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8. Family: Erycinidae.

As many other lepidopterologists have done before, we likewise comprise here all those day-butterflies the ♂♂ of which have 4 fully-developed gressorial feet, the ♀♀ 6. On the other hand we might divide the species collected here into several families according to the habitus, veins, larval shape etc.; especially the *Libytheins* might be regarded as a proper species (cf. Vol. I, p. 251). But since the families of the day-butterflies are, moreover, not equivalent to each other, the *Nymphalidae* s. s. for instance differing among each other much more than e. g. the Pierids or Satyrids, our method of dealing with them is probably justified.

Indeed, the nearctic *Erycinidae* exhibit the very greatest difference in their shape, colours, the structure of their body, their wing-contour and so on, and only a small part of them can be explained as mimetic suggestions of co-inhabitants of the same country. Beside species with entirely normal contours such as some *Emesis* and *Nymphidium*, there occur the most peculiar distortions such as uncommonly long tails of the hindwings (in *Zeonia Diorina*) deviating in *Syrmatia* even to such an extent that almost the whole hindwing turns into a stripe-like tail-appendage of the forewing; in *Helicopsis* and *Sarota* there are tail-appendages at almost all the ends of the veins of the hindwings, and in *Methonella* we notice in the ♀ the beginnings of such appendages in the shape of long teeth. Angulations and bends may be found almost at all places of the margin of the wings: thus *Symmachia* exhibits a geniculate curve in the middle of the costal margin of the forewings; *Euselasia angulata* such a bend below the middle of the distal margin; *Eusel. eugeon* and *Thucydidēs* have a point at the anal angle of the hindwings. The distal margin of the wings may describe a semi-circle, as for instance in *Zelotaea peller*, but it may be also cut straight as if with scissors, as in *Euselasia lysias*. Sometimes the wing-contour of a species varies according to the season and locality to such an extent that one imagines to see specimens of different species. Sickie-shapes may occur in the fore- and hindwings and be the peculiarity of a genus or species, or even be individual (in its graduation). Like the wings, also the legs may be changed by appendages, and many species of the genus *Anteros*, when settling down on leaves, seem to rest on stuffed knobs, on account of the enormous growth of hair on their legs.

Almost all the *Erycinidae* are rather small butterflies, mostly of the size of *hycaena*, many being very small, such as some *Charis* and *Mesene*; the strongest development of the body (though not of the wings) is noticed in the ♀ of the rare *Mimocastnia rothschildi* where the stout body, similar as in night-butterflies, may be due to the endeavour of nature to make it appear like a stout *Castnia*; really large species with an expanse of wings of more than 6 to 7 cm do not occur among the *Erycinidae* in America.

By their colouring and gloss they are superior to any other group of day-butterflies, and by their metal gloss which in some species is unparalleled, the *Erycinidae* form a parallel to the humming-bird among the birds and the Syntomids among the night-butterflies. The mere blue lustre of some *Euselasia* and *Mesosemia* excels that of the other blue day-butterflies with the sole exception of certain *Morpho*; but quite unequalled is the gold and bronze lustre of some *Euselasia*. Thus, for instance, *Eusel. praeclara* which on being looked at in the shade or in front of the origin of the light is a moderately fine butterfly resembling the ♂ of *Chrysophanus virgaureae*, changes its colour altogether if the eye is brought between the sun and if the butterfly is held in its glare and is turned round the longitudinal axis of the pin. At first one sector of the forewing, from the costa to the median, shines golden green. Then the forewing turns dark blue-violet between the median and the inner margin, while on turning further round the forewing assumes a golden yellow tint like polished up bronze and the veins are covered with a radiant, hemochrome reflection, hereafter the surface of both wings turns golden, while the distal margin exhibits a verdigris gleam. On turning still further, both wings, except the costal and proximal margins of the hindwings assume a golden-green lustre, the forewings exhibiting a reddish-golden sector. The only analogous sight known to me in the animal kingdom, is the most closely allied species, *Euselasia opalescens*. This butterfly pretty much resembles the former in its habitus and its dull red-yellow colouring of the wings, but the metal lustre is, on the whole, brass-yellow being relieved by a hemochrome, silvery and bronze-golden lustre when one gradually turns the butterfly round. We must remark that this lustre of *Euselasia* has nothing in common with the colouring and the lustre of the Uraniids (*Chrysidia*, *Urania*), nor with the gloss of the *Morpho* being merely reflecting but not changing its colour, and that only a slight degree is found in some *Nymphalidae* (*Eunica*), changing between a dull blue and a green metal gloss. This form of reflection must, therefore, be added to the numerous characteristics by which the members of the family *Erycinidae* are distinguished from all the other butterflies known.

An analogous characteristic feature is found in the *Helicopsis* being nearly allied to the *Euselasia*, for they exhibit metal-drops on the under surface of the hindwings. On being turned towards the light, they appear more golden; but on bringing the eye between the origin of the light and the butterfly, they are silvery. These metal-spots are also most peculiar by protruding plastically from the surface of the wings, therefore in relievio, as if pressed out. The appearance of plastic markings on the wing of a butterfly (as a bas-relief) is extremely rare, and I only remember the case of the Australian gigantic Hepialid *Zelotypia stacyi* (Vol. X,

t. 78 a, b) in which the eye-spot of the forewing projects beyond the surface of the wing in order to be of a more deceptive effect in the snake's head as represented by the resting *Zelotypia*.

On regarding the colours we are at first struck by the number of extremely one-coloured species. Unicolorously hemochrome butterflies, like *Mesene simplex* are otherwise very rare among all butterflies known, just like the *Mesosemia croesus* being on both surfaces sky-blue, are scarcely equalled by any other butterflies. The chief type of colouring in the butterflies of Tropical America — glaringly coloured oblique bands on a jet-black ground —, however, is also predominant in the *Erycinidae* and particularly strongly developed in the genera with the most numerous species, such as *Euselasia*, *Lymnas*, *Siseme*, *Themone*, *Mesosemia*, furthermore, in *Panara*, *Barbicornis* etc.

Apart from the *Libytheinae*, the neorectic *Erycinidae* are composed of 2 large groups, the *Eurygoninae* or *Euselasiinae*, and the real *Erycininae*, the latter group of which, however, contains so heterogeneous genera that a second subdivision might be possible which, however, we may leave out here. The number of forms of the single subfamilies is proportionately about so that the palaearectic *Erycinidae* which we will briefly call *Nemobiinae* contain, just like the *Eurygoninae*, ten times as many as the *Libytheinae*, but only the tenth part of the *Erycininae*. The latter are divided into a very great number of genera which has recently increased beyond 100; of these, however, there are so many genera with but one species that many of them might prove dispensable, if one considers that heterogeneity even of nearly allied forms is a speciality of the family of *Erycinidae*.

Among the markings by which this family is particularly distinguished, there is beside the mentioned oblique bands often a central eye-spot of the forewing, as in more than one hundred *Mesosemia* and *Eurybia*. A characteristic mark very rarely found among the day-butterflies are glaringly coloured radiary rays denoting from the wing-base any kind of a sector in the fore- or hindwing, or running along the proximal or costal margin. *Euselasia sabina* Cr., which is probably nothing else but the hitherto unknown ♂ of *Eus. gelon*, exhibits this glaringly coloured ray of the costal margin on the hindwing, just like some *Symmachia*, *Xenandra*, *Calliona* etc.; in *Calliona latona*, *Charis ignipictus* and so on it runs along the inner margin, in certain *Euselasia*, such as *E. hieronymi*, *euphaes*, *sergia*, *violetta*, right across the hindwing, sometimes in red, sometimes in blue. A very strange under surface is to be noticed in the *Anteros*: small framed, metallic splashes on a sulphurous ground, and as another peculiarity a beard at the anal angle of the hindwings. The reason why the under surface is mostly not adapted to the surroundings, is that it is not visible when the animal is at rest. I shall revert yet to this peculiarity.

The geographical distribution of the American *Erycinidae* is almost exclusively tropical, so that but quite isolated species advance some degrees beyond the tropics. Very few *Lemonias* reach the south of the Union, and near Buenos Ayres I found but one *Erycinidae* occurring oftener: *Riodina lysippoides*. The principal range is the valley of the Amazon River and the neighbouring countries.

It is, however, entirely wrong to think that the habitats of Tropical America are crammed with *Erycinidae*, as we know it to be the case with the *Ithomiinae* being about analogously distributed. A great part of the *Erycinidae* belongs to the really rare butterflies, and although one sometimes succeeds, after the discovery of the mostly localized trysting-places, in capturing a large number of one or the other species, very many are, on the other hand, of such a rare occurrence that one may collect a district for many years without getting sight of all the species occurring there. In one of the best districts of *Erycinidae* — Rio de Janeiro — v. BÖNNINGHAUSEN collected only about 70 species within 33 years, and he got quite a number of them in only one specimen in spite of his innumerable excursions. I myself collected there for a whole year with the greatest diligence (mostly on the Corcovado) and still I found not even 20 of these 70 Rio-species, among them, however, there were two which v. BÖNNINGHAUSEN had not discovered in more than 30 years, a proof how rarely and accidentally certain species are met. I remember having collected persistently for several days in the finest weather, visiting woods, meadows, the slopes of mountains, and gardens full of blossoms, without seeing even but one *Erycinidae* — maybe except *Libythea carinenta* —, and even on my last excursion in Brazil I found on the spot where I collected most frequently, a specimen of *Echenais bolena* resting on the trunk of a tree, a species I had never come across before there.

Thus it is easily explained that even successful tropical collectors often brought home only few *Erycinidae*, and many descriptions have been given according to but one specimen or even according to a figure of it. Thus individual differences, or such based upon subordinate races, were often considered as the marks of a species or subspecies. In order to clear this up, very many specimens of each species had to be examined, and more than 100 000 American butterflies of this family were compared by me, most of them in the collections at Tring, in HEWITSON'S, GODMAN'S, ADAM'S Collections in London, as well as in a number of private collections. Of great value were large series from certain districts, being also exactly dated, such as many specimens of the Paris Museum, the Coll. LE-MOULT, FASSL etc., or being provided with the exact finding-places, as in the Coll. ESSLER (Gotha).

The most remarkable result of these examinations was the fact that all the specimens of one species of *Erycinidae* originating from a certain habitat showed the minutest likeness to each other. In Europe one may easily capture on a meadow of only some fathoms in extent the most various specimens of for instance *Melitaea athalia*; lighter and darker brown ones, even reddish-yellow ones, then again such being begrimed in black, with thick or fine markings, large and small ones; specimens resembling one another exactly and

of the same finding-place can at any rate not be collected. Quite the reverse we experience in the American *Erycinidae*. In almost all their species I was able to ascertain that the specimens of the same finding-place exhibited the greatest likeness, like the coins of the same stamping. There scarcely occur aberrations in colouring or marking, and even larger or pygmean specimens are rarely found at the same place. The most striking contrast to this is offered by the observation that even in two quite neighbouring habitats the specimens nearly always show a constant difference from which one may precisely ascertain the place where they were found. Similar peculiarities are noticed in South America also in some other groups of butterflies, such as *Heliconius*, *Melinaea*, *Mechanitis*, and in dealing with the *Ithomiinae* it has been carefully avoided to assign new denominations to the innumerable *Mechanitis polynnica* varying according to their habitat, and to give names of a subspecies to those that are nothing but subordinate races. We must consequently also in the *Erycinidae* avoid giving many new denominations, else we should have been induced to distribute more than 5000. The *Ithomiinae* are very bad flyers, worse than any European day-butterflies, but still they are able to fly constantly in the same direction and, therefore, to wander, whereas the greatest part of the *Erycinidae* seems not to leave its birth-place at all *). Thus the single habitats, even when they are quite neighbouring, are without any connection to each other, whereby such constant, though insignificant differences are formed, about similar to the isolated *Parnassius* on the different mountain-peaks. If we consider that about 100 names have been assigned to the one species *Parn. apollo*, we may imagine to what it would lead, if we were to deal in a similar way with the 1000, often analogous *Erycinidae*; for about 50 names would have to be given to the constant local deviations of the one *Stalactis calliope*, if we were to consider every constant spot or shade, for instance in a species of *Parnassius*, to be worth a denomination.

Therefore we can neither attribute the rank of a subspecies to all the numerous, already denominated forms of *Erycinidae*. If they are nevertheless registered here, it is done for completeness' sake. We shall precisely determine the very numerous subordinate races being hitherto not yet ascertained by briefly indicating the deviations of colours and markings, to which the single species or subspecies are subject. Within these bounds most of the intermediate forms yet to be discovered may be placed, the habitat of which is at present not yet ascertained.

As we shall see directly, this characteristic variability occurring in but quite few (exclusively American) groups of butterflies is to be explained by certain peculiarities of the habits, and we mention as one of the most important biological singularities of the *Erycinidae*, the aversion to flying we have indicated above. Many species, such as *Symmachia*, some very glaringly coloured *Mesene*, some *Mesosemia* seem to fly in the daytime, if at all, only when being chased up, but otherwise to keep hidden under the leaf, so that, for instance, BATES arrived at the conviction that they were able to make altogether only quite short flights. FASSL who, next to BATES, has probably observed most of the *Erycinidae* in nature, writes about it (i. l.):

„Many species of *Erycinidae*, especially also rare ones, seem to be bound to certain plants by some reason or other, apart from these plants being the food-plant. I often found certain species at intervals of several days in 1 specimen each at the very same spot at the end of a branch.“

FASSL also furnishes a proof of it in his „Tropische Reisen“ where he writes about the rare *Lymnas thyatira*: „I captured it at quite different seasons, but at one and the same shrub in 2 specimens.“ In the same way KAYE found 2 specimens of *Zeonia* on the same bush in two different months, as he writes „an evident proof of its most local occurrence“. The same habit I can prove for numerous Brazilian *Erycinidae*. As for instance I found single couples of *Isapis agyrtus* at a spot of the road only a few metres in extent at the most different seasons, always on the twigs of the very same tree, whereas I nowhere else came across this species on more than 100 excursions in Tropical America. Exactly the same habit I experienced in *Symmatia*, and *Mesene sagaris* of which I took both sexes at most any season, but always at exactly the same spot of the road.

It stands to reason that this aversion to flying cannot be absolute; and if certain species have never been noticed swarming spontaneously, this may be due to their preferring a special hour for swarming. It seems that the early dawn is often chosen, and FASSL ascertained for many species the early hours of the day in which they go out in search of food or attend to their propagation. The *Mesosemia* which usually sit beneath the leaves, sometimes come up to their upper surface and search the bushes by — as FASSL says — „jumping rather than flying“ from one leaf to another, assuming a peculiar attitude of their wings (flattened down hindwings and raised forewings). In other species the flights performed by them are extremely short, so that it very rarely happens that one chances to observe them just then. *Tharops pretus* sometimes appears whirling on top of a bush in the burning midday-sun, playing with its equals or small *Thecla*, right up into the air in order to come down again after a few seconds and to hide itself. Quite similar is the habit of *Ancyluris*, the metallic under surface of which exhibits a glistening corrosion when flying in the sunshine. After having flown but a few seconds the animals drop down on the tip of the bush and most skillfully run round the rim of the leaf to its under surface to which they cling like the Geometrids. The *Eurybia* is seen almost only when it is chased

*) As was supposed, the animals keep to the food-plants growing very sporadically.

up from the huddled heap of leaves covering the soil of the woods. Sometimes, however, a ray of the sun piercing the dense foliage of the woods seems to rouse them and all at once several specimens appear at a clearing in the woods where they, not unlike our *Pararge egerides*, bustle about together for a short time in order to hide themselves again immediately hereafter. Only some species seem to fly about like other day-butterflies, such as *Lasaia* and *Stalactis* the latter of which are even seen at all hours of the day flying unwieldily straight onward along the skirts of the woods and roads. They also seem little imperiled thereby, for they obviously imitate other butterflies, such as certain *Ithomiinae* or *Heliconiinae*, and they complete their mimicry by not distinguishing themselves from their originals by deviating habits and modes of flying.

The mimicry itself cannot be regarded as very widely distributed among the *Erycininae*. Nevertheless there are very striking cases known. As for instance *Mesenopsis melanochlora* has exactly the most uncommon exterior of *Josia fulva*, and FASSL states that both fly at the same places. The *Chamaelimnas* are likewise easily mistaken for certain night-butterflies from the Arctiid- and Cylopodid-group; both sexes imitate here the same species of butterflies which have partially served the ♀♀ as models in the genus *Aricoris*. To discern the red *Mesene* from the quite similar *Endule*, even the experienced collectors must first learn, and others again, such as *Uraneis*, exhibit, though not exactly the same exterior as certain patented species of other families, still the approximate habitus of shunned genera. The preference for certain models depends rather exactly on the degree of their being patented. The Danaids, being shunned by almost all enemies for their repulsiveness, are most generally imitated, such as the hyaline-winged genera of the *Ithomiinae*, the *Heliconius*-like *Mechanitis*; furthermore, some Arctiids secreting oil. We must neither overlook that remarkable repetitions occur among the *Erycinidae* themselves, as for instance in the *Symmachia*. We find a double of *Symm. tricolor* in *Nymphidium regulus*; *Symm. xypete* resembles certain red *Mesene*; *Symm. triangularis* greatly resembles a *Mes. sagaris*-♀; *Symm. probator*-♂ the *Eus. gelon*-♂ (= *Eus. sabina*) flying at the same place, and so on. — The genus *Barbicornis* likewise entirely conforms to similarly coloured and marked *Erycinidae* of the genus *Lymnas*, and we find the following conformities of:

<i>Barbicornis aterrima</i>	with	<i>Lymnas cephise</i>
„ <i>acroleuca</i>	„	„ <i>acroleuca</i>
„ <i>cuneifera</i>	„	„ <i>phreclus</i>
„ <i>fusus</i>	„	„ <i>epijarbas</i>
„ <i>basilis</i>	„	„ <i>barca</i>
„ <i>mona</i>	„	„ <i>andania</i>
„ <i>marginata</i>	„	„ <i>alena</i> .

But we do not mean to say by this that one of the said species must have served as the model for the other; that is even very improbable, since we have no hint as to the *Erycinidae* being patented by repulsiveness or poisonousness of the foodplant*), and since these species resembling each other have different patriae. It appears much more probable that both species are imitators of a third, patented species (such as an Arctiid or the like), so that their resemblance among each other is secondary.

In contrast with these conformities having not yet been fully cleared up and which seem to be mostly confined to quite certain genera, we meet in hardly any other family of butterflies such an abundance of most uncommon, entirely original schemes of colouring as just in the *Erycinidae*. The glaringly, though uniformly coloured specimens mentioned at the beginning of this introduction are already an example of it, being joined by numerous others of very manifold nature. The *Meneris* with white dots and scarlet bands, the *Zeonia* with glaring anal spots on its hyaline wing, the *Bacotis* with a yellow and black zebra-design, the *Lyropteryx* with blue radiary rays, the *Siseme* with antemarginal radiate bands, many *Nymphidium*, such as *manthus*, *acherois*, *lamis*, the *Calliona*, and many others are quite isolated and make the family to which they belong appear entirely independent and uncommonly varied, exhibiting in but few genera relations to their surroundings.

The *Erycinidae* are still less adapted to animals than to plants or to the subsoil on which they rest. Mostly one surface is just as conspicuous as the other, even if both do in no way resemble each other. In *Ancylurus* the upper surface is black with scarlet, the under surface metal-blue; *Anteros* is above black with small whitish spots, beneath sulphurous with golden drops; many *Euselasia* are above golden red or velvety brown, beneath silvery white; the *Metacharis* is above mostly brown-red, beneath steel-blue etc. We know leaf-green *Erycinidae* just as little as rocky or sandy-coloured ones; and it is also quite comprehensible that neither of the surfaces is conformed to the surroundings, for their habit of hiding also in day-time brings about that neither of the surfaces becomes visible, so that the butterfly is not imperiled even by the most glaring colouring.

Consequently, neither the seasons have a great influence upon the *Erycinidae*; seasonal dimorphism is to be noticed at most by uncommon aridity producing somewhat smaller specimens; but the weather seems

*) Surely some larvae of *Erycinidae* live on poisonous plants, such as those of the bright red *Mesene phareus*.

not to influence the marking and colouring. In the greatest part of Tropical America the dry and rainy periods are on the whole not so decidedly contrasting each other as in India and Africa, and also in other American families of butterflies, the variation explained as seasonal dimorphism will probably prove to be the effect of other influences.

We know rather little of the particulars in the life of the *Erycinidae*. We are struck by a far greater conformity in biological respect than we ought to suppose owing to the manifold exterior of the single genera and species of the family. We have already mentioned the lassitude in flying, as well as the habit of settling down on the under surface of the leaves with their wings spread like the Geometrids. I was particularly struck by the pose of the antennae being often stretched parallel forward, not laterally divergent, as for instance in the *Nymphalidae*, *Papilio* etc.; they are mostly long, very thin and without a distinct club by what the said pose becomes particularly conspicuous. The species pretending to be dead on being seized (as for instance *Stalactis*) press the parallel placed antennae beneath the abdomen and hold them together with the legs. The parallel position of the antennae seems to be usual not only in flying about, but also when they are at rest under the leaves. They then sometimes stand out beyond the rim of the leaf and seen in some way to serve the hidden animal for finding out what is going on above the leaf. FASSL has observed that the bait spread on the upper surface of the leaf was not only noticed by the butterfly, but was also sucked by the butterfly sitting under the leaf, by extending its antennae and sucker round the rim of the leaf.

Quite a number of species of *Erycinidae* come to the bait; others seem chiefly to absorb water, and numerous others go also on flowers. The *Lasaia*, *Tharops*, *Stalactis*, *Emesis* even most frequently visit blossoms, and the small *Charis* are able to bring their predilection for the honey of blossoms very well in accord with their lassitude in flying by remaining continually sitting on the sucked flowers. *Ch. zama* and *theodora*, as well as *argyrodon* which belong to the most common *Erycinidae*, sit fast like a dark centre in large, yellow compositae, so that one may sometimes take them away with the poison-glass, and they seem to inhabit permanently such large compositae, as some Cetonids do with us. I sometimes found on roads almost all the blossoms occupied by small *Charis* of which, however, only one was sitting on each blossom. I was struck, however, by the fact that those *Erycinidae* visiting blossoms and swarming like the other day-butterflies from one flower to another mostly belonged to those, not numerous groups of *Erycinidae* which possess an exceptionally well developed flying-power, such as *Emesis mandane*, *Tharops menander*, *Lasaia meris*; they are also uncommonly far distributed and inhabit the greatest part of the South American Continent without being divided into the subordinate races distinguishable by colonies, which have been rather copiously denominated in more unwieldy species.

While in other groups the life-history has aided us in our judgment, we are pretty much in the dark with respect to the earlier stages of the *Erycinidae*. We know the larvae of little more than a dozen of species and we can state only the one fact from this insufficient knowledge that the *Erycininae* are indeed a natural group of butterflies, in spite of the divergent shapes of the butterflies belonging here. The reason for our ignorance of the larvae is that they are not only rare, but that they also seem to live hidden. As to the food-plant the group is apparently distributed over almost the whole vegetable kingdom, and we find the larvae on fruit-trees (septotill-plums, America-apricots) as well as on parasitic plants (*Viscum*, *Loranthus*), on high-standing cultivated plants (*Cassia*, *Cocoa*) and on creeping plants. Only of the monocotyledons there is no species known yet. It seems that the larvae of some species keep hidden in leaf-cases at least during day-time; and if this be not the case, they surely sit, like the butterflies they produce, on the under surface of the leaves. Certainly they are most difficult to discover.

The eggs are semiglobular, something like a cake, with distinct punctiform impressions being especially deep in the vertical region.

The larvae are partly more cylindrical, partly more crookbacked like the wood-lice, always with fine soft hairs which are sometimes short, but very dense; the colour is sometimes green, but sometimes also very conspicuously miniate or bluish-green or also snow-white, in the latter case sometimes wrapped in a soft, white, easily separable pubescence.

Of the few cases in which the larvae are known to us there are hardly any general descriptions traceable, but in the *Eurygoninae* and *Erycininae* one finds a peculiar organ the functions of which have not yet been cleared up and which seems to be of almost the same structure in larvae of distantly separated genera. These are hornlike or cuneiform protuberances at the neck surrounding sometimes the head radiatiformly (*Stalactis*), sometimes standing at the sides of it in the shape of tufts (*Theope*). As they are sometimes coloured in a glaring red and also pass over to the pupa (*Helicopsis*), it is to be supposed that they are protecting organs. In *Euselaria* they stand out high at the sides of the head in the shape of spines, like the horns of a bull, while in *Nymphidium* they seclude the head from the body like a fence. Beside this formation, the larvae of *Erycinidae* exhibit yet an ant-organ by which they approximate the Lycaenids and which is also at the same spot at the back of the abdomen or in the anal region and has occasionally been the cause of strange alterations in the shape of the anal end of the larva.

According to recent observations, the Erycinid larvae indeed also possess a guard of ants consisting sometimes of larger troops of minute ants, sometimes of solitarily working large species. GUPPY has ascertained that the latter offer strong resistance if one wants to separate them from their protégé; they are, therefore, probably able to effectively defend their larvae against enemies.

The pupae offer a very great variety. Some are green, small, clinging closely to the leaf like the Lycaenids which the *Erycininae* also surely approximate*); but there are also known numerous variegated, spotted pupae, such as of the genera *Hades*, *Stalactis*, *Lymnas*. Others resemble a small piece of wood (*Nymphidium molpe*, *Metacharis erythromelas*) and are occasionally also provided with splinter-like protuberances (*Ancyluris*). The attachment is different, the *Libytheinae*, *Stalactis* and others appearing suspended freely by the cremaster, whereas others stand out horizontally and others again are held by a belt of spun silk. Bates had even once tried to systematize the ways in which the pupa is hung up, but he desisted from it on finding that evidently allied groups had different modes of suspension. We actually also know that for instance the green pupa of *Nymphidium caricae* is held by a belt, while the pupa of *Emesis mandana* which approximates it, is suspended freely. Most of the pupae are probably fixed singly and well hidden; but the pupa of *Hades noctula* is gregarious (on one leaf 15 specimens) which may signify the complement of a mimicry, since the doubles of *Hades noctula* (*Morpheis*, *Eucheira*) likewise live in clusters of nests. Though bright colours are on the whole rare in freely living pupae, yet they occur in the *Erycinidae*, as for instance in *Helicopsis* the pupa of which exhibits scarlet excrescences at the anterior and posterior ends.

The butterflies seem to become transformed chiefly in the early hours of the morning, it was at least early when I met single specimens with still soft wings on their first flight. FASSL saw several species flying to the water and of the bait quite early in the morning, but they did not appear anymore the whole day. We have already mentioned the short swarming flights performed by many species in the sunshine. The *Nymphidium* seem to wait until the evening-twilight before they come out from their hidingplace. The life of the butterflies seems to be short, though it is bound to a certain season only where — in Argentina and North America — a cold season interrupts the life of the insects altogether.

The division into genera, having been founded by WESTWOOD, was in the very beginning accompanied by a rather good result, since this author was anyhow uncommonly skillful in systematizing insects of all classes by the right appreciation of the rougher anatomical peculiarities and by the proper consideration of the habitus and even of the scheme of colouring. FELDER who founded different new genera has also worked with such an acuteness that the system created by these two systematizers can still be applied to-day with insignificant alterations. BATES who in 1865 established, as the first specialistic work on the *Erycinidae*, a catalogue of this family, after various other attempts, reverted to the veins of the wings as being the most serviceable principle of division. Later on, SALVIN and GODMAN undertook a careful examination of the genitals in the ♂♂ of most of the genera, of which detailed descriptions were published in the *Biologia Centr.-Americana*. They result, however, in a so complicated structure and in a so confused formation of the single organs that they can hardly offer any clue in certain special questions. A new list was brought by KIRBY's Catalogue in which the number of the known forms (630 with BATES) increased to more than 900. This was in 1877; then a greatly completed catalogue appeared by LEVI W. MENGEL editing a very much increased bibliography. He does not set up new genera nor — what is still more appreciable — any new forms, but he recommends a reduction, remarking quite right that there are evidently too many genera, quite an extraordinary number of them being based on only 1 or 2 species. Since that time parts of the family — being considered as special families — have been catalogized in WYTSMAN's „Genera Insectorum“, such as the „*Libytheidae*“ by A. PAGENSTECHER and the „*Riodinidae*“ by H. STICHEL.

A. Subfamily: *Libytheinae*.

We refer to what has been said in Vol. I, p. 251, Vol. IX, p. 772, and Vol. XII, p. 293, and only remark that there are only 1 or 2 American species at most, against 4 or 5 Indo-Australian and 4 Africa species.

1. Genus: *Libythea* F.

The African *Libythea* belonging to the group of *Dichora*, the American forms belonging to the subgenus of *Hypatus* Hbn. have been separated from the palaearctic and Indo-Australian forms. The *Hypatus* differ from the typical *Libythea* by the antennae being provided with a distinctly defined club, from the *Dichora* by the much longer palpi. All of the most variably coloured American forms have been regarded as belonging to one species. Its range extends almost over the whole continent from Canada to Argentina.

*) As a transition the Indian genus *Curetis* is considered exhibiting not only as a butterfly anatomical resemblances with the *Erycinidae*, but being comparable with this family also in the larval form, especially by the strange fan-organ at the posterior end, which it spreads out on being disturbed and puts in a quick whirling motion.

L. carinenta Cr. (= *carinata* Burm.) (120 D e). Typical specimens are above blackish brown with a black, whitespotted apex of the forewing; in the cell a brownish yellow wedge-shaped streak, and light patches in the median cells of the forewings as well as beyond the cell of the hindwing. The hindwings are beneath sometimes one-coloured rocky grey, sometimes designed and coloured like a leaf. This form varies a great deal, but is not bound to localities in its forms, and extends from Texas to Paraguay and Buenos Ayres. — **bachmani** Kirtl. (120 D e) is the form occurring from Texas to the north in the Union; here the yellowish-brown discal spots are very much broader, the subapical costal spot is connected with the next one to a small whitish band. — **motya** Bsd. and Lec. (120 D e) has much broader wings, beneath preponderantly of a dirty greyish yellow; from Cuba and Portorico. — **terena** Godt. from San Domingo approximates the latter form, though it is of a bright reddish tinge, thus a transition to the form of the northern continent, especially to **larvata** Streck. described from Texas which has above brighter red-brown spots and an under surface covered with violet and looking marbled in a certain exposure to light. — The grown-up larva is 3 cm long, cylindrical, dark green with pale, yellowish-green dorsal and lateral stripes, living on *Celtis occidentalis*. Pupa about of the shape of a Satyrid pupa, somewhat resembling that of *Epinephele jurtina* or *Pararge maera*, bright green, lighter on the sides and back. — The butterflies mostly fly about 1½ to 2 m above the ground in a not rapid clapping flight, quite unlike that of the European *Lib. celtis*; they often gather in numbers round the food-trees and may, just like *L. celtis*, go travelling in migrations. Not rare.

B. Subfamily: Euselasiinae.

This group takes up the second place in America, if we eliminate the genus *Helicopsis* being considered by some to belong to the subfamily of the *Nemeobiinae*, and if we do not attribute any greater importance to the insignificant deviation of the veins. Then the subfamily of the *Nemeobiinae* is separated as being unrepresented in America and is confined to the forms dealt with in Vol. I, p. 252—5, and (as Tribus *Nemeobiidi*) in Vol. IX, p. 772—9, as well as in Vol. XIII, p. 294—6 (as *Lemoniinae*). We, therefore, connect the *Helicopsis* — which, by the way, are treated by renowned specialists as genuine *Erycininae* — with the *Euselasiinae* from which they form a transition both to the *Nemeobiinae* and the *Erycininae*, if the imago is taken into consideration; which, however, it joins spontaneously, if one looks at the larva being provided with a well developed organ at the neck. The *Euselasiinae* are easily discernible from the *Erycininae* by the subcostal of the forewing possessing one branch more than the latter, i. e. 4, or as many as the palaearctic *Nemeobiinae*. We must, however, remark that also some American species (though evidently exceptionally) correspond with the veins of the palaearctic genera. Apart from these few cases we, therefore, unite the *Euselasiinae* out of the genus *Euselasia* itself, the genera *Methonella* and *Helicopsis*. We moreover add to them yet the greatly deviating genus *Hotes* about which but little is known, but which in many ways represents a connection with the Lycaenids by exhibiting a distinct alliance with the genus *Eumaeus* (cf. table 146 a).

1. Genus: **Euselasia** Hbn.

This genus of butterflies, which in many works is denominated as *Eurygona* Bsd. comprises more than 120 forms extending from Arizona to the south over the whole of Tropical America. The veins are inconstant in as much as some species have 2, others 3, and one species (*aurantiaca* G. and S.) even 4 subcostal branches. The genus is recognizable by the anterior radial vein either running directly in the elongation of the subcostal, or being connected with it by a very short anterior discocellular. The butterflies often have the appearance of small Satyrids or *Thecla*-species; as for instance *Eus. eutyachus* resembles (particularly beneath) exactly *Euptychia helle* (147 b) flying in the same locality, or *Thecla themathea* (147 c); or *Eus. clithra* resembles *Euptychia chloris* and so on. On the upper surface there is often a very bright reflection of a shining power otherwise not found in any lepidopteron and of a truly wonderful iridescence. The larvae are (as far as they are known) somewhat of the shape of a wood-louse, very brightly coloured, behind the head there are two points. The pupae are covered with fine, fluffy hairs like the larvae, green, held by a belt. The imagines are partly extraordinarily rare and belong to the few *Erycinidae* that fly to a considerable height. They also clap their wings together when being at rest like other day-butterflies, unlike most of the other *Erycinidae* which spread them out like the Geometrids. We must add that very many of the specimens lying before us and being partly also figured do not correspond with the original descriptions and the original figures in all the details, since they originate from other places where they were found; they belong, however, nevertheless undoubtedly to the species referred to.

E. zara Hew. (121 a). Above blackish brown, ♀ with a white spot on the forewing. Beneath an orange-stripe encircles the joint, earthy brown median area. In the ♂ the forewing reflects above in a dull violet as far as close before the distal margin, the hindwing has a broad blue-reflecting distal margin. Brazil; extremely rare.

E. uzita Hew. (121 a). Blackish brown, the ground of the wings without a reflection, but in the basal part of the forewing in the ♂ a blue spot reflecting in the sun so very brightly that the eye cannot bear the lustre which is by far superior to that of a *Morpho cypris*, without being dazzled. Hindwing in the anal

part of the margin orange. The ♀ has instead of the blue spot a white discal spot. Probably very widely distributed like the preceding species, though very rare; from Guiana along the Amazon to Pebas.

eucritus. **E. eucritus**. By this a number of butterflies are presumably combined varying in every habitat. Colombian ♂♂ have above a beautiful violet lustre covering the basal half of the forewings and the distal half of the hindwings. On the under surface, the proximal stripe at the anal fold of the hindwing bends round once more and runs towards the costal margin near the base, so that the hindwing receives one more transverse stripe. The describer himself already figured as ♂ and ♀ specimens from different habitats which do not belong together. Specimens from the Rio Negro in East Colombia exhibit next the base of the wings, instead of the inner stripe being bent back, a large round jet-black spot and above a magnificent blue reflection; we denote this form **catapoecila form. nov.**, because it has quite a strange appearance thereby, being also larger than all the other forms. Beside the specimens from Colombia there are also such from Santarem (Amazon) before us. The other forms can remain nameless.

gelon. **E. gelon** Stoll (♂ = *sabinus* Stoll, tenage *Hbn.*) (121 b). ♂ of a deep blackish brown with a vermilion wedge-shaped streak at the inner margin of the hindwing. ♀ lighter with a yellowish-red anal part of the hindwing. Under surface greyish-brown (♂) or yellow (♀) with three yellow marginal stripes. Very variable; the red stripe in the ♂ may be broader or narrower, it may reach the base or the distal margin or not, it is mostly smaller than in our figured specimen (from Surinam). In ♂♂ from Cayenne the red apex of the hindwing is bordered in black. In the ♀ the red spot on the upper surface of the hindwing varies greatly and may in some places be covered with black. On the under surface the yolk-coloured spot before the middle of the distal margin of the hindwing may be bordered by black or not, the habitats of the different forms may be situated quite close to each other. Guiana, not common.

zena. **E. zena** Hew. (121 a). ♂ above with a large red spot of the forewing and a very small spot of the hindwing. Beneath blackish-grey, before the distal margin 2 white stripes. ♀ above lighter brown, the red spot of the forewing transverse-oval, the spot of the hindwing larger and reaching the distal margin. On the Amazon River, near Iquitos, less rare than the preceding species, though very local.

erythraea. **E. erythraea** Hew. (♀ = *coccinella* *Bat.*) (121 a). ♂ distinguishable from the ♂ of *zena* by the larger hemochrome-spot on the upper surface of the hindwing, and particularly by the under surface exhibiting 3 light (instead of 2 white) stripes before the margin. Moreover very variable, at the single habitats exactly equal. Forewing sometimes with a broad, sometimes with a narrow, black border; the spot of the hindwing sometimes proximally indented, sometimes also, in the ♂, reaching the border. ♀ similar to that of *zena*, forewing more intensely red, nearly as much as in the ♂. Colombia and Amazon, Iquitos, Tunantins. Rather rare.

eutaea. **E. eutaea** Hew. (121 b). The ♂ lying before me from the Paris Museum from Nouveau-Chantier (French Guiana) resembles entirely the figured ♀, but the red is more fiery and extends in the forewing as far as to the inner margin, in the hindwing almost to the base. Under surface of both sexes nearly exactly like in a small *gelon*, though the costa of the forewing is black. Certainly, like most of the allies, very widely distributed (Guiana and Amazon), but very rare. — *lindana* *Mschl.* is surely only a ♀ of *eutaea* from another habitat (Surinam), in which the black costal stripe on the under surface of the forewing is absent, so that the under surface resembles altogether that of the ♀ of *gelon* and *erythraea*.

euriteus. **E. euriteus** Cr. (= *euritacus* *Hew.*) (121 b). Under surface alike in ♂ and ♀, whitish with a loam-yellow base of the wings and 3 brown parallel stripes. Above the ♂ is black, the forewing with a blue arcuate spot from the base to the anal angle, the hindwing with a blue distal spot. ♀ brown with a yellow distal spot in the anal part, being differently shaped at each finding-place, as well as the stripes of the under surface in the ♂ and ♀. — As **gration form. nov.** (121 c) we denominate a form from the Amazon with a broad blue oblique band of the forewing and an orange-yellow ground-colour of the under surface; in the ♀ the orange-yellow spot of the hindwing is above considerably narrower. — In **charilis** *Bates*, likewise from the Amazon, the latter is absent altogether, and in the ♂ the blue of the upper surface is spread more across the surface of the wings. — **calligramma** *Bates*. Here the ♂ has white-speckled fringes of the hindwing, the ♀ is above light-brown; both sexes are beneath more strongly and densely striped; one stripe runs along the costa of the forewing and the inner margin of the hindwing. From Ega; known to me only from *BATES'* description. Not rare.

eutychnus. **E. eutychnus** Hew. (= *orfitia* *Cr. pt.*) (121 c). ♂ above black with a faint violet lustre of the centre of the forewing and a marginal band of the hindwing with a bright violet reflection; ♀ earthy brown with diaphanous stripes of the under surface and a stout dot before the middle of the border of the hindwing. Beneath 3 or 4 parallel stripes across both wings and before the middle of the border of the hindwing a large black eye-spot with a blue reflection. Rather common and very variable, especially as regards the intensity and position of the blue reflection, and the thickness of the stripes on the under surface. More than 100 specimens are lying before me, 50 are in the Tring Museum. — **ferrugo** *Bat.* from Teffé (where, however, also typical *eutychnus* fly) exhibits the two outer transverse stripes of the under surface flown together to a very thick band; — in **dyrrhachius form. nov.** (121 c, d) they are more divergent towards the inner margin of the hindwing. At the same time, this form exhibits a very bright hyacinth-blue reflection in the inner-marginal region on the under surface of the hindwing, which is likewise well developed in *eutychnus* from Teffé, being paler and more purple-violet in Colombians and missing altogether in Bolivians. — **clithra** *Bates* (121 d) shows the brown stripes of the hindwings narrowed cuneiformly towards the inner margin, the space between there white with a magnificent hyacinth-blue reflection. Typical specimens are found on the Lower Amazon (Santarem, Para); specimens from the Upper Amazon approximate *dyrrhachius* from Guiana, and intermediate forms originate from Rio Jurna. Not rare.

