). Santa Bárbara/La Bonita km 23. Puente Azuela. Baeza 2002m. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Loreto (Rd to). La Jullita. Gualaceo/Méndez km 41, km 69. Gualaquiza/Limón. Loja/Zamora km 28.5.

141. pyrrhomelas (Walker, 1865)
W. Andean
Occidente (m. el.). Rd Otavalo/Apuela. Nono/Los Bancos km 37. Quito/Santo Domingo km 77 (Old Rd).

142. rindgei Lemaire, 1967
Guiano-Amazonian
Oriente (l. el.). San Miguel. Dureno. Misahuallí. Río Napo. El Ahuano. Satza Yacu. Sangay. Río Upano.

143. viettei Lemaire, 1967
E. Andean
Oriente (l. and m. el.). Limón km 20. Gualaquiza/Limón.

144. rubriluna (Walker, 1862)
a) rubriluna (Walker, 1862)
abasia form *occidentalis* (Bouvier, 1936)
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Limón km 16/17. Río Upano.

145. denhezi Lemaire, 1967
W. Andean
Occidente (l. el.). Chontamarca.

HYPERCHIRIA Hübner, [1819]

146. nausica (Cramer, 1779)
form *azteca* (Draudt, 1929)
México to Bolivia and Brazil (Amazon basin)
Occidente. Oriente (l. el.). Tinalandia. Cascol. Chontamarca. // Lumbaquí. Cord. Huacamayos 1700/1800m. Río Jondachi. Río Napo. Río Arajuno. Apuya. Satza Yacu. Santa Clara. Limón km 16/17. Los Tayos.

147. acuta (Conte, 1906)
Andean
Occidente (l. el.). Oriente (m. el.). Tinalandia.Chontamarca. // Cord. Huacamayos 1700/1800m. Santa Clara. Gualaquiza/Limón.

AUTOMERINA Michener, 1949

AUTOMERINA (AUTOMERINA) Michener, 1949

148. cypria (Gmelin, 1790)
stollii (Boisduval, 1875)

pericinctus (Conte, 1906)
Guiano-Amazonian with an extension of the range to Argentina (Tucumán)
Oriente (l. and m. el.). San Miguel. Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Satza Yacu. Puyo/Macas (near Río Pastaza).

149. caudatula (R. Felder & Rogenhofer, 1874)
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Limón km 16/17. Gualaquiza/Limón.

AUTOMERINA (AUTOMERULA) Michener, 1949

150. auletes (Herrich-Schäffer, [1854])
Guiano-Amazonian. Andean
Occidente. Oriente (l. el.). Tinalandia. // Lumbaquí. Tena. Misahuallí. Río Upano. Limón km 16/17. Los Tayos

GAMELIOIDES Lemaire, 1988

151. elainae (Lemaire, 1967)
E. Ecuador
Oriente (h. el.). Santa Bárbara (Cerro Miranda). Papallacta/Baeza km 10. Salcedo/Napo km 49.

HYLESIOPSIS (Bouvier, 1929)

152. festiva Bouvier, 1929
flavilinea (Draudt, 1930)
E. Andean
Oriente (m. el.). Cord. Huacamayos 1700/1800m.

HYLESIA Hübner, [1820]
Antarctia Hübner, [1820]
Micrattacus Walker, 1855

153. nanus (Walker, 1855)
myops (Walker, 1855)
dissimilis (Herrich-Schäffer, [1856])
dispar (Burmeister, 1878)
French Guiana. E. Andean. Eastern Central (Bahia) and S.E. Brazil
Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Río Salado. El Chaco. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Río Napo. Limón km 16/17. Gualaquiza/Limón. Loja/Zamora km 39.

154. coex Dyar, 1913
a) **rex** Dyar, 1913
liturex Dyar, 1913
molpex Dyar, 1913
discutex Draudt, 1929
Guiano-Amazonian
Oriente (l. el.). Dureno. Rues Jungle Hotel. Lumbaquí. Garzacocha. Primavera. El Ahuano. Río Napo. Santa Rosa. Limón km 16/17.

155. andensis Lemaire, 1988
E. Andean.
Oriente (m. el.). Lumbaquí. Puente Azuela. Río Salado. El Chaco. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Gualaquiza/Limón.

156. canitia (Cramer, 1780)
mortifex Dyar, 1913
lolamex Dyar, 1913
oroyex form *amazonica* Draudt, 1929
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Rues Jungle Hotel. Dureno. Río Salado. Tena. Río Napo. El Ahuano. Río Anzú. Satza Yacu. Puyo/Macas (near Río Pastaza). Santa Rosa. Río Upano. Sucúa. Limón km 16/17. Yantzaza/Gualaquiza. Los Tayos.

157. leilex Dyar, 1913
multiplex Dognin, 1916 (*nec* Dyar, 1914, see # 160)
mixtiplex Dognin, 1919 (replacement name)
peruvex Draudt, 1929
E. Andean
Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Río Salado. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Río Napo. Apuya. Satza Yacu. Puyo/Macas (near Río Pastaza). Río Upano. Santa Rosa. Zamora.

158. athlia Dyar, 1913
E. Andean
Oriente (l. el.). Lumbaquí. Loreto (Rd to). Satza Yacu. Río Puni yacu. Santa Rosa. Limón km 16/17.

159. continua (Walker, 1865)
a) colombiana Dognin, 1922
alinda form *pernex* Draudt, 1929
W. Andean
Occidente (l. el.). Tinalandia. Río Toachi. C.C. Río Palenque. Chontamarca. Victoria/Arenillas 150m.

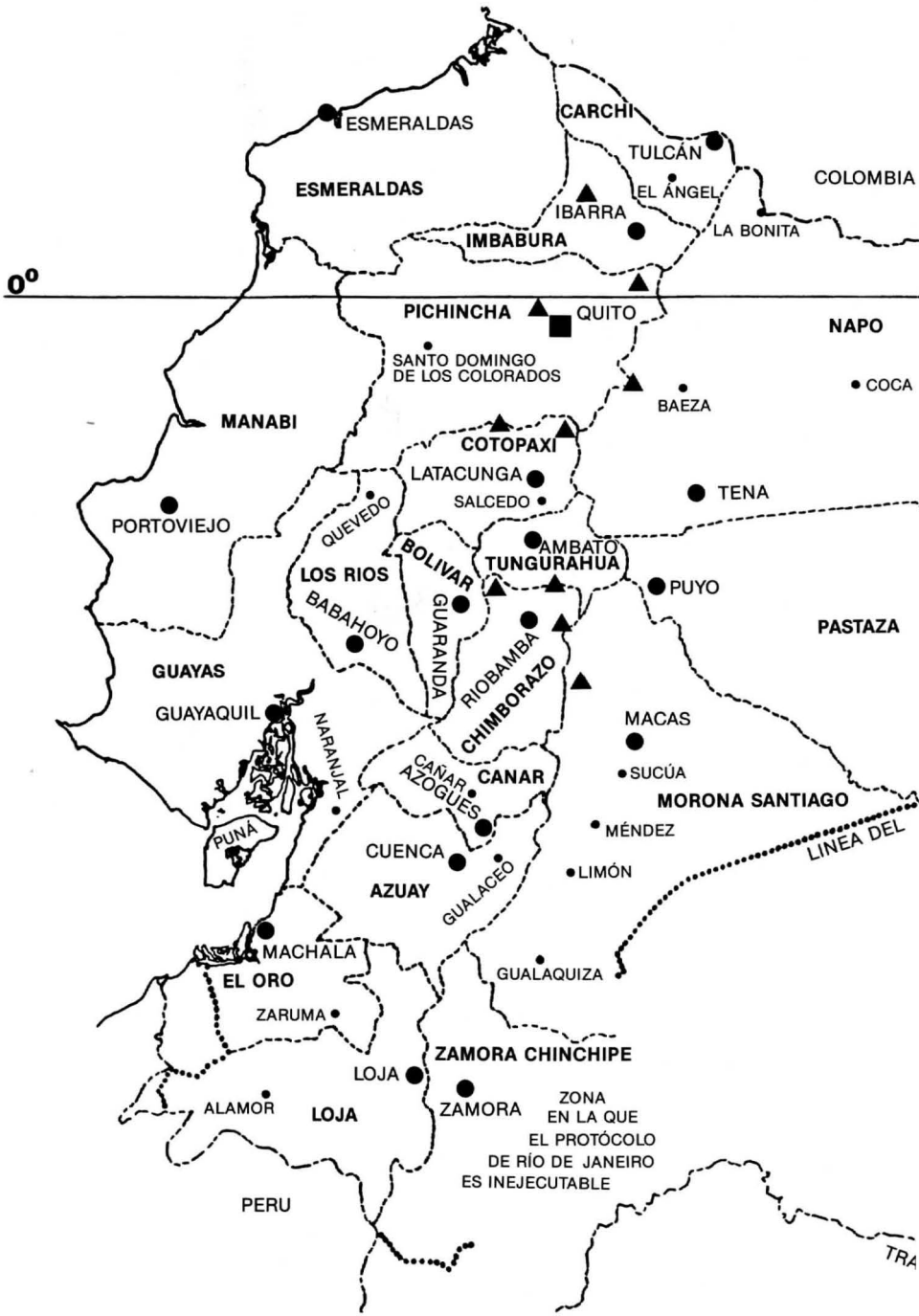
160. rubrifrons Schaus, 1911
a) rubrifrons Schaus, 1911
multiplex Dyar, 1914
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Tinalandia. Río Yanayacu (near Cochancay).

161. olivenca Schaus, 1927
Guiano-Amazonian
Oriente (l. el.). San Jorge. Loreto (Rd to). Río Napo. Misahuallí. Chaula yacu. Río Upano. Limón km 16/17. Zamora.

162. metabus (Cramer, 1775)
obsoleta (Cramer, 1780)
boarmia Hübner, [1820]
grisoli Bouvier, 1923
urticans Floch & Abonnenc, 1944
caripitox Orfila, 1951
Guiano-Amazonian
Oriente (l. el.). Rues Jungle Hotel. Dureno. Lumbaquí. El Ahuano. Satza Yacu. Río Anzú. Santa Rosa. Limón km 16/17. Yantzaza/Gualaquiza.

163. cedomnibus Dyar, 1913
Guiano-Amazonian
Oriente (l. el.). 1 km E. of Garzacocha.