E. raseona Schs. Similar to *euoras* Hew. Wings dark brown, the distal margin of the forewings below vein 5 and the hindwings from below the apex as far as vein 2 covered with dark metal blue. Under surface light reddish brown. On the forewing a dark subterminal shade; a distal darker band, bordered by a duller brown, obliquely from the middle of the costa as far as below vein 2. Hindwing with a darker distal band than the forewing, running straight through from the costal margin to vein 4, then turning more distally, being undulated towards the proximal margin, followed by reddish brown internerval streaks. These streaks do not reach the distal margin and terminate into pointed dots being outside shaded by white; a pointed marginal band between veins 3 and 4, shaded outside by white, inside by red-brown; above this spot as far as to the apex the border is broad, darker. Cucuta, Venezuela. 30 mm.

E. phoedica Bsd. (= *phedica* Hew.) (121 d). Very similar to *eutychnus* with almost the very same under surface; but in the ♂ the whole anal part of the hindwings is above white with a magnificent hyacinth-blue reflection. ♀ quite similar to that of *eutychnus*, but more diaphanous and the brown ground-colour on both surfaces with a dull blue lustre. Guiana; rare. According to HEWITSON also from the Amazon.

E. orfita Cr. (121 d). Under surface with a purple median stripe being in front and behind shaded in an iridescent whitish blue; before the middle of the border an oval eye-spot; the proximal margin of the hindwing with a purple-violet reflection. Above the ♀ is earth-like brown with a faintly diaphanous marking of the under surface, the ♂ velvety black with a bluish brilliancy in the apical part of the forewings. Guiana, Amazon as far as Ecuador and Bolivia. In Bolivians from the Rio Songo, the apical brilliancy of the upper surface as well as the blue silvery gloss of the under surface may be absent. — **euodias** Hew. (121 d) has a dull violet reflection on the black upper surface and a long-stretched anal part of the hindwings exhibiting besides a bright purple inner margin; on the Amazon; rare. — **issoria** Hew. (121 d) from Ecuador stands between the two preceding forms with respect to the shape of the hindwings; the purple of the inner margin of the hindwing is covered here with a bright silvery blue reflection. — The species is common in Guiana. It varies wherever it is found; for instance, the red-brown median stripe of the under surface in specimens from Nouveau-Chantier is twice as broad as in those from St. Laurent du Maroni. Near St. Jean, in October, there fly small specimens that have hardly the size of an *E. effima*; the silvery lustre is much more expanded in Cayenne-specimens than in those from Surinam etc. We do not consider it advisable to denominate all these forms.

E. euryone. The butterflies belonging here are distributed over a very vast district. From the northern coast of South America they occur throughout the whole of Guiana, the Amazon district as far as Ecuador, Peru and Bolivia. **euryone** Hew. (121 d) was described according to a ♀ from Ecuador; both sexes are above dark brown, beneath with 3 or 4 parallel transverse stripes through both wings; the marking of the under surface resembles somewhat *E. eutychnus* and the analogous species of *Euptychia* (*Ocypete*-group). ♀ above somewhat lighter brown. Specimens from Guiana are only about half as large (probably only at certain habitats, such as St. Jean du Maroni in French Guiana). These specimens have beneath narrower stripes. FASSL brought a form from Bolivia (Rio Songo), the ♂♂ of which greatly approximate the typical Ecuador-specimens, the wings of which, however, exhibit a blue reflection in the basal part. In other districts of Bolivia, however, this reflection is missing altogether. Bolivian ♀♀ are mostly on both surfaces more earthy grey, considerably lighter than ♀♀ from Ecuador. Such a specimen is figured on t. 121 e, with the erroneous subscription of „*eurygonia*-♀ U²“. — On the Upper Amazon flies **effima** Hew. (121 e) with ♀♀ that are hardly different from the Ecuador-form; the ♂♂, however, have above a white anal area of the hindwings, like many equally coloured *Hesperids* flying together with them.

E. melaphaea Hbn. (121 e). Beneath (♀ also above) somewhat similar to *euryone*; but the ♂ exhibits above a dull red cuneiform spot of the forewing and a similar brightening in the hindwings. The red may be partly or totally very much darkened, but also very bright, more yellowish-red; the wedge of the forewing may be shortened (Nouveau-Chantier, Guiana), narrowed (Upper Amazon), widened (Peru) or provided with blurred edges (Bolivia); the spot of the hindwing is sometimes bright and sharply defined (Cayenne), sometimes shortened (Sosomoco, Colombia); sometimes also parts of the red area are covered by the black ground-colour breaking through (as for instance in one specimen from Peru and one from Guiana). All these forms are interosculant. The ♀ is always to be distinguished from the *euryone*-♀ by the dentated border of the hindwing; it is very much rarer than the ♂ (among 160 specimens only 4 ♀♀). Distributed all over the northern part of South America, from Guiana and Para to Bolivia and Peru, locally common.

E. ella Stgr. i. l. (142 b) from Bolivia has almost the same under surface as *melaphaea*, but the parallel shade between the median line and the border is absent and the hindwings are not dentated. But above all, the upper surface is one-coloured blackish brown.

E. eulione, with which the series begins of those *Euselasia* exhibiting beneath instead of the three transverse stripes only a median line and behind it, between this line and the border, a more or less distinct parallel shade. — In **eulione** Hew. (121 e) there is before the middle of the margin of the hindwings beneath a black oval eye-spot, above and below this there are some light transverse nooses. Above the ♂ is blackish brown, like *cafusa* from which it is also hardly distinguished in the shape of the wings; the ♀ is somewhat lighter coloured, larger and with rounder wings. The species is recognizable by the unciform median stripe near the anal angle on the under surface of the hindwing. From the Amazon; apparently very local; obviously very much like the following form. — **hygenius** Cr. which I only know from the figure, has beneath on the hindwing

in the anal part more intense black radiary rays, but it seems otherwise to be closely allied to *eulione*; from Surinam.

thusnelda. **E. thusnelda** *Mschlr.* is said to be above velvety blackish brown, beneath similar to *mys*, but the second transverse stripe of the forewing distally fringed; Surinam. Does not lie before me.

cafusa. **E. cafusa** *Bat.* (121 f). A transition from *eulione* to *eustachius*. The upper surface is blackish-brown as in *eulione*; the under surface resembles that of *eustachius*, but the black eye-spot on the under surface of the hindwing before the middle of the border is considerably larger, mostly also the ground of the wings darker, greyer. The ♀ is coloured and marked like the ♂, but the transverse stripes beneath are broader and brighter.

inconspicua. Guiana, Amazon and Ecuador, not rare. — **inconspicua** *G.* and *S.* from Central America is certainly only a ♀-form of a differently named ♂; maybe it belongs here, unless it be the ♀ of an *euryone*-form.

eustachius. **E. eustachius**. Very variable, above mostly with red, beneath marked very much like *licinia* (121 f). In our figure the marking of the under surface is unfortunately missing altogether, but it is almost exactly that of the form figured as *aurantia* (121 f). It varies by more or less developed submarginal spots on the under surface of the hindwings as well as by their ground-colour appearing sometimes more yellow, sometimes brown or grey. Unless *cafusa* being above entirely blackish brown be only a unicolorous form of *eustachius*, it has above

mys. always red which appears, for instance, in the smaller *mys* *H.-Schäff.* lighter, almost like in *aurantia*. The latter exhibits more miniate hindwings with a broad dark costal margin. — As the red occurs in almost any distribution and probably varies at every finding-place, we have denominated here only the more conspicuous forms:

rhodon. **rhodon** *form nov.* where it is confined to a sector in the hindwing, and **fervida** *Bthr.* where the forewings are entirely black, the hindwings red with a dark ray from the base to the middle of the border; from Costa Rica and Surinam. Specimens from Colombia exhibit the centres of all wings brightened by brown-red, and from them there occur all the transitions to typical *eustachius*. The butterfly has a very vast range, from Central America

aurantia. to Peru. — **aurantia** *Bthr.* and *Drc.* (121 e) from Central America is presumably only an adaptation of the upper surface to *chrysippe* (121 f) flying there; — whereas **procula** *G.* and *S.* from Costa Rica with an almost entirely

procula. black upper surface being only tinged in red-brown at the base of the wings, forms the transition to *eulione*. — *sergia*. **sergia** *G.* and *S.* (121 e) approximates *procula* by the forewings being coloured almost just the same; it exhibits however, also above on the hindwing the red sector of *rhodon*; likewise from Central America. — A most conspicuous form is *licinia* *Godm.* (121 f) flying in Guiana with *phoedica* and *effima* and exhibiting like them a

athena. large white spot at the distal margin of the hindwing. — In *athena* *Hew.* (122 a), from Guiana to Ecuador, the white area of the hindwing of *licinia* is yolk-coloured, whereby it resembles the upper surface of *gelon*-♀, but the under surface is quite different, like in *licinia*. The species is locally not rare and specimens from the same countries may have a very different upper surface, the under surface, however, is more constant.

mystica. **E. mystica** *Schs.* (142 c) resembles above an *eustachius*, being intensely tinged in yellowish-red, but the postmedian line of the under surface of the hindwings does not round into a hook, but it is sharply angled. Costa Rica.

chrysippe. **E. chrysippe** *Bat.* (= *labicna* *Hew.*) (121 f). ♂ above bright fiery red, ♀ yolk-coloured with black margins of the wings; at once recognizable by the unicolorous yellow under surface exhibiting only before the margin of the hindwing a series of black dots. Central America.

placidus. **E. placidus** *nom. nov.* (= *aurantia* *G.* and *S.*, nec *Bthr.* and *Drc.*) which has been figured on t. 121 f as „*aurantiacus*“, is hardly in any way connected with the *mys*-group. The forewings above are quite the same as in *eustachius*, but the hindwings have a broad black border. Immediately recognizable by the quite silvery, unmarked under surface of both sexes. The ♀ may be above entirely brown, but the disc of the forewing is mostly yellowish-brown and sometimes the middle of the hindwing is also brightened by yellowish. Costa Rica and Panama, on the Chiriqui locally not rare; it flies early in the morning. This species is peculiar for the course of the veins: it has on the forewing only two subcostal veins both of which branch off before the ccl-end. — *leucophryna* *Schs.*, likewise from Costa Rica, is beneath one-coloured silvery like *placidus*, but above more diffusely and darker brownish-red, the hindwings with a very narrow dark margin.

leucophryna. **E. hieronymi** *G.* and *S.* (122 h). Above blackish-brown with dark-red brightenings, beneath with colours and markings quite similar to *eulione* or *eustachius*. In the north of the range there occur two forms of the ♂; such with entirely blackish-brown forewings and such with a red flame in their basal part. We have figured the former. Both exhibit on the hindwing a red ray from the base towards the anal angle. Mexico and Central America. — From South Brazil I possess a ♂ forming an evident transition to the *mys*-form and being, therefore, probably better placed to *eustachius*. On the upper surface of the hindwing another fiery ray runs from the base under the apex, cutting off the costal part. — Apparently not common. The ♀ is always dingy dark brown, without any red, but recognizable by the under surface resembling the ♂ and not easily distinguishable from the allied ♀ of *eulione*.

violetta. **E. violetta** *Bat.* (121 i). The under surface of this species and the following one exhibits, on a brightly (mostly orange) coloured ground, the median line distinctly double, not at first straight and then bent into a hook before the inner margin of the hindwings, but slightly curved, often finely undulated and often with a knot in the middle of the hindwing. Before the middle of the border of the hindwing a larger eye-spot, above

and below it there are arcuate nooses. *violetta* exhibits on the forewing the distal marginal part and on the hindwing a sector in the ♂ of a wonderful steel-blue lustre; one may turn, however, the butterfly in the sun in such a way that the whole surface of the wings shines also violet. From the Upper Amazon (Tapajoz).

E. arbas Cr. (= *arbus Mengel*) (121 i). Beneath like the preceding species, but the median stripe in the middle of the hindwing ends into a knot. Above there is less blue, nearly only along the distal margin of both wings. Surinam, Amazon. — A very small, above more brown form with a dull purple-violet reflection, came recently in numbers from Bolivia; as the ♂♂ make a very deviating impression, I call the form *attrita attrita* form. nov. Especially the under surface is of a duller colouring, greyish brown, not reddish-yellow. — Contrary to it is a form of enormous size captured by FASSL in Colombia (Medina); above jet black, the violet gloss across almost the whole distal half of the wings; the under surface brightly coloured and marked, the hindwings in the anal part more pointed; *proavia* form. nov. — The ♀♀ of all the forms are presumably one-coloured greyish-brown; the cell-end of the forewings is traversed by a dark arcuate shade; behind this there is a faint brightening. — *euoras* Hew. (121 i) lying before me from the Kourou River in French Guiana, shows in the ♂ a bluish iridescent stripe along the costa of the hindwing and beneath more earthy grey ground-colour. — *fabia* Godm. *fabia*. (122 b) has beneath in the middle of the hindwing only a small angulation of the median stripe, no knotty ends, and in *tarinta* Schaus (110 A f) from Colombia this median stripe runs through uniformly and in a straight line. This species is beneath very bright ochreous yellowish-red and the reflection of the upper surface at the distal margin very intense and extending almost as far as to the centre of the wings; it lies before me from Muzo; in some places the distal marginal eye-spot of the under surface likewise exhibits a bright blue reflection in others not. Some of these forms may be justly regarded as distinct species, but one must be very careful in this respect in the *Erycinidae*. Nearly all the *arbas*-forms are apparently rather common at their finding-places.

E. eurysthenes Hew. (142 c). This butterfly resembles above very much *E. euoras* (121 i) to which the under surface is also very similar. But the ♂ is at first sight distinguishable by the blue reflection being confined to the distal margins of the wings, and beneath between the brown median band of the forewing and its margin, the fringe of *euoras* is here replaced by another, distinct band. Ecuador.

E. eurymachus Hew. Probably only a form of the preceding forming the transition to *euoras*. Beneath the bands of the forewing are duller, more shadow-like, and above in the ♂ the blue reflection is confined to the region before the inner angle of the forewing and the apex of the hindwing. Likewise from Ecuador.

E. regipennis Btlr. and Drc. (122 b). The ♂ greatly resembles above *arbas*; but beneath the median stripe forms the proximal terminus of a white transverse band, appearing in the ♀ also above. Costa Rica; the specimens lying before me were taken in May near Esperanza. — *eupepla* G. and S. (122 g) from Panama and Colombia exhibits in the male no white band beneath, so that there remains as a difference from *arbas* only the straight running median line on the under surface of the hindwing. — The *regipennis*-forms are supposed to be very closely allied to the *arbas*-group, and both the forms would produce a very great number of forms, when distinguishing the extension and position of the blue reflection and the colouring of the under surface, since especially the ♀♀ vary almost at every finding-place being sometimes quite grey, or white banded or also nearly quite white.

E. anica H. Schöff. (121 i). This animal, not known to me in nature, is said to come from Surinam; it is described as a ♂, but still it is probably a ♀. Forewings with a white small oblique band, hindwings with a white distal dot. Under surface almost exactly as in the ♀ of *arbas*, but the forewing has a honey-coloured stripe at the base of the costa.

E. eubages Hew. (121 i). This form of which the ♂ is unknown, probably belongs as ♀ to one of the *arbas*-forms some of which have very light ♀♀ which, however, we know only from few finding-places. As its patria the „Amazon“ is only mentioned.

E. eunacus Hew. (122 a). Beneath marked like a very small *regipennis*, but without the white band, though with a very distinct marginal eye-spot. Forewing above with an orange oblique spot. From the Amazon. Only the figured specimen, a ♂ without its exact habitat being stated, is lying before me.

E. dolichos Stgr. (122 h). Quite peculiarly black and white, beneath with submarginal spots and dark marginal eyespot before the middle of the border of the hindwing. From Pebas and Iquitos on the Upper Amazon.

E. lisias Cr. (= *salimba* Godt.) (121 h, as „*lysi*as“). In the ♂♂ of the typical species the anal angle of the hindwing is extended into a round point. Above the wings exhibit a magnificent blue reflection with white fringes and a black apex of the forewing. The ♀ is much rarer and its blue reflection is duller, on its under surface a brown linear stripe runs parallel to the border. Guinea, Colombia, Amazon, to the south as far as Bahia, locally not rare. Varies considerably even at closely adjoining finding-places. The hindwings may end much more obtuse than in the figure (forma *lycaeus* Stgr., 121 h) or still more pointed; in the latter case the small white dots of the under surface being typical for genuine *lisi*as may be also absent; in the latter form STAUDINGER denominates *lysimachus* (= *lysiniacus* Mengel) (121 h, as „*lysi*machus“). Besides, the line of the under surface of the ♀♀ may also occur in the ♂ and the ground-colour of the under surface may be brown (*euromus* Hew., 121 g); the blue reflection may have a different extension; January-specimens from Ega (fa. *lycaeus*) exhibit on both surfaces an orange-red proximal margin of the hindwing and so on.

- dorina*. **E. dorina** Hew. (121 i). A very rare butterfly from Teffé on the Amazon. Only the ♂ lies before me. It is above marked like *opalina*, but also the hindwings have a broad black border and the colour is deep hemochrome instead of yellow. Beneath the hindwings have sometimes a hemochrome proximal margin, and the black punctiform spot before the middle of the border is shaded snow-white.
- euhemerus*. **E. euhemerus** Hew. (121 g). Only the ♀ is known, undoubtedly belonging to one of the ♂♂ known, maybe to *dorina* together with which it was taken. Above brown with an oblique-oval orange spot, beneath similar to *dorina*. Amazon.
- gelanor*. **E. gelanor** Cr. (121 h). Above blackish-brown, with a blue reflection, beneath ochre-yellow with a brown transverse line and brown dots before the border. Among the 22 specimens of my collection there are hardly 2 alike, so very great is the variability of the species. HEWITSON already was forced to demonstrate by two figures of the under surface that the transverse line on the forewing may be absent in the ♂. But he is wrong in correcting CRAMER for having figured the wings too round. *gelanor*, however, does not only vary in the marking and colouring, but also very much in the wing-contour, and there are such with a prolonged and with a round hindwing, with a dentate and smooth border, with a straight and bulged-out border of the forewing. The blue reflection is mostly placed in the distal-marginal region, but it may also be almost absent or extend all over the wing. In some specimens it is extremely bright, of a Prussian blue, in others again dull and violet. Greatly deviating from typical (Surinam)-specimens are those from Bolivia with a violet-brown, almost unmarked under surface and a convex distal margin of the forewings. In Guiana common; in deviating specimens distributed as far as Bolivia. — Near Pebas on the Upper Amazon there fly specimens with very long-stretched hindwings and an under surface exhibiting in the ♂ almost the same markings as in the ♀; this is *uria* Hew. They have only quite a faint violet reflection at the border of the wings. — The ♀♀ of *gelanor* are on both surfaces of a dull brownish-grey colour, without a reflection, the marking is like in the ♂: dots, *eubotes*. a transverse stripe and the shade more dense. — **eubotes** Hew. (121 h) is if it is at all of a different species, very closely allied to *gelanor*; the upper surface is the same, the under surface more violettish brown and the *extensa*. transverse line running somewhat differently; Amazon. — **extensa** Bates is quite similar to *eubotes*, larger, the hindwings in the ♂ more prolonged, but not quite as pointed as in *uria*. Upper Amazon.
- crotopus*. **E. crotopus** Cr. (= *midas* Godt.) (121 g). Very variable; above the typical ♂ is blackish-brown with the disc of the forewing being quite slightly brightened. The under surface is earthy grey with a transverse stripe running similarly as in *gelanor* (121 h) and *dorina* (121 i), and with dots before the border which are partly outside bordered in white. Particularly the punctiform spot before the middle of the hindwing-border is intense, often angular, and above the anal angle of the forewing there is mostly a distinct shadow-like spot. ♀ dark greyish brown with dull brightenings in, below and beyond the cell, in the forewing, sometimes also on the hindwing. The following forms occur in the ♂ being, however, connected with each other by transitions and *ater*. probably bound to certain finding-places (not countries): Above jet-black, beneath blackish-brown (**ater form.** *crotopina* nov.) — above blackish-brown, beneath red-brown (**crotopina** Stgr.). — Forewing with a dull, indistinct orange-spot, hindwing with a magnificent bluish-violet reflection: **mutator**. form. nov. — Hindwing with a sharply defined oblique orange band, under surface violettish-brown: **rhodogyne** Godm. This form occurs more in the northern districts (Central America, Colombia) and the ♀ is above coloured just like the ♂. — All the 4 wings *psammathe*. with a large orange-spot, the ground-colour of the under surface whitish-grey: **psammathe** form. nov. — **venezolana** form. nov. (121 g) from San Esteban, Venezuela, has a red-brown ground-colour. The species is distributed from Central America through the whole northern part of South America, to the south as far as Bolivia; it occurs singly, though it is not rare. — The larva is black with whitish stigmata and fluffy hairs; behind the head there is a hemochrome transverse spot out of which there rise two points; the pupa is green, the back and the sides with dark dots.
- micaela*. **E. micaela** Schs. Wings dark violettish-brown, on the forewing a large, yellowish-red spot behind the cell from vein 2 as far as above vein 4, not reaching the distal margin; under surface light brown; a reddish-brown median line near the costa of the forewing shaded by black, close at the inner margin of the hindwing curved; a large subterminal shade, on the forewing luniform, on the hindwing dissolved into spots, containing 2 black dots between the veins 3 and 4; a faint dark distal shade, 32 mm. Peru. The species is unknown to me, and from the description it is not to be seen, where it is allied to.
- eugeon*. **E. eugeon** Hew. (122 f). Above black, beneath very dark greyish-brown, recognizable by the anal part of the hindwing being prolonged like a point. The transverse line of the under surface runs irregularly, and in each of the specimens before me originating from different districts, differently, in northern specimens (Amazon) more straight, in southern (Argentina, Bolivia) almost semicircular. ♀ larger, lighter. Widely distributed, though singly.
- thucydides*. **E. thucydides** F. (= *nycha* Hbn., *arisbas* Dalm. (122 g). Hindwing in the anal part like the preceding species prolonged to a point, transverse line of the under surface also similarly running, but all the wings above with a large orange-spot and beneath of a brownish-white ground-colour. ♀ above yellowish-grey with dark distal margins and median spots. South Brazil, where it is not rare near Petropolis; according to STAUDINGER also on the Chiriqui in Costa Rica.
- eurypus*. **E. angulata**. We distinguish 3 subspecies: **eurypus** Hew. (122 e), above entirely one-coloured deep blackish-brown; beneath the transverse stripe is distally shaded in dark, behind it on the hindwing another

arcuate stripe, and behind this a series of small dark submarginal spots. The hindwing exhibits at the end of the upper median vein an angle, a small tooth or even a stronger tooth. Guiana, Colombia and Lower Amazon (Santarem), not common. — Tailed specimens from Muzo (Colombia) already form a transition to the very similar, likewise one-coloured dark-brown *angulata* Bates (122 e) from the Upper Amazon; here the tooth of *angulata* the hindwing is protracted in the shape of a lobe and also the border of the forewing is drawn forth angularly. Rare. — *clesa* Hew. (122 e) is the largest form of the species; it lies before me in but one ♂ from Rio de Janeiro where it is apparently very rare. The hindwing is broken almost rectangularly, with a very strong canine tooth, on the under surface the shadowy transverse line is thinner, the one between it and the border of the hindwing is absent altogether, as well as the spots before the margin.

E. modesta Bates from the Rio Tapajoz is known to me only from the description; it is above darker, beneath lighter brown, the forewing clipped at the apex, behind the middle somewhat brighter; hindwing rounded at the anal angle. The transverse line beneath is somewhat darker than the ground-colour. Size of *angulata*.

E. amphidecta G. and S. (122 b). The upper surface has large red-brown, discal, diffuse spots the shape and distribution of which remind us of the yellowish-red of *labdacus*, but the under surface is marked almost like in *crotopus* or *angulata*, of a yellowish colour, with a transverse stripe running parallel to the border. The ♂ is no rarity in the southern parts of Central America (Veragua, Chiriqui) and Colombia (Muzo, Cundinamarca). The ♀ is not yet known, and it is, therefore, not unlikely that it is a ♂-form of the following species flying at the same places (for instance, on the Chiriqui).

E. euploea Hew. Size and shape like *amphidecta*, the under surface also similar, but the upper surface in the ♂ of a fiery red-yellow as in *labdacus* (122 b); on the border of the hindwing, between the veins, there rest the bases of black triangles the points of which show in the direction of the base. Amazon. Not before me.

E. cucuta Schs. Forewing dark brown; a large, dark red spot extending somewhat into the cell and along the vein 3, but not reaching the distal margin; beneath the subcostal, at the base of the cell, a short red streak. Hindwings dark red, costal margin and inner margin brown. Under surface brownish grey, a reddish median line being bordered in black and curved near the inner margin of the hindwing; before the border a narrow brownish shade. Hindwing with a light-brown distal margin; between the veins 3 and 4 a black spot behind bordered in white; beneath the vein 2 two yellowish, black-speckled streaks ending in white, a similar one above the anal angle; the outermost border darker, beneath vein 2 ochreous. 22 mm. Cucuta, Venezuela.

E. cheles G. and S. (122 c) (as *aurantiaca*). Only the ♀ is known and most variable. Above yellowish red with blackish margins of the forewings, the ground-colour with light spots in and behind the eell. The under surface is pale ochre-yellow, the brownish transverse stripe runs almost quite straight. Before me from Venezuela. — *aurantiaca* G. and S., from Central America, with transitions from *cheles*, has much larger ♀♀ the under surface of which exhibits the very same colours and markings as *cheles*, but which are above more fiery red-yellow, with a blackish apex of all the wings; between this and the red-yellow basal part of the forewing there is a dark yellow oblique band. GODMAN and SALVIN include in this latter form lying before me from the Chiriqui, ♂♂ being above miniate, beneath earthy grey and looking almost like *gyda*-♂ (122 c), though they are redder and have a black apex of the hindwing. Rare.

E. leucon Schs. (142 c) from Costa Rica is somewhat smaller, the ♀ above dark brown with an orange-yellow disc of the forewing, the ♂ with a black forewing being only at the base red-brown and a red-brown hindwing with a black costal and distal margin. Under surface with an irregular dark median band and a thinner, duller line traversing the distal area; before the middle of the border of the hindwing a black small spot tinged with white.

E. julia Drc. Larger than *leucon*. Above the forewings are dark brown, shaded by red-brown from the base to the middle. Hindwing dark red-brown with a brown distal margin. Under surface dull white, the margins red-brown: Both wings are traversed by a coherent, curved, yellowish-red line which is slightly broken near the inner margin of the hindwing. The forewing is traversed by a delicate brown submarginal line. Hindwings with a submarginal row of 5 black spots being very small except the one next to the costal margin. Santarem on the Amazon.

E. labdacus Cr. (122 b). Wings above miniate with broad blackish-brown margins of variable shapes. Under surface yellowish- or silvery-white with several brownish-yellow or black transverse lines, the one of which, in the middle of the hindwing before the inner margin, forms a distinct W. Of the ♀ I only possess one very bad specimen which seems to have been sulphurous, otherwise like the ♂, but the under surface is duller, yellowish, the transverse lines pale. Larva of a bright brick-red with broad blackish-green subcostal stripes and white points behind the head; on *Mammea americana*. Pupa green, with brown markings. The butterfly has a range from the northern coast of South America (Colombia, Guiana) to the south as far as Bolivia; the ♂♂ are locally not rare.

E. argentea Hew. (122 g). Above blackish-brown with a red ray from the base of the hindwing as far as beyond the anal angle, almost exactly like in *hieronymi*, but beneath of quite a different appearance, since *argentea* is beneath silvery with numerous transverse stripes and a yellowish-red anal angle of the hindwing. The ♀ is beneath like the ♂, but above blackish-brown with a large orange-yellow spot of the forewing

a smaller spot in the middle of the hindwing, and a third one before the anal angle of the hindwing. Central America and Colombia.

hahneli. **E. hahneli** *Stgr.* (= *hahneli* *Mengel*) (122 f) from the Upper Amazon, to the south as far as Bolivia (Coll. FASSL) and South Brazil, has beneath almost exactly the same markings as *argentea*, but bone-yellow instead of silvery; above the base of the forewing and the whole hindwing of a bright red, except the costal margin and the upper distal margin. The ♀ is above more yellowish-red and at the hindwing only the costal margin is blackish-brown. Near Rio de Janeiro rare; maybe more common in the north.

corduenna. **E. corduenna** *Hew.* (122 f, g). Above black, the basal part of the forewings and the anal part of the hindwings of a magnificent blue reflection. Beneath silvery yellowish-grey with a dark border and 3 transverse stripes the proximal one of which runs differently, according to the finding-places, sometimes in a straight line, sometimes curved, forming a pointed or an obtuse hook on the hindwing. From Central America through Colombia, Ecuador and Peru as far as Bolivia and Central Brazil. Not rare.

alcmena. **E. alcmena** *Drc.* Forewing dark brown, the palest at the apex of the forewings. Under surface light tan-coloured, both wings in the middle traversed by a narrow orange band; between the latter and the border a faint, brown undulate line; hindwing with a submarginal row of small black spots the fifth of which is the largest. Smaller than the following species. Ecuador. Unknown to me in nature.

urites. **E. urites** *Hew.* (122 a). Above blackish-brown with a very faint blue gloss, beneath yellowish silvery-grey with only one transverse line being slightly curved. There is quite a number of equally coloured *Euselasia* being distinguished only by the course of this transverse line. The course of this line of the under surface has, already since HEWITSON, been considered a characteristic mark of the species, but in *corduenna*, *eugeon*, *thucydides* etc. being quite distinct species we may notice that this line itself does not even characterize the sub-species. The forms being above brown, beneath silvery may, therefore, belong to few species distinguished by the shape of the wings, the shading of the silvery area etc.

eusepus. **E. eusepus** *Hew.* (122 a) is like *urites*, but above without a blue gloss; the line of the under surface is on the hindwing farther away from the border, and before the anal angle, one part of this line (unfortunately missed in the figure) is pushed forward towards the border. I have specimens before me from Pozuzo (Peru), in which this projecting part of the line is yet connected with the other links of the line, thus forming an indentation being convex towards the border. This may be of a very different extent, the most in South Brazil and Bolivia, the least in Peru where we already notice transitions to *urites* from the Amazon, sometimes with quite a faint blue reflection; there the line of the under surface mostly runs continuous. *eusepus* always has a silvery-white forehead.

eumenes. **E. eumenes** *Hew.* Here the under surface-line is not pushed forward before the anal-fold, but in typical specimens still somewhat interrupted before the anal fold. On the whole, *eumenes* has somewhat more pointed wings; from the Amazon. — Our figure shows a very similar form, somewhat larger, the under surface-line uninterrupted, the under surface itself of a purer silvery colour, without a yellowish tinge; numerous equal specimens from Monte Tolima, captured by FASSL, and in the Paris Museum. The ♀ is beneath exactly like the ♂, whereas the ♀ of *eusepus* is beneath lustreless greyish-brown; I call the form which may be a distinct species, *eupatra* *subsp. nov.* (122 a as *eumenes*). — In *cataleuca* *Fldr.* from Mexico the postmedian line is absent altogether and the under surface exhibits a very light silvery area without any markings.

matuta. **E. matuta** *Schs.* (142 c) described from Costa Rica, from where it is before me from Orosi, 1200 m. Above the black forewings have a yellowish-red, small discal spot, the hindwings a brownish-red lustre. Under surface silvery white with a straight dark postmedian line and some small black dots before the border of the hindwing.

bettina. **E. bettina** *Hew.* (122 a). Above dark brown with a scarcely noticeable light-bluish lustre; beneath yellowish grey, of a bronze gloss, before the middle of the border of the hindwing a small dark dot. From Central America to Ecuador. Locally common.

candaria. **E. candaria** *Drc.* (142 c). Like the preceding species, but beneath golden yellow, lustreless. The small dot before the middle of the border of the hindwing is larger and some more finer ones are before the border of the anal part. Colombia, not rare; often in the „Bogotá“-consignments.

phelina. **E. phelina** *Drc.* Larger than *eumenes*. Upper surface one-coloured light brown, under surface of a pure white. The forewing is, from the costal margin to the inner margin, traversed by 5 narrow, pale brown bands; the distal margin is brown. Hindwing traversed by 3 brown bands not reaching as far as below the cell; close at the distal margin, in the centre, there stands a large black spot and a small one nearer to the anal angle; the space between the two spots is yellow. A submarginal, undulate brown band traverses the wing from the apex to the anal angle. From Maracaibo (Venezuela).

eumedia. **E. eumedia** *Hew.* (= *ophias* *H.-Schäffl.*) (122 d). Above quite blackish-brown, without any gloss and reflection. Beneath the transverse line is red, as well as the border of the hindwing, in which we notice black, white-edged dots. From Colombia to Peru, not common. Typical specimens from Colombia have a very dentate border of the hindwing; in the much smaller Peru-specimens the latter is rounded, the costa

of the forewing somewhat shorter, the under surface with a less deeply dentate median line and less red at the border, the forehead whitish, and so on. The ♀ like the ♂.

E. mirania *Bates* from Teffé entirely resembles *eumedia*, somewhat smaller; the transverse line *mirania* beneath, however, is orange, shaded inside in yellow, outside in dark.

E. artos *H.-Schäff.* (122 a) of which I only know the ♂ which has a silvery-white forehead and a large orange-yellow or red spot in the anal part of the hindwing; this spot sometimes (in Bolivia) extends much farther than in our figure depicted according to an Amazon-specimen. This red spot is probably of a different shape at every habitat, the colour being also sometimes miniate (Rio Songo, Bolivia), sometimes more orange (Surinam) or bright red (Amazon). Under surface more grey than in *eumedia*.

E. pelor *Hew.* (122 e). Beneath almost exactly like in *eumedia* and *artos*, above, however, with a bright, steel-blue gloss. Variable; the gloss may incline to violet and to green, it may cover the whole forewing or also leave the apex black; the hindwings may be much deeper dentate, even long-stretched, in the latter case the forewings are also more pointed. Amazon; rare.

E. euboea *Hew.* (122 e). On both surfaces resembling *pelor*; the blue gloss is brighter, leaving the border of the forewing broad black, from which it is sharply defined. The hindwings are sometimes more dentate (Bolivia, Amazon), sometimes more rounded. Guiana to Bolivia; common.

E. mazaca *Hew.* (122 d as *mazaea*). Under surface similar to those of the preceding species, but its colour more grey, the median line brown, not red; the white margins of the dots at the border almost coherent. Quite different is the upper surface showing on each wing a large red area of the extent and shape of the blue *euboea*. Before me only from Pebas.

E. pusilla *Fldr.* (122 d). Above the disc of the forewing exhibits a light-red spot being in the ♂ *pusilla* euneiform, in the ♀ oval. In the ♂ the hindwing has another red wedge-ray similar to *E. hieronymi* flying at the same place. Under surface silvery white with a regular, yellow median line. Mexico, not common.