164. bouvereti Dognin, 1899


ESMERALDAS
CARCHI
TULCÁN
COLOMBIA
ESMERALDAS
EL ÁNGEL
IBARRA
LA BONITA
IMBABURA
0°
PICHINCHA
QUITO
NAPO
SANTO DOMINGO
DE LOS COLORADOS
COCA
BAEZA
MANABI
COTOPAXI
LATACUNGA
TENA
SALCEDO
PORTOVIEJO
QUEVEDO
BOLIVAR
AMBATO
TUNGURAHUA
LOS RIOS
PUYO
GUARANDA
BABAHOYO
PASTAZA
RIOBAMBA
GUAYAS
CHIMBORAZO
GUAYAQUIL
NARANJAL
MACAS
CAÑAR
AZOGUES
CANAR
SUCÚA
MORONA SANTIAGO
PUNÁ
MÉNDEZ
CUENCA
LINEA DEL
LIMÓN
AZUAY
GUALACEO
MACHALA
GUALAQUIZA
EL ORO
ZARUMA
ZAMORA CHINCHIPE
LOJA
ZAMORA
ALAMOR
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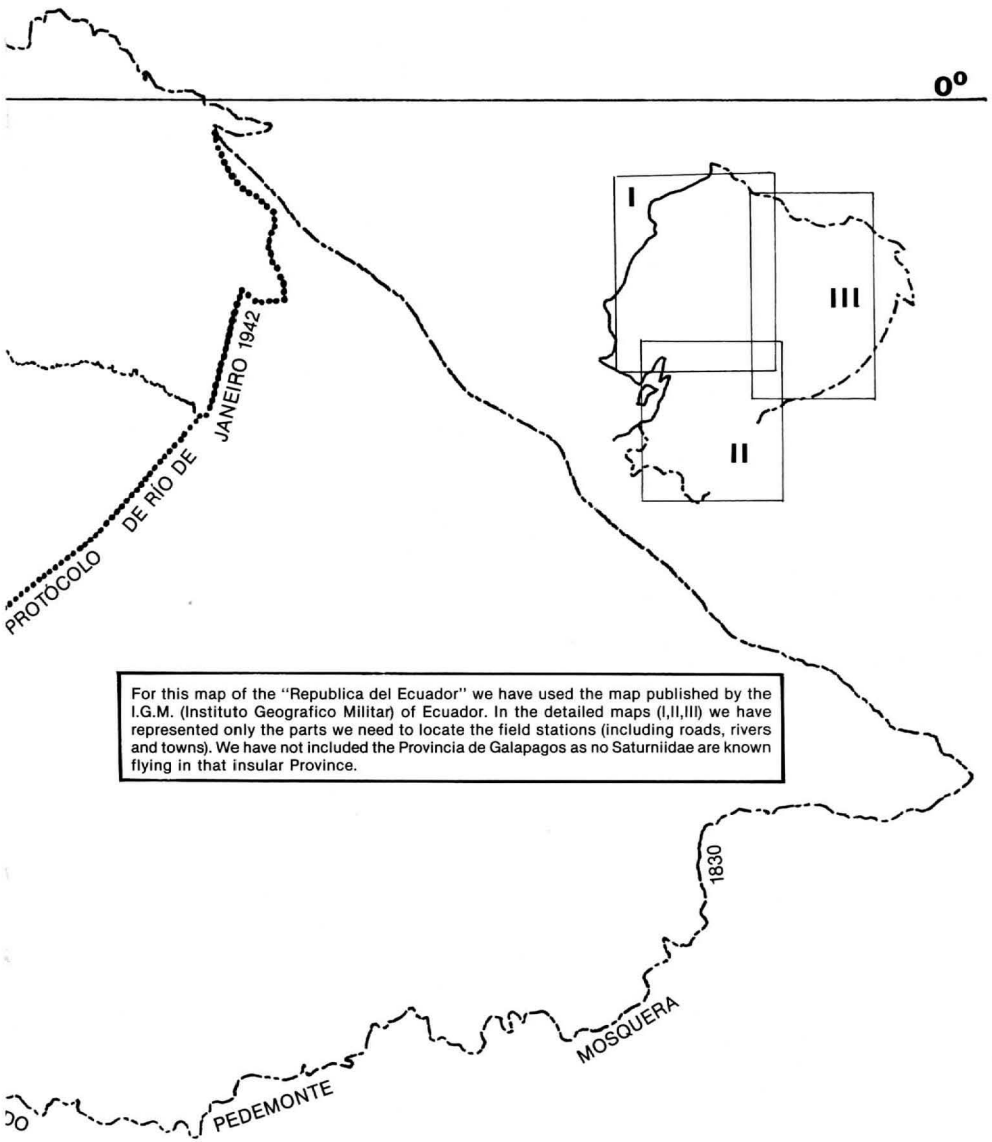
ZONA
EN LA QUE
EL PROTÓCOLO
DE RÍO DE JANEIRO
ES INEJECUTABLE
PERU
TRA



For this map of the "Republica del Ecuador" we have used the map published by the I.G.M. (Instituto Geografico Militar) of Ecuador. In the detailed maps (I,II,III) we have represented only the parts we need to locate the field stations (including roads, rivers and towns). We have not included the Provincia de Galapagos as no Saturniidae are known flying in that insular Province.

Andean
Occidente. Oriente (m. and h. el.). Otavalo/Apuela. Nono/Nanegal km 3.6, km 25. Quito/Santo Domingo km 77 (Old Rd). Nono/Los Bancos km 37. Chiriboga. Tandapi. // Sebundoy. Santa Bárbara/La Bonita km 23. Puente Azuela. Río Salado. Baeza 2002m, Baeza 1950m. Cosanga/Tena km 6, km 10.2. Gualaceo/Méndez km 41, km 55. Loja/Zamora km 28.5.

165. **pauper** Dyar, 1913
Guiano-Amazonian
Oriente (l. el.). Coca. Lumbaquí. Cord. Huacamayos 1700/1800m. El Ahuano. Río Napo. Satza Yacu. Río Anzú. Limón km 16/17.

166. **murex** Dyar, 1913
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Loreto (Rd to). El Jaguar. Santa Rosa.

167. **colombex** Dognin, 1923
W. Andean
Occidente (l. el.). Nanegal. Tinalandia. Chontamarca.

168. **humilis** Dognin, 1923
Guiano-Amazonian
Oriente (l. el.). Satza Yacu. Limón km 16/17.

169. **roseata** Dognin, 1914
Andean
Oriente (m. el.). El Carmelo/Santa Bárbara km 10. Santa Bárbara/La Bonita km 23. Baeza 2002m. Cosanga/Tena km 6, km 10.2. Gualaceo/Méndez km 41.

170. **schausi** Dyar, 1913
dalifex Dognin, 1916
N.W. and W. Venezuela. W. Andean
Occidente (l. el.). Los Bancos. Toachi. Santo Domingo. Tinalandia. Chontamarca. Balao Chico.

171. **umbrata** Schaus, 1911
pollex Dyar, 1913
valvex Dyar, 1913
darlingi Dyar, 1913
palcazua Schaus, 1927 *(n. syn.)*
latex Draudt, 1929
darlingi form *guayanensis* Draudt, 1929
lilacinex Draudt, 1929
darlingi form *tendex* Draudt, 1929
Costa Rica. Panamá. W. Andean. Guiano-Amazonian.
Occidente. Oriente (l. el.). Toachi. Tinalandia. Chontamarca. Cascol. // Lumbaquí. Sucúa.

172. **terrosex** Dognin, 1916
pluto Dognin, 1922
E. Andean
Oriente (m. el.). Puente Azuela. Cord. Huacamayos 1700/1800m. Baños.

173. **hamata** Schaus, 1911
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Tinalandia.

174. **tapareba** Dyar, 1913
derica Schaus, 1940
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Misahuallí. Sucúa.

175. **rosacea** Schaus, 1911
a) **thaumex** Draudt, 1929

W. Andean
Occidente (l. el.). Tinalandia.

176. teratex Draudt, 1929
Guiano-Amazonian
Oriente (l. el.). Lumbaquí.

177. mymex Dyar, 1913
Costa Rica. Andean
Occidente. Oriente (l. and m. el.). Tinalandia // Lumbaquí. Río Salado. Cord. Huacamayos 1700/1800m. Satza Yacu. Baños. Río Negro. Sevilla Don Bosco.

178. subfasciata Dognin, 1916
E. Andean
Oriente (l. el.). Lumbaquí. Río Salado. Loreto (Rd to). Misahuallí. Limón km 16/17.

179. pallidex Dognin, 1923
gracilex Dognin, 1923
coarya Schaus, 1932
Guiano-Amazonian. [?] Uruguay (holotype of *pallidex*)
Oriente (l. el.). Limón km 16/17. Yantzaza/Gualaquiza.

180. indurata Dyar, 1910
lilacina Dognin, 1912
Guiano-Amazonian
Oriente (l. el.). San Miguel. Coca.

181. gigantex Draudt, 1929
a) gigantex Draudt, 1929
W. Andean
Occidente (l. el.). Tinalandia.
b) orbana Schaus, 1932
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Coca. Cord. Huacamayos 1700/1800m. El Jaguar. El Ahuano. Apuya. Limón km 16/17.

182. annulata Schaus, 1911
ochrifex Dyar, 1913
scalex Draudt, 1929
Costa Rica. Panamá. Guiano-Amazonian. Andean
Occidente. Oriente (l. el.). Santo Domingo. Tinalandia. // Lumbaquí. Limón km 16/17, km 20.

183. praeda Dognin, 1921
rubriprocta Bouvier, 1930
Guiano-Amazonian. Andean
Occidente. Oriente (l. and m. el.). Santo Domingo. Tinalandia. // Puente Azuela. Cord. Huacamayos 1700/1800m. Río Napo. Río Anzú. Limón km 16/17.

184. index Dyar, 1913
E. Andean
Oriente (l. el.). Lumbaquí. Río Napo. Río Anzú. Limón km 16/17.

185. cottica Schaus, 1932
N.W. Venezuela. Guiano-Amazonian. Brazil
Oriente (l. el.). Lumbaquí. Archidona. Río Napo. Apuya. Río Anzú. Satza Yacu. Limón km 16/17.

186. melanostigma (Herrich-Schäffer, [1855])
vespex Dognin, 1923
form *propex* Draudt, 1923
Guiano-Amazonian
Oriente (l. el.). Coca. Rues Jungle Hotel. Lumbaquí. Garzacocha. San Jorge. Puente Jondachi. Misahuallí. Río Anzú. Sevilla Don Bosco.

Sucúa. Limón km 16/17.

187. **gyrex** Dyar, 1913
novex Dognin, 1922
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Coca. Río Napo. Apuya. Satza Yacu. Puyo/Macas (near Río Pastaza). Limón km 16/17.

188. **aeneides** (Druce, 1897)
Costa Rica. Panamá. Andean. French Guiana
Occidente. Oriente (l. and m. el.). Quito/Puerto Quito km 57. Quito/Santo Domingo km 77 (Old Rd). Santo Domingo. Tinalandia. Balzapamba. Chontamarca. // Gualaceo/Méndez km 55. Yantzaza/Gualaquiza.

189. **moronensis** Lemaire, 1976
E. Andean
Oriente (l. el.). Sevilla Don Bosco. Limón km 16/17.

MOLIPPA Walker, 1855
Rhodormiscodes Packard, 1903
Prodirphia Bouvier, 1928

190. **nibasa** Maassen, 1885
a) **nibasa** Maassen, 1885
flavocrinata Mabilde, 1896
simillima Jones, 1907
México to Bolivia and S.E. Brazil
Occidente. Oriente (l. and m. el.). Tinalandia. Santo Domingo. Cascol. // Lumbaquí. Puente Azuela. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Tena. Río Napo. Río Anzú. Satza Yacu. Baños. Topo. Río Negro. Río Pumayacu (Macas). Las Chinchas/Zaruma km 4. Gualaquiza/Limón. Loja/Catamayo km 25.8, km 29.

191. **azuelensis** Lemaire, 1976
Ecuador
Oriente (m. el.). Puente Azuela. Cosanga/Tena km 6.

192. **wittmeri** Lemaire, 1976
S.W. Ecuador. N.W. Perú
Occidente (m. el., dry). Loja/Catamayo km 29.

193. **tusina** (Schaus, 1921)
denhezi Lemaire, 1969
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Tinalandia. Balzapamba. Bucay. Chontamarca.

194. **latemedia** (Druce, 1890)
boliviana (Bouvier, 1930)
E. Andean
Oriente (l. el.). Dureno. Lumbaquí. Tena. Misahuallí. Apuya. Río Anzú. Satza Yacu. Río Puni yacu.

195. **placida** (Schaus, 1921)
Guiano-Amazonian
Oriente (l. el). Lumbaquí.

RHODIRPHIA Michener, 1949

196. **carminata** (Schaus, 1902)
form *niepelti* (Draudt, 1930)

W. Andean (9)
Occidente (l. el.). Quito/Santo Domingo km 77 (Old Rd). Tinalandia. Chontamarca.

PARADIRPHIA Michener, 1949

197. geneforti (Bouvier, 1923)
semirosea form *gemeli* (Bouvier, 1925)
Ecuador (10)
Andean Corridor (h. and m. el.). Ibarra. Cotocollao. Calderón. San Rafael.
Occidente. Oriente (m. el.). Tulcán/Maldonado km 63.5. Otavalo/Apuela 2200m. Nono/Los Bancos km 37. Quito/Puerto Quito km 41. Quito/Santo Domingo km 77 (Old Rd). // Lumbaquí. Puente Azuela. Baeza 2002m. Baeza 1950m. Cosanga/Tena km 6, km 10.2. Cord. Huacamayos 1700/1800m. Gualaceo/Méndez km 55.

198. oblita (Lemaire, 1976)
a) oblita (Lemaire, 1976)
E. Andean
Oriente (l. el.). Lumbaquí. Tena. Río Napo. Apuya. Satza Yacu. Mera. Limón km 16/17. Zamora.

MEROLEUCA Packard, 1904
Mesoleuca Packard, 1903, preocc.

MEROLEUCA (MEROLEUCOIDES) Michener, 1949

199. erythropus (Maassen, 1890)
sinuata Lemaire, 1982 (n. syn.)(see Appendix III)
W. Ecuador
Occidente (h. el.).Quito/Santo Domingo km 34 (Old Rd). "Pichincha, 4100m" (Maassen, 1890: 50).

200. penai Lemaire, 1982
E. Ecuador
Oriente (h. el.). W. of Sebundoy. La Alegría. Papallacta/Baeza km 10.

201. rectilineata n. sp. Lemaire & Venedictoff (see Appendix III)
E. Ecuador
Oriente (h. and m. el.). Sebundoy. La Alegría. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m.

202. flavodiscata (Dognin, 1916)
W. Ecuador
Occidente (h. el.). Quito/Santo Domingo km 26 (Old Rd).

203. bipunctata Lemaire, 1982
E. Ecuador
Oriente (m. el.). Gualaceo/Méndez km 55.

204. albomaculata (Dognin, 1916)
Ecuador
"Equateur, Loja" (Dognin, 1916: 17).

205. laverna (Druce, 1890)
W. Ecuador
Occidente. (m. el.). Intaj (Druce, 1890: 501).

206. famula (Maassen, 1890)
Ecuador
Andean Corridor. (h. el.). "haufig bei Chalupas am Quilindaña, 3700m" (Maassen, 1890: 134).

207. nata (Maassen, 1890)
E. Ecuador
Oriente (h. el.). "Antisana, 4000m" (Maassen, 1890: 134). Milimbanco. Salcedo/Napo km 49.

CERODIRPHIA Michener, 1949

208. speciosa (Cramer, 1777)
quadricolor (Walker, 1865)
Guiano-Amazonian
Oriente (l. el.). Dureno. Lago Agrio. Lumbaquí. Apuya. Río Anzú. Santa Clara. Río Pumayacu (Macas). Limón km 16/17. Cumbaratza. Zamora.
209. wellingi Lemaire, 1973
México. E. Andean (11)
Oriente (m. el.). Puente Azuela. Río Salado. El Chaco. Cord. Huacamayos 1700/1800m.
210. candida Lemaire, 1969
W. Andean
Occidente (l. el.). Tinalandia.
211. brunnea (Draudt, 1930)
a) brunnea (Draudt, 1930)
Panamá. E. Andean. Guiano-Amazonian
Oriente (l. el.). Coca. Archidona. Tena. Zamora.
212. mota (Druce, 1909)
a) mota (Druce, 1909)
W. Andean
Occidente (m. el.). Tulcán/Maldonado km 63.5. Nono/Los Bancos km 37.
b) napoensis Lemaire, 1982
E. Ecuador
Oriente (m. el.). Puente Azuela. Baeza 1950m. Cosanga/Tena km 6, km 10.2.
213. nadiana Lemaire, 1975
E. Ecuador
Oriente (m. el.). La Alegría. Sebundoy. Puente Azuela. Baeza 2002m. Baeza 1950m. Cosanga/Tena km 6, km 10.2. Gualaceo/Méndez km 55.
214. lojensis Lemaire, 1988
Ecuador
Andean Corridor (h. el.). Loja/Catamayo km 15.
215. consaepta (Draudt, 1930)
E. Andean
Oriente (m. el.). Gualaceo/Méndez km 55.
216. flavoscripta (Dognin, 1901)
Ecuador
Andean Corridor. Oriente. (h. and m. el.). Gualaceo/Méndez km 36.4, km 41, km 55. // San Lucas.
217. cutteri (Schaus, 1927)
upanona (Draudt, 1929)
Ecuador
Andean Corridor. Oriente (h. el.). Ambato/Riobamba km 27.8 (Mocha). San Lucas. Loja/Catamayo km 15. Gualaceo/Méndez km 15, // km 36.4.

DIRPHIA Hübner, [1819]
Phricodia Hübner, [1820]
Plateia Hübner, [1820]
Hyperdirphia Packard, 1903
Phidira Draudt, 1929

218. **aculea** Vuillot, 1892
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. El Auca.
219. **brevifurca** Strand, 1911
Guiano-Amazonian
Oriente (l. el.). Lumbaquí.
220. **horca** Dognin, 1894
E. Andean
Oriente (l. el.)."Zamora" (Dognin, 1894: 240).
221. **crassifurca** Lemaire, 1971
E. Andean
Oriente (m. el.). Puente Azuela. Cosanga/Tena km 6, km 10.2. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Mera. Gualaceo/Méndez km 55. Gualaquiza/Limón.
222. **abhorca** Lemaire, 1969
W. Andean
Occidente (l. el.). Quito/Santo Domingo km 77 (Old Rd). Pilaló/Tingo 1000m.
223. **subhorca** Dognin, 1901
W. Andean
Occidente (l. el.). Santo Domingo. Tinalandia. Chontamarca.
224. **proserpina** Lemaire, 1982
W. Ecuador
Occidente (m. el.). Quito/Puerto Quito km 57. Nono/Los Bancos km 33.5. Quito/Santo Domingo km 77 (Old Rd).
225. **avia** (Stoll, 1780)
orasia (Stoll, 1782)
triangulum Walker, 1855
concolor Walker, 1855
nora Druce, 1897
Nicaragua to Panamá. Andean. Guiano-Amazonian. S.E. Brazil
Occidente. Oriente (l. and m. el.). Los Bancos. Tinalandia. Chontamarca. // Coca. Lumbaquí. Puente Azuela. Río Salado. Cord. Huacamayos 1700/1800m. Río Napo. Misahuallí. Baños. Mera. Río Negro. Limón km 16/17. Limón (village). Gualaquiza/Limón. Yantzaza/Gualaquiza. Loja/Zamora km 39.
226. **panamensis** (Schaus, 1921)
a) **panamensis** (Schaus, 1921)
fassli (Dognin, 1923)
decolor Bouvier, 1929
Panamá. E. Andean. Guiano-Amazonian
Oriente (l. el.). Limoncocha. Archidona. Río Napo. Misahuallí. Satza Yacu. Limón km 16/17.
227. **fraterna** (R. Felder & Rogenhofer, 1874)
a) **fraterna** (R. Felder & Rogenhofer, 1874)
javarina Butler, 1878
brunneoalba Bouvier, 1929
Amazonian
Oriente (l. el.). Dureno. Lago Agrio. Río Aguarico. Lumbaquí. Shushufindi. Río Salado. Archidona. Río Napo. Misahuallí. Río

Arajuno. Satza Yacu. Río Puni yacu. Limón km 16/17.

b) callosa Draudt, 1930

theobromana Draudt, 1930

E. Andean

Oriente (l. el.). Archidona.

228. thliptophana (R. Felder & Rogenhofer, 1874)

a) thliptophana (R. Felder & Rogenhofer, 1874)

brunneoalba form *saturata* Bouvier, 1930

E. Andean

Oriente (l. el.). Lumbaquí.

229. somniculosa (Cramer, 1777)

a) somniculosa (Cramer, 1777)

rochereaui Bouvier, 1929

S.W. Venezuela. W. Andean

Occidente (l. el.). Tinalandia.

b) confluens Bouvier, 1930

E. Andean

Oriente (m. el.). Lumbaquí. Río Salado. Puente Azuela. El Chaco. Baeza 2002m. Baeza 1950m. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Río Jondachi.

PERIPHOBA Hübner, [1820]

230. hircia (Cramer, 1775)

calchas (Cramer, 1775)

amalia (Stoll, 1782)

obtusa (Walker, 1855)

afflata (Strand, 1911)

roseigrisea (Bouvier, 1930)

amalia romani (Bryk, 1953)

Guiano-Amazonian

Oriente (l. el.). Coca. Lumbaquí. Río Puni yacu. Limón km 16/17. Zamora.

231. porioni Lemaire, 1982

E. Ecuador

Oriente (m. el.). Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m.

232. nigra (Dognin, 1901)

quaesita (Draudt, 1930)

W. Andean

Occidente (l. el.) Paramba. "Río Bamba". (12)

DIRPHIOPSIS Bouvier, 1928

233. flora (Schaus, 1911)

a) flora (Schaus, 1911)

Costa Rica. Panamá. W. Andean

Occidente (l. el.). I.N.I.A.P Santo Domingo. Santo Domingo. Tinalandia. Toachi. Tandapi.

b) orientalis (Lemaire, 1976)

E. Andean

Oriente (l. el.). Lumbaquí. Loreto (Rd to). Mera. Sangay. Sucúa. Río Upano. Limón km 16/17. Gualaquiza/Limón. Yantzaza/Gualaquiza.

234. unicolor Lemaire, 1982

E. Andean

Oriente (m. el.). Gualaceo/Méndez km 55.

PSEUDODIRPHIA Bouvier, 1928

235. agis (Cramer, 1775)
a) agis (Cramer, 1775)
var. *angulata* Bouvier, 1929
agis aphlebia Bouvier, 1935
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Loreto (Rd to). Misahuallí. Satza Yacu. Sevilla Don Bosco. Santa Rosa. Limón km 16/17. Los Tayos. Yantzaza/Gualaquiza. Cumbaratza. Zamora.

236. obliqua (Bouvier, 1924)
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Puente Jondachi. Santa Rosa. Río Upano. Limón km 16/17. Yantzaza/Gualaquiza. Zamora.

237. regia (Draudt, 1930)
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Santo Domingo. Tinalandia. Chontamarca.

238. imperialis (Draudt, 1930)
W. Andean
Occidente (l. el.). Tinalandia.

239. uniformis (Lemaire, 1975)
E. Andean
Oriente (l. el.). Coca. Lumbaquí. Santa Clara (Río Llandia). Sevilla Don Bosco. Limón km 16/17.

240. eumedidoides (Vuillot, 1892)
peruviana var. *concava* Bouvier, 1929
Guiano-Amazonian
Oriente (l. el.). San Miguel. Lumbaquí. Archidona. Río Napo. Misahuallí. Apuya. Río Puni yacu. Satza Yacu. Puyo/Macas (near Río Pastaza). Río Upano. Sevilla Don Bosco. Limón km 16/17. Yantzaza/Gualaquiza. Zamora.

241. peruviana (Bouvier, 1924)
peruvianus obtusa Bouvier, 1935
E. Andean
Oriente (l. el.). Puente Azuela. Gualaquiza/Limón.

242. andicola Bouvier, 1930
E. Andean
Oriente (l. and m. el.). Puente Azuela. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Santa Clara (Río Llandia). Río Negro. Mera. Sevilla Don Bosco. Gualaceo/Méndez km 55. Gualaquiza/Limón. Loja/Zamora km 28.5.

243. thiaucourti Lemaire, 1982
E. Andean
Oriente (l. and m. el.). Puente Azuela. Cord. Huacamayos 1700/1800m. Sevilla Don Bosco. Gualaquiza/Limón. Cumbaratza. Zamora.

244. infuscata (Bouvier, 1924)
E. Andean
Oriente (m. el.). Sebundoy. Santa Bárbara/La Bonita km 23. Puente Azuela. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Gualaceo/Méndez km 55.

245. herbuloti (Lemaire, 1975)
W. Ecuador
Occidente (m. el.). Nono/Nanegal km 25. Quito/Santo Domingo km 77 (Old Rd). Latacunga/Quevedo 1800m.

246. biremis (Draudt, 1930)

S. Brazil. E. Ecuador (13)
Oriente "Macas" (Draudt, 1930: 722).

247. **eumedide** (Stoll,1782)
varia (Walker, 1855)
draudti Bouvier, 1935 (n. syn.)
E. Andean (14)
Oriente (m. el.). Loja/Zamora km 28.5.

248. **alba** (Druce, 1911)
E. Ecuador
Oriente."E. Ecuador, Alpayacu, Río Pastaza, 3600ft" (Druce, 1911: 719).

249. **menander** (Druce, 1886)
menander reducta Hering, 1925
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Tinalandia.

SATURNIINAE

COPAXA Walker, 1855
Sagana Walker, 1855
Saturniodes Jordan, 1911

250. **decrescens** Walker, 1855
marona Schaus, 1906
form *niepelti* Draudt, 1929
Andean. Guiano-Amazonian. S. E. Brazil. N. Argentina
Occidente. Oriente (l. el.). Los Bancos. Quito/Santo Domingo km 77 (Old Rd). Santo Domingo. Tinalandia. Tandapi. C. C. Río Palenque. Cascol. Chontamarca. Naranjal. // Lumbaquí. Río Napo. Misahuallí. Apuya. Satza Yacu. Río Puni yacu. Sangay. Limón km 16/17.

251. **koenigi** Lemaire, 1974
E. Andean
Oriente (l. el.). Limón km 22.5.

252. **rufinans** Schaus, 1906
decrescens form *olivina* Draudt, 1929
decrescens form *purpurascens* Draudt, 1929
México to Panamá. W. Andean
Occidente (l. el.). Los Bancos. Santo Domingo. Tinalandia. Alluriquín. Chontamarca. Zaruma/Machala 850m.

253. **multifenestrata** (Herrich-Schäffer, [1858])

a) **multifenestrata** (Herrich-Schäffer, [1858])
polythyris Druce, 1886
multifenestrata rufotincta W. Rothschild, 1895
chorias Druce, 1897
form *flavescens* Draudt, 1929
form *rufa* Draudt, 1929
form *olivina* Draudt, 1929
México to Panamá. W. Andean
Occidente (l. el.). Los Bancos. Tinalandia. Alluriquín. Chontamarca.

b) **satellita** Walker, 1865
E. Andean. S.E. Brazil. Argentina
Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Sangay. Santa

Rosa. Gualaquiza/Limón.