E. authe *Godm.* (= *emma* *Sigr. i. l.*) (121 g, h). Above dark brown, all the wings with red-brown or yellowish-brown patches covering sometimes only the middle of the disc, sometimes almost the whole wing. This auburn colour is bright in both sexes; at some places there occur specimens where it is replaced by light ochre-yellow (ab. *flava* ab. *nov.*). Easily recognizable by the under surface being greyish-brown, in the distal half of the hindwings and beyond the transverse line of the forewings white. It is said to come from „Brazil“; I only know it from Bolivia and Peru where the species is not rare and was collected especially by FASSL (Rio Songo) and by GARLEPP (Yungas). It may be only the southern form of the following species.

E. eubule *Fldr.* (= *hypophaea* *G.* and *S.*) (122 f). Dark brown; ♂ with, ♀ without red-brown areas of the wings. Beneath marked like in *authe*, but without the whitish brightness behind the median line. Typical *eubule* exhibit in the disc of the forewing 3 light small spots placed in a triangle. There occurs, however, also a form which is twice as large in Mexico and lacking these small spots. Mexico to Costa Rica; rare.

E. onorata *Hew.* from Ecuador has the size and marking of a large *eubule*, but the upper surface has, instead of a dull brown ground-colour, a fiery fox-coloured one passing over into light-orange before the apical part of the forewing. Beneath the forewings are brightened in the disc and the hindwings in the whole distal half by silvery grey, like in *authe*, but even stronger.

E. leucorrhoea *G.* and *S.* (= *leucorrhoea* *Mengel*) (122 b). Above exactly like the large form of *eubule*, without the light dots; also beneath very similar to it, but the median line on the forewing straight, not broken nor curved, but slightly bent at most. Costa Rica, Colombia and Bolivia. The anal half of the hindwing is more or less brightened by a silvery hue. It differs from the very similar *eucrates* by the narrower, dark margin of the wings and the somewhat brighter red of the upper surface. The under surface is duller, and the tongue-shaped bow formed by the postmedian transverse line before the inner marginal fold, does not project so far.

E. eucrates *Hew.* (122 f). Replaces the *eubule* in Ecuador. On the upper surface sometimes brighter, sometimes duller red, from the middle of the border of the hindwing mostly a black wedge projects with its point to the middle of the wing. Beneath the transverse line above the anal angle is not so very sinuate, the marginal dots of the hindwing are uniformly developed, without a distinct eye-spot before the middle of the border, and their row is continued also on the forewing, where they are absent altogether in *leucorrhoea* and *eubule*.

E. eucerus *Hew.* resembles the preceding species, but the ♂ is above brighter red; the under surface is more irregularly marked, the postdiscal transverse line dissolved into minute spots and the colouring of the hindwings itself very much brightened. South Brazil, single but not rare.

E. gyda *Hew.* (♂ 122 c, ♀ 122 h as *chionea*). ♂ above dull orange. Forewing with a black costa, a black distal margin and a small black cell-end-stripe. Beneath silvery, sometimes 1 to 3 transverse lines are

- quite faintly indicated. The ♀ seems to me to be an entirely white butterfly which was figured on the table as *chionea*, because SALVIN and GODMAN included a yellowish-red, broad black-bordered butterfly (*russata* G. and S.) (122 d as *gyda* ♀) as the ♀ to *gyda*. This latter one occurring with a red-brown, yellowish-red and pale yellow upper surface, belongs, however, according to the under surface into the group of *eucrates-leucorrhoea*, it may be the legitimate ♀ of one of them. *gyda* is a dubious species; the under surface is not figured in HEWITSON'S work and the type is lost. The upper surface varies in the tinge being sometimes brownish-red (*ab. tetra nov.*), sometimes more yellowish-orange; the ♀ may be faintly shaded in grey at the base and the border of the hindwing. The butterfly seems to be distributed over the whole tropical South America, though not common and very local; it occurs from Central America through Colombia and the Amazon as far as Bolivia. In the north of the range the ♀♀ exhibit the purest white, in the south they are slightly darkened in greyish, especially in the basal part of the wings (? = *chirone* Hew.).
- praeclara*. **E. praeclara** Hew. (122 d). ♂ above about like *gyda*-♂, but the wings are of a wonderful green, golden red and purple silky lustre, as we have described it in a detailed manner on p. 617. Under surface silvery white with some dispersed, small brown spots in the disc of the hindwing. The Upper Amazon District (Iquitos) and Ecuador. ♀ unknown.
- opalescens*. **E. opalescens** Hew. Almost like the preceding, also with a magnificent reflection in the colours of the rainbow, but the dark margin of the forewing is absent. Seems to be widely distributed like the preceding and following species (Amazon to South Brazil), but very rare. I don't know the ♀.
- opalina*. **E. opalina** Hew. (122 d). Coloured like *praeclara*, only the yellowish-brown more hazy; but the lustre is here more one-coloured brass-yellow and it mostly varies on the whole surface of the wings uniformly to golden red or yellowish green. On the silvery white under surface the small discal spots are arranged in the direction of the usual median transverse stripe. From Brazil, probably very widely distributed, but extremely rare. The ♀ is unknown to me.
- euphaes*. **E. euphaes** Hew. (122 d). In the ♂ the forewings are above dark red brown, the hindwings orange with a dark border and basal ray towards the middle of the border; the latter ray varies in distinctness and colouring. Beneath the darker marginal part is separated from the silvery white basal part by the irregularly indented median transverse line. It apparently flies in the whole Amazon District, since there are specimens before me from Para and from the Rio Napo.
- utica*. **E. utica** Hew. (122 c). Shape and under surface almost like in *euphaes*, but the indentations of the median transverse line are not so deep. Above, however, the forewings are also orange-red, with a broad black costal margin and distal margin. I do not know the ♀. From Brazil; very rare in the Organ Mountains. Neither V. BÖNNINGHAUSEN nor myself have found it.
- subargentea*. **E. subargentea** Lathy (122 c). One of the largest *Euselasia*, above blackish brown (♀ somewhat duller), beneath silvery grey; forehead above golden-yellow. Colombia, single.
- teleclus*. **E. teleclus** Stoll (= *gemellus* F.) (122 c). Above blackish brown, forewing with a reddish-tinged basal part and an orange-yellow discal spot (♂), or an ochre-yellow oblique spot (♀). Hindwing always with an ochre-yellow spot before the apical part. In typical specimens the under surface, similarly to that of *subargentea* (122 c), silvery grey and distally slightly shaded, but it may also be quite light silvery white (*cataluce* Hbn.) (122 c), in which case the basal half of the upper surface is mostly of a brighter red-brown colouring, the orange spot of the forewing running in the shape of a stripe as far as to the base. The transverse line of the under surface is yellow and almost straight. — **archelaus** *subsp. nov.* (110 A e) is a very large form discovered by FASSL on the Rio Songo in Bolivia, at an altitude of 750 m; here the basal part of the forewings is not red-brown and the postdiscal spot of the hindwing is covered by blackish. Also in this form the under surface may be, in its distal part, more shaded or of a purer silvery white. Guiana to Bolivia, not rare.
- tysoni*, *howlandi*. **E. tysoni** Weeks and **howlandi** Weeks, both from Venezuela, have remained unknown to me.

2. Genus: **Methonella** Ww.

- A genus probably consisting of but one very variegated species being unmistakably characterized already by the conspicuous colouring and the deeply indented margin of the hindwing being continued in the ♀ at the ends of the veins into teeth-like small tails. On the forewing the subcostal is four-branched; the branches 1 and 2 rise before, 3 and 4 behind the cell. Hindwing without a basal vein. Palpi extremely short. The colouring resembles that of certain *Themone*, *Cartea*, *Monethe*, *Aricoris* etc., with which conjointly patented butterflies such as *Acræini*, *Ithomi*, *Pericopini* etc. are imitated. The ♀♀ are very stout and clumsy which makes them still more similar to the unwieldy *Actinote*. They belong to the more common *Erycinidae*, but they are local and seem not to leave their birth-place. Life-history unknown.
- cecilia*. **M. cecilia** Cr. (122 i). The first form published by this name is a ♀, above bright orange-red with a broad black apical part of the forewing, containing a yellow crescentiform band, and a row of yellowish

spots in the margin of the hindwing. This form flies, almost without exhibiting any deviations, from Panama and Guiana to Ecuador. The ♂ of it is an animal with a small orange-red subapical spot as is seen from our figure (according to a Surinam-specimen). — In *magnarea form. nov.* (122 i) the subapical spot in both sexes is about three times as large, and in the ♀ the yellow spots in the margin of the hindwing flow together into a band; from the Amazon (Pebas, Humayta) to Bolivia. — *amithrata form. nov.* (122 i) has the forewings like the typical form, but the row of spots in the margin of the hindwing is absent or only indicated; Peru. — In *chrysomela Btlr.* (122 h, i) the ♂ has above no subapical spot at all, while the ♀ has in the distal part of the forewing instead of the yellow oval, a white macular band reaching down as far as the anal angle. Central America, Colombia as far as Ecuador. — *vitellia ab. nov.* (122 i) are ♂♂ with yellow instead of dark orange-red ground-colour; from Costa Rica. All these forms seem not to be bound to a certain country; at any rate, however, the single forms, as far as they are not individual aberrations, strictly separated according to the habitats. The butterflies are, wherever they occur, not rare and like to be near the water, like the following genus, too.

3. Genus: **Helicopsis** F.

Whereas the *Methonella* had conic teeth at the ends of the veins of the hindwings, we find in the *Helicopsis* sabre-shaped tails of a length of up to a centimetre. Another characteristic for the members of this genus are metallic drops on the under surface of the hindwings, which may be of a variable lustre, so that they appear in a certain light golden, in another silvery. As we have already mentioned in the preface to this family, these drop-like spots are plastic, like impressed gold-printing, convex towards the under surface, on the upper surface distinguishable as shallow excavations. There are only few species, mostly replacing each other. The larvae are white with a red neck-organ formed of many small cones; they are transformed into brown pupae held with a belt, being provided with fluffy hairs like the larvae and bearing likewise the scarlet organ in the neck. The butterflies mostly rest near the water on the under surface of leaves, are easily knocked off, fly, however, very lazily and soon settle down again, so that they are easily taken. The children of the natives are sometimes seen playing with them, and the Indians have given them a special name signifying as much as „small animals of love“, a peculiar correspondence of denomination with LINNÉ who named the first *Helicopsis* known „cupido“. The butterflies are local, but common at their flying-places; only in the confines, as for instance South Brazil, they grow rare.

H. cupido L. (124 a). Black, forewings with a large light-yellow discal spot, hindwings with a dirty yellow basal part. In the ♀ the yellow colour is preponderant, only the distal margin of the forewing is black, that of the hindwing brown. Colombian ♀♀ often exhibit in the apical part of the hindwing more a nut-brown darkening; in ♀♀ from Sao Paulo de Olivença (Upper-Amazon), the distal part of the hindwing is almost entirely black as in the ♂. Amazon-♀♀ (Para, Itaituba) often have an oblique stripe above the cell-end; in specimens from there, the cell of the forewing and the basal part below it are of a bright orange-yellow, and as they have hereby quite a different appearance, I denominate them *erotica form. nov.* (124 a). — *trinitatis form. nov.* (124 a) are specimens from the Island of Trinidad in which the border of the forewing is only narrow and of a dull dark tinge, but where the brown colouring is continued as far as below the cell and where a dull oblique shade, coming from the costa, confines the cell. In ♂♂ from Trinidad this marking is constant, while among the ♀♀ there occur beside the figured butterflies also such that are nearly quite bone-white and without markings, which were also found in other places in South America. There they may occur in superior numbers, so that one might be inclined to denote them as a subspecies (GROTE). Nearly quite white specimens have been denominated ab. *lindeni* Grt. (124 b as *linderi*). — *divergens subsp. nov.* (124 b) is a very large race which almost entirely lacks the orange-yellow basal spot of the forewings beneath, whereas the ground of the hindwings is golden brown; from Humayta on the Rio Madeira. Most peculiar are specimens that are above without markings, like *lindeni*, beneath, however, on the forewing black and orange spotted. The figured specimen (in the Tring Museum without the habitat being mentioned) resembles beneath a typical *cupido* except the missing dark margin of the forewing, it is above purely bone-white and has only at the base of the forewing a slight ochreous tinge. I call the strange animal ab. *stupenda ab. nov.* (124 b). — The larva is white of a silky gloss, with delicately grey shadowy stripes on the sides of the back and above the stigmata. The hairs are also fine white, and behind the head as well as at the 12th segment there are red pads being undoubtedly warning-organs. The pupa, being of a light yellowish-brownish or greenish-brownish ground-colour, exhibits a white fluff and the bright scarlet at the end of the head. The range of the whole species comprises the eastern part of South America and extends from Trinidad and the northern coast of South America as far as South Brazil where, however, the butterfly grows extremely rare. In Espiritu Santo it is found yet now and then, in Santos I did not capture it, nor did v. BÖNNINGHAUSEN near Rio.

H. endymion Cr. (= selene *Fldr.*) (124 b, c). Forewings bone-white, with fine black margins, in the ♂ with a broad rust-brown base. Hindwings also bone-white, at the distal marginal part broad black. Beneath, the base of the wings is orange and terminates with 2, sometimes contiguous black transverse spots, another such a spot extends, behind the cell-end, from the costa into the wing. In the ♀ the basal brown above is

absent and the oblique transverse spots beneath in the forewing, and in the hindwing, as well as in many ♂♂, the black of the distal marginal part beneath is replaced by yellowish-brown. — *elegans* *Kaye* originates from Trinidad, though it also occurs in Guiana; it entirely resembles the figured *latmicus form. nov.* (124 c), but it has in the black margin of the forewing a white line, and before the distal margin of the hindwings there are no black dots which appear in *elegans* as diaphanous effects of the golden drops of the under surface. Guiana, locally not rare.

acis. **H. acis** *F.* (= *gnidus F.*) (124 c). One of the most beautiful butterflies of the neotropical district. In the ♂ the basal part of the forewing is velvety-brown, the distal part sulphurous, with a broad black margin; hindwing inside orange, outside black. In the ♀ also the basal part of the forewing is orange. The metallic spotting of the under surface of the hindwing is very copious. The species varies somewhat in the width of the black margins. The butterflies are local and mostly rather rare, but widely distributed over the northern part of South America, Guiana, the district of the Orinoco and of the Amazon. Larva white, with white hairs, a grey dorsal stripe and a scarlet neck-tuft; pupa brown, with black markings and with bunches of red cones at the anterior and posterior ends.

4. Genus: **Hades** *Ww.*

This genus exhibits relationships to the Lycaenid-genus *Eumaeus* (cf. t. 146 a), in a mimetic respect it resembles the Nymphalid-genus *Morpheus*, together with which it flies in some countries. The antennae are quite gradually thickened, with 50 joints; 9 or 10 joints form the feeble club. The wings are large, broad, entire, the forewings in the ♂ with 4, in the ♀ with 3 subcostal veins. The first of these branches off before, the second at the cell-end, the median veins rise equally distant from each other. The larvae of *noctula* pupate in groups on certain leaves, for which reason also the butterflies appear in crowds. This is very curious, because also the Nymphalid *Morpheus ehrenbergii* *Hbn.* (93 a) serving as model lives gregariously and the original and the copy unite themselves at common flying-places. The pupa is placed horizontally across the leaf, all the pupae of the whole group in exactly the same direction and at a considerable distance from each other. The butterflies are local, but common.

noctula. **H. noctula** *Ww.* (= *paradoxa Fldr.*) (123 a). Black, hindwing beneath with a brick-red basal spot and bone-coloured internerval stripes. Immediately distinguishable from its original (*Morpheus ehrenbergii*) by the extremely short palpi. Mexico, Central America as far as to the Amazon, Colombia, Venezuela.

hecamede. **H. hecamede** *Hew.* (123 a). Above black, forewing with a large brick-red longitudinal spot, hindwing of the ♂ in the distal part silvery blue. According to the altitude and position of the habitat the spot of the forewing may be lighter or darker red, larger (*haematites* *Stich.*) or smaller (*avicula* *Stich.*); in the ♂ the greyish-blue of the hindwings may be increased or reduced, in the ♀ the brown ground-colour more intense or duller. Ecuador, not so common as the preceding species.

3. Subfamily: **Erycininae.**

This subfamily contains the immense multitude of real *Erycinidae*. It differs from the other families by the above-mentioned formation of the legs (♀ 6, ♂ 4 gressorial feet), from the other neoarctic subfamilies by the veins (constant subcostal veins etc.) which we have mentioned in the *Libytheinae* and *Euselasiinae*. Among each other, however, the genera differ extraordinarily. About 80 of these genera have been generally acknowledged, their grouping, however, is up to this day still based more on superficial marks than on phylogenetic alliances. Apart from the wings being mostly more secondary, we are immediately struck by the two different types of the body: the one series of genera exhibits a structure of the body little differing from that of the other most nearly allied families of day-butterflies (Lycaenids, Nymphalids), as for instance *Eurybia*, *Nymphidium*, *Siseme*, *Bacotis*, *Aricoris*, *Stalactis* etc.; the other series has a broader head strangulated by a distinct neck, an almost globular, less oval thorax and a very short, clumsy abdomen with a thin waist at the thorax, being often also curved downwards and of an almost fly-like structure. To this group belong very many genera, such as *Syrmatia*, *Diorhina*, *Zeonia*, *Lymnas* etc. Let us only take in comparison how far for instance the abdomen of *Alesa*, especially of the ♂♂, projects beyond the posterior angle of the hindwings, how the head with its enormous eyes rests with a broad base on the thorax, and confront this with a *Lyropteryx*, *Ancyularis*, *Themone*, the knob-like heads of which rest on a thin stylus, the apex of the abdomen, even in the ♂, scarcely extending beyond the middle of the fold of the hindwing. An arrangement according to somewhat more advanced marks of distinction*), than the one resulting from the partial consideration of the veins of the wings, would create a very radical change within the subfamily, though it would also necessitate a circumstantial argumentation for which there is no space left here. As the butterflies belonging

*) SALVIN and GODMAN have closely examined especially the male sexual organs and given circumstantial descriptions of most of them; the structure of these organs, however, proved to be here so very variable, complicated and specialized, that they may be used at most in questions about the qualification as a species, but not for systematizing purposes.

here are mostly small, we were able to offer such a complete illustration that one will easily find one's way, as nearly all the chief forms have been depicted. We have already told in the preface to the family the little we know about the early stages and the habits.

5. Genus: **Eurybia** Hbn.

This genus contains 37 forms of butterflies partly belonging to the largest of the whole family. The body is very slender, the head small, the thorax long, the abdomen in both sexes bilaterally compressed, thin and pointed. The wings are entire, the hindwings with a round border, only in a somewhat deviating group the forewings are pointed falciformly at the apex. The ground-colour is above dark brown, the border of the hindwing often with a ruddle-red tinge. Only in one case the wing is traversed by a broad white band, i. e. in a species flying together with just the same banded species of other genera (*Mesosemia*). The forewings mostly exhibit at the cell-end an eye-spot or ring-spot.

Head broad, forehead broad and flat, eyes of medium size, naked, slightly convex, palpi bent up in front of the face, not projecting, but often brightly coloured; second joint more than twice as long as the first one, the third a minute knob. Antennae very long, reaching about two thirds of the costa-length, thin, at the ends scarcely thickened. Thorax slender, legs short, the legs on being stretched out scarcely reach the anus; abdomen long and slim, mostly extending considerably beyond the anal angle. Wings broad, in the forewing the subcostal is 5-branched, the submedian bifurcated at the base, the cell broad, cuneiform, of different shapes, at the end sometimes more straightly cut off, sometimes angled laciniiformly. The hindwings are sometimes slightly angled between the upper and middle radial-ends.

The *Eurybia* are distributed from Mexico to South Brazil and Bolivia. They are met singly in the woods where they dance about playing on broad roads, as I have already fully described in 1889 in the „Stettiner Zeitung“. Larva and food-plant are unknown. One nowhere finds more than 2 or 3 species at most of the genus, whereas the local subraces are often very limited in space. One sometimes needs only to walk some kilometres away from a flying-place, in order to discover already a difference in the species occurring there. Of course one cannot speak of subspecies then, nor can one denominate all these local races without getting beyond one's depth.

E. carolina *Godt.* (123 b). This species has a pointed falciform apex of the forewings and an angled border of the hindwings. One of the largest *Eurybia*; the discs of all the wings are traversed by a series of spots being partly vitreous, partly ochre-yellow. The size of the vitreous spots varies a great deal, but it is mostly constant in specimens of the same finding-place. South Brazil, especially Sa. Catharina, not common, resting beneath large leaves; its flight somewhat resembles that of *Emesis fastidiosa* (136 d) flying at the same place. *carolina*.

E. pergaea *Hbn.-G.* (123 b). This is the second species with a falciform apex. Smaller, unicolorous grey without the macular series of the former species, only behind the upper cellular angle a white small, dot-like vitreous spot and sometimes another smaller one behind it. Likewise known from South Brazil, where the species, however, is not common; but it is probably more widely spread in South America. *pergaea*.

E. nicaeus *F.* (123 b). As typical *nicæus* I consider the small form from the upper Amazon, as it flies quite similarly in Venezuela. The eye-spot at the cell-end is comparatively small, the hindwings are all over suffused with ruddle-red. — **salome** *Cr.* (123 b) from Guiana is somewhat larger, the distal part of the hindwing of a brighter red, both wings on both sides with somewhat brighter spots, the eye-spot of the forewing larger. — In **erythinos** *Stich.* from Ecuador and Colombia the red is reported to cover half the hindwing. — South Brazilian specimens have a dull, though most beautiful violet lustre on the hindwings. In Sa. Catharina the species has yet the size of *salome*, and the dark submarginal spots of the hindwings are in broad red rings, proximally with a broad red tinge and sometimes with black cuneiform spots (**molechina** *Stich.*), sometimes without them (**diffusa** *Stich.*). Still farther to the south the form is again of the size of typical *nicæus* and the violet reflection grows very intense, whereas the red of the distal half of the hindwing is darkened. But this varies, like in other *Erycinidae*, almost with every geographical mile. Specimens from the Monte Corcovado near Rio de Janeiro (= **hyacinthina** *Stich.*) (123 c) are always larger and redder than those from the forests to the south of that town (their forewings measuring not more than 24 mm, while the Corcovado-♂♂ have exactly 26 mm), whereas all the specimens found at one place exhibit the most exact likeness in size and colouring. We figure a ♂ from the Monte Corcovado and one which I took near Santos, and we can distinctly perceive the difference being absolutely constant (there are series of both the habitats before me); STICHEL's *hyacinthina* is presumably based on one of these forms. *nicæus*, *salome*, *erythinos*, *molechina*, *diffusa*, *hyacinthina*.

E. dardus *F.* (= *upis* *Hbn.*) (123 c). The name-type is nearly the smallest of the whole, very long series of forms. Differing from the former by a much larger, jet-black eye-spot of the forewing, with a light ring around it, and by the absence of the red at the border of the hindwing. Between the eye-spot and the submarginal series of ring-spots, another distinct whitish series of dots is inserted. Guiana and the Amazon *dardus*.

- misellivestis*. District. In the south of Brazil one sometimes finds almost unmarked specimens = *misellivestis* *Stich.*, in which the eye-spot of the forewing may also be absent *) — Considerably larger is the form from Ecuador and the western district of the Amazon; this is *jemima* *Hew.* (123 c). — In *sinnaces* *Druce*, which is besides certainly more closely allied to *lamia* and has a superficial likeness to *leucolopha* (123 e), the otherwise greyish-yellow ring-markings are red. — *franciscana* *Fldr.* is the Bahia-form with a moderately intense blue reflection and bright yellow rings of the hindwings; the ♀ having a round eye-spot like the ♂. FELDER includes with his *franciscana* ♂ a ♀ from the Rio Negro with a „differently shaped“ eye-spot of the forewing which of course does not belong to *franciscana*. — STICHEL denominates the forms from the north-western part of South America, being mostly without any reflection and with red rings of the hindwings, *annulata*, if the latter are narrow, *rubeolata*, if they are broader and diffuse; the latter form occurs more to the south. — *unxia* *Salv.* and *Godm.* (123 d) from Central America and the neighbouring Colombia has a deep blackish-brown ground-colour, and the eye-spot of the forewing encircled by a dull brownish-red is often blurred, small, not round, appearing four-cornered or somewhat diffuse; on the under surface we often notice 4 eye-spots, one on each wing, which are, however, mostly distorted, while in *dardus* and *jemima* the eye-spots of the forewings are beneath just as round as above. We cannot speak of subspecies, although the *unxia* of the different finding-places, even at quite little distances, are constant, and alone in the collection of the Tring Museum there are large series illustrating this behaviour. In Peru and Bolivia *unxia* grows very large; we figure a Peru-specimen from the under surface, in which we distinctly notice the 4 distorted eye-spots. — FASSL discovered, on the East Colombian mountains at an elevation of about 2000 m, a very small alpine form attaining scarcely half the size of a typical *unxia* and having been denominated in our figure (123 d) *fassli*. — *sannio* *Stich.* from the Rio Pachitea in East Peru I cannot separate from *fassli*. — All the *dardus*-forms are rather common in their range and, like in most of the *Erycinidae*, the specimens from the same finding-place resemble each other exactly.
- lamia*. **E. lamia** *Cr.* (= *dardus* *Ww. nec F.*) (123 d). About a dozen of very constant local races are distributed over the whole northern part of South America and over Central America. The typical form resembles pretty much *jemima* (123 c), though it is smaller and the marginal rings are smaller and more separated, being also generally farther away from the border. The typical *lamia* comes from Guiana. The model for our figure originates from Peru and belongs already to a larger subrace. — Still larger are Central Americans which wherever they fly together with *lycisca* of a very bright blue reflection, have likewise very bright hindwings of a metallic cyan-blue reflection. But in certain localities the reflection is absent altogether, while in others it is faint, sometimes hardly noticeable according to the locality. Where it is so intense that they might be mistaken for *lycisca*, both are easily distinguishable by the blue *lamia*-form having behind the cell-end 2 small white vitreous dots being always absent in *lycisca*. According to the intensity of the blue gloss, the forms have been denominated, as for instance *lauta* *Stich.* (without), *coerulescens* *Drc.* (123 d) (with a faint), *fulgens* *Stich.* (with an intense blue lustre). Proceeding thus, we should be forced to give innumerable names, since besides the blue varies in extent and is sometimes distinct only in the disc of the hindwing, sometimes covering the whole hindwing and in certain places even extending over the forewing. The size also varies constantly almost at every habitat, being characteristic for the locality, but not for the season.
- leucolopha*. **E. leucolopha** *Thieme* (123 e). Nearly allied to the large forms of the two preceding species, but more constant, not varying so much according to the locality and at any rate less distributed. The ♂ is deep blackish-brown, with fiery red eye-spot rings and marginal rings, easily recognizable by a bright silvery-white point of the antenna; the ♀ is larger, of darker and duller colours. A great number of specimens before me, from Ecuador, Peru (Pebas), and Bolivia. Apparently very common in its range.
- latifasciata*. **E. latifasciata** *Hew.* (123 c). Of the same size and structure as the preceding, but of a different appearance owing to a broad white band traversing both the wings, and therefore not recognized as *Eurybia* hitherto. From Peru and, in a form with a narrower band, also from Colombia (Villavicencio). Apparently rather rare. 3 specimens in the Tring Museum; also in HEWITSON's Collection in London. The ♀ exactly like the ♂, beneath like above, only the eye-spot of the forewing less intense.
- halimede*. **E. halimede** *Hbn.* (123 e). Recognizable by a row of white dots extending in front of the submarginal row of rings, and by the nearly entire absence of the eye-spot of the forewing, being sometimes only indicated. The most distinct it is in North Brazilians; they also exhibit the row of white dots the most distinctly and completely. In about 100 specimens lying before me, beside the variation of the ground-colour varying from a dull earthy grey to a dark chocolate-brown and almost black, also the row of white dots is variable; specimens from Peru and Bolivia, for instance, always lack the two dots directly behind the cell-end (between the radial-veins) of the forewing, and those on the hindwing are quite faint; this is *stellifera* *Stich.* In specimens from certain localities of the northern part of South America the lowest dots of the row turn inward, so in *elvina* *Stich.*, and in *granulata* *Stich.* (123 e) from Ecuador, in either of which the same case takes place. Sometimes we notice, like in nearly all the *Eurybia*-species, the traces of a violet reflection (= *violaria* *Stich.*). — *passercula* *Stich.* with a faint indication of central shades of the forewings forms a transition to *elvina*. —

*) Such a specimen, with an absolutely extinct marking, is in the Tring Museum.

emidiata Stich. has a slight reflection (thus forming a transition to *violaria*) and in the hindwing larger marginal eye-spots. Teffé. — *tephrias* Stich. shows all the spots of the wings above reduced in size; Matto Grosso. — From Central America to the south as far as Central Brazil and Bolivia. In most of the districts common. *emidiata.*
tephrias.

E. lycisca Ww. (123 f). This magnificent species is hitherto known only from Central America, Colombia, and Peru, but locally not rare. Forewings without any white vitreous dots at all, but with a large, sometimes metal-pupilled median eye-spot; hindwings with a bright blue lustre. *lycisca.*

E. patrona Weym. Size and forewings almost exactly as in *lycisca*, but the hindwings not with a blue lustre, but with a reddish-yellow marginal marking; the eye-spot of the forewing with a bright metallic pupil, the point of the antenna whitish, but not so silvery white as in *leucolopha*. From Colombia and Ecuador. — **persona** Stgr. (123 f) is probably only a large form of it from Central America. — **promota** Stich. (123 f) seem to be specimens originating from Teffé on the Amazon River. They are somewhat smaller, darker, more unicolorous, and the eye-spot of the forewing is somewhat smaller. *patrona.*
persona.
promota.

E. cyclopia Stich. (123 f, g). I figure for this a species which I received from Chuchurras in Peru and to which STICHEL's description fits the best of all to the *Eurybia* lying before me. As there does not exist a figure of this insufficiently described species, we reproduce both the sexes and both the surfaces. Characteristic is the fiery-red marking on a deep dark-brown ground, and the 2 small white punctiform spots on the forewing. I remark, however, that I have not seen the type being in a private collection. *cyclopia.*

E. juturna Fldr. (123 g). Our figure has been compared with FELDER's type lying before me and corresponds exactly with it. The typical *juturna* originates from Surinam and has a light flesh-coloured distal part of the hindwing, in which there are black spots and from where rosy-red bows extend into the brown basal area. — **hari** Weeks is scarcely different, but in some places it occurs much larger; Bolivia and Peru. — **turna** Dogn. (123 g) is likewise larger and has more unicolorous forewings; from Loja in Ecuador. The red of the hindwings is extended almost as far as to the middle cell, but at its proximal margin it encloses 3 or 4 black wedge-shaped spots. In Colombian specimens the latter are absent, so that a resemblance is effected with the Colombian *donna* with which STAUDINGER confounded the species, from which, however, it is immediately distinguishable by the large eye-spot of the forewing, which is absent in *donna* above. STICHEL describes this insignificant form of *turna* as a distinct species and denominates it *helias*. *juturna.*
hari.
turna.
helias.

E. donna Fldr. nec Stgr. (123 g). Immediately recognizable by the unicolorous brown wings with a broad deep red border of the hindwing, in which there are 1 to 5, exceptionally also no black punctiform spots. Colombia, where it was taken at altitudes of up to 500 m (Muzo). *donna.*

6. Genus: *Mesosemia* Hbn.

This genus rather closely approximates the preceding genus, though it is by no means so uniform. Also here there is in most of the species almost exactly above the middle of the forewing a large eye-spot which often exhibits 2 or 3 white pupils, and where it is absent, one mostly finds yet its traces in the shape of a small central shade or minute cloud. The *Mesosemia* differ from the *Eurybia* by their smaller heads, the shorter antennae, the borders of the forewings being generally slightly curved, the short abdomen mostly not reaching as far as the anal angle, the longer hindwings being often geniculate in the middle of the distal margin, or angularly protended. The row of distal marginal spots of the hindwing is always absent, the hindwings, however, show in the disk more or less parallel transverse stripes. The sexual dimorphism which is not noticed in *Eurybia* is here the rule and mostly very much pronounced. The *Mesosemia* are distributed over the whole of tropical South America and over Central America including Mexico, but they do not cross the frontier of the United States. The butterflies are often met with on blossoms, still oftener on leaves, but they seem to rest much on their under surface in order to come forth only for a short time for the sake of copulation and feeding. Then they perform jerky movements on the leaves, stretching the antennae straight forward, placing the hindwings flat on the leaf and slightly raising the forewings. In this manner they hasten from one leaf to another, from one branch to another, more jumping than flying, as FASSL expresses himself. The butterflies are partly extremely local and some of them are very rare.

I. Group. (*acuta*-Group).

Apex of the forewing extended into a sharp point.

M. acuta Hew. (124 c). This rare butterfly is known to me only from the Organ Mountains from where also the figured specimen originates. Neither v. BÖNNINGHAUSEN nor myself have observed it, however much we have been collecting there. A ♂ in the Coll. v. BÖNNINGHAUSEN is said to originate from Sa. Catharina. Above, the ♂ is velvety blackish-brown with a lighter margin of the wings. Characteristic is the sickle-shaped point of the forewings and the 4 slit eyes in the cells of the under surface. *acuta.*

II. Group. (*eumene*-Group).

Distal half of the wings with 3 parallel transverse stripes.

- nesti*. **M. nesti** Hew. Differing from *acuta* by the characteristic mark of the group and the forewing being in the ♂ only slightly stretched forward, but not ending into a curved point. Beneath exactly as in the following species, but in this the point of the wing is not anymore bent forward. Guiana. — **steli** (124 d). The central eye-spot is above distinct only on the forewing, oblong-triangular with 2 or 3 white pupils. Amazon and Orinoco. STICHEL calls large Amazonas-specimens of **steli** *gigantea*. Rare.
- putli*. **M. putli** sp. nov. (124 d). Border of the forewing round, the shadowy stripes parallel to the border are, therefore, in the distal part of the wings also curved, not straight like in *steli* and *nesti*; eye-spot of the forewing round, otherwise like the latter. From Huancabamba; type in the Tring Museum.
- maecella*. **M. maecella** Hew. (= *marcella* Meng.) (124 d). Very similar to *putli*, smaller, more distinctly striped, the 4 stripes at equal distances from each other, not unequal as in *putli*. The round eye-spot of the forewing is more distinctly prominent. From Tefé (Ega) on the Amazon; before me also from Guiana.
- eumene*. **M. eumene** Cr. (= *hiphia* Hbn.) (124 d, e). ♂ above blackish, ♀ greyish-brown, with a three-dotted central eye-spot, in the distal half of the wings 3 transverse bands the one of which at the border is mostly split in two by an enclosed light line. Beneath there is mostly under the central eye-spot on each wing another eye-spot showing sometimes through above as a shade. From Guiana the range extends over the Amazon District as far as Ecuador, Peru, and Bolivia, at some places not rare, often flying together with similar *Eupytchia* (*coelestis*-, *herse*-group). In typical *eumene* (from Guiana) the very intense, steel-blue reflection of the forewing extends as far as the median vein; in *furia* Stich. (124 e) from the Amazon it extends behind the cell of the forewing almost as far as up to the costal margin, in *attalus* form. nov. flying in the same countries as the preceding, but at other places (Guiana: Nouveau Chantier; Amazon etc.), the blue reflection does not reach the median. — *erinnya* Stich. (124 e) from Peru and Bolivia is larger, paler, the distal bands more remote; the reflection like in the preceding; — in *eurythmia* Stich. it is absent nearly altogether, so that the ♂ of it looks above like *steli*; Amazon. The form *attalus* was denominated here only because also the other deviations in the extent of the blue reflection have been denominated, what we would otherwise have had to cancel.

III. Group. (*ulriciformes*, *mevaniiformes* Stich.).

♂ above blue, ♀ brown or blue, the latter always white-banded; beneath always brown.

- ulrica*. **M. ulrica** Cr. (= *renatus* F., *ulricella* Hbst., *ultio* Hbn., *tisis* Godt. *rosina* Cr. [♂], *lamprosa* Stich., *loruhama* Stgr. [♀]) (124 e). ♂ above black, with a blue reflection and a central eye-spot hardly noticeable in the dark ground. ♀ brown with a distinct eye-spot of the forewing and a white median band. The ♂ varies in size and blue lustre (in specimens from Villavicencio more steel-blue, in those from Cayenne more ultramarine), furthermore, the transverse stripes of the greyish-brown under surface may be closer together or farther away from each other, they may be more faded or more distinct. In the form **messala** Hew. (124 e) a whitish oblique band appears, being above sometimes more distinct, almost like in *loruhama*, sometimes scarcely in marks of whitish dispersed small scales, beneath, however, always distinct. In the ♀ the white band may be only half as broad as in the figured specimen (as for instance, in Cayenne), sometimes still broader (*lamprosa* Stich.). The butterfly inhabits the whole northern part of South America from Guiana and Colombia to Peru and Bolivia, but it occurs only sparsely and very locally.
- asa*. **M. asa** Hew. (124 e, f). ♂ black, above with a blue reflection, but the distal margin of the wings and the apical part of the forewings broad black. The ♀ (= *frequens* Btlr.) has only on the forewings a white oblique band. Nicaragua as far as Colombia. — **mycene** Hew. (124 f) is hardly separable from *asa*; according to its author, it is more greenish-blue and the eye-spot of the forewing stands more in the blue part of the wing, while in typical *asa* in the black part. On our figure, however, it is just the greenish-blue animal (from Cachabé in Colombia) which has the position of the eye-spot of *asa*, while the violettish-blue one has that of *mycene* which ought to be „green“ according to Hewitson. The differentiation is, therefore, untenable. STICHEL inserts yet between the two forms another one, *asopsis*, from Panama, with a more copious black colour of the forewing, the hindwing with a discal transverse streak; ♀ larger, lighter than *asa* ♀. The butterflies fly in the dense forest and are in some districts common.
- messeis*. **M. messeis** Hew. (124 f). To the figured ♀ belongs a ♂ looking almost like *atroculis* of which we figure the ♂ (124 f); but here also the distal stripe of the forewing extends with a short part into the hindwing, like in the much larger *tosca*. — **atroculis** Btlr. is of course only an insignificant deviation, while **tosca** Stgr. (124 f) exhibiting besides stronger black markings, may quite well be specially denominated. Typical *messeis* originate from the Amazon, *tosca* from the Upper Amazon (Pebas and São Paulo do Ollivença). — **amona** Hew. has in the ♂ not the black dot below the eye-spot of the forewing, as *tosca* has, and **amona** comes from Bolivia, not from Pebas. — **junta** Stich. (124 g) forms the transition to the following species which might very well fit into

the species of *messeis*. In *junta*-♂ the hindwing is not traversed by a stripe, but there is only the beginning of a transverse stripe at the apex of the hindwing; the ♀ has a blue basal part of the wings and a broad white band. — *lapilla* *Stich.* exhibits also in the ♂ a faint white band on the upper surface of the forewings. — *battis* *Stich.* has the transverse stripe of the hindwing like *tosca* and *atroculis*, but on the forewing the exterior one of the two black transverse stripes is indistinct between the central eye-spot and the distal margin. The ♀♀ of all these forms are broad-banded. The whole range of these very closely allied forms extends from the Amazon to Ecuador, Bolivia and Peru, and the butterflies are not rare, wherever they occur.