254. cineracea W. Rothschild, 1895
E. Andean
Oriente (l. el.). Lumbaquí.

255. expandens Walker, 1855
a) expandens Walker, 1855
trimacula W. Rothschild, 1895
anestios Weymer, 1909
arpi Gschwandner, 1925
E. Andean (N. Central Venezuela to Ecuador)
Oriente (m. el.). Puente Azuela. Río Salado. Cord. Huacamayos 1700/1800m.
b) brunneocaeca Lemaire, 1982
Ecuador
Oriente (m. el.). Santa Rosa.

256. andensis Lemaire, 1971
Andean
Occidente. Oriente (m. el.). Latacunga/Quevedo 1800m. Las Chinchas/Zaruma km 4. // Puente Azuela. El Chaco. Baeza 2002m. Baeza 1950m. Cosanga/Tena km 6. Cord. Huacamayos 1700/1800m. Río Negro. Gualaceo/Méndez km 55.

257. simson Maassen, 1881
Costa Rica. Panamá. N. Central Venezuela. E. Colombia. W. Ecuador. Brazil (Mato Grosso)
Occidente (l. el.). Chontamarca.

258. semioculata (R. Felder & Rogenhofer, 1874)
a) semioculata (R. Felder & Rogenhofer, 1874)
Andean ("Venezuela (Moritz)") (R. Felder & Rogenhofer, 1874: 8)
Andean Corridor (h. el.). W. Cuenca 11/12000ft.
b) orientalis Lemaire, 1975
Andean
Occidente. Andean Corridor. Oriente. (h. el.). Tulcán/Maldonado km 48. Cuicocha/Pucará km 6.2. Quito/Santo Domingo km 26 (Old Rd). // El Angel/Tulcán km 12.6. Cotopaxi (Volcán) 3800m. // "Antisana, Puerta de Guamaní 3600m" (15). Cosanga/Tena km 6. Salcedo/Napo km 49.

259. medea (Maassen, 1890)
ockendeni (Druce, 1906)
medea carina (Jordan, 1911)
medea charila (Jordan, 1911)
medea miles (Jordan, 1911)
orios (Dyar, 1913)
Andean
Andean Corridor (h. el.). Cotopaxi (Clirsen ex NASA). Cotopaxi (Volcán) 2900m. Ambato/Riobamba km 27.8 (=Mocha). Riobamba 3000m.

ROTHSCHILDIA Grote, 1897

260. erycina (Shaw, [1796])
a) erycina (Shaw, [1796])
splendida (Palisot de Beauvois, [1811])
amazonia (Packard, 1871)
satyrus (R. Felder & Rogenhofer, 1874)
erycina martha W. Rothschild, 1907

erycina vinacea W. Rothschild, 1907
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Puente Jondachi. Misahuallí. Satza Yacu. Mera. Sangay. Limón km 16/17. Cumbaratza.

b) **nigrescens** W. Rothschild, 1907
Costa Rica. Panamá. W. Andean
Occidente (l. el.). Santo Domingo. Tinalandia. Cascol. Chontamarca.

261. **lebeau** (Guérin-Méneville, 1868)

a) **lebeau** (Guérin-Méneville, 1868)
bolivar (Maassen, 1873)
ab. *catenigra* Draudt, 1929
Nicaragua to Panamá. N. Central Venezuela. W. Andean
Occidente (l. el.). Los Bancos. Santo Domingo. Tinalandia. Puerto Ila. Cascol. Balzapamba. Chontamarca.

b) **inca** W. Rothschild, 1907
lebeau rectilineata Bouvier, 1930
E. Andean
Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Río Negro. Topo. Mera. Sangay. Loja/Zamora km 39.

262. **jorulloides** (Dognin, 1895)
lichtenba form *micrinus* Draudt, 1929
cruentata Bouvier, 1930
bucaya Schaus, 1941
Andean
Occidente. Andean Corridor (l. and m. el., semi arid areas). Quevedo. Cascol. San Eduardo (Campos 1931: 14). // Río León 1700m, 2100m. Loja/Catamayo km 28.1, (Old Rd) km 29.

263. **hesperus** (Linné, 1758)

a) **hesperus** (Linné, 1758)
procyon Draudt, 1929
betis form *imitator* Draudt, 1929
betis olivenca Vogeler, 1933
betis melini Bryck, 1953
Guiano-Amazonian
Oriente (l. el.). Lumbaquí. Satza Yacu. Río Puni yacu. Misahuallí. Sangay. Limón km 16/17.

264. **arethusa** (Walker, 1855)

a) **rhodina** Jordan, 1911
Amazonian with an extension of the range to N. Central Venezuela
Oriente (l. el.). Lago Agrio. Lumbaquí. Satza Yacu. Sangay. Limón km 16/17.

265. **orizaba** (Westwood, [1854])

a) **equatorialis** W. Rothschild, 1907
orizaba bogotana W. Rothschild, 1907
hesperus form *poecilator* Draudt, 1929
poecilator var. *draudti* Bouvier, 1936
W. Andean
Occidente (l. el.). San Javier de Cachabí. Paramba. Los Bancos. Santo Domingo. Tinalandia. Balzapamba. Chontamarca. Chimbo.

b) **peruviana** W. Rothschild, 1907
coxeyi Schaus, 1932
E. Andean
Oriente (l. and m. el.). Lumbaquí. Puente Azuela. Cord. Huacamayos 1700/1800m. Loreto (Rd to). Topo. Puyo/Baños. Mera. Santa Rosa.

266. **aurota** (Cramer, 1775)

a) **aurota** (Cramer, 1775)
ethra (Olivier, 1790)
aurota andensis W. Rothschild, 1907
Guiano-Amazonian. E. Andean
Oriente (l. el.). Lumbaquí. Cord. Huacamayos 1700/1800m. Satza Yacu. Sangay. Limón km 16/17. Zamora.

267. **aricia** (Walker, 1855)
a) **aricia** (Walker, 1855)
W. Andean
Occidente (h. and m. el.). Nono/Los Bancos km 37. Quito/Santo Domingo km 77 (Old Rd).
b) **xanthina** W. Rothschild, 1907
E. Andean
Oriente (m. el.). Puente Azuela. Cosanga/Tena km 6, km 10.2. Cord. Huacamayos 1700/1800m. Gualaceo/Méndez km 55.

APPENDIX I

FIELD STATIONS

The entomological exploration of Ecuador has long been delayed by the problems associated with the on ground long distance communications and especially with the difficulties encountered crossing the cordilleras. The only possibility of access was then in Occidente by sea and in Oriente by passage along the upper reaches of the Amazon River. Thus there were few stations visited during all the earlier exploration and the collections were relatively poor. These collections, if not made by local residents (Campos), were obtained during scientific expeditions (Stübel) or by collectors in residence for a long time (Abbé Gaujon).

The opening of an important road network, parallel to the increase of the economic activity within the country, has considerably improved these conditions by giving access to the regions which have never been collected and studied previously.

The design of the road network is imposed by the geological relief. It consists essentially of a North-South axis (Panamerican Highway) using the Andean Corridor and branching from this axis, many transverse roads which cross the cordilleras through the mountain passes giving access to the Oriente and Occidente. In the Oriente, there exists a second axis parallel to the Panamerican but at a lower elevation which connects Baeza to Zamora.

The majority of the field stations are situated in the forest zones crossed by those different roads. The maintenance of these is a considerable problem in certain sectors because of the profile and the instability of the ground.

The lowest region of the Occidente is also covered by an important road network, but there are only a few collecting stations because of the degradation of the flora and the presence of a varied but fairly intensive agricultural cultivation.

List of the field stations

Aguarico (Río) see Dureno

Alama # 1 Oriente-NAPO-oil well between Tarapoa and Puerto El Carmen de Putumayo, elev. 210m (map III, # 90).

Alluriquín Occidente-PICHINCHA-Rd Quito/Santo Domingo de los Colorados on the Toachi River, elev. 820m (map I, # 21).

Alpayacu (Río) Oriente-PASTAZA-small stream near Mera, elev. 1100m (map I & III, # 140).

Ambato/Riobamba Andean Corridor-COTOPAXI/CHIMBORAZO-on the Panamerican

Highway km 27.8, elev. 3580m (=Mocha), (map I, # 68).

Antisana (Volcán) Oriente-NAPO-volcano E. of Quito. Elev. of the collecting 4000m (Maassen, 1890: 134), (map I & III, # 109).

Anzú (Río) Oriente-PASTAZA and NAPO-river on the W. side of the Rd Puyo/Tena, elev. from 1100m to 600m at its confluence with the Napo River, (map III, # 130).

Apuela see Otavalo/Apuela

Apuya(=Costa Azúl) Oriente-NAPO-on the Anzú River, S. Puerto Napo, elev. 620m (map III, # 129).

Arajuno (Río) Oriente-NAPO-tributary of the Napo River downstream Misahuallí, elev. 400m (map III, # 128).

Archidona Oriente-NAPO-small town 10 km N. of Tena, elev. 780m (map III, # 120).

Azuela (Puente) Oriente-NAPO-on the Rd Baeza/Lumbaquí, on the slopes of the Reventador Volcano, elev. 1530m (map III, # 95).

Baba (Río) Occidente-LOS RIOS-river flowing along the E. side of the Rd Santo Domingo de los Colorados/Quevedo, elev. 300/200m (map I, # 31). Río Bamba is possibly a misspelling for this river but surely not the town of Riobamba.

Baeza Oriente-NAPO-7 km W. of the town, pumping station on the pipeline, elev. 2002m (map III, # 110). At the junction of the Rd to Baeza/Tena and the Road to Lago Agrio, elev. 1950m (map III, # 111).

Balao Chico Occidente-GUAYAS-S.W. of Naranjal, close to the sea (map II, # 46).

Balzapamba Occidente-BOLIVAR-small town on the Rd Guaranda/Babahoyo, elev. 800m (map I, # 38).

Balzapamba/Guaranda Occidente-BOLIVAR-km 22, elev. 2650m (map I, # 37).

Bamba (Río) see Baba (Río)

Baños Oriente-TUNGURAHUA-town and spa on the Rd Ambato/Puyo, elev. 1800m (map I, # 135).

Blanco (Río) Oriente-TUNGURAHUA-tributary of the Pastaza River, downstream Baños, elev. 1600m (map I, # 136).

Bucay (=Gl. Elizalde) Occidente-GUAYAS-small town on the Rd Riobamba/Guayaquil, elev. 300m (map I, # 41). 4km S.W. Bucay, elev. 280m (map I, # 42).

Calderón Andean Corridor-PICHINCHA-14 km N.E. of Quito elev. 2760m (map I, # 61).

Cañar/Guayaquil Andean Corridor-CAÑAR-km 12, probably around El Tambo, elev. 2760m (map I , # 71).

Carlos J. Arosemena Tola see Satza Yacu

Cascol Occidente-MANABI-9 km N.W. of Cascol on the Rd Guayaquil to Jipijapa, elev. 400m (map I, # 36).

C.C. Río Palenque Occidente-PICHINCHA-"Centro Científico Río Palenque". E. of the Rd Santo Domingo de los Colorados/Quevedo, km 46, elev. 220m (map I, # 32).

Celica Occidente-LOJA-small town on the Rd Macará/ Arenillas, elev. 2000m (map II, # 54).