M. loruhama *Hew.* (124 g) greatly approximates the former species, but it differs in the ♂ by a white oblique band on the under surface of the forewing, occurring also above, though much narrower; the ♀ has only on the forewing a white band overlapping in typical specimens on the apex of the hindwing at most with a very small tip; only in the more strongly banded form *candara* *Drc.* it winds gradually disappearing, through the greater part of the hindwing (*aesthetica* *Stich.*), while in the forewing it exhibits double the width, as in our figure of *loruhama*-♀. If the ♂ lacks the white oblique band of the upper surface (= *syntrepha* *Stich.*), *candara* is nevertheless distinguishable from the white-banded ♂♂ of *junta* and their allies by the absence of a transverse shade between the central eye-spot ring and the marginal band, so that its appearance approximates *adelphina* *Stich.* (124 g) in which the ♂ has an entirely bluish-green upper surface without white or black transverse stripes; only the central eye-spot, an arcuate line around this, and the borders of the wings are black; Ecuador and Peru. Moreover, all the denominations of these sideforms are of no account, because there occur all the transitions from one form to another. From the same district (from the Pozuzo) there are quite blue ♂♂ before me, furthermore such where only few, hardly perceptible, white small scales indicate the oblique band in the forewing, and such possessing the latter in different widths (only as a streak or as a real band). Of a similar variability are the ♀♀; but even those with little or without any blue in the disc are always distinguishable from the white-banded species of the *thymetus*-, *ama*- or *marsidia*-group by the absence of a number of dark parallel lines before the white band of the hindwing. The habitat of the species is Peru, particularly the river-basins of the Ucayali and of the Huallaga, and Ecuador; the butterfly is locally common.

M. mevania *Hew.* (= *meletia* *Fldr.*) (124 h) is, to a certain degree, an enlarged edition of *loruhama*, in which, however, the apex of the forewing and the distal margin are broader black. Like there, the white oblique band may be only a light shading (typical ♂♂, from Colombia), or a white streak (forma *munda* *Stich.*, 124 h), a curved band blackened towards the proximal margin (fa. *mimallonis* *Stich.* [124 h] from Ecuador), or a broad white band (fa. *magnesia* *Stich.* [124 h], from South Peru). — In *mamilia* *Hew.* (124 h) it has turned an oblique oval spot in the ♀, in the place of which the ♂ exhibits a narrow, curved, blue stripe (STICHEL); this form replaces *mevania* in some places of Ecuador and it is hardly to be considered a separate species, but only a subspecies, as there occur transitions to all the differences in the marking. — Probably also *mancia* *Hew.* (125 a) is nothing but a strongly deviating form of *mevania* from the Chimborasso. Here the band has turned a large white spot reaching even the eye-spot which it even sometimes distorts or flattens out. The width of the band increases also in the other *mevania*-forms with the altitude of the habitat, and the original of our *mancia*-figure was captured at an altitude of more than 3000 m at the bank of the Chimbo River. *mevania* are generally common in their range; they fly in the dark forest where the sun passes through open spaces (FASSL).

IV. Group. (*Teratophthalma* *Stich.*).

Central eye-spot large, encircled by a red ring, often cornered; shape of wings similar to the preceding group, ♂ not blue.

M. axilla *Drc.* (125 a, as *albiflua*). Blackish-brown with a broad white band and a large, somewhat cornered eye-spot of the forewing with a yellowish-red ring around it. Beneath there is always an interrupted row of small white spots before the border, which may also appear above (= *vegeta* *Stich.*). Beneath there are also in the cell reddish-yellow markings, which may likewise as often show through above, as not. The band varies considerably in width, but it always traverses the middle in a bow. Bolivia and Peru; common.

M. marsidia *Hew.* replaces *axilla* in Ecuador and is easily distinguishable by the band of the forewing being narrow and stretched (as an oblique macular band) and the band of the hindwing traversing the wing as a narrow or entirely indistinct band (as a small blind band). — In *lactifusa* *Stich.* the band of the hindwing is absent beneath, while it is present above. — In *marigemina* *Stich.* it is only yet preserved above in the costal part, while it is extinct at the back. Ecuador. — Of all the *marsidia*-specimens before me there are not two that are quite alike, and none resembles exactly one of the two (likewise differing) figures of HEWITSON.

M. maenades *Hew.* (125 a) is also very nearly allied to the preceding; here the band of the forewing is placed more obliquely and more distinctly divided into oviform spots by the veins, mostly also more hyaline; from Colombia. — *bacche* *subsp. nov.* I call a gigantic form of this species, with broader wings, a very bright

reddish yellow- and white-marked under surface and a band of the forewing being entirely dissolved into spots in an anal direction. FASSL discovered it in the valley of the Rio Aguaca (Western Cordilleras of Colombia). The hindwings are here without bands on both surfaces. — *monochroma* Stich. (125 a) from Peru has the ground-colour, size and shape of wings of *bacche*, but the white band of the forewing is absent altogether and beneath the white marking is reduced. — *coronata* Stich. Has the macular band of the forewings more curved and also on the hindwing a macular band. Ecuador. — The large forms are rare.

marsena. **M. marsena** Hew. Size, shape and exterior like in *semivitreata* form. nov. (125 a), except that the hyaline brightening covers also the whole disc of the forewing and the hindwing as far as to the base. The typical *mar-*
polyplusia. *senae* comes from Ecuador, but it is not common; *semivitreata* originates from Huanaco in Peru. — **polyplusia** Stich. is an intermediate form in which only a chain of obsolete hyaline spots passes behind the central eye-spot; from South East Peru.

phelina. **M. phelina** Fldr. (125 a) has entirely the marking and colouring of the preceding and varies also equally, but the forewings are more stretched, the border more uniformly round, the hindwings in the middle of the border neither cornered nor protracted. In and behind the cell of the forewing, and between the veins of the hindwing, there are bright white patches, so that the type of an Ithomiid from the same region (*Leucothyris tigrilla*) is produced. Except in the shape of the wings, there is a chief difference in the much smaller eye-spot of the forewing, as well as in the band of the forewing being less hyaline than white-scaled. Also of this species there exists a form exhibiting the marking of *polyplusia*, but being immediately distinguishable as a *phelina*-form by the small eye-spot, the hindwings being not angular and the white-coloured spots of the *analoga*. forewing; FASSL took it on the Upper Rio Negro (Colombia) at an altitude of 800 m; I denominate it **analoga**
minima. *subsp. nov.* — **minima** *subsp. nov.* is an only half as large form from Villavicencio, likewise discovered by FASSL. It is so small that it might be taken for a *Compsopteria* or *Ithomiola*; above almost exactly coloured like *analoga*, but beneath all the light places are more densely scaled in white.

V. Group. (*gaudioli-* and *telegoniiformes* Stich.).

♂ with a pointed forewing and an angular hindwing, above with blue markings or a metal-blue band.

gaudiolum. **M. gaudiolum** Bat. (125 b). ♂ above black, forewing with a broad blue oblique band, hindwing with an equal distal band. ♀♀ on both sides similarly marked as the ♂ beneath; with a double transverse streak in the middle of the wings, a distinct central eye-spot and a dull transverse shade; above the distal part of the wings has a more or less bluish tinge. Mexico to Costa Rica. Rare.

grandis. **M. grandis** Drc. (125 b) is very similar, larger, beneath there is another eye-spot below the middle; the ♂ has, besides, more sharply angled hindwings, and the blue band of the forewing is steeper. None of the ♀♀ examined exhibits a white band. The butterflies inhabit the southern part of Central America and are rare.

sibyllina. **M. sibyllina** Stgr. (125 b) probably scarcely belongs here. It lies before me in but one ♀ from Cachabé. It somewhat differs from STAUDINGER's figure, since the enclosures of the eye-spot in the cell and the eye-spot below the cell, which are noticeable only beneath in STAUDINGER's figure, are here distinctly seen also above. Undoubtedly rare; maybe the ♀ of a ♂ known long ago. The ♂ is said to be blue above, according to STRICHEL.

telegone. **M. telegone** Bsd. (= *lamachus* Hew.) (125 f). Shape like *gaudiolum*, but the forewing with a central eye-spot and light bands. Hindwings violettish-blue. Honduras to Costa Rica; it occurs also yet beyond the Mexican frontier, where it is, however, soon replaced by a form with indigo-(not violettish-)blue hindwings;

tetrica. this is **tetrica** Stich. (= *methion* G. and S.), which lies before me in numerous specimens from Misantla, where it seems to be very common. FASSL sent from the Cauca Valley specimens the hindwings of which are more uniformly covered with lilac, without the indigo-blue costal part; this is **amiana** Fldr. (125 f) occurring from

paramba. Venezuela to Panama, where it is replaced by the typical *telegone*. — **paramba** Drc. (125 f) from Peru has very dark forewings without bands above. In the hindwing the bands are incomplete, too. In the ♂ the blue of the hindwings extends on the inner marginal part of the forewing. — By the l. n. name of **amanda** (125 g) there

was in FELDER's collection a large form the bright, more lilac-blue colour of which covers both wings completely in the ♂ leaving only quite a fine costal stripe of the forewings brown. Still more deviating is the ♀ which has a very much more metallic, almost silvery-blue distal part of the hindwing. In FELDER's specimens there was no patria stated, but there lie before me numerous similar specimens from Muzo and Guadalite in Cundinamarca (Colombia) so that I presume here an alpine form. Interspersed like an island, from Nicaragua to Panama, seems the occurrence of **carissima** Bates (125 g). It shows rounded hindwings with a black margin, the disc of which is of an extremely bright metallic cyanous-blue lustre and without any markings and black stripes at all. *telegone* occurs very locally and always deviating according to the flying-places, in which, however, it is rather common.

VI. Group. (*odice*-Group.)

Shape of the forewings as in *telegone*, pointed with a curved margin. Hindwing only slightly angled in the middle of the margin or quite round. Without bluer reflection, but with transversel lines.

M. odice *Godt.* (125 e, f). An insignificant, earthy brown butterfly varying uncommonly, especially *odice*. in the course of the double transverse lines, as seen from our figure. ♀ only somewhat larger and with broader wings than the ♂. These lines run differently at every flying-place, similar to the size and shape of the eye-spot of the forewing. Specimens before me from Espiritu Santo and Rio de Janeiro have quite straight lines of the hindwings; those from Rio de Janeiro and Argentina (Misiones) exhibit them serrated. Specimens from Petropolis, where I found the animal singly, hold the balance between these two; a subspecies (*cymatodis* *Stich.*) can, therefore, not be founded on the serrated course of these lines. — *cymatodis* *Stich.* is unknown to me; *cymatodis*. it is said to be from „Brazil“ and to differ also by the course of the discal lines which run together posteriorly inclosing a reniform spot. I believe that they are only slightly varying *odice*, the lines of which, as mentioned above, run differently at every habitat.

M. rhodia *Godt.* (125 f). ♂ much darker; easily recognizable by the transverse line of the hindwing *rhodia*. being above single, not double as in *odice*. The ♀ is not so red as reproduced in our somewhat exaggerated figure, but more earthy grey, almost like a *telegone*-♀ without blue reflection. Espiritu Santo, Rio de Janeiro, singly. — **friburgensis** *Schs.* (125 f) is somewhat smaller (specimens from Novo-Friburgo) or very much smaller *friburgensis*. (specimens from Curitiba). It stands between *rhodia* and *odice*, being lighter than the former, but darker than *odice*; the hindwing has 2 lines running exactly parallel and almost quite straight. The species seems not to be rare near Novo-Friburgo in South Brazil, from where the original of our figure is.

VII. Group. (*menoetes*-Group.)

M. antaerice *Hew.* (125 d). In the marking almost exactly as *friburgensis*, but the spaces between *antaerice*. the dark transverse stripes are of a metallic dark blue gloss, though by no means so intense as in HEWITSON's original figure. The ♀ of it appears to me to be *maecotis* *Hew.* (his fig. 50) *). It is little larger, light grey, but with exactly the markings of the ♂, except the lower part of the median area of the forewing being not entirely black, but only bordered and marked in dark. Guiana to Trinidad and the Amazon; not common. — **veneris** *Bltr.*, maybe a proper species, is considerably larger, darker, but finely and sharply marked; from South *veneris*. Brazil.

M. menoetes *Hew.* (125 d). ♂ quite similar to the preceding, but the transverse stripes particularly *menoetes*. on the hindwing broader, more band-like; the colouring darker, so that the marking is to be seen only in a certain light. The ♀ with more grey and more sparse markings, and not such pointed wings as in our figure. Typical *menoetes* fly on the Amazon, though they are not common; they have a scarcely noticeable bluish lustre, being distinct only in very bright sunshine. Specimens from the Rio Songo in Bolivia have none at all, others from other places of Bolivia, from Guiana etc., have a more intense violet lustre (= *mennonia* *Stich.*). The ♀♀ are easily recognized by the upper and under surfaces being powdered with yellowish-grey.

M. meeda *Hew.* (125 a) the ♀ of which I do not know and which is said to occur in „Brazil“, *meeda*. is almost of just the same colour as the following *carderi*, but the undersurface exhibits less transverse lines.

M. carderi *Drc.* (142 d) greatly resembles the preceding in the male. From the direction of the anal *carderi*. angle, the blue marginal band of the hindwing is pierced by the beginning of a small, thin, black stripe which, however, disappears before the middle of the wing. The under surface shows very distinct bands and its ground-colour is quite faintly tinged in violettish-grey. From Muzo in Colombia which has supplied the greatest part of the so-called „Bogotá-Collections“. Not common.

M. orbona *Godm.* (125 c) has an under surface with still brighter bands, and in the ♂ being above *orbona*. very near to the preceding, the short anal black stripe in the blue marginal band of the hindwing has been supplemented to a complete arcuate stripe extending to the apex of the hindwing. Guiana and Colombia. — **thyas** *thyas*. *Stich.* (142 d) which is unknown to me, was based on a couple the ♂ of which originates from Peru, the ♀ from Surinam. We reproduce the ♀ according to the type; but I think it doubtful whether the ♂ exhibiting almost the colours and markings of an *epidius*-♂ (125 c) belongs here. — **thera** *Godm.* (125 d) which I figure *thera*. according to a specimen from the Anna River which I have compared with the type in the Coll. GODMAN, has a broader black median area, the blue distal stripes are narrower and the eye-spot of the forewing is more finely encircled. All these species greatly approximate *epidius*, and it is most likely that they are only races or even only subraces of it. The ♀ is recognizable by the great number of parallel lines in the hindwing being especially prominent beneath.

*) *M. maecotis*. *Stich.* with an azure ♂ seems to be quite a different species (cf. p. 643) the ♀ of which is almost just the same marked as HEWITSON's *maecotis*, but which has the shape of the ♂ belonging to it, thus not having pointed wings.

- epidius*. **M. epidius** Hew. (125 c). The ♂ is scarcely discernible from some ♂♂ of the *orbana*-forms, except the otherwise black median area of the forewings being interspersed with somewhat more blue. The ♀ exhibits bright and abundant markings, but there are also such where the markings, of the distal half, especially in the hindwing, are obliterated by ochre-yellow or white clouds; on such a specimen with an intensely white distal half of the hindwing, STICHEL's **chionodes** (142 d) has been based. — **hypermegala** are large ♀♀, in which there are before the eye-spot of the forewing two transverse lines, instead of 1½ as in the typical *epidius*. — **bella** Sharpe has somewhat different bands in the ♂ beneath, in the ♀ also above; the median lines are more finely undulate and the shadow-like band before the border stands farther apart from the posterior small transverse band. — **mathania** Schs. is again based only on the ♀ originating from Bolivia and Peru; it is very doubtful whether it does not belong to one of the differently denominated ♂♂, the ♀♀ of which are unknown. According to the description, it differs but little from the forms known of the *epidius*-♀. *epidius* and its forms are distributed over the whole northern part of South America as far as South Brazil, Bolivia and Peru, but they are met with only singly.
- phace*. **M. phace** Godm. (125 d) from British Guiana approximates the preceding, but here also the median area of the wings in the ♂ is greatly interspersed with blue, so that the upper surface appears banded in blue almost like a zebra. The ♀ is unknown to me.
- cecropia*. **M. cecropia** Drc. (125 b) from Central America which I figure according to a specimen from Esperanza in Costa Rica, on the contrary is above quite black except some blue in the forewing and a narrow border of the hindwing. Is the most closely allied to *carderi*. The largest species of the group.
- albipuncta*. **M. albipuncta** Schs. (142 d) of which we copy the original figure (the ♀ is unknown), originates from Esperanza in Costa Rica. Wings above blue with a broad black border. The description mentions a white dot at the end of the cell of the forewing, being absent, however, in the figure.
- mehida*. **M. mehida** Hew. (125 d). This species is immediately recognizable by the intensely sky-blue shining upper surface, as the wings have only a black margin (being double at the distal border). Beneath the species entirely resembles *zorea*, but the transverse shades and -lines are not so distinctly prominent. I do not know the ♀; at any rate it resembles pretty much the ♀ of *zorea*; STICHEL adds a ♀ with a white band of the forewing. Rare; from Ecuador, before me only from the lowlands.
- metuana*. **M. metuana** Hew. (125 g). The white-banded ♀ is recognizable according to our figure; beneath the white band is exactly as above; characteristic is the arcuate line encircling the eye-spot of the forewing, running behind the eye-spot quite straight to the inner margin. The ♂ is not known to me; it probably resembles the figured *fassli*, though with narrower and less dull blue transverse bands. — **chalybea** Rüb. (142 d) we reproduce in both sexes. There is a characteristic difference in the course of the arcuate line in the forewing, bending in like a tooth towards the base, before it reaches the inner margin. The ♀ has no white band of the forewing. This form as well as typical *metuana* come from Colombia. — So is **fassli form. nov.** (125 c) in the ♂♂ of which also the basal area of the forewing, being almost uniformly black in *chalybea*, is almost entirely blue, with some black markings. The ♀ has a just as broad white band of the forewing as *metuana*, though it ends more abruptly and also runs much straighter than in *metuana*. — **glaucoma** Stich. (142 e) is the Bolivian form; like *fassli* with a blue (in *chalybea* brown) disc of the forewing beneath; the basal third of the hindwing being in *fassli* quite blue with very little black marking, is black in *glaucoma*. The ♀ of *glaucoma* greatly resembles the ♀ of *fassli* from Colombia, but by very broad and intense transverse shades, the umber-brown ground-colour of the upper surface is reduced to narrow bands; both sexes of my specimens of *glaucoma* exhibit beneath a very fine light and dark powdering which of course cannot be well reproduced in a figure, but which occurs repeatedly in Bolivian *Erycinidae*. STICHEL's figure of the ♂ exhibits on the hindwing another (proximal) blue stripe indicated; in any case, the original comes from another habitat of Bolivia. — **ama** Hew. (125 b) is easily discernible by the broader blue band in the distal part of the forewing of the ♂ and by the white band of the forewing being continued in the ♀ also on the hindwing though much narrower. Ecuador. On the whole, all the forms stated here probably belong to one species, i. e. represent one another in the different finding-places, but replace one another already at little distances. Exactly alike are probably only specimens from the same finding-place. To such a subrace **destituta** Stich. may also belong (described according to a ♀ from Río Vitaco), with a posteriorly tapering white band of the forewing of 2,5 mm width.
- zorea*. **M. zorea** Hew. (125 e). ♂ above blue with a narrow black border and the discal line running semi-circularly round the eye-spot of the forewing and traversing the hindwing. Before the border of the wings there is no black transverse band anymore, but the black border is said to be crossed by a blue stripe in Chanchamayo-specimens (= *toparcha* Stich.). The ♀ which is unknown to me in nature, we reproduce according to HEWITSON's figure. Peru and Bolivia. Not common. — **reba** Hew. (125 e) has a small white subapical band, also in the ♂, otherwise quite like *zorea*. From Ecuador, as well as the finer banded **aguilata** Dogn.

M. praeculta *Stich.* (142 e) has above a black border of the wings; across the wing there run besides *praeculta*. 3 black stripes the position of which is shown in the figure. There is only 1 ♂ before me from FASSL'S collection, having been captured on the Rio Songo in Bolivia, 750 m.

M. zikla *Hew.* from Ecuador exhibits the white band of the forewing, which in *reba* (125 e) reaches *zikla*. only as far as to the centre of the wings, running from the costa as far as before the anal angle of the hindwings; the whole apical and distal marginal part of the forewings is black. Besides, however, the disc of the forewing and the distal part of the hindwing are traversed by numerous transverse stripes of different thickness. — **M. ozora** *Hew.* (125 d) has fewer of such transverse stripes; on the forewing those b e f o r e the eye-spot are absent altogether, on the hindwing only 4 (instead of 5 or 6) are complete. The ♀ exhibits a very broad white band of the forewing, beginning broad behind the middle of the costa and ending just as broad before the end of the inner margin. Likewise from Ecuador.

M. macrina *Fldr.* (= *vaporogosa Mengel*) (125 g). The ♂ of this species differs from the *reba*-♂ by *macrina*. another black stripe being placed about the centre between the black discal stripe and the distal margin. The proximal discal stripe passes directly over into the small white band of the forewing; the latter appears beneath much broader. In the ♀ (= *mustela*-♀ *Stich.*) the small white band extends as far as to the inner margin not only on the forewing, but it may be also continued thinner on the hindwing. — In **M. mustela** *Hew.* (142 a) the *mustela*. small white band is in the ♀ scarcely stronger than in *macrina*-♂ and is entirely absent in the ♂, where it is replaced by the continuation of the black proximal discal stripe. Moreover, the black discal stripes are here otherwise thinner and duller, especially in the hindwing. Both forms are found in Colombia.

M. myrmecias *Stich.* (142 a). ♂ jet-black, in the costal marginal part and near the border brightened *myrmecias*. up by a lighter brownish-grey, the stripes and central eye-spots being indistinct, owing to the deep black. ♀ brownish-grey, without the white band, the marking more distinct. In both sexes recognizable by the border of the wings being greatly reduced below the pointed apex. Guiana, Bolivia.

M. melpia *Hew.* (125 i). ♂ above quite black so that almost only the pupils of the eye-spots of the *melpia*. forewings are to be seen. Under surface lined with numerous transverse stripes; ♀ dark brown, on both surfaces similarly marked as the ♂ beneath. From the Amazon. ♂♂ from Teffé have above a magnificent blue reflection in the sunshine, being entirely absent in specimens from the Rio Madeira. The very complicated marking of the under surface seems to vary somewhat in all the habitats from which specimens are known; the lines are sometimes a little more stretched, sometimes slightly undulated etc. Not rare.

M. vaporosa *Stich.* Wings above brown, forewing at the apex, all the wings in the marginal part *vaporosa*. lighter, forewing otherwise like in *coea Hbn.*, but without the whitish apical cloud; on the hindwing the submarginal line and dot are dark brown. Under surface brownish grey, on the forewing the discal lines are double, curved and enclosing a singly-pupilled spot. On both surfaces there is a brown third, innermost line forming an elongate spot; the hindwings with 6 undulate brown lines, the middle ones thicker, enclosing 2 spots. Outside a dull band, the row of submarginal dots likewise dark brown. Length of forewings 15 mm. According to a ♂ from Para.

M. ibycus *Hew.* (126 a). One of the smallest species, on both surfaces yellowish-brown with a small *ibycus*. eye-spot on the forewing and dark stripes before it and behind it, as the figure shows. The eye-spot on the forewing has only 1 white pupil — at least in the ♂ — and the middle transverse stripes run in a straight line. The type seems to occur only on the Upper Amazon. — **M. parishii** *Drc.* differs hardly from it. We figure *parishii*. it according to a specimen from Bartica (Brit. Guiana) in the Tring Museum. Quite equal specimens, however, lie before us also from Cuyaba (Coll. BANG-HAAS), somewhat larger ones from Peru and transitions to *ibycus* from the Rio Negro in Colombia (Coll. FASSL). In typical *parishii* the eye-spot is larger, with 3 white pupils, and the double median stripe of the hindwing is finely undulated, often also the discal lines of the forewings are more irregular and the whole marking more inexact on account of the interspersed linear shades. Not rare.

M. cippus *Hew.* (125 i). Considerably larger than the preceding, but coloured the same, the transverse stripes more copious and regular, in the hindwing of the ♀ and on the under surface almost zebra-like. — *cippus*. **M. sylvina** *Bat.*, described from the Lower Amazon, differs by the proximal line surrounding the eye-spot parabolically being with both sides convergent towards the inner margin, and by the submarginal line being very much undulated towards the apex, but on the whole more finely marked. This line is finer also in the hindwing, but with thicker knots before the middle of the border. — **M. synnephis** *Stich.* from the west of Matto Grosso seems *synnephis*. to be near to the species; the central eye-spot has only 1 pupil, the parabola round the eye-spot does not converge with its sides, but they stand about vertical on the inner margin, and the anterior (proximal) part of the line round the eye-spot is defined at the median. Hindwing with a cellular spot. It seems, therefore, to be a slightly deviating ♂ of the extremely variable *cippus*, though I know the form only from the description not giving any differentiation with another species. *cippus* is a very widely spread species of a most characteristic appearance. From Guiana and Colombia across the Amazon District as far as Peru, Bolivia and Central Brazil, in the most districts common and greatly varying in the marking.

- calypso*. **M. calypso** *Bat.* from the western district of the Amazon is the southern representative of *hesperina* *hesperina*. *Bltr.* (142 a) from Central America. The wings of the ♂ are above azure, the forewing with 6, the hindwing with 7 transverse stripes, if one takes the marginal stripe into account. *calypso* is said to have 3, *hesperina* 1 pupil in the central eye-spot. Near Santarem, *calypso* exhibits some minute deviations (as every new finding-place offers them), such as a lighter under surface producing a more distinct marking thereby (= *avicula* *Stich.*).
- thetys*. — **thetys** *G.* and *S.* from Colombia is reported to resemble *calypso*, the submarginal line of the hindwing, however, *cyanira* to be beneath thickened to a knot before the middle of the border, and *cyanira* *Stich.* from Ecuador has a lighter *tenuivittata*. azure upper surface. — **tenuivittata** *Stich.* is of a duller blue and the middle transverse stripes are but delicate lines; from Rio de Janeiro. The ♀♀ of these forms, being partly transitional, resemble somewhat small *cippus*-♀♀, but the central eye-spot in the hindwing is better developed, while in typical *cippus*-♀♀ it is above mostly only shadow-like or even not indicated at all, and the two parabola encircling the eye-spot of the forewing are closer together in the costal region. The species is much rarer than *cippus*.
- maeotis*. **M. maeotis** *Hew.* (= *cippus*-♀ *Bat.*) (125 i). ♂ of a more intensely metallic blue than *hesperina*; besides easily discernible from the forms of the preceding species by the basal two thirds of the hindwings being without stripes and metallic blue. The ♀ is like *cippus*, but between the stripes more light than dark brown, though in fresh specimens not so light as in the older original to our figure. Guiana; more common than *calypso*. A ♂ from Cuyaba (Coll. BANG-HAAS) is above very light blue and beneath of a duller colour, with more yellowish-brown than dark-brown lines.
- nina*. **M. nina** *Hbst.* (= *formosa* *Ww.*) (125 i). Very much like the preceding species; but the ♂ has only in the basal half of the forewing blue which, however, is of a very intense lustre, the whole distal half of the forewing is blackish brown, with dull brighter markings; on the hindwing the antimarginal black stripe is placed nearer to the marginal stripe. The ♀ resembles that of *maeotis*, but the marginal area of the hindwings is whitish. From Guiana to Peru; rare.
- ephyne*. **M. ephyne** *Cr.* is another small species with the ♂ being blue above. From very little differences quite a number of forms have been denominated and described as proper species, although some seem to deviate only by the well-known differences of the habitats. CRAMER's *ephyne* seems not to have come anymore at all; it undoubtedly originated from Surinam from where we also know *nina*, *maeotis* etc. A very closely allied form is *metura* *Hew.*, and both have been combined with *misipsa* *Hew.* (142 a), the ♂ of which is azure above, the ♀ being of a dirty greyish-blue. As regards the zebra-striation, the ♀ greatly approximates *idotea* (125 e), the ♂, however, is less striped in the basal part of all the wings. From Guiana across the Amazon as far as Peru. From the latter country STICHEL described another subspecies of the ♂ with a broader stripe in the distal part of the hindwing and beneath a yellow-encircled eye-spot of the forewing, on the whole larger and more brightly coloured; he denominated this form **polyglauca**. — **mesoba** *Hew.* (142 a) from Ecuador is very similarly marked, but coloured almost white, except a faint greyish-blue tinge at the base of the forewing and *dulcis*. in the disc of the hindwing. — **dulcis** *Stich.* is said to originate from Matto-Grosso and perhaps from Peru; ♀ greyish-blue, on the hindwing 2 median eye-spots below each other; ♂ somewhat smaller than the ♀, above *blaudina*. light blue. — **blandina** *Stich.* very similarly marked, central eye-spot entirely black (in *dulcis* with a white *eugenea*. pupil), from Surinam. — **eugenea** *Stich.* greatly approximates *nina* (125 i), but the blue of the upper surface in the ♂ not so glossy, in the inner marginal part of the forewing reaching as far as to the border, and the apical part of the forewing is less deep black, so that the dark marking of it is more prominent; from *esperanza*. Surinam. — **esperanza** *Schs.* from Costa-Rica resembles *dulcis*, but above it is of a bright blue, in the hindwing there are only 2 black lines complete close at the distal margin, of the subterminal line there exists only the beginning at the apical part. Of the ♀ we know only one mutilated specimen.
- coelestis*. **M. coelestis** *G.* and *S.* is a rare species from Costa-Rica and Colombia; it has the shape and size of *macrina* (125 g), but it is above in the disc of the wings sky-blue without any markings at all; only the usual eye-spot stands at the cell-end of the forewing, and before the border there run 2 black lines parallel to it. — *cachiana*. **cachiana** *Schs.*, likewise from Costa Rica, is above just as bright sky-blue, but the apical part of the forewings is broad black, as well as the distal margin. The ♀ was taken to be the typical *coelestis*-♀.

VIII. Group. (*Semomesia* *Ww.*)

Upper surface of the hindwing in the ♂ with a costal part of silky gloss.

- macaris*. **M. macaris** *Hew.* (125 h). ♂ very light blue, the median eye-spot is small, and the guttiform spot being conspicuous in *croesus* is absent. The ♀ is brown with whitish transverse stripes, similar to the ♀ of *maeotis* (125 i), but more uniform, not darker in the marginal half than in the basal half. Amazon District *tenella*. as far as Peru. — **tenella** *Stich.* the ♂ is said to be somewhat larger than typical *macaris*, with a more pointed *aetherea*. apex. — **aetherea** *Stich.* is just the same, but the friction area at the costa of the hindwing is smaller and *optima*. the velvety scent-spot is absent; Peru. — **optima** *Stich.* from the Amazon has a larger scent-spot of the ♂. These butterflies are not common.
- geminus*. **M. geminus** *F.* (125 g, h). ♂ above glossy sky-blue with black margins of the wings and a black oblique band of the forewing. ♀ blackish-brown with transverse stripes of a dull blue gloss edged in black. Known only from Central Brazil, as for instance from Minas-Geraes (San Jacintho River); very local and rare.

M. croesus F. (? = *capaneus* Cr.) (125 h). ♂ of a bright blue gloss, forewing with a dark (mostly double) black border, a black central eye-spot and behind it a guttiform spot. The latter may be thicker or more streak-shaped, more bulky or more pointed, the eye-spot may be round or oval exhibiting mostly 3 pupils. Hindwing with transverse lines varying considerably in size and position. — **splendida** Sz. (125 h) are ♂♂ of a lighter blue and very bright reflection, the black marking being greatly reduced. — **semiatra** Sz. (125 h, as *gneris*) are ♂♂ in which on the contrary the black, especially in the distal part of the forewing, is so much increased that it predominates there over the blue. ♀ greyish-brown, with lighter transverse stripes. In typical ♀♀ these transverse bands are before the broad dark border only brightened in a bluish-grey, not properly white. — In **gneris** Dbl. and Hew. the forewings exhibit in the place of the greyish-blue band a narrow white one. — In **meana** Hew. this band runs also through the hindwing, though narrow. — In **trilineata** Btlr. (= *sylvicoleus* Btlr.) (125 h) it is broader on both wings, on the hindwing sometimes parted for some distance by a line proceeding from the anal angle. The numerous variabilities of the complicated marking have led to many other names: **maria** Btlr. are large ♂♂ with very much marked under surface; in **lacrimosa** Stsch. the guttiform spot fades away before the costa, the central eye-spot flows out downwards like a streak; **thymetina** Btlr. shows the white band broad and uniform; **ionima** Stsch. is above very much marked in black, the scent-area at the costa of the hindwing is more extensive; **gentilis** Hew. are ♀♀ in which „the ground of the wings round the discal spot is brightened by a dull ochre brown“, the line next to the broad shade-like band being „less undulate“, the under surface of a paler ground colour; **hevitsozi** Stsch. and **geometrica** Stsch. are quite superfluous names; if they would be maintained, at least 30 more denominations would be necessary. **croesus** is a beautiful and widely distributed species; its patria is the whole northern part of South America, extending from the coast of Guiana to the south as far as Peru and Central Brazil; the butterfly is local, though not rare at its flying-places.

I X. Group. (*metope*-Group.)

♂♂ blackish-brown, posteriorly brightened by white, mostly with blue layers; ♀♀ most similar to each other, nut-brown to earthy-brown, densely striped.

M. ahava Hew. (126 a, b). Blackish brown; the eye-spot of the forewing hidden in the blackish ground-colour, before the border a somewhat lighter stripe. Distal half of the hindwings white. Peru. Specimens from Bolivia being somewhat larger and exhibiting the lighter stripe of the forewing beneath as an indistinct transverse band (we figure such a specimen), were called **velada** Stsch. Rare and varying according to the habitats; the white of the hindwings shows a different bordering at every habitat, being sometimes posteriorly sharply defined by an oblique line, sometimes more fading away.

M. zanoa Hew. (126 b). Above resembling the preceding species, but the distal part of the hindwings blue. Ecuador. — **orthia** Stsch. are specimens lying before me from Villavicencio (Colombia); the blue area of the hindwing of *zanoa* is here only proximally blue, its distal half is white. Rare; the ♀♀ are not before me.

M. metope. It is doubtful whether the forms quoted here can be separated from *zanoa* so as to prevent that transitions establish a complete chain of connecting links to the series of *metope*. The following forms vary in such a way to each other that it appears hardly possible to separate them, especially since the ♀♀ are scarcely distinguishable, where the ♂♂ differ from each other, and vice versa. — **metope** Hew. (= *pruinosa* Stsch.) (126 a) is blackish-brown, the forewing with a more or less distinct bluish-grey diffuse spot before the apex; hindwing with a white distal part being proximally shaded in blue. The diffuse spot of the forewing may be reduced to some small scales below the costa, large and triangular, split in the lower end and drawn down towards the anal angle in 2 tips. There are more than 50 specimens before me with all the degrees of this variation. ♀ similar to that of *coea*, the stripes of the hindwing undulated. From Guiana to Brazil and the Upper Amazon; not rare. — **olivencia** Bat. (142 a) is very near to *metope*, the ♂ being without the pointed diffuse spot of the forewing; from the Western Amazon District and Bolivia. By its under surface (forewing with a white transverse stripe) it forms a transition to *ahava*. — **ungulata** Stsch. (142 b) is without the preapical diffuse spot of the forewing and the blue colouring of the light area of the hindwing has disappeared except scarcely noticeable traces; French Guiana (Nouveau Chantier, St. Laurent du Maroni); described from the Amazon (Santarem), thus certainly of a wide range. ♀ nut-brown, the marking almost exactly as in *minos* or *melaene* (126 a), but the border of the hindwing is only narrow, at the distal margin white. The ♀♀ of the different forms quoted do not offer any thorough differences.

M. philocles L. (126 b). Forewing blackish-brown with a dull bluish-grey oblique diffuse spot behind the median eye-spot; the distal half of the hindwing is white, proximally shaded in blue with 5 transverse stripes of which, however, mostly only those at the border above are running through; the 3 others have only apical beginnings. Varies extremely. The diffuse spot of the forewing may fade away before the middle of the wing or be parted in its lower tip by a black line. The white of the hindwing may be reduced and all the transverse lines may also above run completely through as far as to the anal margin. The blue of the forewings may spread round the eye-spot (= **egabella** Bat.) (126 b) or even fill up the whole cell of the forewing as far as to the base (**lactifica** Bat.) (126 b). The form mentioned last with the transverse stripes running through

patruelis. the whole hindwing has been denominated *patruelis* *Stich.* The ♀ exactly resembles above that of *metope*, it has only in the middle of the border of the hindwing a little white, but the hindwings beneath are white almost to their whole extent (not only in the distal part). ♀♀ with a stripe-shaped white brightening across the whole width of the wings are *bettina* *Stich.* I do not know them and doubt whether they belong to this species.

bettina. **M. jeziela** *Btlr.* (= *egabella* [♂] *Stgr.*) (126 b, misprinted in *jeziella*). Similar to *egabella*, but the blue and white area of the forewings runs to the inner margin as a broad transverse band; the transverse stripes of the hindwing above incomplete. Colombia to Ecuador. — In *sylvia* *Drc.* (= *thyene* *Stich.*) (142 b) from the

sylvia. Rio Songo in Bolivia the light patches of the upper surface are blue, only in the middle striated white. — In

limbata. **M. limbata** *Stich.* the black border of the hindwing being otherwise broad only at the apex, is broad round the

thyestes. whole wing, and the 3 anterior transverse lines of the hindwing traverse the whole wing. — **thyestes** *Drc.* (126 b) from the Chanchamayo is the same, only the inner half of the band of the forewing is blue, the outer half white.

elegans. From Peru. — **elegans** *Lathy* (126 c) is above quite similar, but larger, the lines of the under surface finer, duller, the forewing has no distinct second eye-spot below the central eye-spot, and the centre of the hindwing beneath is less sharply marked; from La Merced in Peru. Single and rare.

coca. **M. coca** *Hbn.* (= *philocles* ♀ *Cr.*, *nyctea* *Hfjgg.*) (126 a, as *coca*). According to STICHEL (RILEY i. l.), this species being scarcely comprehensible from CRAMER's coarse figure seems to be identical with *traga* *Hew.* It resembles in both sexes pretty exactly the ♀♀ of the preceding species, but the margin of the hindwings is broader white. Moreover, on HEWITSON's figure the left wings of the ♀ are differently marked from the right ones, and the figure depicted as the ♂ of it does at least not everywhere belong to the form represented by the ♀-figure. The lines traversing the white distal part of the hindwing are incomplete. Amazon. —

lato. **M. lato** *Stich.* with more white in the hindwing is said to originate from the Rio Tonantins. — *scotina* *Stich.* and *lacernata* *Stich.*, unknown to me, come from Guiana; they are said to be very similar to *coca* except little differences in the marking.

minos. **M. minos** *Hew.* (136 a) the hindwings of which, in typical specimens, do not exhibit such a pure, but a more dirty white ground-colour than in our figure; but they vary at every habitat and show sometimes stouter, sometimes thinner transverse lines of the hindwing, occurring on the Lower Amazon and in Central Brazil. Here the submarginal nebulous lines exhibit in the ♂ beneath, in the ♀ also above knotty swellings before the middle of the border of all the wings, which are absent in the following species being otherwise similar. In order to use the names stated, we may denominate as fa. **tetrophthalmalma** *Stich.* specimens with especially much, **modica** *Stich.* specimens with very little white on the upper surface of the wings; these forms, however, are not bound to certain countries, but only to flying-places.

tetrophthalmal-
ma,
modica,
melaene. **M. melaene** *Hew.* (126 a). According to the author, this species differs from the allied *traga* (= *coca*) chiefly by the course of the (10) stripes of the hindwings. A more distinct mark is a shining, leaden-grey lustre of the darker parts of the forewings, being very well reproduced by our figure. As in *minos*, the ground-colour may be in the marginal part of the hindwings of a pure or dirty white, even almost brown, which is especially prominent between the second and third most exterior stripe of the hindwings running in contrary curves.

pinguilent. Sometimes also the forewings exhibit a white transverse band before the marginal third (**pinguilent** *Stich.*).

luperca. Guiana, Amazon. — **luperca** *Stich.* described according to a single ♀ from Pachitea in Peru, is a species unknown to me; it is said to have a light band running through both wings and a median eye-spot also on the hindwing.

mosera. **M. mosera** *Hew.* looks almost exactly like a *melaene*, especially the greyish-green, slightly metallic lustre of the forewing which is lacking in the other *Mesosemia* except *melaene*, occurs here also in the ♂, but the distal marginal part of the hindwing is not white, but as dark as the ground-colour, and the exterior stripes of the hindwing are curved parallel to each other, not contrarily. By this the marking gets very much like that of *minos* which, however, has distally lighter hindwings.

melese. **M. melese** *Hew.* (126 b) resembles the preceding, though it is somewhat smaller and the ♀ has a distinct central eye-spot on the hindwings, whereas the ♀ of *mosera* exhibits only a dot. Unfortunately the figure (according to a badly set specimen) shows the characteristic eye-spot of the hindwing partly covered by the forewing. Para.

myonia. **M. myonia** *Hew.*, being likewise near to *mosera* and *minos*, is marked like the former, but beside the ground-colour in the distal half of the hindwings, also the ground of the ellipse enclosing the eye-spot of the forewing is brightened by yellow. HEWITSON himself believes that the species may be a ♀-form of *philocles*; it is certainly nearly allied to it. From the Amazon.

methion. **M. methion** *Hew.* likewise approximates the *minos-melaene*-group, but it has a very different appearance owing to a rather broad white transverse band beginning broad at the costa and running almost straight towards the anal angle of the forewings. The submarginal line of the hindwings exhibits the knots before the middle of the border of all the wings very thick and distinct, above and beneath. In typical specimens, however, the second and third exterior stripes of the hindwing are combined to a broad dark band by the space between being filled up by dark brown. Such specimens occur from the northern coast of South America in the east as far as to the south of the Amazon; in Peru the space between the second and third last stripes of the hindwing is filled up broad in white whereby the white band of the forewing seems to run also through the hindwing. The bands, however, vary in width already in quite closely situated habitats.

M. machaera Hew. (126 c). Velvety blackish brown, the eye-spot encircled by a brownish yellow; *machaera*. forewings with a curved transverse band being distally of a purely white colour, proximally dim. The distal part of the hindwings is white, separated from the black basal part by 3 transverse lines being almost quite straight. Teffé on the Amazon. The white band of the forewing may grow very broad, so in Peru-specimens. — In **modulata** Stich., likewise from Peru, it is said to be narrower, and along the border of the hindwing there extends a marginal shade being interrupted in the middle, as well as a submarginal line; in such forms, incomplete lines proceeding from the anal angle may run into the white of the hindwing, whereby a resemblance is created with *zonalis*, *thymetus*, *isshia* etc. Such a specimen resembling (the larger) *zonalis* with a dark border of the hindwing is figured 126 c by the erroneous name of *thymetina*. The species is widely distributed in the western part of South America, but by no means common.

M. zonalis G. and S. (126 c). The type has great resemblance with certain forms of *machaera*. Probably the ♀ figured by the authors belongs to another (smaller) race than the figured ♂. The very numerous transverse lines of the hindwing may be quite straight, but also somewhat sinuous. Central America and Colombia.

M. magete Hew. (126 c). Lighter brown in the ground-colour than *machaera*, but the ♂ darker than *zonalis*; the white distal area of the hindwing with a broad brown border in which an oval spot, above the middle of the border, remains white. The hindwing is quite slightly angled at the border. In most of the ♂♂, in the anal angle of the hindwings, there is the beginning of a line parting the white marginal area; in *bersabana* Stich. this line is continued as far as to the apex; then the white marginal spot of the hindwing is also mostly (but not always) distally finely bordered in dark. The latter form preferably flies in Guiana, where, however, there also fly typically coloured, though smaller *magete*, as described from the Amazon. Seems to be very common. — A very curious specimen lies before me from FASSL's collection, from Villavicencio; here the broad black marginal band of the hindwing extends only as far as to the middle of the border; the white marginal spot is, therefore, not bordered and merges into the broad white band; also the apex of the hindwing is white so that the costal half of the hindwing, from the border to the middle of the wing, is of a quite pure white, the posterior half of the wing however, being margined in dark.

M. gertraudis Stich. (142 b). Hereto belong specimens being similarly marked as *zonalis*, with a blue instead of brown ground-colour of the upper surface. In the type figured by the author the transverse stripes run rectilinearly and regularly, and the white and blue band of the forewing is steeper; from Peru. We figure a deviating specimen from the Rio Negro (Colombia), in which the transverse lines are very much undulated.

X. Group. (*thymetus*-Group.)

♂ and ♀ brown with a white transverse band.

M. sifia Bsd. This is the well-known Rio-butterfly being wide-spread in collections, exhibiting on both wings a central eye-spot, in the forewing a curved white band, in the hindwing a white-intermixed distal half which in *isshia* from the Amazon is very much traversed by dark and bordered in dark. Whether *sifia* is specifically to be separated from its vicarious forms which are almost all marked in blackish brown with a common white band and a very dark-ruled ground, we cannot decide for the present. About 30 more roughly and about 60 more finely distinguishable forms are known and have mostly been denominated. But since, for instance, the *sifia* from the south of the town of Rio (Corcovado) already deviates from the one being met in the north on an excursion to the Organ Mountains, there would be no end, if we were to denominate all the differences in size, the width of the bands, the course and number of the transverse lines. — *thymetus* Cr. is a rather small form with a medium-broad band traversing all the wings and rather distinct transverse lines before the band of the hindwing. It originates from Guiana; but in the museums there are mostly narrower banded specimens from Colombia or the Amazon. STICHEL figures one of these forms as *amaranthus*; it certainly is not worth being denominated, unless all the numerous deviations of the bands, characteristic for every habitat, would be denominated. Also whether the ring round the eye-spot is elliptic (closed) or parabolically open, is sometimes of no account, as is proved by couples met with in copulation*). In *anceps* Stich., a smaller species (from Ecuador), the latter disappear altogether, as in the *battis*-♀ of *messeis* to which the latter species is perhaps allied. Of the larger forms one with the band of the hindwing being covered with brown — **tenebricosa** Hew. (126 d as *hedwigi*) to which *anica* Drc. only forms a transition with a half-covered band — has been described before; the forms with a purely white band of the hindwing of which more than 40 lie before me, belong to the few common *Erycinidae* at their habitats. The white band may be posteriorly pointed (*dryadella* Stich., *nerine* Stich.) or broad (*judicialis* Stich.), or even very broad (*latissima* Stich.), sometimes the band of the hindwing is also parted by a nebulous line, only in the anal part (*sirenica* Stich.) or in its

*) The figure on t. 126 d depicted by us as „*amaranthus*“ is erroneous. An examination of the type of *amaranthus* Stich. having been subsequently made in the Berlin Museum proved that the specimen there is nothing but a narrow-banded form of this species from Peru, often found in the collections as *thymetus*. Quite similar forms are also from Colombia.

whole length (*naiadella* Stich.). There are also *latissima*-forms with the white band being parted $\frac{1}{4}$, $\frac{1}{2}$ or $\frac{2}{3}$. Of a very strange appearance are specimens in which the parting line exists in the middle of the band of the hindwing, whilst it is extinct at both ends. — *oreas* Stich. greatly resembles the *naiadella*-form, but the ground-colour is of a deeper blackish-brown, and the band of the hindwing being traversed by an interrupted parting line, as well as the band of the forewing, are sharply defined. — As *hedwigis* Stich. the author figures a ♂ from Peru and a ♀ from La Paz in Bolivia; both are insignificant deviations approximating *anceps* Stich., which, besides, do not belong to each other and which by no means can be all denominated. Only from Bolivia there have recently come at least ten different such forms all of which differ from each other. The *thymetus*-like forms are mostly common and their scheme of markings seems to conform with other species occurring at the same habitat; as for instance the broad-banded forms fly together with *M. axilla* (Bolivia), the narrow-banded with ♀♀ of *M. asa* (Colombia), and those with jet-black, bright uniform bands with *ulbrica*-♀♀ on the Amazon or in Peru; the forms are mostly not bound to a certain district, but they may appear in colonies here and there *).

7. Genus: *Diopthalma* H.-Schäff.

To this genus, beside HERRICH-SCHÄFFER's *lagora*, also other species included later on in *Mesosemia* had been reckoned, of which, however, one part is better dealt with specially, according to STICHEL's proposal. They scarcely differ in the structure, but they have entirely different habits, according to which also the habitus is extremely different. They always sit, like a Geometrid, with their wings spread, on the under surface of a leaf; I never observed them on blossoms, and the stunted siphon seems to be unfit for sucking honey, whereas the other *Mesosemia* often most frequently visit blossoms and fly in the sunshine in a way very conspicuous for *Erycinidae*. All the 13 forms known are very nearly allied to each other and connected by many transitions. For the species that remained here in this genus the name of the genus provided for the eye-spotted forms is no more altogether suitable. STICHEL proposes *Leucochimona* instead.

philemon. **D. philemon** Cr. (= *icarus* F., *chionea* G. and S.) (126 e) is above and beneath white, traversed by few thick streaks; above without, beneath with marks of a median eye-spot on each wing. The butterflies vary very little, on the whole, being distributed over Guiana and the Amazon District. — *mathata* Hew. (= *nivea* G. and S.) (126 e) is the South Brazilian species being rather common near Rio on the Monte Corcovado and in Santos. It is above snow-white with quite fine transverse lines, the under surface, however, is smoky greyish-brown, sometimes somewhat lighter between the stripes. — *subalbata* form. nov. (126 e) represents the species in Bolivia; above not to be distinguished from *mathata*, beneath, however, white instead of brown. The under surface already exhibits small fine dots in the submarginal band of the hindwing, which grow to be thick knots in the Colombian *polita* Stich. (126 e), and which are joined by small white spots in the dark margin of the forewings. — *nivalis* G. and S. from Central-America approximates again the typical *philemon*, but the stripes *vestalis* are somewhat thicker. — *vestalis* G. and S. from Guatemala has less dark streaks of which the one being the nearest to the distal margin is simply indicated by a dotted line. Of the most central stripe there is only an oblong dot left which may already be regarded as the pupil of an eye-spot being later on the most developed in *hyphea* (126 f). The species flies all the year round in the hot districts. The butterflies especially sit on the bushes on the road side beneath leaves and are made to fly off by beating the leaves, but they never fly far. The small bodies are very delicate, the flight resembles that of the Geometrids, being weak and tottering, so that one might take the flying animal to be a *Cubera*.

D. lagora. This butterfly has above no median eye-spot just like the preceding group, but before the middle of the border of the wings a small eye-spot is inserted, sometimes complete, sometimes rudimentary. *iphias*. The Central American form has neither above nor beneath a distinct median spot, but on each wing a blind marginal eye-spot. This is the form *iphias* Stich. (= *lepida* Stgr.) (126 f) in which often the whole apical third of the forewing is brownish. — *molina* G. and S. (126 f) is quite similar, but it has on the under surface of the forewing a distinct median eye spot, whereas the marginal eye spot of the hindwing is absent; before me from *lepida*. Costa Rica. — As *lepida* G. and S. (126 f). I consider specimens with 6 eye-spots beneath, i. e. on each wing one eye-spot before the middle of the border and on the forewing one median eye-spot; — in *lagora* H.-Schäff. the latter shows through above, though often only in outlines. Only the latter form extends to the south as far as Colombia and Guiana, all the others are from Central America. The proximal stripe of the forewing running towards the inner margin more proximally or more distally, seems to me to be not constant, since it runs somewhat differently even in the few specimens before me. Common.

leucogaea. **D. leucogaea** G. and S. (126 f). This form represents the contrary to the preceding; the forewing has a median eye-spot but no marginal one; the hindwing is without any eye-spot. Costa Rica, Nicaragua.

matisca. **D. matisca** Hew. (126 f, as *mathisca*) from Peru has a superficial resemblance to the former species, but the stripes run differently since they do not extend from the costa towards the inner margin, but form

*) As to the (exclusively Cuban) *M. ramsdeni* Skinn. cf. Additions.

a bow round the much larger, yellow-bordered eye-spot. The hindwings beneath, in the ♂♂ of the Amazon-form also above, with 4 dark streaks and dark margin. Amazon, Peru and Bolivia.

D. hyphea Cr. (126 f). In this form, being distributed from Cayenne to Peru, though mostly not *hyphea*. common, the median eye-spot of the forewing is considerably developed, like in a *Mesosemia* of the preceding group, the distal half of the forewings being suffused with grey and the dark streaks widened to brown bands.

8. Genus: **Mesophtalma** Ww.

Only a branch of the preceding genus, with somewhat differently formed forelegs and palpi (last joint more knob-shaped than coniform), forming a connection of *Diophtalma* with the *maeotis*-group of the genus *Mesosemia*. Especially the ♀♀ of *Mesophtalma* are very near to certain ♀♀ of *Mesosemia*. Only 1 species.

M. idotea Ww. (= *mirita* H.-Schäff.) (126 e). Ground-colour of the ♂ light blue, of the ♀ dirty grey, *idotea*. in both sexes with a slightly reddish gloss. The transverse stripes are in the ♂ more of the shape of lines, like in *Diophtalma*, in the ♀ more like stripes, like in *Mesosemia*. Central eye-spot of the forewings with 3 small white dots. The butterflies occur in Guiana and on the Amazon and are not rare. The figured specimens are from Ega.

9. Genus: **Perophtalma** Ww.

Small, very delicate butterflies of a dirty yellowish-grey colour with an eye-spot of the forewing standing, however, not in the cell-end, but behind the cell, thus being placed more distally than in *Mesosemia*. The butterflies have the same habits as the preceding, they are met with singly, though they are not rare. Only 1 species.

P. tullius F. (= *tenera* Ww.) (126 f, as *tullia*). Dirty greyish-brown with yellowish and whitish *tullius*. shades; before the apex an eye-spot with a yellow ring around it and several pupils. This eye-spot stands behind the cell-end, almost like a Satyrid-eye-spot, unlike the more proximally situated eye-spot of *Mesosemia*. The whitish shades may be developed to such an extent that the whole disc of the wing turns white. Such extreme forms may be denoted as *tenera* G. and S., nec Ww. (? = *lasus* Dbl.) (126 f), but from the more *tenera*. than 100 specimens before me it is impossible to form a complete series of transitions (second *tullia*-figure) to both forms. These transitions are also confined to habitats, but not to geographical districts, and between habitats with entirely grey specimens there may occur habitats with very light white butterflies, as for instance near Cachabé. Central and South America to the south as far as Ecuador and the Amazon. Not rare.

10. Genus: **Hyphilaria** Hbn.

This genus contains half a dozen of just as delicate forms as the two preceding genera, but the animals are generally of brighter colours. Many have, similar to the *Diophtalma*, wings with parallel transverse stripes. The veins exhibit great variations, being also expressed in the shape of the wings. The margin of the forewings is sometimes convex, sometimes curved and the hindwings may be round, or also angled in the middle or the margin. The habits are the same as in *Diophtalma*.

H. nicias Stoll (= *nicon* Godt.) (126 g). ♂ pale yellow, ♀ more bone-white, the wings with black *nicias*. margins and a black oblique band cutting off a light — in the ♂ narrower — subapical band-spot from the ground-colour. In Surinam-♂♂ there are often in the black distal margin all kinds of light yellow markings which are absent in Bolivians. The scheme of coloration being somewhat conspicuous imitates that of a small form from the Danaid genus *Scada*. From Cayenne to Bolivia, varying somewhat in the width of the black margins and bands; not rare.

H. anthias Hew. (126 g). Similar to the preceding, but the whole marginal third or a still greater *anthias*. part of the wing black with chains of light spots, while the black oblique band is absent. Bolivia and Peru. — **orsedice** Godm. (126 g) is a scarcely differing form in which the small light spots are somewhat more developed, *orsedice*. especially beneath; Colombia to Guiana.

H. anophtalma Fldr. (126 g). Immediately recognizable by the slightly produced apex of the fore-*anophtal-*
wing and by the margin of the hindwing being faintly bent. The bone-white disc of the wings is traversed by *ma*. a straight black stripe in the basal third, and one each in the middle of the forewing and hindwing, so that they meet angularly at the inner margin of the forewing. Colombia and Ecuador, not rare.

H. parthenis Ww. (= *cydias* Dbl.) (126 g, as *parthenias*). ♂ above dull orange-red, somewhat lighter *parthenis*. at the costal area. The forewing is traversed by black parallel bands which by far do not reach the inner margin in Bahia-♂♂, whereas in Bolivians they extend with one tip quite close to it (= *figrinella* Stich.) (126 g). *figrinella*. in Surinam-specimens where they are besides mostly — though not always — increased, they reach it broadly; this is the form *virgatula* Stich. (126 g). The ♀♀ of these 3 forms scarcely differ; their black stripes always *virgatula*. traverse all the wings thickly and completely.

Baccha laevis, Hew. f. bas. = *anthias* = *parthenis*, Hew.

11. Genus: **Hermathena** Hew.

This genus contains only one, unmistakable species the flight of which is about similar to one of the numerous South American white *Terias* or *Leucidia*. Forewings uncommonly broad, with a short costal margin and a long inner margin, hindwings almost circular. All the wings white, quite faintly tinged in yellowish, with large dark marginal spots beneath, showing somewhat through above. Widely distributed, but rare.

- candidata*. **H. candidata** Hew. Light bone-white with dark distal marginal spots being above powdered as if
columba. with flour. Amazon to Bolivia, local and rare. Colombian specimens (*columba* Stich.) (126 d as *candidata*)
are larger and have a grey base of the forewing being absent in Bolivian specimens. Our figure shows the form
oweni. *columba*. — *oweni* Schs. has the dark spots above blacker, augmented in the forewing by discal punctiform
spots and some split up by light chequering. Costa Rica; described according to 1 ♂.

12. Genus: **Voltinia** Stich.

STICHEL places into this genus two species which are little allied to each other and would have better been placed in other genera. The first greatly resembles certain *Mesosemia*, but the central eye-spot of the forewing being generally found there is absent here; the second was formerly figured in the *Esthemopsis*.

- theata*. **V. theata** Stich. (126 d). Recognizable by the dark blue, but very iridescent metal gloss, making
the basal part of the upper surface of the wings and some band-like stripes above the disk shine in a magnificent
blue. The reflection is as intense as in the well-known Indian Lycaenid *Jamides bocchus*. In the ♀ this
blue gloss is also present, though somewhat duller and only in the inner half of the wings; the ♀ is further-
more distinguished by a large, snow-white, oval oblique spot behind the middle of the forewings. The under
surface is grey, with darker clouds and chains of blackish spots in the basal half; before the margin, espe-
cially on the forewing, there are fine white marginal dots. From Ecuador, STICHEL describes only the ♀ from
Colombia; according to his figure the white band of the forewing seems to vary slightly.
radiata. **V. radiata** G. and S. can be compared with the preceding only in the shape; in the colouring it
is a copy of the *Morpheis* (93 a) and *Hades* (123 a) flying at the same place, black, at the distal margin small
dentata. radiary white cuneiform spots. Panama, Costa Rica. — In *dentata* Stich. (142 b) from Colombia these
cuneiform spots are larger. — Rare.

13. Genus: **Eunogyra** Ww.

Like the preceding genus rather similar to *Mesosemia*, but also without the central eye-spot of the forewing; beneath with chains of dark spots. Forewing with a rather pointed apex, very broad; margin of hindwings round. Only 1 species being local, but not rare.

- satyrus*. **E. satyrus** Ww. (124 d). Above dark brown, with a dark median nebulous stripe and a chain of
curupira. dark spots, encircled by yellowish, before the margin. — In *curupira* Bates from Guiana and the neighbouring
Amazon District the marking is more complicated; before the chain of marginal spots there is another more
indistinct series of dark spots, the dark nebulous streak behind the middle of the wings is displaced towards
picus. the margin and its former place is filled up by a lighter stripe. — *picus* form. nov. (124 d) is a large form
from Peru without any marginal eye-spots of the forewings except those near the anal angle, while those of
the hindwings are reduced to narrow transverse ovals. — The species extends from the northern coast of South
America to the south as far as Brazil and Peru. The animals live in the forest, flying rather low and occurring
singly, but not rarely.

14. Genus: **Cremna** Dbl.

In this genus a group of strong, robustly built butterflies was formerly combined with some species of an almost Geometrid-like delicate structure. STICHEL ascertained that there exists also a difference, though very insignificant, in the veins, the costal of genuine *Cremna* sending a small short branch towards the first subcostal vein, as in *Eunogyra*, and he, therefore, separated the species without the small connecting branch as "*Napaea* Hbn.". In other respects the two groups are very closely allied to each other.

- actoris*. **C. actoris** Cr. (= *ceneus* F., *lusia* Hbn.) (126 h). Above dark brown, in the ♂ with a deep blackish-
blue tinge, both wings covered with numerous white dots and small comma-like spots. Guiana as far as Bolivia
meleagris. and Brazil. — In *meleagris* Hpffr. (126 h) the small spots of the upper surface are somewhat larger and of a
heteroea. beautiful blue, and in *heteroea* Bat. (126 h) from the Upper Amazon they are, on the hindwing, often connected
calitra. to undulated stripes. — *calitra* Hew. (126 h) from Ecuador exhibits the light spots very much enlarged, behind
the middle of the forewings they are linked together to a broad macular chain, the spots being white, only
those before the margin light blue.
thasus. **C. thasus** Stoll (126 g). Dark brown with white transverse stripes the exterior ones of which are
interrupted. Northern part of South America. In specimens from Guiana, Trinidad etc., the under and upper
surfaces are alike; from Mnzo, A. H. FASSL brought specimens the under surface of which exhibits so
very much white that the black ground-colour, especially on the hindwing, has been preserved only in fre-
quently interrupted nebulous lines. Apparently not common.

C. alector *Hbn.-G.* (126 i). Similar to *meleagris*, the wings not so broad, black with blue chain-stripes, *alector*. though they are much more remote from each other and more coherent than in *meleagris*; in the apical part none or only 2 or 3 (= *pupillata* *Stich.*) small white vitreous dots, in *meleagris* 6 to 8. Beneath grey with a spotting like a guinea-hen. Guiana to South Brazil. Rare. — In Bahia there flies a form exhibiting in the apex double dots instead of single ones (*bipuncta* *Weym.*).

15. Genus: **Napaea** *Hbn.*

In contrast with the preceding genus, *Napaea* contains strong butterflies with a robust body. The margin of the forewings is not projecting so far, the apex not so very falcate, the costal of the forewing not connected with the subcostal. There are about 7 species which, however, vary a great deal and have therefore many denominations. The butterflies rest in bushes near the skirts of the forests, out of which they are beaten. They are not common.

N. eucharila *Bat.* (= *actoris* *Hbn. nec Cr.*) (126 h). Brown, studded with numerous yellow, small comma- or punctiform spots being partly prominent by dark shading. Hindwing with an orange-yellow striated band before the margin. Guiana and the Amazon as far as Bolivia and Brazil. — In the smaller *frustatoria* *Stich.* from Guiana, the comma-spots are narrower and the orange band of the hindwing is absent. — In *picina* *Stich.* the ground-colour is darker, the orange band stunted, the dots are almost entirely absent on the hindwing. — Also in *rufolimbata* *Stich.* (126 h) the dark hindwing is without the light spots, though here the distal margin is broad orange. — *merula* *Thieme* (126 i) has entirely black hindwings and also few minute dots in the cell and apical part of the forewing. *STAUDINGER* has described, but not denominated most of these forms; *rufolimbata* is before me only from Costa Rica (Orosi), *merula* from Paramba. — *melampia* *Bat.* (126 i) may be a distinct species, or only a large form; the ♂ is without the orange stripe of the hindwing, the ♀ has it thin and highly undulate. The irroration is insignificant, especially in the ♂, and also on the under surface, where the other *eucharila*-forms exhibit yellow grating, *melampia* shows only black-shaded comma-spots. From Bahia, where it is rare, and Espiritu Santo.

N. phryxe *Fldr.* (126 i, k). Large, more grey than dark brown, the small light spots confluent to 4 or 5 remote arcuate lines; beneath like above. Amazon and Bahia.

N. sylvia *Mschl.* (126 h). Stripes similar as in *Cr. thasus*, but the light stripes diaphanous, as of light bluish glass, and in the sunshine with a mother-of-pearl gloss. Beneath exactly like above. Guiana; before me also from Peru (Galcazu), where it is, however, very rare. It approximates *Cremna thasus*.

N. umbra *Bsd.* (= *cebenia* *Hew.*) (126 i). Brown like *Eunogyra*, but differing from *E. satyrus* by a more curved margin of the forewing, ring- and hook-marking of the upper surface and 1 or 2 fine white subapical dots in the forewing. Mexico and Central America. From specimens from Costa Rica and Guatemala those from Mexico differ by the postmedian line of the hindwing being coherent and straight there, while here it is broken up into separate crescents. Not rare.

N. beltiana *Godm.* (126 k). Almost like the form *frustatoria* of *eucharila*, but the submarginal rows of dots do not run uniformly, but curved; the anal part of the hindwing is above and beneath powdered as if with flour and exhibits a half-band, being entirely white or interspersed with quite few shades; Guiana and North Brazil; the figured specimen from Demerara. — In *malis* *Godm.* (126 k) from Muzo in Colombia the lacteous powdering of the hindwing is rather extensive, the white of the under surface greatly increased. The white half-band, however, is absent. — *lucilia* *Mschl.* is an intermediate form with a narrower white band of the hindwing, whereas in *aza* *Drc.* the white of the small spots of the forewings, in the anal part of the hindwings and on the whole under surface is increased; *lucilia* comes from Surinam, *aza* from Bolivia. From Guiana, however, I possess also specimens of a form having on the forewing exactly the marking of *beltiana*; the hindwing, however, is without the lacteous dusting of *malis* as well as the white half-band of *beltiana*.

N. nepos *F.* (126 k). Forewing dark brown, strewn with white, one spot beyond the centre of the wing especially large. In the hindwing the whole anal half snow-white. From Guiana to Ecuador and Peru. — *tanos* *Stich.* (126 k) from Bolivia is larger, the forewing more sparsely spotted. — *orpheus* *Wc.* (126 k) from South Brazil and Paraguay is smaller than *tanos*, the forewings spotted like there, but the white area of the hindwing differently shaped. Less rare than the forms of *beltiana*.

N. theages *G. and S.* (126 k). From Central America and the neighbouring Colombia has the white area of the hindwing in the anal part tinged in bluish, and also on the forewing a band consisting of 2 white spots and being sometimes interrupted by the ground-colour (*asteria* *Stich.*). The spots of the forewings may be larger or smaller (*cribraria* *Stich.*).

16. Genus: **Alesa** *Dbl.*

This genus is distinguished by a vast sexual dimorphism receding somewhat only in one species. The body is slender, the head broad, slanting, with a flat forehead and closely appressed short palpi; antennae very long, only slightly thickened at their ends. Abdomen long, in the ♂ thin, in the ♀ stout, but likewise stretched; forewings long with a very oblique distal margin, hindwings round, especially in the ♀. Cells of all the wings

closed, the upper radial originates with the 3rd subcostal vein from the same place. Colouring of the ♀♀ earthy brown, that of the ♂♂ varying, but with a metallic lustre. Only few species all of which are found in the eastern part of South America.

- amesis*. **A. amesis** *Cr.* (= *amosis auct.*, *prilas Godt.*) (127 b). ♂ above black, in the apical part of the forewing with yellowish grey streaks; from the distal margin of all the wings, a violetish blue reflection extends variously far into the wing, being prominent only in certain exposure to light, so that the reflection is much more difficult to see than, for instance, in the quite similarly coloured *Euselasia tarinda*; in some specimens the reflection seems to be absent altogether. ♀ light brown with dark bands. Apex of the forewing with yellow streaks, before the margin of the hindwing yellow, black-pupilled eye-spots the apical one of which represents a fused double eye-spot. — **lipara** *Bat.* (127 b) has rounder hindwings, weaker streaks in the apical part, the forewing is beneath of duller colours than *amesis*, on the whole with little differences; in the ♀ the two pupils of the apical eye-spot are not so closely fused, but still separated. — **hemiurga** *Bat.* has a lighter distal part of the wings in the ♂ and smaller dark spots in the ♀. The latter two forms on the Amazon, and the typical form in Guiana. — Of a very deviating impression are ♂♂ exhibiting instead of a violetish blue reflection a greenish grey metal-gloss; such a specimen is in the Paris Museum. — In Guiana the animal is common; the ♂♂ fly low on broad roads through the forests; the ♀♀ must be beaten out of the bushes.
- helydrias*. **A. helydrias** *Bat.* Similar to the preceding, but smaller and above all distinguished by the ♂ resembling the ♀, the marking of the under surface showing distinctly through above. Tapajoz. The species is not before me.
- telephae*. **A. telephae** *Bsd.* (127 a). Only the ♀ is known; it differs from the ♀ of *amesis* by a less marked forewing and by the apical eyespot-pupils of the hindwings showing above a magnificent bluish-green reflection as in the following species; this reflection, however, becomes prominent only in a certain light. Amazon.
- prema*. **A. prema** *Godt.* (= *smaragdifera Ww.*) (127 a). ♂ of a magnificent emerald-green, in another light of a deep blue reflection, with black markings. ♀ similar to that of the preceding species, larger, the eye-spots of the hindwings and some spots near the base of the forewing with metallic pupils. Colombia and Amazon; ♂♂ from Colombia (from the Rio Negro) exhibit above in the median area of both wings thicker black markings. Rare.

17. Genus: **Mimocastnia** *gen. nov.*

Near to the *Alesa*, but both sexes of a much bulkier structure, the ♀ entirely different from the ♂. The former resembles *Alesa prema* in the marking of the upper surface, the body more robust, the palpi thicker, with a projecting terminal joint, wings shorter, more obtuse with a very round margin, the lower discocellular of the hindwing very weak. The ♀ reminds us in the habitus of a *Castnia* of the *pelasgus*-group, and the remarkably bulky structure of the body may serve for completing the mimetic resemblance, but this may be secondary, the original for both may be an Arctiid secreting oil. Type: *M. rothschildi*.

- rothschildi*. **M. rothschildi** *nom. nov.* (♀ = *plagiaria Godm. nec Sm.*) (127 a). ♂ above with a black lattice-like marking, with golden green spots, the marginal spots guttiform. ♀ above black except the distal half of the forewing in which there is a white oblique band, and the margin of the hindwing of a blue gloss. Under surface of the ♂ like that of the ♀, but without the white oblique band. From the Rio Demerara in Guiana, apparently very rare; I know only a couple in the Tring Museum and one ♀ in the Coll. GODMAN in the British Museum.

18. Genus: **Nahida** *Ky.*

This genus having been founded by HEWITSON by the hackneyed name of *Threnodes* comprises 2 mimetic species of a bulky structure of the body, with very round broad wings, long antennae scarcely thickened at the ends, and the palpi being bent up before the forehead, though hardly reaching the middle of the forehead. The forehead itself is white. Forewing with a very long cell, hindwing with an extremely short one. With respect to the habits nothing is known to me; they evidently imitate Ithomiins and have probably therefore an unwieldy flight.

- coenoides*. **N. coenoides** *Hew.* Wings dull glassy with a broad black margin being white-spotted in the forewing. It differs from the form **trochois** *Hew.* (127 b) by the absence of the rust-red anal spot of the hindwing. From Ecuador, where the equally coloured *Napeogenes glycera* (35 g) and *apulia* (35 f) fly, the former without, the latter with anal red in the hindwing. The species is apparently rare, but it may be also only difficult to recognize, since in the same countries there also fly species of *Ceratinia* and *Pteronymia* which are similar to the *Nahida*.
- serena*. **N. serena** *Stich.* (127 d) which we figure from Cachabé, looks very much different compared to the preceding, but perhaps only owing to the mimicry of another model; here the disc of the wings is orange, the margin broader, the white marginal spots are increased and enlarged. The models are presumably species of *Dismenitis* or *Hypoleria*.

19. Genus: **Ithomeis** *Bat.*

This genus is hardly to be separated from the preceding; the differences stated (for instance in the veins) are very slight, some are also erroneous. The third palpal joint is said to be in *Ithomeis* conform, in *Nahida* knob-shaped. Indeed some *Ithomeis* exhibit the terminal joint of the palpus just as obtuse as the *Nahida*. Maybe that the forewing of the *Ithomeis* is not quite so round as it is in the latter. Moreover, we may conclude a certain alliance already from the mimicry common to both genera. There are about a dozen of forms known, the models of which are generally Ithomiinae, a fact being expressed already by the name.

I. aereilla *Sm.* (127 b). Wings with a dull glassy disc and broad black margins filled up with red-brown. *aereilla*. In the forewing a white oblique band. Peru, Bolivia; not very rare.

I. astrea *Fldr.* (127 c). Quite similar to *aereilla*, but larger, in place of the white oblique band we notice on the forewing an irregular, curved vitreous band. Before me only from Peru, but described from Venezuela. — In **deflecta** *Stich.* from South Brazil (Blumenau) or Venezuela the marginal band is said to be more filled up with brown and the vitreous spots of the subapical band of the forewing are more isolated. — **heliconina** *Bat.* (127 c) is an equally coloured species, but smaller, the vitreous areas are reduced and beneath lacteous; from the Amazon and Peru. There are transitions to typical *astrea*, as *heliconina* varies greatly at any rate, so that for instance the brown filling in the margin of the wings may disappear nearly altogether. The appearance of the *astrea*-forms presumably conforms with the species of *Leucothyris* and *Napeogenes* flying at the same habitats. — **satellites** *Bat.* has the size of *heliconina*, but the subapical vitreous band of the forewings being regular there is irregular here, being strangulated in the middle, the spots of the forewings almost white; from the Rio Tapajoz. *satellites*.

I. mimica *Bat.* (= *corinna* *Stgr.*) (127 c). This form is likewise connected with the preceding by transitions. It is characterized by the lacteous discal spots and the very broad orange distal band. From Colombia to Ecuador. It imitates *Napeogenes* of the *corena*-group, just like the following.