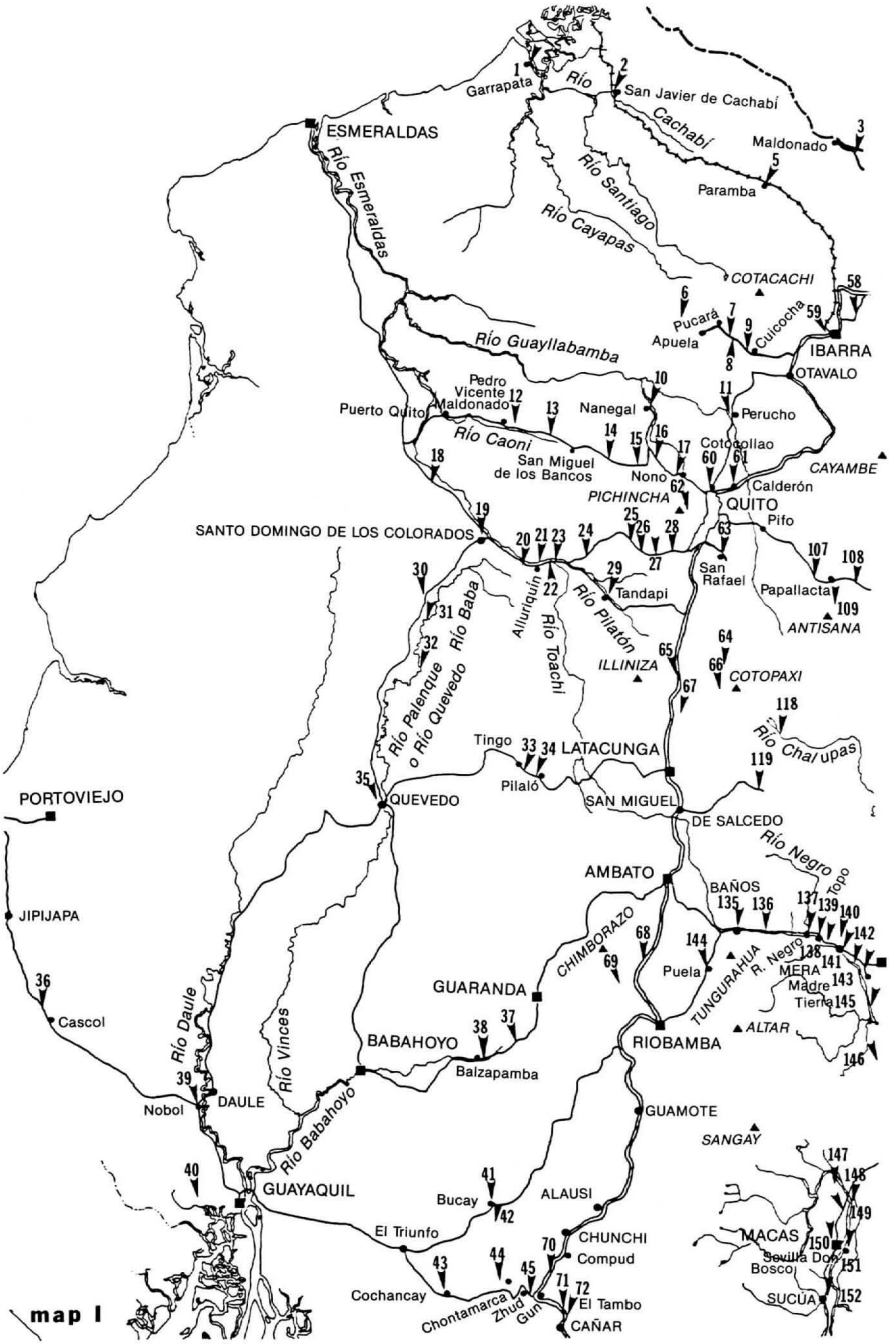
Chalupas (Río) Oriente-NAPO-river flowing on the S. slope of Quilindaña Mountain, elev. 3700m (Maassen, 1890: 134) (map I, # 118).

Chaula yacu (Río) Oriente-NAPO-tributary of the Anzú River, elev. 600m (map III, # 132).

Chimbo Occidente-CHIMBORAZO-near Bucay on the Chanchán River, elev. 345m (map I, # 42).

Chiriboga(=Chirriboga) Occidente-PICHINCHA-Old Rd Quito/Santo Domingo de los Colorados, elev. 2000m.

Chontamarca Occidente-CAÑAR-Old Rd Gun/El Triunfo, elev. 500m. The collecting was probably done on several points of that road, thus at different elevations up to 1400m (map I, # 44).


Río Cachabí
Río Santiago
Río Cayapas
Río Esmeraldas
Río Guayllabamba
Río Caoni
Río Baba
Río Palenque o Río Quevedo
Río Toachi
Río Pilatón
Río Chalupas
Río Negro Topo
Río Daule
Río Vinces
Río Babahoyo
Río Tungurahua
R. Negro
Garrapata
San Javier de Cachabí
Maldonado
Paramba
ESMERALDAS
COTACACHI
Pucará
Apuela
Culcocha
IBARRA
OTAVALO
Pedro Vicente Maldonado
Puerto Quito
Nanegal
Perucho
Cotocollao
San Miguel de los Bancos
Nono
CAYAMBE
Calderón
PICHINCHA
QUITO
Pifo
SANTO DOMINGO DE LOS COLORADOS
San Rafael
Papallacta
ANTISANA
Tandapi
Alluriquín
ILLINIZA
COTOPAXI
Tingo
LATACUNGA
Pilaló
SAN MIGUEL DE SALCEDO
PORTOVIEJO
QUEVEDO
AMBATO
BAÑOS
JIPIJAPA
CHIMBORAZO
Puela
MERA
Madre Tierra
ALTAR
Cascol
GUARANDA
RIOBAMBA
BABAHOYO
Balzapamba
Nobol
DAULE
GUAMOTE
SANGAY
GUAYAQUIL
Bucay
ALAUSI
El Triunfo
CHUNCHI
Compud
MACAS
Sevilla Don Bosco
SUCUA
Cochancay
Chontamarca
Zhud
Gun
El Tambo
CAÑAR

map I

Coca (=Puerto Francisco de Orellana) Oriente-NAPO-small town on the Napo River, elev. 250m (map III, 100).

Cochancay Occidente-CAÑAR-small village on the Rd Gun/El Triunfo, elev. 280m (map I, # 43).

Cononaco Oriente-NAPO/PASTAZA-oil well 80 km S. of Coca, close to the river of the same name, elev. 230m (map III, # 123).

Cosanga Oriente-NAPO-small village on the Rd Baeza/Tena. Collecting S. of the locality km 6, elev. 2150m (map III, # 112) and km 10.2, elev. 2230m, (map III, # 113).

Cotocollao Andean Corridor-PICHINCHA-suburb N. of Quito, elev. 2830m (map I, # 60).

Cotopaxi (Volcán) Andean Corridor-COTOPAXI-on the Rd Quito/Latacunga, (Clirsen, ex NASA), elev. 3565m (map I, # 67). Inside the "Park of Cotopaxi", elev. 3800m (map I, # 66).

Cuenca Andean Corridor-AZUAY-capital of the province elev. 2540m (map II, # 73).

Cuicocha/Pucará Occidente-IMBABURA-on the Rd Otavalo to Apuela km 6,2 S. of Cuicocha, elev. 3350m (map I, # 9), km 39 (near Cristal River), elev. 2100m (map I, # 7).

Cumbaratza Oriente-ZAMORA CHINCHIPE-on the Rd Zamora/Yantzaza on Yacuambi River, elev. 900m (map II, # 166).

Durango (Río) Occidente-probably ESMERALDAS-elev. 150m. Exact location unknown.

Dureno Oriente-NAPO-on Aguarico River downstream Lago Agrio, elev. 230m (map III, # 89).

El Ahuano Oriente-NAPO-on Napo River, downstream Puerto Misahuallí, elev. 400m (map II, # 127).

El Ángel/Tulcán Andean Corridor-CARCHI-km 12.6, elev. 3430m (map III, # 57).

El Aromo (Cooperativa) see Naranjal

El Auca Oriente-NAPO-oil well S. of Coca on the Rd to Cononaco, elev. 230m (map III, # 106).

El Carmelo/Santa Bárbara Oriente-NAPO-on the Rd along the Colombian border km 10, elev. 2750m (map III, # 82).

El Chaco Oriente-NAPO-on the Rd Baeza/Lago Agrio, elev. 1700m (map III, # 98).

El Jaguar (Hotel) Oriente-NAPO-Jungle Hotel on the Napo River downstream Puerto Misahuallí N. Santa Rosa (not the same Santa Rosa as listed below), elev. 350m (map III, # 122).

El Tambo Andean Corridor-CAÑAR-10 km. N. of Cañar elev. 2900m (map I, # 72).

Endesa Occidente-PICHINCHA-Reserva Forestal Endesa, on the Rd Quito/Puerto Quito km 113 (E. of Pedro Vicente Maldonado), elev. 800m (map I, # 12).

Garrapata Occidente-ESMERALDAS-between La Tola and Borbón on the Santiago River, elev. close to sea level (map I, # 1).

Garzacocha Oriente-NAPO-lake close to the Napo River (right bank), 68 km E. of Coca, elev. 210m (map III, # 104 & 105).

Gualaceo/Méndez Andean Corridor-AZUAY-km 15, elev. 2900m (map II, # 157). Oriente-MORONA SANTIAGO-km 36.4, elev. 2900m (map II, # 158). km 41, elev. 2400m (map II, # 159). km 55, elev. 2100m (map II, # 160). km 69, elev. 1700m (map II, # 161).

Gualaquiza Oriente-MORONA SANTIAGO-small town on the Rd Zamora/Macas, elev. 1600m.

Gualaquiza/Limón Oriente-MORONA SANTIAGO-km 23.1 elev. 1610m, (=Gualaquiza/Indanza), (map II, # 163).

Guamaní (Puerta) Oriente-NAPO-pass thru the cordillera on the Rd Quito/Baeza, elev.

of the collecting 3600m, (Maassen, 1890: 49), (map III, # 107).

Gun Occidente-CAÑAR-Rd Gun/El Triunfo km 1.5, elev. 2750m (map I, # 45). Erroneously on some maps this locality is called Zhud. Zhud is located some kilometers west of Gun.

Gun/Alausi Andean Corridor-CHIMBORAZO-26 km N. of Gun, between Compud and Gun, elev. 2750m (map I, # 70).

Huacamayos (Cordillera) Oriente-NAPO-on the Rd Baeza/Tena km 21.5, S. of Cosanga, elev. 1700/1800m (map III, # 114).

Ibarra Andean Corridor-IMBABURA-capital of the province, elev. 2230m (map III, # 59).

Ila (Puerto) Occidente-PICHINCHA-on the Rd Santo Domingo de los Colorados/Quevedo km 33, elev. 300m (map I, # 30).

I.N.I.A.P Santo Domingo Occidente-PICHINCHA-(Instituto Nacional de Investigaciones Agropecuarias), Rd Santo Domingo de los Colorados/Esmeraldas km 40, elev. 280m (map I, # 18).

Intaj (=Intag) Occidente-IMBABURA-small river joining the Guayllabamba River, dominated by the Intag Cordillera (map I, # 6). Exact location and elevation of the station cited by Druce (1890: 501) unknown.

Jondachi (Puente) Oriente-NAPO-on the Rd Baeza/Tena, crossing the Jondachi River km. 11.5 N. of Cotundo, elev. 1100m (map III, # 117).

Jondachi (Río) Oriente-NAPO-same river as above, elev. 1300m (map III, # 115).

La Alegría Oriente-NAPO-on the Rd Tulcán/La Bonita, Colombian border, elev. 2700m (map III, # 86).

Lago Agrio (=Nueva Loja) Oriente-NAPO-on the Aguarico River, elev. 250m (map III, # 87).

La Jullita Oriente-TUNGURAHUA-on the Rd Baños/Mera, Cerro Abitagua, elev. 1300m (map I & III, # 139).

Las Chinchas Occidente-LOJA-junction of the Rd Loja/Zaruma and the Rd Loja/Macará, km 26.3 W. of Catamayo, elev. 2350m.

Las Chinchas/Zaruma Occidente-LOJA-km 4 on the Rd down to Zaruma, elev. 2100m (map II, # 53). km 7, elev. 2010m (map II, # 52). km 9, elev. 1950m (= Loja/Zaruma km 72). (map II, # 51).

Latacunga/Quevedo Occidente-COTOPAXI-near Pilaló, elev. 1800m (map I, # 34).

Latas (Río) Oriente-NAPO-small tributary of the Napo River, between Puerto Napo and Puerto Misahuallí, elev. 500m (map III, # 125).

La Tavadonga Occidente-PICHINCHA-hacienda between the Pilatón River and the Toachi River in front of La Unión del Toachi, elev. 900m (map I, # 23).

León (Río) Andean Corridor-AZUAY-on the Rd Cuenca/Loja on the limit with the Loja Province, elev. 1700m and 2100m (map II, # 74 & 75).

Limón (=Gl Plaza Gutierrez) Oriente-MORONA SANTIAGO-on the Rd Gualaceo/Méndez km 16/17, elev. 980m (map II, # 155) and km 20, elev. 850m (map II, # 154). The village itself elev. 900m (map II, # 156).

Limoncocha Oriente-NAPO-on the lake of the same name N. of the Napo River, downstream of Coca, elev. 230m (map III, # 103).

Logroño Oriente-MORONA SANTIAGO-on the Rd Méndez/Macas on the Upano River, elev. 600m (map II & III, # 153).