I. corena *Fldr.* (127 c) from Colombia differs from the preceding by its larger size, a broader orange spot at the inner margin of the forewing, and by the orange band of the forewing being broader than that of the hindwing, while in *mimica* it is just the reverse. Beneath the vitreous spots are almost as transparent as above, scarcely powdered with white. The species varies enormously in size and may drop from the size of an *astrea* down as far as to a small *heliconina*. The orange band may also be lighter yellow or more brownish red, continuous or interrupted. Where it is separated to a large subapical spot, as on the Upper Rio Negro, a resemblance is created with *Stalactis lineata* being imitated according to the same model. *corena*.

I. stalactina *Bat.* As the name implies, this species also resembles a *Stalactis* (*duvali*) and is immediately recognizable by this similarity. Probably from the Upper Amazon. As the orange colouring is shifted to the hindwing, also a secondary resemblance is produced with the Pierid *Dismorphia lysinoë* (30 d). *stalactina*.

I. aurantiaca *Bat.* Recognizable by the greater extent of the orange colouring on all the wings, otherwise belonging to the *corena*-group. Amazon District. Apparently very rare. It is besides recognizable by its resemblance with *Napeogenes erilla* and *Hyposcada illinissa*. The distribution of colours is about as in *Napeog. cyrianassa*, but the subapical spots of the forewings are lighter and clearer. *aurantiaca*.

I. eulema *Hew.* (127 d). In this species the hindwings are red-brown with a broad black, white-dotted distal margin. In the forewing only a broad longitudinal stripe above the inner margin is yet yellowish-brown, the other part being black with white dots and diffuse spots. Colombia. — **imitatrix** *G.* and *S.* (127 c) is the form of the adjoining Costa Rica and Panama, in which the forewings are without red-brown, entirely black, marked with but few white small streak-like spots. Both the forms thus approximate a colouring found in the Pieris *Charonias eurytele* (21 e) in Colombia or *Ch. lyceas* in Panama or *intermedia* *Schs.* from Costa Rica. The resemblance, however, is secondary, created by both having been copied according to the same model. This model is to be found among the numerous equally coloured Ithomiinae to which belong for instance *Melinæa menatis* (33 d), *Napeogenes larina* (35 e), *Ceratinia callispila* (35 a), *Callithomia hezia* (36 b), *Ithomia plaginota* or *eulema* (37 b, c) and many other butterflies. *eulema*. *imitatrix*.

20. Genus: **Tmetoqlene** *Fldr.*

The species of this genus likewise imitate the *Ithomiinae*, but only hyaline species, especially those from the genera *Ithomia* *Hypoleria*, *Pteronymia* etc. They resemble the patented genus of night-butterflies *Brachyglene* *H.-Schäff.*, according to which FELDNER had originally denominated them, only in the shape, not in the colour. From the species of the preceding genus they are immediately distinguishable by the short cell of the forewing which is little longer than that of the hindwing, while in the *Ithomeis* it is about as long again. The species fly little and are mostly not common; there are about 5 or 6 species known with a range extending from Mexico to South Brazil and Bolivia.

- esthema*. **T. esthema** *Fldr.* (127 d). Ground of the wings diaphanous greyish-blue, the veins prominent as radiary stripes with intermediat rays. Forewing with a white oblique band traversed by the veins. Sides of abdomen beneath yellow. From Panama to Brazil and Colombia. Fresh specimens have a very bright blue gloss which, however, disappears soon.
- dodone*. **T. dodone** *G. and S.* resembles the preceding species, but it has longer forewings and shorter hindwings. From the figured *eulesca* *Dyar* (127 d) from Mexico *dodone* chiefly differs by the blue gloss of the upper surface being brighter and the white longitudinal blurred spots in the subapical area flowing together to an oblique band. In Costa Rica and Panama; on the Chiriqui it is not rare.
- colaxea*. **T. colaxea** *Hew.* entirely resembles the following *dinora* (127 d), but the black margins are broader, the apical vitreous band thereby shortened in the shape of a spot; the black oblique band separating it from the basal part of the hindwing is at the costa so broad that it encloses the small band of the cell-end. From Ecuador.
- dinora*. **T. dinora** *Bat.* (127 d). Ground of the wings throughout hyaline, the preapical oblique band curved. The black margins of the wings are in freshly captured specimens of a magnificent blue reflection which, however, gradually disappears in the collection. Abdomen beneath brick-red.
- drymo*. **T. drymo** *G. and S.* (127 d) is very near to *dinora*, but the subapical band of the forewing is not curved, but forms more of an oblique longitudinal oval of a whitish gloss. South Brazil. Rare.

21. Genus: **Themone** *Hw.*

Shape and scheme of markings very similar to the preceding genus, but the colouring bright and variegated, more adapted to the small coloured species of Ithomiins, yellowish brown, with black margins and a light yellow oblique band before the black apex. The antennae are shorter, the cell of the forewing is not so very long compared with the short cell of the hindwing. With respect to the habits, the species being distributed from Guiana to Brazil and Peru do not differ from the other Erycinid genera.

- país*. **Th. país** *Hbn.* (= *halius Dalm.*) (127 i). Red-yellow with a broad black margin and apical part of the forewings; in the forewing of the ♂ an oblique, in the ♀ a bent yellow band. Above the cell of the hindwing a thick black cuneiform streak and in the margin of the hindwing of the ♀ yellow dots which are only indistinctly indicated in the ♂. Central and North Brazil. — In the extent of the yellow bands the species varies greatly according to the localities; thus they are in *eutacta* *Stich.* from Guiana very broad and long, curved and beneath pointed, whereas the spot in the cell of the hindwing is narrow and short. — *carveri* *Weeks* (127 i) are ♀♀ from Venezuela in which the black cellular spot in the hindwing is absent altogether. — *paidion* *Stich.* is smaller, with a narrower subapical band being indistinctly developed in its posterior part. From Peru.
- storthynga*. — In *storthynga* *Stich.* from Peru the black of the apical half of the forewing reaches into the basal red in the shape of teeth, and in *trivittata* *Lathy* (127 i) the basal red stands in connection with the yellow oblique band on the veins; likewise from Peru. — The forms exhibit a conspicuous resemblance in the exterior to the genus *Methonella* (122 i).
- poecila*. **Th. poecila** *Bates* (127 i). From the Amazon. Base of the wings ochre-yellow, distal half black. Apex of all the wings with a white margin. Beyond the middle of the forewing there is an oval oblique spot, in the hindwing a reddish ochre-yellow punctiform spot. Apparently very rare.

22. Genus: **Cartea** *Ky.*

Of this genus, being distinguished from the *Themone* by the very short discocellular of the hindwing, and from the *Chamaelimnas* by the cell of the forewing ending before the middle of the wing, only 1 species is known with red-yellow wings margined in broad black and a bone-yellow oblique spot in the black apical part of the forewing. On the Upper Amazon and in the neighbouring Peru the species is locally common.

- vitula*. **C. vitula** *Hew.* (127 h). Basal half of the forewing and disc of the hindwing with a miniate cuneiform spot on a black ground, the apical part of the forewing in typical specimens with a very narrow brownish-yellow spot which is broader in the form *tapajona* *Stgr.* (127 h) from the Rio Tapajoz (Humayta). — *trailii* *Btlr.* and *ucayala* *Thieme* are also insignificant deviations regarding the shape of the variegated spots; the former flies like the typical form on the Upper Amazon (Iquitos), though probably hardly at the same places; *ucayala* comes from Peru; here the oblique spot of the forewing is still broader than in the typical form and of a pure white.

23. Genus: **Chamaelimnas** *Fldr.*

Hereto belong 13 black and yellow forms with very long forewings, whilst the hindwings form an almost quite uniform ellipsis, sometimes slightly tapering at the anal angle. The antennae are long, the palpi quite short; the cell of the forewing extends beyond the middle of the wing and is very broad, that of the hindwing short. They imitate night-butterflies from the genera *Cylopoloda* and *Josia*, sometimes in such a greatly deceptive way that even the connoisseur finds difficulty in distinguishing them from these night-butterflies flying

frequently (the *Cyloppoda* even exclusively) in day-time. The shape of the yellow spots differs at every habitat and is so characteristic that one can exactly see from it, whether a specimen of the genus has been captured on the Corcovado near Rio, or in the Serra do Mar near Santos, in Espiritu Santo or in Blumenau. The application of names has become far too numerous, as is proved by the confusion already caused. Among the 14 *briola* before me there are only two alike (of the same date!).

Ch. briola *Bat.* (= *histrío Göze*) (127 e). Black; forewing with a bright, light-yellow spot in the cell and an equal oblique band before the apex; hindwing likewise yellow and black. Size and shape of the yellow spots vary at every habitat, sometimes there is also a yellow collar, and the apex of the forewing may be bordered in light-yellow. In typical *briola* the whole disc of the hindwing is yellow so that only a broad black margin remains. — In *doryphora* *Stich.* (= *briola Hew.* pt.) (127 f) being somewhat smaller and originating from South Brazil, the apical spot of the forewing is narrower and the hindwing with a broader black margin. — **phoenias** *Hew.* (127 f) has in the hindwing only the region of the hindwing-cell yellow, and a small yellow cuneiform spot in the forewing-cell. — Distributed over the whole of tropical South America.

Ch. villagomes *Hew.* (127 f) differs from the preceding by the cell of the forewing being without any yellow at all. Ecuador. — There are transitions to the preceding species with a narrow but distinct spot in the cell of the forewing (*xanthotaenia* *Stich.*), so that *villagomes* might be included in it. — In *urbana* *Stich.* the yellow spot of the forewing has the shape of a band. — Distributed from Central America to Peru.

Ch. ammon *Cr.* (127 f). In this species from Guiana the whole basal half of the forewing is yellow except a narrow black costal margin. — **cercides** *Hew.* is distinguished only by the basal yellow of the forewing forming a more regular triangle with less rounded angles and being separated from the oblique spot by a uniform, quite straight band. — In *cydonia* *Stich.* (127 f) from Colombia this separating band has disappeared and the forewing is entirely yellow except the very broad margin; from Colombia. — From Villaviciencia there is a transition to this form before me, in which a beginning of this band (above the cell-end) is still preserved, while its lower part is absent; the two yellow spots of the forewing, therefore, flow together at the inner margin, while at the costa they are separated. The butterflies of this species and the preceding ones are not common and represent each other, so that the occurrence of two different forms of this group at the same flying-place is improbable.

Ch. joviana *Schs.* (127 f). Black with fiery orange-red longitudinal stripes across all the wings, the one in the forewing broken obtuse-angled at the cell-end. From Peru and Bolivia. Here too, deviations occur in the shape and distinctness of the longitudinal stripe from the typical form figured by us, as for instance in the form *similis* *Schs.* The species greatly resembles the Colombian *Mesenopsis melanochlora* or *briseis*; this resemblance, however, is secondary, as both species copy *Josia fulva*; the latter, according to A. H. FASSL in such a deceptive way that they are scarcely discernible.

Ch. splendens *Sm.* (127 g). Black, forewing with an orange-yellow oblique band. Hindwing in the basal part of a metallic blue reflection. It flies in Bolivia; in a specimen from the Rio Songo the orange band sends a long tip along the median as far as to the base of the forewing. The species reminds us of a number of quite equally coloured *Heterocera*, such as certain Arctiids and Syntomids (for instance *Ctenucha cyaniris*, *Hagnagora* and so on) together with which it flies.

Ch. tircis *Fldr.* (127 g). Black, forewing with a yellow oblique spot being smaller and darker in the ♂, larger and lighter, nearly white, in the ♀. — In *jaeris* *Bsd.* from the Amazon the small oblique band is darker yellow and of about the same width. The typical form is not rare near Bahia and rests in the bushes near the roads, together with a great number of quite similarly coloured and marked species of night-butterflies (*Getta* and others).

Ch. pansa *Godm.* (127 g). Most similar to the preceding, larger, the oblique band of the forewing compared with its length narrower, more ochre-yellow, running somewhat more flatly. The shape and colour of this yellow band vary extremely; on the Pachitea River it is cuneiform, in the Province of Sara distally cut off straight, near Buenavista distally convex and so on. Common in Brazil, Bolivia and Peru. It shows a secondary resemblance to *Isapis*, some *Lymnas* etc.

24. Genus: *Ithomiola* *Fldr.*

Very near to the preceding genus, but of a quite different appearance, as not the yellow, but the hyaline species of the *Heterocera*-genus *Cyloppoda* are here homochromous with these *Erycinidae*. The chief difference from the preceding genus consists in the apex of the forewing being rounder, which is probably to be considered also as an imitatory phase and may be connected with the flight of the *Ithomiinae* differing entirely from that of the yellow *Diopis* and the *Brachyglene*. The flight of the *Cyloppoda* is much more powerful and continuous (they always fly in sunshine), which is increased by the more pointed wings and the restless flapping of the wings. On account of the longer apex of the wings in the *Chamaelimnas*, the last subcostal vein rises somewhat farther before the apex than in *Ithomiola*, otherwise the veins do not differ; *Ithomiola*, however, has a remarkably long middle joint of the palpus, the first and last being very short. The genus has very many forms, as there are scarcely 2 specimens alike that are found not at the same place. The species, therefore, are related to each other as vicarious species. They are mostly not rare.

- floralis*. **I. floralis** Fldr. (127 h). Wings in the disc hyaline with dark margins, a cross-bar in the middle of the cell of the forewing and one at the end; in the black apical part of the forewing a small band consisting of 4 small hyaline spots. The broad black margin of the wings is filled with red, beneath lighter and more intense than above. — In the smaller form **cephalena** Hew. the red marginal filling is absent in the forewing and the apical part of the hindwing; the apical band of the forewing is somewhat broader. Before me from Potaro (British Guiana), whereas the typical form is not rare near Cayenne. As the name indicates, the model is *Leucothyris flora* from Cayenne.
- ceftilla*. **I. ceftilla** Hew. (= *oeltilla* Stich.) has likewise a hyaline disc of the wings, traversed by the thick black veins, but in the apical part of the forewing there is a large lacteous oblique oval. In typical specimens from Ecuador there are above on the black margin of the wings only traces of a red filling. — In the form **rubrolineata** Lathy (127 g) this filling is more distinct and extends yet to the inner margin of the forewings. Peru, Bolivia.
- cascella*. **I. cascella** Hew. (= *servilia* Stich.) (127 h). Here is in the apical part of the forewings an orange band instead of the hyaline band of *floralis* or the lacteous band of *ceftilla*. In the ♀ there are traces of the hyaline band in the midst of the orange band; in Colombian ♂♂ the margin of the hindwings above is without the red filling. The model is *Heterosais aureola* or *Napeogenes corena*. According to the appearance of the corresponding model is also that of *cascella* of which hardly two entirely equal specimens are to be found.
- callixena*. **I. callixena** Hew. (127 g) is connected with *Leucothyris* of the *sexmaculata*-group and has, therefore, white-spotted forewings; like there, the light space next to the inner margin is tinged bluish. Ecuador.

25. Genus: **Lepricornis** Fldr.

Likewise mimetic, according to models from the same groups as those of the preceding genera (*Ithomiinae*, *Cylopodinae*, *Arctiidae*). The genus is recognizable by the shape of the antennae looking as if thickened, but being in fact only densely scaled. The forehead has rough and projecting hairs. In the forewing the middle radial rises nearer to the anterior cellular angle, so that the middle discocellular (the upper one is absent) gets very short. The margin of the hindwing is in the middle very slightly angled. There have 10 forms been named, many intermediate forms are not named.

- melanchroia*. **L. melanchroia** Fldr. (127 e). This common species from Mexico greatly resembles *Tmetoglene eulesca*, but it is easily recognizable by the thickened antennae and by having orange-yellow palpi; generally also the sides of the neck are yellowish-brown. Wings black, somewhat lighter between the veins, before the apex of the forewing a white cuneiform spot.
- unicolor*. **L. unicolor** G. and S. (136 b) from Guatemala resembles the preceding, but the light spaces between, the veins are entirely darkened and only indicated by a faint bluish lustre; there is no small white band of the forewing, but the collar and palpi are orange.
- strigosus*. **L. strigosus** Stgr. (127 e). Here the light spaces between the veins are present, but begrimed in a dark grey colour; instead of the small subapical band there are 4 white oval spots. From the Chiriqui, rather common.
- tristis*. — **tristis** Schs., mentioned already by STAUDINGER, but not denominated, has a darker colouring and the white spots are shaded in dark; from Peru (Pebas). — **meridae** Dyar from Colombia and Venezuela exhibits, instead of the white oval spots, long hyaline diffuse spots which, however, are begrimed in grey. The sides of the neck and the palpi are more dull red-brown than orange-yellow. — The forms have been described from different countries, they are, however, not bound to them, but to certain flying-places.
- teras*. **L. teras** Stich. (128 e). Unknown to me in nature; is said to come from Brazil; ♂ from Sa. Catharina, ♀ from the Rio Madeira. According to the author's figure which we copy, the ♂ exhibits an oval subapical spot traversed by light blue veins; ♀ above unicolorous black, without blue, with the oblique spot like in the ♂.
- atricolor*. **L. atricolor** Btlr. approximates the preceding, but the upper surface of all the wings is very dark, the small transverse band before the jet-black apex of the ♀ white. From Brazil. Imitates certain *Getta*. —
- stygialis*. **L. stygialis** Stich. (142 b) has a somewhat longer subapical spot being, however, orange-yellow in the ♀. Peru.
- incerta*. **L. incerta** Stgr. (127 e). Almost like *strigosus*, but the spaces between the veins and the spots of the subapical band of a pure hyaline. Colombia to Peru. — **cilnia** Stgr. (127 e) from the Rio San Juan in Colombia has a yellow disc of the hindwing. — May already belong to the following genus.
- bicolor*. **L. bicolor** G. and S. (136 b) is unknown to me in nature. Disc of the wings orange; in the apex of the forewing there is an orange spot. According to the authors, it is said to belong here owing to the veins; but as the veins are not very characteristic of the genus, its position remains doubtful to me. It imitates certain *Cylopodina* (*Oricia*) and was described from Panama.

26. Genus: **Pheles** H.-Schüff.

Differing from the preceding genus by the short appressed (not projecting like a hair-tuft) hairs on the forehead, as well as by the posterior discocellular of the forewing being also stunted beside the anterior one. Palpi rust-yellow, bristly, as in *Lepricornis*; wings hyaline.

Ph. heliconides *H.-Schüff.* (128 a, b). Wings hyaline with black veins and margins, the forewings *heliconid s.* with an oblique band across the cell-end. Middle of the forehead silvery white. Imitates species of *Hypoleria* and *Ithomia*. From Guiana and the Amazon. — In *rufula* *Sm.* from Ecuador the hyaline patches of the distal *rufula.* band before the black border of the forewing are dusted in orange, and in *rufotincta* *Bal.* from the Upper Amazon *rufotincta.* the orange is noticed also at the posterior end of the hyaline patches in the hindwing. Not rare.

27. Genus: **Isapis** *Dbl.*

This genus contains only 1 species which, however, is very widely distributed, although it occurs sporadically. The head is broad with very thick eyes, a flat forehead, short palpi and thick antennae ending with long and stout, fusiform clubs. The forewings are long with a round margin and a little marked anal angle.

I. agyrtus *Cr.* (132 c). Black, forewing with an orange-yellow oblique spot; beneath a yellow transverse *agyrtus.* band runs across the basal part of both wings as far as to the anal angle of the hindwing, where it is in some ♀♀ still to be seen round the inner margin as a small narrow, yellow inner marginal stripe on the upper surface. It varies at every habitat, though not according to countries, as for instance on the Amazon there occur specimens with a broad and a narrow band of the under surface, as well as in Surinam etc. Specimens from Santos have a deep orange-red stripe of the forewing, turning somewhat distally at the costal margin, and a moderately broad band of the under surface. We have considered this form to be *sestus* *Stich.* and figured *sestus.* by this name, owing to the author's statement „Brazil, Bolivia“; but as the author states, his *sestus* corresponds with our figure of *mithrophorus* (132 c), which, however, represents a Surinam specimen. — ♀♀ with a yellow inner marginal border of the hindwing, as they are before me from Bolivia, *STICHEL* denominates *praxinus*, *praxinus.* from „Venezuela“. — *hera* *G. and S.* (Guatemala) forms a transition to *falcis* *Weym.* (132 c) provided with a band of the under surface as thin as a thread, from Colombia, the ♀♀ of which exhibit besides a „less band-like *hera.* band of the forewing“. The butterflies are very local, but not rare at their flying-places. They sit on the tips of twigs with their wings clapped together, and are particularly fond to do so on small bare branches, on the upper surface, the antennae stretched forward parallel in the direction of the clearing in the woods; on being chased up they fly only a few metres off. The range extends from Central America to Bolivia and South Brazil. *falcis.*

28. Genus: **Panara** *Dbl.*

This genus has 2 species being rather near to each other. They are black animals with an orange oblique band of the forewing, as we find it also in *Isapis* and many other *Erycinidae*, whereby resemblances are produced with the said genus, as well as with species of *Mesene*, *Aricoris*, *Chamaelinnas*, *Lynnas* etc. The animals are rather strongly built and exceptionally good flyers and also sometimes fly about in day-time, the flight being somewhat like that of *Heterocera*, so that they are difficult to distinguish from quite a number of homologically coloured species of Geometrids and Arctiids found at the same places. In the hindwing the cell is possibly still shorter than in most of the other *Erycinidae*; on the forewing the first subcostal vein branches off just before the cell-end, the second directly behind it. Although the butterflies are not so local as the other *Erycinidae*, their life-history is not known.

P. phereclus *L.* (132 c). Only the forewings exhibit an orange band being situated sometimes more steeply, *phereclus.* sometimes more flatly, and varying at every habitat. It generally (in specimens from the Amazon) reaches almost the costa and anal angle. — *barsacus* *Ww.* (132 c), with a somewhat shorter orange band, is connected with *barsacus.* *phereclus* by all transitions and ought not to have been separated. Amazon, Guiana. Some specimens, especially ♀♀, have in the hindwing white or chequered fringes, being, however, quite accidental. — *comes* *Stich.* originates *comes.* from Peru, Ecuador, and Bolivia, but does not differ constantly from the typical form, neither by the fringes nor by the size, as the species varies everywhere in this respect. — ab. *lemniscata* *Thm.* are specimens (before me are only ♀♀ from Colombia) with a white oblique band of the forewing. — *episatnius* *Pritw.* (? sicora *Hev.*) *episatnius.* (132 d) has broad and long oblique bands reaching in some ♀♀ the distal margin at the anal angle and running straight or curved (*arctifascia* *Btlr.*). From South and Central Brazil. All the forms may have in the ♂ an *arctifascia.* intense ultra-marine reflection beneath, more rarely also above. Not rare.

P. thisbe *F.* (= *iarbas* *Ww. nec F., perditia* *Hbn.*) (132 d). This species has longer hindwings and on *thisbe.* them also an orange band forming with that of the forewing nearly a right angle. In typical specimens (generally found in Guiana and North Brazil) both the orange bands are rather narrow. In *soana* *Hev.* (132 d) from South *soana.* Brazil the band of the forewing is especially much broader towards the costa, the band of the hindwing slightly curved. — In *thymele* *Stich.* from South Brazil the band of the forewing lies more flatly, that of the hindwing *thymele.* is placed somewhat distally; this is of course only the character of the flying-place, as specimens from different habitats always exhibit differences of the bands. — *ovifera* *form. nov.* (132 d) from Petropolis in South Brazil *ovifera.* exhibits the band of the forewing reduced to an oval; — in *eclypsis* *form. nov.* (132 d) the band of the hind- *eclypsis.*

aureizona. wing ist entirely blind, i. e. simply indicated by a lighter ground-colour *); Espiritu Santo. -- In *aureizona ornata*. *Bilr.* the band of the hindwing is altogether absent above, and in *ornata Stich.* (132 e) it is only indicated at the end in the middle of the inner margin. These forms are not bound to certain countries, but they occur everywhere in the range extending from Guiana to South Brazil. Beneath often with a blue reflection. Single and local, though not very rare.

29. Genus: **Riodina** Ww. (= *Eryciua* Hbn.).

Approximating the preceding genus in the exterior, but the basal part of the costa somewhat protruding; in the hindwing the middle of the border between the lower radial vein and the upper median is sometimes angled or even lobate. Easily recognizable by the colouring and by the sides of the abdomen not being variegated, whereas in *Panara* they are brightly coloured in orange. Few species are known and distributed from the northern coast of South America to Peru, Bolivia and Argentina. Like the *Panara*, they fly in the sunshine and preferably settle down, with half-opened wings (about like our *Chrysophanus phlaeas*) on fernfronds and low leaves of *Canna*. They belong to the more common *Erycinidae*.

lysippus. **R. lysippus** L. (132 e). Extremely variable regarding size, orange band and white dotting. Black; above on both wings, from the costa to the anal angle, there runs a generally broad orange band; disc studded with light dots. The orange band may be as thin as a thread (in some places of Venezuela) or also very broad (= *lysias* *Stich.* 132 e); then it is sometimes proximally shaded in white or filled up with white. — *lysias*. A form, entirely black above and beneath, without an orange band and with hardly noticeable dotting flies near Bolivar in Venezuela; it is *negrita form nov.* (132 e). — *negrita*. In Colombia flies a very small, scarcely dotted form with conspicuously uniformly bent, narrow bands, which I denominate *erratica form. nov.* (132 e) and which one might rather take to the following species at first sight. Typical *lysippus* chiefly occur in Guiana and on the Amazon; near Humayta on the Rio Madeira they are very intensely dotted, at the same place where also *Amarynthia meneria* fa. *superior* (132 g) has the widest bands and the whitest spots.

lysippoides. **R. lysippoides** Berg (132 e, f). In shape and colouring very much like the preceding, but smaller, lighter brown and without the light dotting. In specimens from Argentina, where I often came across this species in the agricultural park near Palermo on the Silver River, the small band of the hindwing is confined to the inner marginal part of the wing; in specimens from South Brazil it is better developed and also that on the forewing broader. This form also shows already the marks of the light dotting and thus forms a transition to *lysippus*; I call it *crioeus form. nov.* (132 f).

lycisca. **R. lycisca** Hew. (132 f). — HEWITSON figures 3 forms of this butterfly all of which occur, though not so often, in the same district, but mostly separated according to the flying-places. *Stichel* denominates each form, the rarest one (both wings with an orange band) as the type. The form without the band of the forewing he calls *refracta* (132 f), the insignificant transition with an incomplete band of the hindwing *infirmata*. In case these names be maintained, especially also those unbanded specimens would have to be denominated, in which also the marginal band of the hindwing has disappeared except some scattered traces of it. Often the two bands are simply indicated at the ends by spots. South Brazil, São Paulo and Rio Grande do Sul.

lystratus. **R. lystratus** Burn. is said to be confined to Argentina and South Brazil and constantly to differ from the Paraguay-form *luctus* Berg (132 f). But also the latter varies, particularly with respect to the costal marginal spot of the forewing which may be yellow or white, oval or in the shape of a small band. Not rare. As to the form *pelta* *Schs.* cf. Additions.

lysimachus. **R. lysimachus** *Stich.* (142 f) has the habitus of the preceding species, but the margin of the hindwing is very much lobated, the orange band running through the whole forewing. Neu-Freiburg (South Brazil).

30. Genus: **Lymnas** Blch.

Easily recognizable by the very long forewings with a rather steep distal margin and short hindwings with a round margin. The body is of a clumsy structure, often with scarlet or orange markings, the head stout with projecting palpi being, however, only in single species so long that they become visible from above. Antennae thick, quite gradually thickened to weak clubs. The butterflies are mostly black with a red, yellow or white oblique band of the forewing or a variegated border of the hindwing; often also the apex of the forewing is yellow or white. The veins are in some species very conspicuous, projecting from the velvety-black ground. Beneath some species exhibit a faint blue reflection (e. g. *L. passiena*), above not. Only few species deviate from the general colorial type owing to mimetic influences (e. g. *L. thyatira*). The larva is said to be hairy (BOISDUVAL), the pupa stretched similarly as an *Acrain*, with light colours and dark spots, small protuberances on the back of the abdomen. The imagines drink early in the morning from wet stones and

*) By a mistake the band of the hindwing of *elypsis* was depicted in yellow on our figure; the artist had probably thought that it was discoloured by oil, and had corrected it according to another specimen; the yellow on the hindwing is in fact entirely covered by black scales.

places on the roads and rest in day-time beneath leaves; some species are extremely rare, others very common. There are more than 50 forms known, including the hardly deviating *Aculhua cinaron*.

L. cinaron *Fldr.* (= *inca Rob.*) (131 a). Above sooty black, the hindwings with a straightly cut-off, yellow distal band; beneath the wings have lighter veins. — About 100 specimens before me originate from different parts of tropical South America. According to the habitat, the margin of the hindwing is sometimes more orange, sometimes more light yellow or light lemon-coloured, broader or narrower; the light veins are distinct sometimes on all the wings, sometimes only on the hindwings. From Colombia to the south as far as South Brazil in the east and Bolivia and Peru in the west, in Ecuador up to a considerable altitude, otherwise preferring the lowlands. — **corvina** *Stich.* (131 a, as *serriger*) lies before me in the type; it comes from the Cauca Valley in Colombia; here the inner edge of the marginal band on the hindwing is serrate-dentate. — **crenitaenia** *Stich.*, unknown to me in nature is like *corvina*, but it has in typical specimens an orange-yellow apex of the forewings; from Costa Rica. — **signata** *Stich.* has besides another orange spot before the anal angle of the forewing; Costa Rica. Other deviations are of secondary importance. Apparently in many places not rare, but near Rio uncommon.

L. alena *Hew.* (131 a) resembles somewhat a large *cinaron* (131 a) with a yellow apex of the forewing, but differs greatly by its shape and size. The sides of the abdomen are of a bright purple-red; the yellow distal marginal band of the hindwing is just the reverse of that of *crenitaenia*, since on the veins continuations of the yellow distal band extend towards the base, whereas in *crenitaenia* black continuations of the ground-colour extend towards the margin. Rare, on the Corcovado near Rio de Janeiro and in Colombia; probably widely distributed, but owing to its great rareness discovered only in few places.

L. passiena *Hew.* (131 a). Likewise black, apex of the forewing and margin of the hindwing orange-red, but the extremest margin and the fringes black, so that the orange-red appears somewhat removed from the margin. Colombia. — In **aulonia** *Hew.*, described from Bolivia, more than the apical third of the forewing is orange and the marginal band of the hindwing more than twice as broad.

L. pice. Of this multiform group with an orange-yellow apex of the forewing and an equally coloured margin of the hindwing one of the first branches is **zoega** *Hew.* (131 a). Size and width of the orange-yellow margin varies at almost every place, where it is found; all the specimens, however, found at the same place, exactly correspond with each other. *zoega* occurs more in the southern part of tropical South America, in South Brazil, Paraguay, Bolivia and Peru. Typical *zoega* originate from Ulinas Geraes, they have near the base of the forewing a distinct red dot and a rather small orange apical margin; the figured example is a large ♀. — Sometimes instead of the apical spot, the whole margin of the forewing is orange-yellow in a width of 1–2 mm; this is the form **smithiae** *Ww.* (131 b). — An intermediate form is created by the apical spot extending into a chain of small orange marginal spots: **aurolimbata** *Thieme* (131 a), from Ecuador and the adjoining Amazon District as far as Bolivia. — The form of the group described first is **pice** *Bsd.* (131 b) from Mexico and Central America, in which the margin of the hindwing is of a purple-red instead of orange-red. This marginal band is then generally divided into spots by black veins, and the red basal spot of the forewing varies greatly in size. — In **sexpunctata** *form. nov.* it is coherent, but at the inner margin indented by the black ground-colour; the basal spot of the forewing is large and there appear some more red dots at the base of the hindwing and above the anal angle of the forewing; from Guerrero; — this increase of the red may be still continued, finally leading to the form **sanguinea** *Stich.* (131 b) which we figure from Costa Rica and which exhibits an enormously enlarged basal spot and some more hemochrome spots before the margin of the forewing. — Of this there is again another side-form in which the spots at the distal margin of the forewings are orange. It comes from Mexico, but it probably has another habitat as the larger *sexpunctata* from which it differs most conspicuously by the marginal band of the hindwing being here orange, in *sexpunctata*, however, scarlet. — **flammula** *Bates* is like *zoega*, but it has a much more extensively orange apex of the forewing, though the orange is not, as in *smithiae* or *aurolimbata*, continued along the distal margin; the hindwings have a moderately broad orange margin and all the wings a crimson dot near the base. Near Teffé, rare, probably hardly to be maintained as a proper form of *zoega*; according to STICHEL also in Brazil and Bolivia. — **gynaecceas** *G. and S.* has, like *pice*, a yellow apex of the forewing and 4 red basal dots, but by the reduction of the yellow margin of the hindwing it forms a transition to *xarifa*. Central America and Mexico.

L. xarifa *Hew.* (131 b). Black, the forewings with an orange-yellow apex, the hindwings, however, without a yellow margin. The animal is comparatively very common and distributed all over the northern part of South America, but it varies at every habitat. Particularly the apical spot is sometimes very small and narrow, sometimes larger than our figure shows. It is quite useless to denominate all these forms, because animals living only a few miles away from each other exhibit already constant differences, corresponding, however, again with others that were taken at great distances from them. Also with respect to the red basal dots there exist all kinds of possibilities: in the type there is a very large dot near the base of the forewing; in **quadrifasciata** *Stich.* another dot like it appears at the base of the hindwing, in **impunctata** *Stich.* (131 b) the red dots are absent altogether.

L. vidali *Doyn.* approximates the forms of *zoega* belonging to the *pice*-group, and is immediately recognizable by the apical spot of the forewing being also of a magnificent hemochrome; from Loja in Ecuador. — **laticlavata** *Stich.* from Colombia has a broader red marginal band of the hindwing and the apical spot is enlarged.

- unxia*. **L. unxia** *Hew.* (131 b) has a superficial resemblance to a *xarija*, but the orange spot of the forewing is not placed at the apex of the wing, but removed somewhat into the wing. In South Brazil, near Rio de Janeiro, Santos, probably very widely distributed (over the whole of South West Brazil), but everywhere very rare, and like most of the *Erycinidae*, of a very local, insular occurrence. On hundreds of excursions in its proper range, I have never come across one specimen, and also v. BOENNINGHAUSEN who collected for 33 years near Rio de Janeiro, told me that on innumerable excursions he saw but few specimens during all this time — It flies on the Monte Corcovado near Rio de Janeiro.
- volusia*. **L. volusia** *Hew. nec Boenningh.* (131 c). This species already forms a transition to the numerous forms with a white or yellow oblique band of the forewing which, however, is here simply indicated by a stripe-shaped clearing obliquely across the disc of the forewing. The form which I know only through HEWITSON, almost looks like a *Xenandra*, and v. BOENNINGHAUSEN considered it to be the ♂ of the ♀ figured by HEWITSON as *agriana* (131 h). Described from Rio de Janeiro; extremely rare and probably not flying in the immediate neighbourhood of the town, but in the Organ Mountains.
- lycea*. **L. lycea** *Hbn.* (131 c). Hindwing with an orange margin, hindwing with orange spots before (not in) the apex and smaller ones along the margin. In the centre of East Brazil, near Bahia, Pernambuco. Rare.
- erythrus*. **L. erythrus** *Mén.* (131 c). The orange marking of the forewing is reduced to an oblique band before the apex, being continued in triangular spots as far as to the anal angle. In the marginal band of the hindwing there appear black marginal dots. Larger than the preceding; the typical form has near the base of the forewing a large red dot. — In *xeniades* *Stich.* (131 e) the red basal dots are absent and the orange is more red.
- xeniades*. — In ab. *depompata* *Stich.* (131 c) being in some districts more common than *xeniades* that part of the band of the forewing which cuts off the apical part is absent. — In *xenia* *Hew.*, on the contrary, this part of the orange band is present, but the chain of spots to the anal angle is entirely or almost entirely absent, and the dot near the base of the forewing is small and yellow instead of red. South and Central Brazil, mostly rare.
- depompata*.
- xenia*.
- ambryllis*. **L. ambryllis** *Hew.* (131 c, d). This less rare species which some time ago was introduced in great numbers from Paraguay, has an oblique band before the apex and a band before the margin of the hindwing of a white colour. It varies at every habitat. The band of the forewings is either widened, or prolonged, or narrowed or shortened, disproportionate, divided into pieces, pointed or truncate. Beside these possibilities, the band of the hindwing may be broad and coherent, or narrow or rudimentary. Apart from this, there may be at the base of all the wings or only the forewings red dots varying again in their turn according to the part of the forest where the animals were captured. Furthermore, there are also yet differences of size, since larger specimens predominate in the west, smaller ones in the east. By the combination of these deviations we obtain about 30 forms according to the material before me. STICHEL denominates one of them *dialeuca*. Just such a specimen as STICHEL figures it, is not contained in the abundant material before me; it is characterized by a (as stated) broader band of the forewing and a narrower one of the hindwing. Our figure of a Paraguay-♀ approximates it, but above it has the white band of the forewing by no means broader than that of the white Bolivian *ambryllis* collected in great numbers by JOSÉ STEINBACH. — *ambryllis* is not only less rare than most of the *Lymnas*, but it also flies lower and does not stay, like most of the other species of the genus, almost exclusively on the tops of the trees.
- cephise*. **L. cephise** *Mén.* (131 d). Black with light veins, like the preceding, but without bands, the red dots, however, appear very prominently near the base of the wings. Mexico and Central America. In typical *cephise* the fringes of the forewing are black; in *acroleuca* *Fldr.* (131 d) the apex and wings are distally bordered by a narrow white. Both the forms occur in the same districts. — *nigretta* *form. nov.* (131 d) has the fringes at the apex of the forewing and at the border of the hindwing orange-yellow; from the Itaituba, probably the blackened form of another species from the *ubia*-group, entirely smaller and less distinctly veined. Not common.
- acroleuca*.
- nigretta*.
- araguaya*. **L. araguaya** *sp. nov.* (131 d). Ground-colour like in *cephise*, the fringes dark, the veins less white; across the cell-end runs a dull bone-white, narrow oblique stripe being continued to the upper median vein. Goyaz.
- aegates*. **L. aegates** *Hew.* (131 d). Similar to the preceding, but the fringes at the hindwings and the apex of the forewing of a bright white, the oblique spot of the forewing of a purer white and more than twice as broad as in *araguaya*. All the specimens before me are exactly alike and originate from Tanampaya in Bolivia, evidently from the same locality, collected by GARLEPP. — In the form *nigrapex* *form. nov.* (131 d) from Paraguay the apex of the forewing is without the white fringes, the oblique spot is above shortened and oviform, the red dot near the base of the forewing enlarged beneath. — *cretiplaga* *Stich.* (131 e) which I received in great numbers from STEINBACH, from Salta and Tucuman in North West Argentina, is an intermediate form between the two preceding, scarcely differing from *aegates*, only the white oblique spot shortened and narrowed beneath.
- nigrapex*.
- cretiplaga*.
- leucophlegma*. — *leucophlegma* *Stich.* is not known to me; but in the Tring Museum I find specimens from Peru with a bone-white band of the forewing and a broad white margin of the hindwing, apparently only differing from it by

the band of the forewing extending beyond the middle median vein and the disc of the hindwing being beneath brightened up in the middle by bone-white. Probably they are from the same district, though from another finding-place, as *leucophlegma*, the type of which is said to be in the Paris Museum. I denominate them **leucophlegmoides** (131 e).

leucophlegmoides.
cratippa.