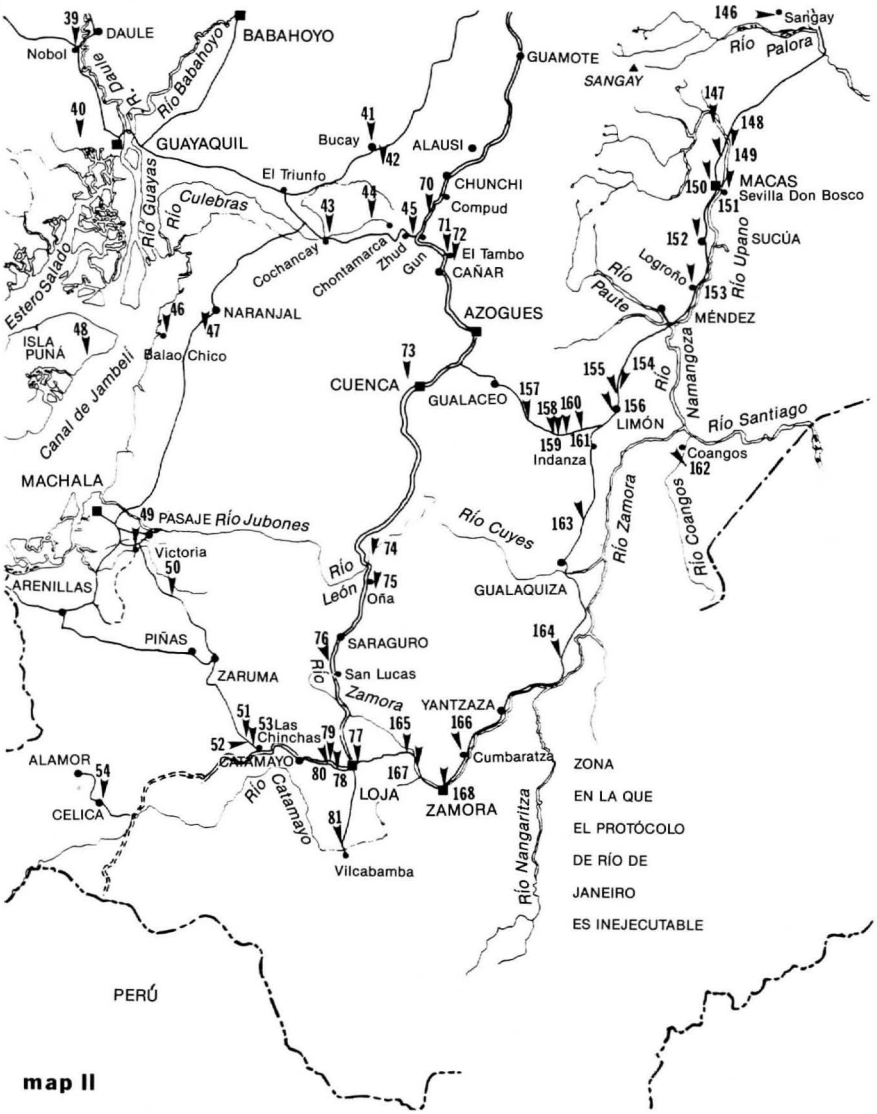
Loja (town) Andean Corridor-LOJA-capital of the province, collecting made on the Rd to Zamora, Police control, elev. 2000m (map II, # 77).

Loja/Catamayo Andean Corridor-LOJA-on the old Rd to Catamayo (=La Toma) km 15, elev. 2500m (map II, # 78). km 25.8, elev. 2050m (map II, # 79). km 29, elev. 1900m. On the new Rd. km 28.1, elev. 1700m (map II, # 80).

Loja/Zamora Oriente-ZAMORA CHINCHIPE-km 28.5, elev. 2050m (map II, # 165). km 39, elev. 1600m (map II, # 167).

Loja/Zaruma km 72 see Las Chinchas/Zaruma km 9.

Loreto (Rd to) Oriente-NAPO-new Rd to Loreto km 11, elev. 1500m (map III, # 116).



The numeration of the field stations has been made from North to South
1: for the Occidente from 1 to 54
2: for the Andean Corridor from 55 to 81
3: for the Oriente from 82 to 168.

This Rd starts at km 58.5 (near Pangayacu) of the Rd Baeza/Tena.

Los Bancos (San Miguel de) Occidente-PICHINCHA-on the Rd Quito/Puerto Quito, 18 km W. of Los Bancos, elev. 880m (map I, # 13).

Los Tayos (Cuevas de) Oriente-MORONA SANTIAGO-caves above the Coangos River

near the Peruvian border, elev. 800m (map II, # 162). Collecting was done in front of the main entrance.

Lumbaquí Oriente-NAPO-pumping station on the pipe-line Lago Agrio/Quito, S. of the Aguarico River, elev. 829m (map III, # 94).

Note: Several species that belong to the fauna of the higher altitudinal level (moderate elevation), e.g. *Hylesia andensis, Paradirphia geneforti, Dirphia somniculosa confluens, Rothschildia orizaba peruviana*, were occasionally collected in Lumbaquí, there attracted by very powerful permanent illuminations. Those records which are probably imputable to artificial factors are cited in this catalogue, but without modifying the altitudinal level to which the species are attributed.

Macas Oriente-MORONA SANTIAGO-capital of the province, on the Upano River, elev. 1060m (map I, II, III, # 150).

Madre Tierra (Rd to) Oriente-PASTAZA-on the Rd Shell to Palora km 1.7, elev. 1240m (map I & III, # 143).

Mera Oriente-PASTAZA-small town on the Rd Baños/Puyo elev. 1300m (map I & III, # 141).

Milimbanco Andean Corridor-COTOPAXI-probably the name of an hacienda on the Cotopaxi Volcano, elev. 3800m (map I, # 64).

Misahuallí (Puerto) Oriente-NAPO-on the Napo River, downstream Puerto Napo, elev. 450m (map III, # 126).

Mocha see Ambato/Riobamba

Nanegal Occidente-PICHINCHA-village on the Alambí River N. of the Rd Quito/Puerto Quito, elev. 1000m (map I, # 10).

Napo (Puerto) Oriente-NAPO-where the bridge of the Rd Puyo/Tena crosses the Napo River, elev. 550m (map III, # 124).

Napo (Río) Oriente-NAPO-important tributary of the Amazon River, crosses all the province. The collecting has been made in the vicinity of Puerto Napo (see above).

Naranjal (=El Aromo) Occidente-GUAYAS-5 km S.E. of Naranjal, elev. close to sea level (MAP II, # 47).

Negro (Río) Oriente-TUNGURAHUA-tributary of the Pastaza River downstream Baños. Small village where the river crosses the Rd Baños/Puyo, elev. 1500/1800m (map I & III, # 137).

Nobol (=Piedrahita) Occidente-GUAYAS-junction Rd Guayaquil/Daule and Guayaquil/Portoviejo, elev. close to sea level (map I, # 39).

Nono/Los Bancos Occidente-PICHINCHA-on the Rd Quito/Puerto Quito, km 37, elev. 2385m (map I, # 15). km 57, elev. 1800m (map I, # 14).

Nono/Nanegal Occidente-PICHINCHA-Rd Quito/Puerto Quito, km 3.6, elev. 2800m (map I, # 17). km 25, elev. 1840m (map I, # 16).

Oña (South of) Andean Corridor-LOJA-collecting probably was on the high plateau south of the León River, on the Rd Cuenca/Loja, (Panamerican Highway) elev. 2900m (map II, # 75).

Otavalo/Apuela Occidente-IMBABURA-elev. 2200m (map I, # 8).

Papallacta/Baeza Oriente-NAPO-on the Rd Quito/Baeza, km 10, E. of Papallacta, elev. 2600/2730m (=Pifo/Baeza km 52), (map III, # 108).

Paramba Occidente-IMBABURA/CARCHI- on the railroad Ibarra/San Lorenzo, W. of La Carolina, elev. 800m (map I, # 5).

Pastaza (Río) see Puyo/Macas and Puyo/Baños

Perucho Occidente-PICHINCHA-on the Rd Guayllabamba/San José de las Minas, elev. 2000m (map I, # 11).

Pichincha (Volcán) Andean Corridor-PICHINCHA-the volcano dominates the town of Quito to the W. Collecting is said to have been made at elev. 4100m (Maassen, 1890: 134), (map I, # 62).

Piedrahita see Nobol

Pifo/Baeza see Papallacta/Baeza

Pilaló/Tingo Occidente-COTOPAXI-on the Rd Latacunga /Quevedo, elev. 1000m as reported by the collector. Tingo being at elev. 1200m the exact

elev. is probably higher (map I, # 33).

Pimán (Hacienda) Andean Corridor-IMBABURA-hacienda on the old Rd Ibarra/Tulcán, 18.7 km N. of the Yaguarcocha Lake, elev. 2190m (map III, # 58).

Primavera Oriente-NAPO-on the Napo River, between Coca and Pompeya, elev. 230m (map III, # 102).

Puela Andean Corridor-CHIMBORAZO-on the Rd Riobamba/Baños, elev. 2000m (map I, # 144).

Puente Azuela see Azuela (Puente)

Puente Jondachi see Jondachi (Puente)

Puerto... see the name of locality (Ila, Misahuallí, Napo, Quito).

Pumayacu (Río) Oriente-MORONA SANTIAGO-small river near Macas, elev. 1060m (map I, II & III, # 149).

Puná (Isla de) Occidente-GUAYAS-in the Gulf of Guayaquil (map II, # 48).

Puni yacu (Río) Oriente-NAPO-vicinity of Satza Yacu, E. of the Rd Puyo/Tena, elev. 600/700m (map III, # 133).

Pununo (Río) Oriente-NAPO-small tributary of the Misahuallí River, elev. 460m (map III, # 121).

Puyo Oriente-PASTAZA-capital of the province, on the Puyo River, a tributary of the Pastaza River, elev. 1000m.

Puyo/Baños (near Río Pastaza) Oriente-PASTAZA-on the Rd Puyo/Baños near Mera, elev. 1300m (map I & III, # 142).

Puyo/Macas (near Río Pastaza) Oriente-PASTAZA-on the Rd Puyo/Macas near the Pastaza River, elev. 1050m (map I & III, # 145).

Quevedo Occidente-LOS RIOS-town on the Rd Santo Domingo de los Colorados/Guayaquil, elev. 200m (map I, # 35).

Quilindaña Oriente-NAPO-mountain E. of Cotopaxi Volcano, see Chalupas.

Quito/Chiriboga see Quito/Santo Domingo de los Colorados (Old Rd)

Quito/Latacunga Andean Corridor-COTOPAXI-Clirsen station (ex NASA), elev. 3600m (map I, # 65).

Quito/Puerto Quito Occidente-PICHINCHA-km 41, elev. 2380m (map I, # 15). km 57, elev. 1800m (map I, # 14). km 113 see Endesa.

Quito (Puerto) Occidente-PICHINCHA-on the Caoni River close to the Rd Santo Domingo/Esmeraldas, elev. 250m.

Quito/Santo Domingo de los Colorados (Old Rd) Occidente-PICHINCHA- km 26, elev. 3200m (map I, # 28). km 33, elev. 2650m (map I, # 27). km 34, elev. 2600m (map I, # 26). km 40, elev. 2480m (map I, # 25). km 77/78, elev. 1620m (=La Palma), (map I, # 24).

Reventador (Río) Oriente-NAPO- Rd Baeza/Lago Agrio on the Reventador Volcano, S. of Puente Azuela, elev. 1400m (map III, # 96).

Río see each name (Alpayacu, Anzú, Arajuno etc.).

Riobamba Andean Corridor-CHIMBORAZO-capital of the province, elev. 2800m. Stübel collected (Maassen, 1890: 50) at elev. 3000m probably on the slopes of the Chimborazo Volcano (map I, # 69). See also Baba (Río).

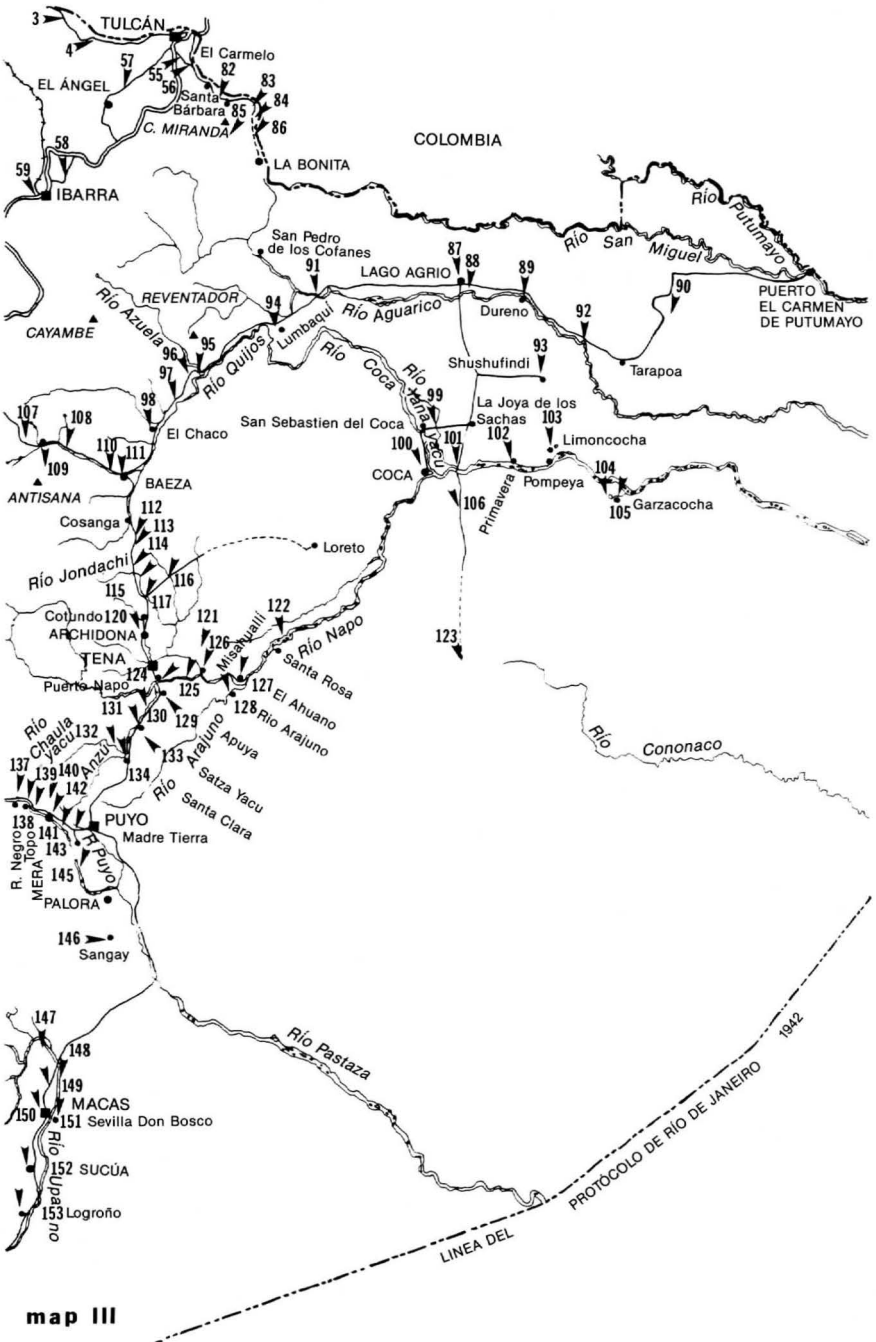
Rues Jungle Hotel Oriente-NAPO-on the Aguarico River, 36 km downstream Lago Agrio, elev. 200m (map III, # 92).

Salado (Río) Oriente-NAPO-Pumping station on the pipe line Lago Agrio/Esmeraldas, between Baeza and Lumbaquí, elev. 1289m (map III, # 97).

Salcedo (San Miguel de)/Napo Oriente-NAPO-Rd to Napo (unconcluded) km. 49, elev. 3500m (map I, # 119).

San Eduardo Occidente-GUAYAS-[?] locality cited by Campos (1931: 13). There is a place so named at the N.W. of Guayaquil (map I, # 40) but the records from this locality do not always agree with the otherwise distribution of the species under consideration.

San Javier de Cachabí Occidente-ESMERALDAS-on the Cachabí River and the railroad


TULCÁN
El Carmelo
EL ÁNGEL
Santa Bárbara
C. MIRANDA
IBARRA
LA BONITA
COLOMBIA
Río Putumayo
Río San Miguel
PUERTO EL CARMEN DE PUTUMAYO
San Pedro de los Cofanes
LAGO AGRIO
Dureno
Tarapoa
REVENTADOR
Río Azuela
CAYAMBE
Río Quijos
Lumbaqui
Río Aguarico
Río Coca
Río Jatunyacu
Shushufindi
La Joya de los Sachas
Limoncocha
San Sebastien del Coca
El Chaco
COCA
Pompeya
Garzacocha
Primavera
BAEZA
ANTISANA
Cosanga
Loreto
Río Jondachi
Cotundo
ARCHIDONA
TENA
Misahuallí
Río Napo
Santa Rosa
Puerto Napo
El Ahuano
Río Arajuno
Río Chaula Yacu
Arajuno
Apuya
Anzú
Satza Yacu
Río Santa Clara
PUYO
Madre Tierra
R. Negro
Topo
MERA
Pindo
PALORA
Sangay
Río Cononaco
Río Pastaza
MACAS
Sevilla Don Bosco
Río Upano
SUCÚA
Logroño
PROTOCOLO DE RÍO DE JANEIRO 1942
LINEA DEL

map III

to San Lorenzo, close to sea level (map I, # 2).

San Jorge (Finca) Oriente-NAPO-10km E. of Coca, alt 240m (map III, # 101).

Sangay (Hacienda) Oriente-MORONA SANTIAGO-tea plantation S. of Puyo, between the Pastaza River and Palora River, elev. 900m (map I, II & III, # 146).

San Lucas Andean Corridor-LOJA-on the Rd Saraguro/Loja (Panamerican Highway) 13 km N. of San Lucas, elev. 3130m (map II, # 76).

San Miguel Oriente-NAPO-5 km S. of Lago Agrio, elev. 270m (map III, # 88).

San Pedro de los Cofanes Oriente-NAPO-on the Aguarico River, N. of Lumbaquí, elev. 300m (map III, # 91).

San Rafael Andean Corridor-PICHINCHA-residential suburb S.E. of Quito, alt 2780m (map I, # 63).

Santa Bárbara (Cerro Miranda) Oriente-NAPO-on the Rd Tulcán/La Bonita, elev. 2800m (map III, # 85).

Santa Bárbara/La Bonita Oriente-NAPO-on the Colombian border km 23, elev. 2400m (map III, # 84).

Santa Clara Oriente-PASTAZA-on the Rd Puyo to Tena, near Llandia River, km 25, elev. 1100m (map III, # 134).

Santa Rosa Oriente-MORONA SANTIAGO-left bank of the Upano River, 15 km. N. of Macas (map I, II & III, # 148).

Santo Domingo de los Colorados Occidente-PICHINCHA-on the Rd Quito to Esmeraldas, elev. 550m (map I, # 19).

Satza Yacu (=Carlos J. Arosemena Tola) Oriente-NAPO-on the Rd Puyo to Tena near the Anzú River, elev. 700m (map III, # 131). Also spelled Sasayacu, Zarayacu, Zarzayacu (not to be confused with Sarayacu on the Bobonaza River-PASTAZA- or Sarayacu on the Rd Baeza to Tena-NAPO-)

Sebundoy Oriente-NAPO-on the Rd Tulcán/La Bonita on the Colombian border, elev. 2600m (map III, # 83). "W. of Sebundoy" 3000m, nearer of the Andean Corridor than the first locality.

Sevilla Don Bosco Oriente-MORONA SANTIAGO-near Macas on the opposite bank of the Upano River, elev. 1050m (map I, II & III, # 151).

Shushufindi Oriente-NAPO-oil well and pumping station on the pipe line about 50 km S.E. of Lago Agrio, elev. 220m (map III, # 93).

Sucúa Oriente-MORONA SANTIAGO-26 km S. of Macas on the Upano River, elev. 910m (map I, II & III, # 152).

Tandapi (=Manuel Cornejo Astorga) Occidente-PICHINCHA-on the Rd Quito to Santo Domingo de los Colorados, between Quito and Alluriquín, elev. 1460m (map I, # 29).

Tena Oriente-NAPO-capital of the province, N. of the Napo River, elev. 700m.

Tinalandia Occidente-PICHINCHA-hacienda hotel on the Rd Quito to Santo Domingo de los Colorados, 16 km E. of the latter, elev. 650 to 750m (map I, # 20).

Tingo Occidente-COTOPAXI-on the Rd Latacunga/Quevedo, elev. 1200m.

Toachi (La Unión del) Occidente-PICHINCHA-at the junction of the Toachi River and Pilatón River on the Rd Quito to Santo Domingo de los Colorados, elev. 900m (map I, # 22).

Topo Oriente-TUNGURAHUA-village on the river of the same name between Mera and Baños, elev. 1200m (map I & III, # 138).

Topo (Río) Oriente-TUNGURAHUA-tributary of the Pastaza River between Mera and Baños, downstream the Negro River, elev. 1200 to 1400m (map I & III, # 138).

Tulcán/El Carmelo (Desvio) Andean Corridor-CARCHI-close to the Colombian border, km 7, elev. 3350m (map III, # 55). km 16, alt 3250m (map III, # 56).

Tulcán/Maldonado Occidente-CARCHI-Rd on the Chiles Volcano, (Colombian border)

km 48, elev. 3730m (map III, # 4). km 63.5, elev. 2850m (map I & III, # 3).

Uchina (Río) Andean Corridor-LOJA-between Vilcabamba and San Pedro, elev. 1700m (map II, # 81).

Upano (Río) Oriente-MORONA SANTIAGO-several stations around Macas on the river, elev. 900m (map I, II & III, # 147).

Victoria/Arenillas Occidente-EL ORO-on the secondary Rd E. of Rd Machala/Arenillas, elev. 150m (map II, # 49).

Yanayacu (Río) Occidente-CAÑAR-on the old Rd Gun/El Triunfo, near Cochancay, elev. 300m (map I, # 43).

Yanayacu (Río) Oriente-NAPO-between La Joya de los Sachas and San Sebastian del Coca, about 15 km N. of Coca, elev. 270m (map III, # 99).

Yantzaza/Gualaquiza Oriente-MORONA SANTIAGO-km 33.5 on the Rd, elev. 1150m (map II, # 164).

Zamora Oriente-ZAMORA CHINCHIPE-capital of the province, elev. 970m (map II, # 168).

Zaruma/Machala Occidente-EL ORO-elev. 850m (map II, # 50).

APPENDIX II

NOTES

1-***Arsenura crenulata*** Schaus (a junior subjective synonym of *A. b. batesii*). The type locality, Balzapamba (Occidente, BOLIVAR) is certainly inaccurate (Lemaire, 1980: 65) as the holotype obviously belongs to the Guiano-Amazonian nominotypical subspecies.

2-***Arsenura batesii aurantiaca*** Lemaire. The type locality: "Río Bamba" cannot be the town of Riobamba (CHIMBORAZO, 2800m) in the Andean Corridor. See Appendix I: Baba (Río), page 44.

3-***Paradaemonia castanea*** (W. Rothschild) (a junior subjective synonym of *P. p. platydesmia*). This synonymy remained uncertain until we received confirmation [D.H. Janzen, F. Beneluz, (pers. comm.)] of the presence of the nominotypical subspecies in Costa Rica. The population of southeastern Brazil, which we had doubtfully referred to *castanea* (Lemaire, 1980: 124), is undescribed.

4-***Eacles penelope*** (Cramer). Although this species is very common in western Colombia (VALLE, Anchicaya, 800/1000m), there are no records yet from western Ecuador.

5-***Bathyphlebia eminens*** (Dognin). Same remark as in note 4. This species is common at moderate elevations in western Colombia (VALLE, Los Andes, 1700m; Tokío, 2200m).

6-***Automeris subpicta*** Dognin (a junior subjective synonym of *Automeris amanda subobscura*). This synonymy, which was presumed already (Lemaire, 1971: 222), was definitively established when the female holotype of *subobscura* was recently rediscovered in the collection of the Muséum d'Histoire naturelle, Genève.

7-***Automeris equatorialis*** Bouvier (a junior subjective synonym of *A. belti zaruma*). It was described from one undersized male from Chimbo. This morph and normal sized specimens are actually sympatric at Tinalandia, thus excluding the first hypothesis (Lemaire, 1971: 229) of these being distinct subspecies. As there are no differences in the genitalia, it can be assumed that *equatorialis* is only a dwarf morph of *belti zaruma*.

8-***Erythromeris obscurior*** Lemaire. Described (Lemaire, 1975: 57) as a southern subspecies of *flexilineata*; the recent collection of the latter in southern Ecuador and that of *obscurior* in the north of the country, close to the Colombian border, made the original hypothesis improbable. Dissections of more specimens have otherwise revealed small but significant differences in male genitalia; thus *E. obscurior* and *E. flexilineata* are to be regarded as two distinct species.