L. cratippa *sp. nov.* (131 e). Deeper black than the preceding, the veins somewhat lighter, the wings more pointed, the white band of the forewing straight, of a pure white, extending as far as to the middle median vein, the apex of the forewing only beneath distinctly whitish. Maranhão (North Brazil); Matto Grosso. It is to *aegates* *Hew.* exactly as *opites* *Hew.* is to *melander* *Cr.*

L. hillapana *Röb.* (= *quadriplaga* *Thm.*) (131 e) is larger than the preceding, the apex of the forewing very much fringed in white, the oblique band broad and straight almost to the anal angle; Peru, Bolivia. — In *pronostriga* *Stich.* (131 e) from Colombia and North Brazil, in addition to the band of the forewing, the fringes at the apex are also orange-yellow. — **albugo** *Stich.* (131 e) has the band reduced to an oblong oval, white; its aberration being sold in the trade by the name of *paulina*, denominated by STICHEL as *impura*, has the reduced band ochre-yellow. The two latter forms have come in great numbers from Paraguay during the last decades, where they are near Sapucay evidently not so rare as most of the other species of *Lymnas*.

hillapana.
pronostriga.
albugo.
impura.

L. semiota *Bat.* is near to *hillapana*, but differs by the oblique band in the forewing being yellow instead of white. Tapajoz. It forms a transition to the *melander*-group.

semiota.

L. melander *Cr.* (♂, nec ♀) (= *melliplaga* *Stich.*) (131 f) has the honey-yellow band of the forewing more oblong quadrangular; the fringes of the hindwing likewise honey-yellow. Guiana. — **opites** *Hew.* resembles *melander*, but it is smaller, the ground-colour deeper black, the fringes of the hindwing and the apex of the forewing not yellow. Is to *melander* as *cratippa* *Sz.* is to *aegates* *Hew.* Brazil.

melander.
opites.

L. electron *Godt.* (? *melander* *Stich.*) (131 f) is smaller, the spot more whitish yellow and narrower, so that a resemblance is created with *iartas* *F.* from which it differs beside its smaller size by the fringes of the hindwings only being yellow, not also the margin of the wings. The yellow band of the forewing is besides slightly curved, not so straight, and more pale than dark golden-yellow. Northern parts of South America.

electron.

L. ubia *Fldr.* (131 f). Differs from the preceding by the much broader, nearly oval oblique band of the forewing and by the presence of small orange marginal spots separated from each other by small indentations of the black ground-colour, before the orange-yellow fringes of the hindwing at the anal marginal part of the hindwing. Venezuela and adjoining parts of Guiana and the Amazon.

ubia.

L. epijarbas *Stgr.* (131 f). This robust form is probably little connected with the smaller, delicate *ubia*. A band-like spot, the extremest apex of the forewing and the margin of the hindwing are orange yellow. The butterflies are very constant; among a great number of specimens before me from Itaituba there is not one that varies. — **echiana** *form. nov.* (131 f) superficially resembles *ubia* the small marginal spots of which, however, are here united to an orange-yellow marginal band of the hindwing; whereas the oblique spot of the forewing is much narrower. It is also larger, more slender and with more pointed wings than *ubia*, more densely sealed and with intenser colours. From San Estaban in Venezuela.

epijarbas.

echidna.

L. iartas *F.* (= *jarbas* *Stgr.*, *electron* *F.*) (131 g). Presumably the most common species of *Lymnas*, from Venezuela to Ecuador and in the islands of Curaçao and Trinidad. On a deep black ground, all the wings exhibit a large spot similar to a small drop of blood, near the base, while the forewings show a sharply marked orange band and the hindwings a similar margin. Although the species varies little on the whole, still the inhabitants of certain flying-places are easily discernible, as for instance in Trinidad, from which island there are about 60 specimens before me, the examples from the interior are distinctly different from those from Port of Spain. Those from the island of Curaçao have even been denominated: **herellus** *Snell.* Above all the spots resembling drops of blood vary, especially on the hindwing; the oblique band may be somewhat broader, narrower, more obtuse, irregularly defined and so on; the golden-yellow marginal band of the hindwing may be of different width and extend from the anal angle to the apex, half the length of the margin to $\frac{1}{2}$ of the margin, it may even be absent altogether so that only the fringes are yet yellow; this is **rabuscula** *Stich.* In the same way we may leave a name also to the other extreme, **melantho** *Mén.* (131 g), a special form from Central America (contrary to SALVIN and GODMAN who simply denominate them *iartas*). These specimens have a golden-yellow apex of the forewing, and the very broad margin of the hindwing is deep orange-red. On the other hand, the delimitation of the more southern specimens (*aurifera* *Stich.*) with somewhat broader wings, a wider oblique band and an unreduced marginal band of the hindwings necessitated the denomination of quite a number of side-forms. These specimens are not characteristic of any district, exhibiting all the transitions to the type. — In southern specimens the band of the forewing may be orange-yellow, but also white; v. BOENINGHAUSEN reports even of examples from Rio Grande do Sul the oblique band of which is half white, half yellow. Certainly the shape or colour of it varies at every habitat in South Brazil, and *charon* *Btlr.* described from Rio is probably nothing else but the Coreovado-form of this widely distributed species.

iartas.

herellus.

rabuscula.
melantho.

- cercopes*. **L. cercopes** Hew. (131 g). This peculiarly coloured butterfly is without the red subbasal dots as well as the oblique band, so that only the orange-yellow margin or the hindwing remains extending at the apex into the forewing, at the anal angle of which it forms a point showing towards the cell-end. Peru; all the specimens I examined, also the figured one, originated from Pozuzo. — **andania** Hew. (131 g) looks quite differently, but it is connected with *cercopes* by a number of transitions. The yellow margin of the hindwings is often (not always and mostly only above) smoothly cut off against the ground-colour, and the yellow ray showing from the anal angle of the forewing towards the costa extends as far as to the subcostal or even reaches the costa, from Bolivia and Peru. The figured specimen originates from Salampioni in Bolivia, 800 m. Specimens from lower districts mostly are somewhat larger.
- cratia*. **L. cratia** Hew. (131 g). Immediately recognizable by the broad purple abdominal parts leaving free only a narrow black dorsal stripe on the 2. to 5. ring. Wings jet-black; the forewings with an orange-yellow oblique band, the hindwings with a narrow, incomplete golden-yellow marginal band. Colombia and Venezuela; not rare.
- hodia*. **L. hodia** Btlr. From Valdivia in Colombia, has remained unknown to me. Cf. Additions.
- phereclus*. **L. pherecius** Cr. (= *seleukia* Stich.) (131 g, h). Exteriorly somewhat similar to *Panara phereclus* L. above blackish-brown with an orange oblique band, but immediately discernible by the under surface, where the hindwings exhibit a hemochrome basal spot and white veins, whereas in *Panara* they are velvety black, sometimes with a blue reflection. South Brazil, Guiana, Peru; in the range of *Panara* where it flies in the company of other equally coloured *Erycinidae*, such as the ♀♀ of *Mesene sagaris*, some ♀♀ of *Aricoris* etc., but also with numerous patented *Heterocera*, such as *Miradaemon ursula* Stoll and others. — Rare.
- marathon*. **L. marathon** Fldr. (= *ctesiphon* Fldr.) (131 h). I figure the type from the Coll. FELDER which LOID ROTHSCHILD had the kindness to lend me. In this ♀ the band of the forewing is seen slightly curved proximally. Colombia to Peru. — In **stenotaenia** Rob. (131 h) from Pozuzo the band runs rather straight and is narrow, in **assimulata** Stich. (131 h), the most common form from Colombia frequently found in the so-called „Bogotá-Collections“, it is even somewhat proximally concave and shortened. — All the forms of *marathon* have magnificent purple sides of the abdomen, whereby they show an alliance with *cratia* Hew.
- barca*. **L. barca** Hew. (131 h). This peculiar species from Pernambuco shows at first sight that it has borrowed the exterior of an *Actinote* together with which it must consequently fly. There is only a secondary resemblance with a *Stalactis susanna* (which likewise copies *Actinote*). The model for *Lymnas barca* and *Stalactis susanna* is probably an *Actinote* of the *leptogramma*- or *hypsipetes*-group.
- thyatira*. **L. thyatira** Hew. (= *phlegontis* Stich.) (131 h). This butterfly is likewise subject to mimicry. It imitates *Eueides aliphera* and, because in mimicry only the total appearance, but not the repetition of finer details in the marking is of a biological value, it is so inconstant that I have never yet beheld two equal specimens. Only larger series of the different habitats would permit „subspecies“ to be established; but the butterfly is so rare that for the present the collections mostly contain only single specimens from the different habitats. The variation refers to the ground-colour, size, length of the black rays, width of the margins and their delimitation. The figured specimen originates from Cuyaba and differs just as much from that in HEWITSON'S collection from the Amazon, as from the one figured by STICHEL in WYTSMA'S Genera Insectorum. Brazil, Bolivia, Colombia, Guiana; dispersed and rare.

31. Genus: *Xenandra* Fldr.

Is closely allied to the preceding genus, i. e. to its mimetic group of *barca*-*thyatira*. All the species belonging hereto are rare. The butterflies have still longer forewings than the *Lymnas*, from which they are otherwise distinguished only by the very stout (in the ♀) and quite short (in the ♂) abdomen. Owing to the narrow wings the flight of the ♀♀ is almost whizzing, quite similar to that of the copied *Heterocera* (*Cylopodinae*). May be that some more species having hitherto been treated as *Lymnas* will prove to be better included in *Xenandra*.

- agria*. **X. agria** Hew. (131 h, misprinted in *argia*). The ♂ belonging to this ♀ which I only know from HEWITSON is unknown to me. The ♀ is surely mimetic copying some of the South Brazilian Pericopiini or other Aretiids which partly fly in day-time or are often chased up. All the 4 wings with orange-yellow marginal spots, the forewings with a broad, golden-yellow oblique band sending below the costa a ray towards the base, the hindwings with a yellow cell. Very rare, in South Brazil; v. BOENNINGHAUSEN captured the animal only once in more than 30 years, near Rio de Janeiro; he presumed it to be the ♀ of *Lymnas volusia* which is just as incorrect as STICHEL'S presumption that it belongs as ♀ to *Xen. heliodes*.

X. helius Cr. (♀ = *limnatis* Stsch.) (131 i). In the Guianaform (which presumably lay before CRAMER) *helius*. the ♂ shows a costal golden-red oval of the hindwings not reaching the base. **cruentata** Stsch. with a scarlet *cruentata*. spot of the hindwing seems to be the Peruvian form of it. The ♀ of *helius* is by far larger than the ♂, with particularly long forewings exhibiting an obsolete oblique band varying in size, shape and colour. If we would denominate all these differences of the band, we could give just as many names as there are specimens, for among relatively numerous ♀♀ of this species I did not find two equal ones! — **heliodes** Fldr. (? *dibapha* *heliodes*. Stsch.) (131 i, *helioides* on the table) not exactly described by STICHEL may be identical with the form occurring outside of Guiana, in Venezuela and Brazil. Here the costal area of the male hindwings is miniate, and this colour extends as far as to the base of the wing. The ♀ of it is scarcely larger than the ♂ with a bright golden-yellow or golden-red (*miniacea* Stsch.) and much less variable oblique band of the forewing. The species is rare.

X. vulcanalis Stsch. is unknown to me; it is said to be black above with a large, nearly oviform, *vulcanalis*. bright red spot on the hindwing, the tip of which touches the base of the hindwing; from Rio San Juan in Colombia. Length of forewings of the ♂ 16 mm. Except the red spot of the hindwing touching the base, there seems to be hardly any difference from the preceding.

X. nigrivenata Schs. from Costa Rica has the greyish-green shining spaces between the veins as *nigrivenata*. *prasinata* (131 i) shows them, but besides a large, orange-red costal spot of the hindwings extending from near the base almost to the margin and to the median. From Juan Vinas.

X. prasinata Thieme (131 i). ♂ blackish-green, the hindwings at the border with glossy bluish-green *prasinata*. radiate spots; beneath the wings are almost exactly like those of the other *Xenandra*, dull golden-green, with black veins. The ♀ may be coloured like the ♂, but larger and with broader wings, but it may also occur without distinct marginal rays and with a whitish or variegated oblique band on the forewing. These different forms fly simultaneously at the same localities. Their affinity is easily recognized by the abdomen being beneath in the middle of a bright reddish-yellow or red. Rare.

X. pulcherrima H.-Schäff. (128 a) fits badly into this genus, but neither to *Lymnas* nor, according *pulcherrima*. to STICHEL'S examinations, to *Themone* nor in any way to *Eurygona* (*Euselasia*). Hindwings as in *prasinata*, but the blue radiate spots somewhat removed from the margin; forewing with a chain of white, posteriorly blue-tinged spots. There is a most conspicuous broad yellow median band on the under surface. Surinam. Unknown to me in nature; apparently very rare.

32. Genus: **Barbicornis** Latr.

Easily recognizable by the very small hindwings provided with a long apex of the tail on the lower radial (uppermost median). All the species of *Barbicornis* correspond to homochrome forms of *Lymnas*, as has already been said in the Preface (p. 620). Most of the species are rare, exhibiting characteristic differences at every habitat and having about the same habits as the *Lymnas*.

B. acroleuca Berg (132 a). Black with ochre-brown collar, the chief veins of the wings with pale *acroleuca*. yellow markings, the apex of the forewing white. Paraguay. — **tucumana** Thieme (132 a) is a small stunted *tucumana*. form collected by JOSÉ STEINBACH in the barren district of Tucuman in Argentina. Not common.

B. melanops Btlr. Herewith all the species ought to be combined, being above black with a yellow *melanops*. oblique spot before the apex of the forewing. This oblique spot has a different appearance at every habitat. — In specimens from Espiritu Santo it has such a cuneiform shape that the thick end of the wedge lies at the distal margin, the tip or it at the costa (= **cuneifera** *ab. nov.*) (132 a). — In typical *melanops* from South *cuneifera*. Brazil and Paraguay the band is uniform, at the costa even a little broader than at the distal margin. — In *ab. abotacta* Stsch. (132 a) which was taken together with typical specimens near Sapucay in Paraguay, it is *abotacta*. a little shortened and light yellow. — *ab. fusus* *ab. nov.* (132 a) has the oblique band orange-yellow, *fuscus*. like the typical form, but as a fusiform spot, on both sides sharply pointed; in barren districts, mostly also very much smaller than Brazilian specimens. — **ephippium** Thieme (132 a) has the most extensive oblique *ephippium*. spot; at the costa it is so widened that it occupies its whole median third; here also the veins are more prominently light. — **aterrima** *form. nov.* (132 a) is entirely black, with indistinctly light veins; it might, *aterrima*. therefore, be taken to be an *acroleuca* having lost the white apical margin; but the shorter, more straight tail of the hindwing characterizes it as a *melanops* in which the oblique band of the forewing is absent; from South Brazil and Paraguay.

B. basilis Godt. (132 a). Probably only a form of the preceding, differing by the basal part of all *basilis*. the wings exhibiting another, very differently shaped orange spot. — In *dibaphina* Btlr. this spot is only on the forewings, while the hindwings remain black whereby an immediate transition is formed to the typical *melanops*. The typical *dibaphina* is only as large as the figured *basilis*. At some habitats, however, the animals

alcyoneus. attain an enormous size, though perhaps not in every year; I denominate these large specimens **alcyoneus ab.**
polyplaga. *nov.* (132 b). These have again another modified form **polyplaga form. nov.** (132 b) in which the spots of the
 forewing are enlarged, the orange of the hindwing, however, divided into 2 or 3 spots. This form is before
 me from the Coll. BANG-HAAS without the patria being stated; the forewing also exhibits above the anal
 angle a third orange spot which is unfortunately somewhat indistinct in the figure.

mona. **B. mona** *Ww.* (132 b). Like *melanops*, but also the hindwing has an orange band at the distal margin,
 extending from the little tail to the anal angle. In this species the orange likewise varies in extent at
 every habitat. In typical specimens it does not only run from the costa of the forewing to the distal margin,
 but it follows it up as far as to the anal angle. The specimen I figure deviates already by the orange
 band not running continuously as far as to the anal angle, but a disjoined spot standing isolated at the
 anal angle. — If this spot is also absent and another reduction of the bands takes place, we have ab.

moneta. **moneta** *Stich.* before us. A specimen from Huancabamba lacks all the orange on the forewing. I must
 remark here again that all the specimens I captured at one place, were always exactly corresponding, but
 that already at the next finding-place small deviations were noticeable. — South Brazil, not rare, but very
 local and apparently never leaving their flying-place.

marginata. **B. marginata** *sp. nov.* (132 b), brownish black with an orange-red collar. The apical margin of the
 forewing and the whole distal margin of the hindwing, including the xiphoid, honey-yellow. Bahia. The animal
 is decidedly influenced in its colours by a form of the *Lymnas alena*-group or its model, *alena* itself was taken
 only somewhat to the south of it, near Rio de Janeiro, but it is only necessary to look at the animals in
 order to conclude that both must occur together, and were not yet taken at the same place only owing to
 their great rareness.

33. Genus: *Syrmatia* *Hbn.*

In this genus the hindwing is still more monstrous than in *Barbicornis*; the costal margin of it is greatly
 shortened, whereas the anal part of the hindwing accompanies the tail-appendage for a longer distance. All
 the forms probably belong only to one species exhibiting a special character at most of the habitats; but it
 may be out of the question that more than one form occurs at the same finding-place. The butterflies are wide-
 spread, flying in day-time in the sunshine at open spaces in the woods, with so great a resemblance with
 certain *Hymenoptera* and *Diptera* that I always captured them only when I was on the special look-out for
 such insects; but never when I was exclusively hunting for butterflies. They seem to be local, but by no
 means rare. They mostly choose their resting-place on the tips of the highest branches of high bushes or
 small trees. I have never found them on flowers.

dorilas. **S. dorilas** *Cr.* (= *asteris Gray*) (132 b). Forewing with a red small basal stripe and an oval white
 discal spot which differs somewhat at every habitat. STICHEL presumes that the ♀ has a white basal streak
 at the forewing, which, however, does not match my Santos-♀♀. ♂ and ♀ probably resemble each other,
 though differing according to the locality, as is the case in nearly all the American *Erycinidae*. — The form
 without the small red basal band was denoted as **nyx** *Hbn.* — In *Iamia* *Bates* the small basal band is white
 and continued across the hindwing; in *astraea* *Stgr.* (132 b) it is red on the forewing, light-yellow on the
 hindwing; — **aethiops** *Stgr.* (132 b) is entirely black, also the white discal spot of the forewing being absent.
 — A very peculiar form lies before me from the Coll. FASSI from Villavicencio (Colombia). The ♂ exhibits
 the basal spot of the forewing entirely black without the little band; in the disk there is a white oval, about
 as in typical *dorilas*. The hindwing is entirely black; in the ♀, however, it exhibits such a broad, entirely
 white band that the whole anterior half of the wing appears white except the extreme base being narrow
 black. — The range is stated to be South America from the northern coast as far as South Brazil; but
 with W. SCHAUS I saw a specimen from Costa Rica (*forma aethiops*).

34. Genus: *Zeonia* *Swms.*

By the long-stretched shape of the hindwing being even prolonged by the tail-appendage it resembles
 the preceding of which it reminds us also by the restless, almost whizzing flap of its wings. The resemblance
 with insects of other classes (especially Hymenoptera) already mentioned in *Syrmatia* is even increased in
zeonia by the hyaline wings. Body somewhat more stretched than in *Syrmatia*, otherwise the structure al-
 ready approximates the next genus, but with considerably shorter palpi being hardly visible above and pro-
 jecting in the *Diorina* sometimes in the shape of a nose. The butterflies occur singly and very locally, but
 most of them are not very rare.

amazon. **Z. amazon** *Sndrs.* (130 g). This amazon-species of which we figure a very large ♀ is in itself one of
 the largest of the genus. It is characterized by the whole anal half of the hindwings being black, the anal
 lobe itself, however, broad vermilion; the tails are relatively short.

Z. timandra *Sndrs.* (130 g) is somewhat smaller; the hindwings, however, are narrower, especially *timandra*. in the anal part, the anal lobe itself is broad black, but above it is a small vermilion band under which there are mostly small white dots. Central and South Brazil; Rio de Janeiro, rare.

Z. licursis *F.* (= *xanthippe Gray*, *morisei Blch.*) (130 g as *lycursis*) likewise from South Brazil (Rio Grande do Sul). Recognizable by the red in the small anal band being broken up into two small separate opposite spots of a variable size.

Z. sylphina *Bat.* (130 g). An imposing form with broad bands, the small anal band being detached from the inner margin of the hindwing, the latter itself, however, as far as the base of the wing hemochrome (= typical *sylphina*) or yellowish-red (ab *terpsichore Stsch.*). Ecuador, Peru, Bolivia. — In a „subsp.“, *gratiosa* *terpsichore. gratiosa. Stsch.*, likewise occurring in Ecuador, but unknown to me, the red anal spots are said to be „very large“ and of a „violet lustre“.

Z. heliconides *Swms.* (= *heliconoides Sndrs.*) has exactly the size, shape and black bands of *sylphina*; but the red of the small band of the hindwing which is broad and angularly broken does not continue towards the base. SWAINSON, according to whose figure I describe the species, states „Brazil“ as its patria, but no special locality.

Z. faunus *F.* (*octavius F.*, *chorineus Cr.*) (130 g). This finely banded species is easily recognized by the red anal lobe which is only outside delicately bordered in black being drawn out into a red apex. This does not occur in any other species. Guiana, Amazon, Venezuela and the Isle of Trinidad. — *bogota Sndrs.* is somewhat more strongly banded and margined in black, and the hindwing broader black. Colombia and Central America. — Also in the *faunus*-forms the red may turn into dark yellow, as probably in all the *Zeonia*; such specimens are *orchestris Stsch.*

Z. batesii *Sndrs.* (130 g). This little species is immediately recognizable by the hyaline area of the hindwing not being once more divided by a black band, as in all the other *Zeonia*. From the middle Amazon (Itaituba, Obidos, Rio Tapajoz), rare.

35. Genus: **Diorina** *Mor.*

Very much like the preceding genus, recognizable by the greatly projecting palpi; in some ♀♀ they are longer than the head. The shape of the wings resembles very much the preceding genus, particularly the long anal margin of the hindwings resembles *Zeonia*, as well as the sword-like tail-appendage. But the surface of the wings is no more hyaline, but black with a bright blue reflection in the ♂♂ and some ♀♀. Only 2 or 3 species are known, but they vary greatly. The imagines visit wet stones and places in the road in the morning, sometimes they are also seen playing round the tops of bushes in the sunshine. Their range extends from Mexico to South Brazil and Bolivia, often being rather common at their habitats.

D. arcus *L.* (= *butes L.*, *licarsis F.*, *rhetus Cr.*, *crameri Swms.*) (130 f, misprinted into *ancius*). This butterfly occurs in three forms in its range extending from Mexico to South Brazil and Bolivia; a northern one, *thia Mor.* (130 f), being distributed all over Mexico and Central America, with very fine hyaline bands and a bright blue gloss of the upper surface. In especially dry and hot localities the bands are narrowed so much that they almost disappear; they have changed into fine lines which make the animal appear quite different. This form seems to me to agree with *castigatus Stsch.* (130 f); it is apparently confined to small districts of Mexico and Panama; the figured specimen originates from the mountains to the north of Agapulco. — The second form is the southern one, being distributed from Bolivia, Peru and Brazil to the north as far as the Amazon: it is *huanus Sndrs.* (130 f), recognizable by its smaller size, a duller blue reflection being confined almost entirely to the parts of the tail, and by a somewhat undulate distal hyaline band, the proximal one being broader. — The third form is the typical *arcus* inhabiting the rest of the range, particularly Guiana and the adjoining parts of North Brazil; it is still smaller, with broad bands, the ♀ with very thin and long, strongly bent tails. STICHEL founds a new subspecies, *amycus*, upon a ♂ from Santa Catharina with a shortened tail-appendage („almost in the shape of *dysonii*“).

D. dysonii *Sndrs.* (130 e). Above of a magnificently lustrous blue; in the ♂ the bands of the wings are only seen shining through the blue, showing through from beneath; in typical *dysonii* less, but more in those occurring in the south of the range, Peru and Bolivia, and (according to STICHEL) again in Panama. — *psecas Sndrs.* (*oldros Fruhst.*) (130 e). The ♀ is beneath almost exactly like the ♂, but of somewhat duller colours. Above it has also the marking of the ♂, but instead of the deep blackish blue colouring of the patches between the transverse bands we notice a dull dark grey with a very faint bluish leaden-grey lustre, the transverse bands themselves being dirty whitish-grey. The butterflies are common at their habitats and often gather in numbers in the morning at drinking-places. The species is easily distinguishable from *perianther* to which it is not dissimilar, by the more distinct bands of the upper surface and by the more complete, continuous, small red anal band of the hindwing.

*periander.***D. periander** Cr. (= *iphinoë* Godt., *laonome* Sndrs.) (130 d). ♂ magnificently lustrous cyane-blue;*naevianus.*

forewing with a quite faintly lighter, thin oblique stripe, which is stronger only in ab. **naevianus** Stsch. and joined, in Mexican specimens, by another analogous stripe of the hindwing. On the hindwing the anal area is spotted in red, but the small macular band does not extend so far as in *dysonii*. In specimens from Guiana and Peru the spotting is mostly strong, with a somewhat longer small red band, in Brazilian specimens generally weaker, only at the inner margin. Some South Brazilians (not all of them) are said to be more extensively blue and their ♀♀ to have above no proximal band of the forewing (= **eleusinus** Stsch.). The material before me, containing about 300 specimens (in the Tring Museum alone there are several hundreds of *periander*, in my collection 30), shows that here a variation does not take place according to countries, but according to finding-places (maybe altitudes?); thus there occur specimens with a white band of the forewing and without it in Pern, such with a light band of the hindwing in Mexico and again in South Peru, while it is absent in specimens from Colombia being situated between (= *laonome*) and so on. The whole range is enormously extensive. The species is distributed from Mexico all over Central and South America as far as South Brazil to the east and Bolivia to the west. The animals are sometimes rarer, sometimes more common, but they are especially keenly collected for their charming colours; they may be baited and are easily taken; they come to the water and strongly scented stuff and fly near open spaces in the woods, where some rays of the sun may touch the ground during the day.

arthurianus.

D. arthurianus E.-Sh. (130 e). This butterfly is so far known only from Goyaz (from the Araguaya). The ♂ above black, almost without blue reflection, with a strong white oblique band, the hindwing with a red spot at the inner margin and a small red band behind which there are white dots on the under surface. The most remarkable difference is to be seen beneath, where the ♂ (maybe also the ♀) is entirely without the small proximal light band.

36. Genus: **Rodinia** Ww. (= *Euercina* Sndrs.).

The butterflies at first sight greatly resemble the ♀♀ of the genus *Diorina*, from which, however, they differ rather much from an anatomical point of view*). Whereas in *Diorina* the first subcostal vein of the forewing (about as in *Zeonia*) rises from the anterior cellular angle and all the other subcostal branches rise behind it, in *Rodinia* the three first subcostal branches rise before the cell-end. In *Rodinia* the discocellulars are placed more transversely, in *Diorina* the cells — particularly in the hindwing — end so obliquely that the upper cell-wall is scarcely more than half as long as the lower one. In some *Diorina* (*periander*) not only the upper, but also the lower median vein crosses the tail-appendage, in *Rodinia* the latter ends before the base of the tail at the inner margin. Furthermore, the palpi of *Rodinia* on account of the middle joint being shortened, are so diminished that they are scarcely visible from above, whereas in *Diorina* they project like a nose. The *Rodinia* of which only 2 forms are known must be extremely rare, for among the more than 100 000 American *Erycinidae* which I was able to compare I only saw 3 or 4 specimens. They live on the Amazon River and are said to fly very fast.

calphurnia.

R. calphurnia Sndrs. (110 Af). Dark brown with a white median band which, however, does not reach the base of the tail on the hindwing. Before its end begins a red diffuse spot extending as far as into the base of the tail. Upper Amazon.

delphinia.

R. delphinia Stgr. (110 Af). The white median band is diffusely continued through the tail-appendage. Lower Amazon.

37. Genus: **Ancyluris** Hbn.

These conspicuously coloured, neat butterflies belong to the most beautiful of their kind on the face of the globe. We often find above scarlet or orange bands on a deep blackish brown ground and beneath a magnificent blue or green metallic colouring, the total appearance being still more prominent by hemochrome spots of the under surface or white dots. Also the shape of the broadly stretched wings is mostly distinguished by a graduated lobing in the anal part of the hindwing, and sometimes there is in addition a violet-blue or cyaneous reflection of the upper surface. Morphologically, the genus proves to be so nearly allied both to *Diorina* and the following *Necyria* that the separation is sometimes not easy. The most obvious difference from *Necyria* may be the abnormally shaped hindwings, whereas the *Diorina* are easily discernible by the palpi being visible from above. The head of the *Ancyluris* is broad with a flatly convex forehead, the eyes very large, the palpi short and appressed, the siphon long and fine, antennae very straight and slender, at the ends scarcely noticeably thickened. Thorax strong and regular, the middle-legs (especially the tibiae long; abdomen in the ♂ slender and pointed, forewing with a long and pointed apical part, hindwing with an anal part being prolonged to a lobe. The wings in the living insect are extremely delicate and soft, so that it is most difficult to procure undamaged specimens. At one and the same flying-place one mostly meets with but 1, hardly ever more than 2 forms, and we are induced to assume that many of the numerous and often scarcely distinguishable species which were set up are only subraces of few species representing each other in the different districts; this supposition is also forced upon us by a number of specimens exhibiting to the left broader, narrower or differently coloured bands, than to the right. We, therefore, although there

*) KIRBY places them between *Nymphidium* and *Theope*, STICHEL between *Dysmathia* and *Thisbe*; MENGEL more luckily places them near *Lynnas*; their resemblance to *Diorina* is probably merely external.

are constant differences distinctly noticeable, often combine several forms, in case they prove to be confined to finding-places, but not to districts being definable with respect to the fauna. They are then nothing else but sub-races picked out ad libitum or by chance, just as they were before the author, and their separation would necessitate an almost never ending continuation of further descriptions which would also be in future increased by every fresh exploitation of a new finding-place. Many species are rather common at their habitats. They come to the water early in the morning and, in day-time, they fly round the tops of high bushes.

A. aulestes Cr. Blackish-brown with a straight and entirely uniform band of the upper surface, which may be sometimes narrower, more scarlet, sometimes broad and very bright red. The ♂ is characterized by the small red anal band extending with its middle tip far into the anal lobe of the tail. The ♀ may have white, yellow or also red bands; it even occurs, as the figured ♀ shows, with yellowish-brown bands; but the middle bands are always straight and in the hindwing they bend round towards the middle of the inner margin in an almost right (though not sharp) angle. Beneath, the ♂ is of a deep metallic blue with dark shades being differently distributed at every habitat; of the red bands there has remained here the end of the band of the forewing before the inner angle and the angular part of the band of the hindwing. It is not possible to define geographically the numerous forms of which there are before me about 10 more roughly discernible ones; STICHEL tried to do so in 1909, but he partly gave it up again in 1910. In order to maintain the names applied to them as much as possible, we may distinguish the very narrow-banded ♂♂, to which there are white-banded ♀♀ before me, as **eryxo** Sndrs. (129 g), broader-banded ones as **lamprotacnia** Stch. (129 f), and those with very broad and bright red bands as **olivencia** Stgr. i. l. The numerous transitions of these variations may very well remain nameless. The ♀♀ may have whitish bands (*eryxo*), yellow (**tadema** Stgr.) to brownish bands (*aulesies typica*) or also red ones (**aulica** Stch.). **glaphyra** Sndrs. has, like *tadema* a yellow, though much broader median band. — **jocularis** Stch. (129 f, g) are ♂♂ with red bands on the upper surface as thin as a thread; at some finding-places they occur in uncommonly great numbers, especially in Colombia, and they are usually contained in the so-called „Bogotá-Collections“. — ab. **vastata** Stch. is the denomination of a very common aberration which looks very much altered by the red band above being absent on one or both wings or being incomplete or interrupted. Sometimes in the ♂ the band of the upper surface is white instead of red (= **insolita** Stch.); we figure such a specimen. In spite of some 30 ♀♀ before us we cannot discover 2 quite equal ones, since they all originate from different collections (consequently from different finding-places). The small red anal band is mostly far remote from the median band, but it may also touch it and be broadly confluent with it, what may occur in ♀♀ with yellow, brown and white bands. — **pandama** Sndrs. (129 g, 130 a) which I figure according to specimens taken in November, is a rather large race with very uniform red bands; ♀♀ of it I have not captured; normal specimens are said to be provided with bright red bands; from Santos in South America. Finally there occur also ♂♂ with a light band in the distal part of the forewing and such with a faint hue of a blue reflection between the red median band and the distal margin. Among the more than 1000 specimens of this species before me, of which there are alone several hundreds in the Tring Museum, the above-mentioned characters occur combined in manifold variations; any further denominations of these combinations would only lead to a confusion. — The *aulestes* are good flyers; I only found them at an open space in the woods, but always at the same bush from the top of which they sometimes were playfully whirling up. They were not easy to capture. — Northern parts of South America to Peru and South Brazil.

A. meliboeus F. (129 d, e). Very much like the preceding species, but in the ♂ there is instead of the small undulated red band before the anal lobe of the hindwing a red crescent. Among the very numerous forms of this species there are also such forming the transition to the preceding, so that I doubt whether both groups can be sharply separated. Here are also forms with median bands as thin as a thread, which, of course, can be denominated just as much (or as little) as in *aulestes* and which probably represent the **rubrofilum** Stch. (129 e). STAUDINGERS i.-l.-denomination *boliviana* was for good reasons not used by STICHEL, for *rubrofilum* occurs also outside of Bolivia, and in Bolivia itself there are also found such with broader bands. — **julia** Sndrs. (129 e) is a form with very glaring-red markings on a jet-black ground, with more intensely white-chequered fringes and with a broad anal crescent of the hindwing, the margin of which is deeper undulated. The ♀ (always?) exhibits a white transverse stripe between the red band and the distal margin. — **eudaemon** Stch. is without the light dot near the base of the hindwing, which is said to occur always in typical ♂♂ of *meliboeus*; the red band of the forewing also stands steeper and in the hindwing it terminates at the inner margin nearer to the anal angle, whereby the ♀ is said to be recognizable. — In **miniola** Bat. the small whitish basal spot of the male hindwing is present, but the shape of the wings is different; the apical part of the forewing is broader and the anal lobe of the hindwing is more prolonged; the red median band uncommonly broad. — **mendita** Drc. has a flatter position of the band of the forewing and, in contrast with the preceding form, shorter and rounder anal lobes of the hindwings. — In **melior** Stch. the faint blue lustre of the distal area of the preceding form is stronger, particularly in the anal area of the hindwing also above; a faint bluish lustre suffuses the whole upper surface in a very oblique light, producing on the median band a more dull crimson than scarlet colour. The names *pyretus* Cr., *pyritus* Hfjag., *pyrete* Hbn., *phonia* Stch., *silvicultrix* Stch. I take to be denominations of quite insignificant transitions; **etias** Sndrs. (129 f) is a form *etias*.