9-***Rhodirphia carminata*** (Schaus). The type locality: México, [Veracruz], Jalapa is doubtfully correct, as all the other known records are from the western slopes of the Andes, in Colombia and Ecuador. *Rhodirphia carminata* form *niepelti* (Draudt), a junior subjective synonym of *carminata*, was described from western Colombia (Bella Vista).

10-***Paradirphia geneforti*** (Bouvier). *P. geneforti* and *semirosea* form *gemeli* were both described from the Ecuadorian Andean Corridor: the former from a female captured at Ibarra (IMBABURA), the latter from a male from around Quito and 3 females from Cotocollao, a northern suburb of Quito 2750/2800m. Their synonymy is clearly demonstrated by a comparison of the types and examination of numerous topotypical specimens.

The population of the Andean Corridor has a characteristic clear brown coloration on both sides of all four wings and abundant pink scales on the metathorax with the black rings on the abdomen weakly contrasting or absent. The specimens cited from the Occidente and the Oriente which occur at elevations between 1500 and 2850m are very different; they are larger, of a blackish brown with the black rings on the abdomen strongly marked. Nevertheless, as we did not find differences in the genitalia, the relative status of the two populations is difficult to decide. We have observed the first larval stages of *P. geneforti* but unfortunately know nothing of those of the dark form. The study of the latter could bring a solution as excellent specific characters have been usually noted at that stage in the genus *Paradirphia* (Lemaire & Wolfe, in press).

11-***Cerodirphia wellingi*** Lemaire. This species was described (Lemaire, 1973b: 233) from México, Oaxaca. The specimens from Ecuador are slightly different with the average wingspan larger and a somewhat stronger pink coloration. The male and female genitalia are identical in both populations. It could be a case of sibling species but the hypothesis of a disjunct geographical range can be considered analogous with several other similar distributions (*e.g. Paradaemonia andensis* known from the Guianas and from México with no known station between).

12-***Periphoba nigra*** (Dognin). See Appendix I: Baba (Río), page 44.

13-***Pseudodirphia biremis*** (Draudt). Described by Draudt (1930: 772, pl. 117 A,a) from two females: "type from Santa Catharina in the Coll. W. Hopp, Charlottenburg, another specimen from Macas (Ecuador) in the Coll. Niepelt". Because of disjunct geographical range, we suspect that the two specimens are not conspecific. As all our attempts to find these specimens have failed, only the figure remains to identify the species. There is no indication which one of the two specimens is represented.

None of the known females of *Pseudodirphia* either from southern Brazil or from Ecuador agree with the description. The name is, however, cited in the present catalogue, in the meantime the situation could be clarified with further investigation and with the eventual designation of a neotype.

14-***Pseudodirphia eumedide*** (Stoll). Although *Phalaena bombyx eumedide* was described by Stoll (1782, *in* Cramer: 219, pl. 395) from Surinam, it is clear from all the locality data that this taxon is an exclusively Andean species, with records especially from Perú and Bolivia, only at moderate elevations (ca 1800/2500m).

15-***Copaxa semioculata orientalis*** Lemaire. The specimen cited from this locality by

Maassen (1890: 49), as being much darker than the one figured by R. Felder & Rogenhofer (in the description of the nominotypical subspecies) is certainly to be referred to *C. s. orientalis*.

APPENDIX III

Meroleuca (Meroleucoides) rectilineata Lemaire & Venedictoff, new species (Fig. **1-3**)

MALE: Head dark brown; labial palpi three segmented, dark brown, densely scattered with pink scales. Antennae dark rusty yellow, quadripectinate to the apex; apical rami shorter than those of the outer side of the flagellum. Thorax covered with dark brown to black hairs intermixed with longer yellow hair like scales; prothoracic collar yellow; legs dark brown, tarsi densely scattered with pink; epiphysis present, about as long as one third of the tibia; hind tibia with a single, very weak, subapical spur. Abdomen dorsally black, broadly ringed with yellow, ventrally black; anal tuft yellow. Forewing above yellow, more or less suffused with black, especially on the baso-median area; veins black, fringes yellow with a black dot at the apex of the veins; lines black, straight, as shown on Fig. **1**, the postmedian outwardly doubled by a broad white band; discal spot represented by a single white blotch. Forewing below with more contrasting areas than above, the antemedian area black, usually slightly suffused with yellow, the postmedian yellow; median line absent, postmedian line black. Hindwing above about the same color as the forewing but more densely covered with black, slightly outwardly convex; discal spot represented by a narrow white dash. Hindwing below about the same color and markings as the forewing with the baso-median area less dark; costa yellow, postmedian line outwardly convex. Length of forewing: 32-36 mm.

FEMALE: Antennae shortly bipectinate to the apex. Epiphysis absent. Ground color about the same as in the male but lighter and somewhat translucent with the markings less contrasting above and below (Fig 2). Discal spot of the forewing yellow. Length of forewing: 38-40 mm.

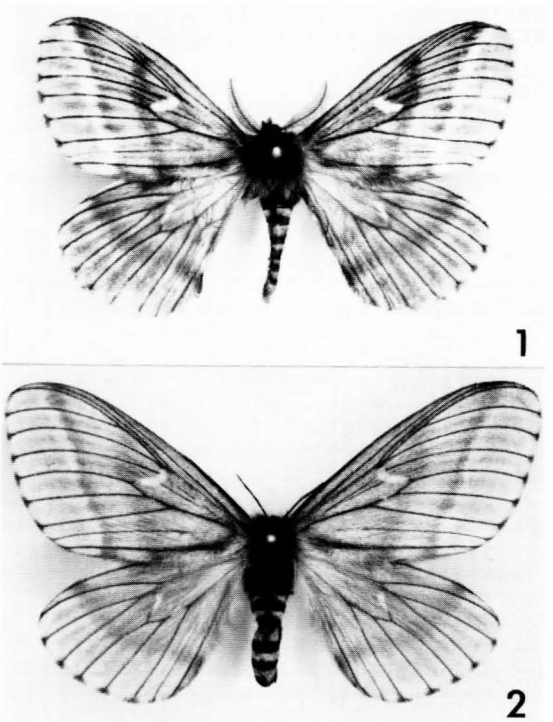
MALE GENITALIA (Fig. **3, A-B**): Uncus simple, apically strongly sclerotized and curved downward. Valves very broad, trilobed, with the inner lobe partially connected to the lateral arms of the gnathos from which it arises as a very long and slender process. Ventral plate of the gnathos very small. Juxta absent; sacculus very prominent. Aedeagus ventrally bent with the vesica arising dorsally. Eighth tergum shortly posteriorly bilobed.

FEMALE GENITALIA (Fig. **3, C**): Eighth sternum represented by a sclerotic band laterally very broad, medially deeply notched and partly covered by a membranous area; sclerotization of the eighth tergum bilobed; anapophyses about two third as long as the postapophyses. Ductus bursae very short and weakly sclerotic; bursa narrow and relatively short with the ductus seminalis arising from right side of the base.

TYPES: Holotype, male, Ecuador, Oriente, Napo: road Tulcán/La Bonita, Sebundoy, 2600 m, 11/15-IX- 1977 (*leg.* L.E. Peña G.) Allotype, female, same data as holotype. Paratypes: 4 males, same data as holotype: one female, same road, dates and collector, La Alegría, 2700m; 4 males, road Santa Bárbara/La Bonita, 2400m, 7/9-IV (*leg.* S. McKamey).

DISPOSITION OF TYPES: All the type specimens belong to the collection of the senior author, all the material purchased prior to 1978 is now deposited in the Muséum national d'Histoire naturelle, Paris; two paratypes from the latter cited locality were deposited in the collection of the Allyn Museum of Entomology.

DISTRIBUTION: *M. (M.) rectilineata* has been recorded almost exclusively from the northernmost area of the Province of Napo, very close to the Colombian border, at moderate elevations from 2400 to 2700m. It is expected that this species also occurs in the corresponding area of southeastern Colombia. In addition to the typical material, there are two records from a southernmost area of the province of Napo at lower elevations; road Baeza/Tena,Cosanga/Tena, km 6, 2150m (*leg.* N. Venedictoff) and Cordillera Huacamayos, 1700/1800m (*leg.* T. Porion); these specimens do not differ from the typical



Figures 1 - 2. *Meroleuca (Meroleucoides) rectilineata* Lemaire & Venedictoff, new species (dorsal surface). (1) ♂ holotype, (2) ♀ allotype.

material in the habitus as well as in the male genitalia.

DISCUSSION: *M. (M.) rectilineata* is very closely allied to *M.(M.) erythropus* (Maassen), *M. (M.) penai* Lemaire and *M. (M.) flavodiscata* (Dognin) from which it differs in having the postmedian line straight instead of bilobed (*erythropus, penai*) or outwardly convex (*flavodiscata*); it can be also separated from *M. (M.) erythropus* by the simple instead of bipartite discal spot of the forewing and from *M. (M.) flavodiscata* by the presence of a white band on the outer side of the postmedian line of the forewing.

The male genitalia are smaller in *M. (M.) rectilineata* than in the other three related species; they differ noticeably from *M. (M.) erythropus* and *M. (M.) flavodiscata* by the structure of the valves, especially by the absence of spine-like process at the apex of the sacculus; in *M.(M.) rectilineata* the inner process of the valves (partly fused to the lateral arms of the gnathos) is much longer and slender and the ventral plate of the gnathos is much smaller than in *M. (M.) penai*.

M. (M.) rectilineata is the species which was cited and figured by Draudt (1930: 769, Pl. 116d) as *Dirphia erythropus*, probably from a specimen in the Naturhistorisches Museum, Humboldt Universität, Berlin, that was then regarded as the holotype. This specimen was loaned in 1975 by the Naturhistorisches Museum to the senior author who also regarded it as the holotype but became aware of the possibility of a misidentification when he finally had access to the original publication (Maassen, 1890: 50, pl. 5, Fig. 10), (in a rare book). Dr. Hannemann in the Naturhistorisches Museum was informed of the situation and he kindly made the search which led to the rediscovery of the true holotype.

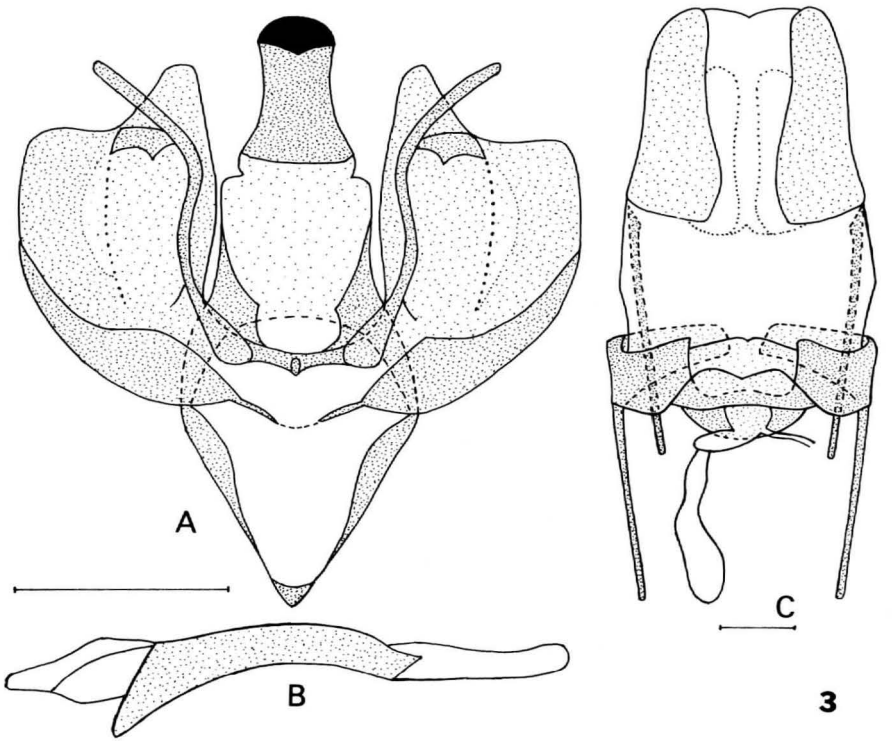


Figure 3. *Meroleuca (Meroleucoides) rectilineata* Lemaire & Venedictoff, new species, ♂ (A - B) and ♀ (C) genitalia (scales = 1 mm).

Examination of the latter immediately confirmed the suspicion. The misidentification had unfortunately led in the meantime to the description by the senior author (Lemaire, 1982: 83) of *M. (M.) sinuata*, which is now to be considered as a junior subjective synonym of *M. (M.) erythropus*.

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