- in which the band of the forewing either becomes extinct below the subcostal or is continued (aberratively) in irregular undulations. SAUNDERS figure is inexact, the left differs from the right, the band is straight, the fringes of the hindwings are white. — *paetula Stich.* has the wing-contour and upper surface similar to *etias*, but the red spot at the inner margin of the forewing and near the anal angle of the hindwing smaller, particularly the latter; Peru, unknown to me. — *gracilis Stich.* is said to be more slender than the type, with a broad band, the band of the hindwing „not bent posteriorly, but terminating near the anal transverse stripe“.
- tedea.* — *tedea Cr.* (129 g) to which the description of *miniola Bat.* is also very well applicable, is at once conspicuous by the very pointed shape of the wings of the ♂ greatly resembling that of *colubra*. — The ♀♀ are nearly always red-banded; only *tedea*-♀♀ have dull light-yellow bands, the band of the hindwing being interrupted above the anal fold; the figured ♀ originates from Paramaribo. — From Colombia, Guiana and Para to Peru and Bolivia.
- colubra.* **A. colubra Sndrs.** (130 a). The forewings are conspicuously pointed, with an entirely straightly delimited distal margin which, at the inner angle of the ♂, even projects into a tip. The median band of the hindwing quite straight; it runs towards the very broad anal crescent before the centre of which it ends pointed, whereas in *aulestes* and *melibceus* it turns round there and runs towards the middle of the inner margin. Venezuela, Amazon to Peru. — *pomposa Stich.* from the Upper Amazon, which is not before me, seems to form a transition to the preceding species. The shape is like in *colubra*, i. e. the forewings pointed, the hindwing without a distinctly defined anal lobe, but the red median stripe on the hindwing turns round towards the middle of the inner margin, so that the marking greatly approximates that of *melior*.
- mira.* **A. mira Hew.** (130 a) has above almost exactly the marking of *colubra* (130 a), but the small anal band is broader; the forewings, however, are not so pointed as they are there; the under surface of the ♂ is much duller blue than in all the preceding species. Lying before me only from Peru, but it is said to occur also in Bolivia. The red median band on the forewing is mostly 1 to 2, sometimes 2 to 3 mm broad. (= *triglitis Stich.**). — *thauwasia Stich.* (130 a) from Bolivia (the figured specimen from Oroya, 3000 m) has a very broad, small anal band, but the red median band on the hindwing is absent. — The species is apparently not rare at its habitats.
- huascar.* **A. huascar Sndrs.** (130 a, b). Immediately recognizable by the small red anal band being absent in the ♂; instead of it there often appear, in the anal lobe of the hindwing, light punctiform spots in a blue iridescent area. The red median band varies to such an extent that similar specimens can only be collected at the same flying-place. Just like the band of the forewing varies in width, that of the hindwing varies in length; it may be shortened to the shape of a spot, below pointed, bent down like a hook (= *sepyra Hew.* 130 a), or continued with a darkened end etc. In case the band of the forewing be greatly expanded, we have *latifasciata Lathy* before us; if it is shortened, we have *cacica Fldr.* (= *zinna Kg.*); — it is narrower in *callias Fldr.*; it may also be quite straight or slightly curved. These sub-races are not bound to certain patriae. Specimens taken by FASSL in October near Mineiro (Colombia) differ from those from the Rio Dagua by their small size, a lighter red and a much smaller red spot at the middle of the inner margin of the hindwing beneath. *huascar* is not a common butterfly, but as it is conspicuous for its beauty and easy to capture, it is nearly always contained in the Bogotá-Collections probably mostly originating from Muza (Colombia). — The ♀ is not before me, but it presumably resembles that of *jurgenseni* (130 b).
- jurgenseni.* **A. jurgenseni Sndrs.** (= *montezeuma Sndrs.*, *erigone Bsd.*) (130 b). In the ♂ a series of spots with a magnificent blue gloss lies behind the crimson band in the distal part of the hindwing; ♀ with a white common median band being marked in red at the beginning and end. Anal lobe of the hindwing red, marked in white and blue. From Central America to Mexico. — *atahualpa Sndrs.* (130 b) is quite similar and replaces the species in Colombia; here the bluish-green spots of the upper surface are more intense, the red stripes more bright red than crimson, the red spot in the anal lobe of the hindwing is absent altogether. The ♀ has only the transverse lower end of the white band on the hindwing bright red, not also a part of the rising band as in *jurgenseni*. The species is local, but not rare at its habitats.
- formosissima.* **A. formosissima Hew.** (= *venerabilis Stich.*) (130 c). It somewhat resembles the ♀ of the preceding species, but the white median band is much broader, inflated in the middle, almost its whole part of the hindwing above with a red tinge, beneath very bright red. Ecuador, Peru. In order to demonstrate that the width of the bands is not constant in *formosissima*, I have purposely figured a narrow-banded specimen from beneath and a broad-banded specimen from above. Between the two is HEWITSONS type; I have at any rate not seen two entirely equal specimens. Captured in August and September in la Merced (Peru) at an altitude of 3000 m (SIMONS).
- aristodorus.* **A. aristodorus Mor.** (130 c). Smaller, otherwise similarly coloured as *formosissima*; the white median band narrower, beneath continued in red. Amazon; the figured specimen from Tefé (Ega) was taken in November 1907. The wanton destruction of the woods in the caoutchouc-districts at the banks of the Amazon seems to have swept away particularly also the flying-places of this butterfly, for which reason it is rare in collections. The ♀ is not before me.
- inca.* **A. inca Sndrs.** (= *lais Bsd.*) (130 c). ♂ with a golden-yellow oblique band of the forewing and black hindwings with a blue reflection before the anal lobe. The ♀ may be like the ♂, only with a broader, more oblique band of the forewing; this, however, may vary in width, length and shape to such an extent that there are scarcely two specimens alike and it is impossible to maintain names for these deviations of the bands.

* The figured specimen ranks between typical *mira* and the (not definable) *triglitis*.

The band is nearly always continued also on the hindwing which then, however, exhibits frequently only a small orange-yellow triangle in the centre of the costa. We also figure a specimen (from beneath) in which the orange band traverses broadly the whole hindwing above and beneath, ending broadly at the inner margin. Mexico and Central America to Colombia. — In **ocolfo** *Sndrs.* (= *pausias Fldr.*) (130 c, d) the light yellow *ocolfo* narrow band runs through both the wings also in the ♂. Colombia.

A. pulchra *Hew.* (130 d). Forewing of the ♂ with a red, very oblique band-like spot; hindwing with *pulchra*. a band-shaped blue reflection being parted by the veins. Peru, Ecuador. — In **miranda** *Hew.* (130 d) from *miranda*. Bolivia the spot of the forewing is vermilion instead of miniate, more upright and with an outwardly convex distal margin. The blue iridescent spot of the hindwing is cuneiform. — **sogamuxi** *Fassl* represents *miranda* *sogamuxi*. in Colombia; the band or the forewing is shaped like in *miranda*, but not of such a glaring colour and not so sharply defined; the blue band of the hindwing is narrower and very brilliant. — In the form **xanthozona** *xanthozona*. *Stich.* from Peru the spot of the forewing is orange. — In **formosa** *Hew.* from Ecuador the red spot of the *formosa*. forewing is narrower, the blue spot of the hindwing broader than in *miranda*. — Not very rare.

38. Genus: **Cyrenia** *Ww.*

Clumsy, stoutly built animals with broad wings, the forewings have not the long-extended apical part of the preceding group. Metal colours are absent, but there are white central clouds and hemochrome luminous spots. The colouring is otherwise insignificant. The butterflies are rather rare, being distributed from Panama throughout Colombia and the Amazon district to Bolivia.

C. martia *Ww.* (130 d). Very likely all the forms of this genus, except **belphegor** *Ww.* from the Amazon being unknown to me, belong to one species, as they are distinguished by the size and intensity of the white spot of the hindwing. — **pyrippe** *Godm.* and *Salv.* is the smaller form from Panama; it has shorter, rounder hindwings than *marcia*, their marking being hardly visible, the white discal spot obsolete. — **ab. androgyne** *Stich.* is, according to the author's figure, the form without the white spot of the hindwing. It is, however, impossible to found a subspecies upon it, because specimens with entirely grey hindwings rarely occur everywhere among the original species and there are, on the other hand, also specimens from Bolivia possessing the white spot of the hindwing. *martia*. *belphegor*. *pyrippe*. *androgyne*.

39. Genus: **Necyria** *Ww.*

The forms belonging to this genus exactly agree with the preceding genus in the structure of the body; the broad head with the vaulted forehead beyond which the bent-up palpi are hardly projecting, the short, laterally glaringly coloured abdomen, the bright red spots of the wings which are at least beneath always present, the antennae attaining a length of more than half the costa and being scarcely thickened at the tips, as well as the whole habitus join the genus to the preceding *Cyrenia* as well as to the following *Lyropteryx*. From *Cyrenia* and *Ancyluris*, however, they are distinguished by the regular shape of the wings, the hindwings exhibiting neither angulations nor the formation of lobes or tails. It seems that the genus consists of but very few, extremely variable species. At least the three frequently occurring species show that constant forms are living at the single flying-places, but that specimens of the same species from two different flying-places are hardly ever equal. Also in the habits the *Necyria* seem to resemble the preceding genera; they certainly remain very much hidden like these.

N. bellona. This species is above black with a dull steel-gloss which grows more intense only in the marginal part of the hindwings, where it forms radiate pointed wedges. Also beneath it is much duller than in the *Ancyluris* and is sometimes altogether absent in the disc of the hindwing. Beneath there are hemochrome band-like spots. — In **whyteliana** *Drc.* (129 b) flying in Peru and recently brought in great numbers from Pozuzo these spots may also show through above, though the male upper surface is often without true red bands; only below the middle of the inner margin on the hindwing a hemochrome spot faintly shows through from beneath, in some specimens, as in the figured one, it is scarcely noticeable. *whyteliana*. *obliterata*. *westwoodi*. *Stichel* denotes such specimens without any red on the upper surface as forma **obliterata**. — In **westwoodi** *Hpfrr.* (129 b) this inner marginal spot is already more distinct, and also on the forewing a small costal cell-end-band shows through above. *westwoodi*. From Marcapata being separated from Bolivia only by a narrow range of hills. — In **enyo** *form. nov.* (129 b, c), *enyo*. from the interior of Bolivia, the red bands do not only show through from beneath, but they are also above glaring hemochrome running as an uninterrupted chain of spots on the hindwing as far as to its centre. — In the typical **bellona** *Ww.* (129 c) from Bolivia, the adjoining Brazil and the southern parts of Peru they are greatly expanded, beneath particularly on the hindwing, above on the forewing. The butterflies are local, but not rare. *bellona*.

N. duellona *W.* (129 c). The blue lustre is confined to a macular band, but of a much more luminous metallic colour than in *bellona*, warming into greenish, and the red inner marginal spot of the under surface of the hindwing is oviform. Ecuador. *duellona*.

N. saundersi *Hew.* (= *hewitsonii Sndrs.*) (129 c). Also the ♀ has the blue, brilliant macular chain on the upper surface of the hindwings. The forewing exhibits a light red band being in the ♀ bright light red and traversing the whole forewing as far as towards the anal angle, whereby the species is distinguished from *saundersi*.

the preceding ones; from the following it differs by the red band of the forewing in the ♀ not being continued on the hindwing. Colombia; lying before me from the Upper Rio Negro, 800 m, collected by FASSL.

juturna. — **juturna** Hew. is quite a similar form from Ecuador, the ♀ of which has the red band of the forewing only half as broad and no blue spots of the hindwing. The species seems to be rare.

zaneta. **N. zaneta** Hew. (129 c). In the ♂ of this Ecuador-form, being very closely allied to the preceding species, the metallic macular band has been converted into a continuous stripe running in the forewing right across the centre, in the hindwing along the margin. The abdominal sides of the ♂ exhibit an extremely fine yellow streak.

manco. **N. manco** Sndrs. (129 d). The ♂ has a thin red median streak across both wings and behind it a bluish-green metallic macular band. Both the bands vary and may grow so thin and faint that they are extinct in some parts. If they are entirely broken up into small spots, we have the form **fulminatrix** Fldr. Instead of red (as they fly near Pacho, Colombia), there occur also orange-banded ♀♀ as we have figured according to a specimen probably originating from Muzo. The yellow ♀-form is more common going by the name of **lindigii** Fldr., although this name ought to be used only for those specimens the orange median band of which exhibits a pale violet reflexion. — In this species, the median band varying enormously in width and delimitation, it is also hardly possible to find two ♀♀ being alike, because owing to the relative rarity of the ♀♀ it is difficult to obtain two specimens from the same flying-place. The denomination of the side-forms, such as *butleria* Drc., *lindigii*, *aurantiaca* and so on, is therefore of little value. The ♂♂ are not very rare. They also show deviations, for instance the red median band may disappear except a tapering small band *incendiaria*. at the costa of the hindwing (= **incendiaria** Thieme) or it may be entirely absent except few small scales; the ♀♀ belonging to them also exhibit above deviations in the glaringly-coloured median band.

N. vetulonia. This species already forms the transition to the next genus. The blue submarginal spots have already become radiatiformly arranged pointed wedges. In **beliana** Hew. (129 d) from Central America (Costa Rica, Nicaragua) the blue wedges are traversed by a white median streak (in the ♀ broader than in the ♂). — In **diva** Stgr. (129 c) flying in Colombia the scarlet spots at the middle of the inner margin of both wings being visible in **beliana** only beneath are present also above in a luminous red. — In **vetulonia** Hew. (129 d) the radiatiform spots are broader and the red spots are increased beneath not far from the base; from Ecuador. — **larunda** G. and S. originates from Guatemala; it exhibits a blue reflection on both surfaces and the white rays are longer, beginning already in the centre of the wing. — Greatly approximating the ♀♀ of *vetulonia* is *ingaretha*. **N. ingaretha** Hew. (142 e) which ought already to be reckoned to the following genus, since it has entirely the structure and shape of *Lyropteryx*. The uncommonly broad wings, of which the forewings exhibit a short costal margin and inner margin and a border being curved in uniform bows, are like in *vetulonia* — ♀♀ decorated with a wreath of submarginal white cuneiform rays. Beneath, however, the hindwings show a very large red inner-marginal spot of an almost triangular shape. The species is before me from Orosi (Costa Rica), from the Coll. FASSL; SALVIN and GODMAN mention it from Nicaragua.

40. Genus: **Lyropteryx** Ww.

This genus is immediately recognizable by the very broad wings and the clumsy body. The costal margin of the wings is relatively short, the distal margin, however, particularly at the forewing, very long and bent uniformly. By including *diadocis* Stich. the genus does not remain confined to the species which are closely allied to each other and uniformly shaped, with a round border of the hindwing, but it also contains forms with a long-stretched anal part of the hindwings. Another characteristic may be the great distance between the submedian and the lower median vein.

apollonia. **L. apollonia** Ww. (129 a). This species is unmistakable; the inner two thirds of the wings are above velvety-black, the outer third is traversed by bluish-green, white-dusted rays, the hindwings near the base with a red guttiform spot; beneath scarcely the (basal) half of the wings is velvety-black, as the rays begin already in the centre of the wings; the inner part of the wings is spotted in purple. These spots may be all or partly faded, and there are before me several unsymmetrical specimens, where they are on one side whitish, while the corresponding spots of the other side are red; this is, therefore, only an abnormality. A similar case may be the discoloration of the rays into lighter (*canens* Stich.) or darker blurred spots; nor are the rays always of the same length, which variation is probably due to the different catching-places of this rather local animal. Brazil and Bolivia to the north as far as Ecuador. — From Colombia to Guatemala flies the form **cleadas** Drc. (129 a, b), the ♂ of which has shorter rays that are confined to the outer quarter of the wings and beneath less red spots. — The ♀♀ are beneath coloured like the ♂♂, but above they have sometimes a red margin; the latter is in the normal *apollonia*-♀ confined to the hindwings, but

it may also be continued through the forewing (*Lyra Sndrs*, 129 a), what creates quite a different appearance, *Lyra*, particularly if the red band withdraws from the border towards the costa of the forewing (= *olivia Btlr.*), *olivia*.

L. terpsichore *Ww.* (= *zygaena Stich.*) (129 b). Beneath very similar to the preceding, but the red spots partly show through above, so that the upper surface has also red guttiform spots. Moreover, the rays are more intensely white, in Bolivians from Buenavista quite purely white. According to the abundant material before me, side-forms are not to be maintained. Brazil, Bolivia, Paraguay; everywhere rare.

L. diadocis *Stich.* (142 i) of which only the specimen in STAUDINGERS collection is known to me, being copied here, has on the forewing an orange oblique band and less intense rays which become distinct almost only on the hindwings. From São Paulo da Olivença on the Amazon River.

41. Genus: **Notheme** *Ww.*

The species forming this genus attains scarcely half the size of *Lyropteryx*, but still it approximates the latter genus and the allied *Necyria*. In the veins the sole deviation consists in the cells of the wings being not so oblique, but more straightly cut off, whereby a transition is formed to *Monethe*. The formation of the antennae, the palpi, the vaulted forehead are like in *Lyropteryx*, but the eyes are larger, the abdomen more slender, at the sides not glaringly coloured and the body somewhat more strongly haired. The *Notheme* are easily recognized by the shape and the sinuous yellowish or whitish median band of the wings. They are met with singly on open spaces in the woods where they bustle about in the sunshine.

N. eumeus *F.* (= *ouranus Dbl.*) (132 i). On a blackish ground we see a bone-yellow, irregular median band, being on the hindwing of a rusty discoloration at the anal end; before the border of the hindwing a very fine silvery-blue line, being sometimes only indicated by few small scales. Specimens from Cuzco in Peru are only half as large as typical specimens from Guiana, and the median band is more regular and of a purer white; for Peruvian specimens STICHEL proposes the name of *diadema*; but as he states its occurrence also in the Amazon district, Colombia and Ecuador, it seems not to be a delimitable form*. — **erota** *Cr. erota*. (132 h) has the median band yolk-coloured. — **angellus** *Stich.* (132 i) is the southern form (Paraguay, South Brazil) with an irregular, in some places extinct band (= *hemicosmeta Stich.*). The median band is generally narrower in southern specimens than in those from the northern parts of South America. — In **agathon** *Fldr. agathon*. (32 i) it is more irregular, on the hindwing spotted in rusty yellow at the costa and the anal angle; likewise from South Brazil. Not rare and distributed over the whole of Tropical South America.

42. Genus: **Monethe** *Ww.*

The species forming this genus are closely allied to each other. They are black and pale yellow coloured butterflies, rather small, in the structure of the body similar to the *Lyropteryx*, but distinguished by the triangular forewings being sharply angled in the anal angle and by the rather pointed, long-stretched anal part of the hindwings, at which the fringes are prolonged to a short beard. The formation of the head, antennae and palpi do not deviate from that of the *Lyropteryx*; in both wings the discocellulars are somewhat longer, so that the upper median vein branches off farther in front of the cell-end of the forewing than in *Lyropteryx* and *Notheme*, where it comes almost out of the lower cell-angle. The forms of the genus seem to replace one another, so that presumably nowhere more than one species occurs.

M. alphonsus *F.* (132 i). The forewing exhibits on the basal part of the median a yellow cuneiform streak being slightly thickened in the centre of the wing. Beneath grey with distinct black veins. South Brazil.

M. albertus *Fldr.* (132 i) has above in the disc of the forewing a large oval yellow spot, differs, however, particularly beneath by showing sharply defined yellow discal spots and no black veins. Colombia, Western Amazon to Bolivia. — In **leucobalia** *Stich.* (133 a, as *leucobolia*) the light spots of the upper surface are white instead of yellow; it lies before me only from Bolivia. — In ab. **carens** *form. nov.* (133 a) the apical part of the forewing above is without the yellow blurred spot and beneath the yellow subapical band is narrower; a yellow nucleiform spot being always in the anal part of the hindwing of *albertus*, is entirely absent; it is found wherever the typical form occurs, but presumably scarcely at the same flying-place. Transitions are of frequent occurrence, since the yellow spotting varies at every habitat. — **rudolphus** *G. rudolphus*. a. *S.* (= *cajetanus Stgr.*) (133 a) has much yellow beneath and is above all to be recognized by the under surface of the hindwing exhibiting 5 or 6 small white spots in the brown distal margin. Colombia, especially near Muzo and, therefore, in the so-called „Bogotá-Collectious“. — **paraplesius** from French Guiana is a *paraplesius*. STICHEL-form; the yellow spot of the upper surface is said to be larger and the marginal kernels of the under surface of the hindwings to be „yellowish and partly hazy instead of distinctly white“. Both these individualities, however, vary greatly. *rudolphus* is regarded as a species of its own; but as there are transitions of all the *Monethe*-forms to each other, it is very possible that all of them are only local forms of one total species. All the forms are rather common.

* According to STICHEL, the band of the forewing of *diadema* is somewhat variable, „anteriorly sometimes very little, posteriorly, however, mostly considerably narrowed, at the proximal side almost straight, distally expanded convex or obtuse angled“.

43. Genus: **Paraphthonia** *Stich.*

This genus is based upon a species described as *Monethe*, but it may, just like the following genus, not be at its proper place here, but rather belong near *Aricoris*. Distinguished from all the similar genera by far-projecting palpi. The ♀♀ (unknown to me) probably have still longer palpi than the ♂♂. I presume also that the species are dimorphous in the sexes. They are rare butterflies of the Peruvian mountains.

molione. **P. molione** *Godm.* (127 h). ♂ bright yolk-coloured. The distal margin is broad black, as well as the costal margin and the apical part of the forewing; in the latter we notice a lemon-coloured oblique diffuse spot. *Pebas.*

cteatus. **P. cteatus** *sp. nov.* (142 e). Disc of the wings of a bright miniate colour, hindwing with black veins; the oblique diffuse spot in the black apical part of the forewing is an obliquely-oval, dull whitish brightening. Under surface similar to the upper one, with duller colours. Carabaya; the type (in the Tring-Museum) was taken near San Domingo at an altitude of 6000 ft.

44. Genus: **Colaciticus** *Stich.*

In the veins like the preceding genus, but the cell of the forewing is shorter. The palpi are not only far-projecting, but are besides greatly prolonged, almost like in the ♀♀ of *Aricoris*. Before the border a silvery line.

johnstoni. **C. johnstoni** *Dannatt.* (127 h). Wings lemon-coloured with a broad black border, in which on the hindwing (in some specimens also on the forewing) a fine silvery line runs along the distal margin. In the forewing the apical part and the costal margin are also black, also at the cell-end a small cross-bar appearing sometimes as a knob, but also as a hair-line streak. The species is distributed over the whole of Tropical South America and its appearance presumably conforms with the species of *Cylopopoda* flying at the same place. The butterflies most exactly resemble these yellow and black *Cylopopoda* so that it must be difficult to recognize them when they are flying, which may be the reason of their being rarely found in collections. In one specimen from „Brazil“ in the Tring Museum, the cell-end is crossed by a broad black band running

to the anal angle, and since the form shows such an entirely different appearance, I denominate it **jordani** (142 e). The silvery antemarginal line is well developed on the hindwing, on the forewing distinctly developed only in the apex. — Conformably to another *Cylopopoda* is a form from Cuyaba in which the yellow

area is also intersected on the hindwing; I call it **banghaasi** (142 e). Type in the Coll. BANG-HAAS. — There certainly occur still more modifications of the marking; the denominated ones may be distinct species.

45. Genus: **Hopfferia** *Stgr.*

The only species belonging hereto entirely differs in the marking and colouring from the genus *Siseme* to which it was reckoned; it is greyish-blue with a royal yellow costal stripe of the hindwing. The hindwings have an entirely round border without a projecting anal part. The sole species lives in Peru.

luculenta. **H. luculenta** *Ersch.* (= *militaris* *Hpffr.*) (133 e). Light slate-blue, upper surface finely veined in black, hindwing with a broad, very bright yellow costal stripe. The latter runs beneath at the inner margin also over to the forewing. Peru, local.

46. Genus: **Zelotaea** *Bat.*

The only species of this genus imitates pieris from the genus *Leucidia*. It has a conspicuous conglobate head with a thin neck. All the wings are rounded with a very convex distal margin; the costal ends already before the middle of the costa into the costal margin. The subcostal of the forewing sends forth the first and second branch before, the 3rd one far beyond the cell-end, the 4th branches off far before apex. The cell of the hindwing scarcely shorter than that of the forewing. The butterflies are pretty rarely found in collections, the reason of which may be that they are taken for the *Leucidia* which are extremely common at their habitats and, therefore, left unnoticed. Their systematic classification is uncertain. DOUBLEDAY ranges them in *Pandemos*, while STICHEL ranks them beside it. According to the peculiar formation of the body they have nothing whatever to do with this genus, but much rather belong closer to the genera *Lymnas*, *Themone* etc. with a similar formation of the neck. *Pandemos* has long palpi projecting far in the ♀, differently formed legs, a short neck with the head placed flatly on it, and entirely different veins.

phasma. **S. phasma** *Bat.* More or less dull white; a stripe at the costa of the forewing, the border and a *achroa.* dull transverse stripe behind the cell pale brownish. Teffé. — In *achroa* *Bat.* (128 i) likewise from the *peller.* Amazon (described from the Tapajoz) the brownish-grey shading is more intense on both sides; — **pellex**

Stgr. (128 i) is almost entirely white, only before the border slightly yellowish darkened and with a yellowish-brown under surface. — *dubia* *Bat.* and the hardly differing *eidothea* *Btlr.* form the intermediary *dubia*. *eidothea*. between *pellea* and *phasma*, being darker than *pellea*, lighter than *phasma*. They are forms of the eastern coast of Brazil, *dubia* occurring in the north (near Pará), *eidothea* in South Brazil. The latter is white with greyish-brown veins and a broad marginal band of the forewing, being the broadest at the costa and narrowed in the second median interspace. Hindwing beneath of a dull white or pale ochreous tinge.

47. Genus: **Uraneis** *Bat.*

A number of forms of this genus may be divided among quite few species which have fortunately received but few denominations. They copy black, hyaline-spotted *Cylopodinae* or *Pericopiinae*, the latter of which are protected by the secretion of oil out of the thorax. The consequence of this imitation is an extensive polymorphism, since the imitators have to copy now this model, then the other; but they all are black with whitish or hyaline spots and a blue reflection. The palpi are well visible from above, projecting, of medium length; the cell of the forewing of almost half the length of the wing, the cell of the hindwing only quite short. There is a remarkable difference in the shape of the hindwings. The *Uraneis* are not rare, but difficult to discover from among the great number of hyaline *Ithomiinae* and *Heterocera*; they come to the bait early in the morning and are beaten out of the bushes in day-time.

U. hyalina *Btlr.* (138 e, misprinted into *nealina*). Recognizable by the long-stretched anal part of the hindwing of the ♂♂. Black with hyaline bluish discal brightenings and alike oblique band before the apex of the forewing. Amazon to Bolivia. Bolivians from Buenavista have a broader black margin of the wings; the preapical oblique band may be broad or narrow, short or long, straight or bent. It resembles certain *Tmetoglene* (e. g. *esthema*) which, however, have orange-yellow palpi that are never found in *Uraneis*.

U. zamuro *Thm.* (138 e). Here the disc of the wings is black, the oblique band of the forewing very broad oval, bluish-white; hindwings with white antemarginal cuneiform spots. Differing at every habitat. Near Cundinamarca (Colombia) the band of the forewing is rather narrow, the wedges of the hindwings do not reach the centre of the wing. On the Rio Negro (Colombia) the wedges of the hindwings feebly run as far as towards the base, in the figured specimen (from Ecuador) they are very much broader. Not rare.

U. ucubis *Hew.* (= *radiata* *Stgr.*) (138 e). Blackish-blue, before the border of all the wings white cuneiform rays which grow especially thick and broad in the form *lamprolenis* *Röb.* (138 e). Colombia, Ecuador. Rarer.

48. Genus: **Esthemopsis** *Fldr.*

Very closely allied to the preceding genus, scarcely differing in the veins, nor considerably deviating from the preceding in the habitus and partly confined to the same models with respect to the mimicry. The red *inaria* being described as *hymnas*, but according to *Stichel* to be inserted here, is entirely unlike this group, but perhaps only because it copies a model from another group than the rest of the *Esthemopsis* which are confined to black, hyaline-spotted or fenestrated originals. We must yet be better informed about this genus, as it has been hitherto looked at in a different light by every author. According to MENDEL it contains 14, to STICHEL 13 (many other) species. The butterflies, the habits of which I was not able to observe myself, presumably imitate the habits of their models.

E. clonia *Fldr.* (128 c, as *clonius*) entirely resembles *Uraneis zamuro* *Thm.* and varies like it particularly in the shape of the band of the forewing and of the wedges of the hindwing. Blackish-blue with a broad white, subapical band of a bluish reflection, showing half through. Immediately distinguishable from *Uraneis zamuro* by the palpi being in the latter long-projecting, black, with white stripes, in *E. clonia*, however, short, bright red-yellow. From Central America to the Amazon, not very rare. — *alicia* *Bat.* described from Guatemala, is almost just the same, but without the white cuneiform spots in the hindwing. — *saracena* *Sm.* does not show the band of the forewing broken up towards below into spots, but coherent, ending before the anal angle; without distinct cuneiform spots in the hindwing. Brazil.

E. macara *Sm.* (= *acara* *Mengel*) from Colombia is smaller than the preceding, otherwise similar; the band of the forewing above narrow, band-shaped, the lower end slightly curved inwards; above without cuneiform spots on the hindwing, but beneath are magnificently blue rays on it.

E. poliotactis *Stich.* (142 k) is based upon 1 ♂ from Peru. Black, on the forewings with grey, on the hindwing with obsolete cuneiform spots before the border. Beneath the wedges are more distinct, in the hindwing almost white. Head and body black, ruff yellow. Length of forewings 19 mm.

E. caeruleata *G.* and *S.* Above black with a small narrow white oblique band, so that above the appearance of *Chamaelinnas pansa* (127 g) is produced; but at once recognizable by the under surface exhibiting the magnificently blue rays of the preceding species on the hindwing. Panama. Only ♀♀ known which may belong to a differently denominated ♂.

- jesse*. **E. jesse** *Bth.* (142 g). Here the subapical band of the forewing is broken up into 5 diffuse spots and the disc of the wings of a shining violet-blue tinge, traversed by the thick black veins. Beneath the colouring of the wings between the veins is lighter than above, whitish-blue; northern parts of South America; Brazil. — **aeniacus** *Hew.* (128 c) shows the upper surface of the wings particularly below the costa and from the direction of the border dusted with a sooty grey; from Bolivia, but there are almost typical *jesse* before me also from Bolivia.
- linearis*. **E. linearis** *G.* and *S.* has almost exactly the size and forewings of the following *sericina* (128 b), but the hindwing is without the black margin; from Colombia.
- sericina*. **E. sericina** *Bat.* (128 b) differs entirely from the preceding species by the hyaline places being combined here to 2 fenestrae: an oblique band before the apex, a longitudinal stripe from the base of the forewing, and a discal wedge in the hindwing. Thereby a general appearance is produced which is shown by many Heterocera flying in the same district: I mention *Mimagyrtis pampa* (Vol. VI., t. 12 k), *Cacostatia sapphira flaviventris* (Vol. VI., t. 22 c), *Euagra splendida* (Vol. VI., t. 23 h), *Agyrtia chena* (Vol. VI., t. 23 k), *Ag. dux, micilia, auxo* (Vol. VI., t. 24 a), to a certain degree even the large *Agyrtidia uranophila* (Vol. VI., t. 17 a). In this species (like in the model *Euagra (splendida)*) not only the palpi, but also the vertex and hindhead are red-yellow.
- lithosina*. **E. lithosina** *Bat.* (128 b). Forewing more stretched, hindwing smaller and in the anal part pointed; colouring similar to that of the preceding species, but the hyaline brightening occupies almost the whole disc of the wing. Hindhead reddish-yellow. Sometimes there is some red-yellow beneath in the anal angle of the forewing; Amazon, Pebas. It imitates small Arctiids, *Lauron, Tithraustes*. — **fenella** *Sm.* has clearer vitreous spots and, above all, a broader subapical band of the forewing, otherwise similar; from Ecuador.
- celina*. **E. celina** *Bat.* (142 h). Smaller than the preceding, the hyaline fenestrae not tinged in blue, but only faintly darkened by smoky-grey at the margins, the small subapical band white, shaped like in *lithosina*. From the Upper Amazon. This species has no orange-yellow in the forewing and a dark hindhead. — **E. aeolia** *Bat.* from Guiana and North Brazil has the small band cut trough before the apex by black veins, and the black veins in the hyaline disc of the wing are considerably thicker.
- inaria*. In addition we mention here (according to STICHEL) the entirely red, black-margined **E. inaria** *Ww.*, described as *Lymnas*, and which STICHEL had formerly himself placed to *Xenandra*. From the Amazon. — **isabellae** *E. Sh.* (128 d) is a form from the Araguaya River with almost quite uniform black margins of the wings. It differs from *inaria* by the latter having another black ray on the submedian of the forewing. Apparently very rare.
- inariella*. **E. inariella** *Strd.* from Costa Rica resembles *Euselasia chrysippe* (121 f), but above it has 3 small light spots before the apex and beneath a black border of the hindwing.

49. Genus: **Xinias** *Hew.*

This genus is closely allied to the hyaline *Esthemopsis*, but the two last subcostal veins bifurcate sooner before the apex of the hindwing. For the rest the species entirely resemble *Esth. lithosina*.

- cynosema*. **X. cynosema** *Hew.* (142 h). Wings of a faint violet lustre, hyaline; in the black apical part of the forewing a white, oval oblique band, in the blackish inner margin an orange stripe. Bolivia. — In *hyalodis* *Stich.* (142 f) from Ecuador the small preapical band of the forewing is widened to a large white oval. It imitates small *Ithomiinae*.
- cristella*. **X. cristella** *Sm.* from Ecuador is like *cynosema*, but the orange embedding in the black inner-marginal stripe is reduced, similarly as in *hyalodis*; but the oblique band of the forewing is not widened. The head is yellow (by which it differs from *Esthemopsis lithosina*).

50. Genus: **Mesenopsis** *G. and S.*

This genus belongs yet entirely to the mimetic genera of the *Lymnas*-group. In the shape it approximates the *Xinias* and *Esthemopsis* to which it is undeniably closely allied, but owing to the selection of other models its outer appearance greatly deviates from the former. On the upper surface the black and yellow colouring of the *Josia*-species from the large group of the *Arctiidae* is predominant. The forewings are long, the hindwings small with a pointed anal part. The cell of the forewing is nearly twice as long as that of the hindwing. The butterflies are mostly rare, i. e. difficult to discover from the great number of the *Josia* flying with them; according to FASSL, there is a remarkable difference between the model and copy in the imitating *Erycinidae* being more timid and flying off sooner than the *Josia* serving as their model.

- lygaxis*. **M. bryaxis** *Hew.* (128 a). Wings with an orange-yellow disc and broad black margins. Central America. In the ♂ the orange colour is deeper, in the ♀ lighter. Rare. — **melanochlora** *G. and S.* (128 a). Here the orange is more in the shape of stripes, running from the base of the wings to the middle of the border. Central America to Bolivia. Rare; the model in Colombia is *Josia fulva* (FASSL), in Costa Rica *Josia ligata*.

M. briseis *G.* and *S.* resembles the preceding, but the orange-yellow median stripe of the wings *briseis*. is broader in the middle and not running quite through to the distal margin; from Colombia. — *pulchella* *pulchella*. *Godm.* (128 a) differs by the median stripe of the forewing ending in a whitish tinged knob. Amazon.

M. albivitta *Lathy* (128 b). Only the forewings exhibit a bright orange disc; the hindwings are only *albivitta*. in the centre slightly lighter. The under surface of the hindwing shows a white, blazing basal ray. Model: *Josia auriflamma*. South Brazil, rare.

51. Genus: **Mesene** *Dbl.*

Except the totally unicolorously scarlet species of this genus there is probably no species among them that does not exhibit certain peculiarities of the marking at every flying-place. We distinguish but quite few species and we restrict ourselves to registering the already denominated forms by stating the patria ascertained by the author for the form referred to; but in doing so we must point out that these statements of the locality often only refer to casual captures and there may very well other forms be found in the same patria. The ♂♂ have triangular, pointed, brightly coloured forewings and small ellipsoidal hindwings. In the veins the species exhibit great conformity, in case we except the genus *Phaenochitonina* having been separated by STICHEL. For then the second subcostal vein, the upper median vein in the forewing as well as in the hindwing rise before the cell-end, while in *Phaenochitonina sugeris* they proceed from the cell-angles. This genus having been detached, there remain in *Mesene* only 13 species that are rather much alike one another. They rest so well hidden on the under surface of leaves that one gets sight of them only when one chases them out of the bushes, whereupon they fly somewhat like Geometrids for about 10 to 20 m always keeping in the middle of the forest-roads, in order to drop again into another bush. The larvae are lycænid-like, somewhat like wood-lice, fluffily haired; that of *M. phareus* lives on the extremely poisonous *Paullinia pinnata* to the leaf of which also the small greenish-yellow pupa is spun. *Mesene* is connected with the Heterocera-genus *Eudule* by a mimetic resemblance, but it has not been ascertained which is the original and which the copy, or whether the resemblance of the two genera is due to connexions with a third butterfly.

M. phareus *Cr.* (? = *nigrocinctus* *Sepp*) (134 k). Red with a narrow black margin and cell-endspot of *phareus*. the forewings. In Surinam-specimens the forewing is beneath almost entirely dusted in black except the inner margin; Cayenne-specimens have the under surface of the forewing above the anal angle broad red, but the base of the hindwing is below tinged in blackish. In those from Suapure in Venezuela the distal half of the under surface of the forewing is spotted light red; such from Cuyaba have an uncommonly narrow black border (transition to the following, = *ineptus* *Stich.*) and so on. The species varies in every possible way in the enormous range extending from the northern coast of South America to Bolivia and being presumably larger than the whole of Europe. — In Colombia the species makes its appearance as *colombica* *form.* *colombica*. *nov.* (134 k) in which the whole inner-marginal half of the under surface of the forewing is of a bright red; the form is besides considerably larger there. — On the contrary, the Central American form, *rubella* *rubella*. *Bat.* (134 k), is smaller; it likewise has the forewing beneath light red, but also a black basal part of the under surface of the hindwing. — The larva is greenish, like a wood-louse, across the back darker; on *Paulinia*. The butterflies are not rare; the ♀♀ have somewhat broader wings and an under surface similar to the upper.

M. celetes *Bat.* entirely resembles *phareus*, but the ♀ has longer wings; the forewing with a more *celetes*. bulged out border, of a saffron colour, the black costal stripe somewhat indented, beneath in the border some small, fine white spots. Para.

M. pyrippe *Hew.* (134 l) is the South Brazilian representative of the preceding, above with a broader *pyrippe*. black margin, beneath the forewing is red except the border and a black costal stripe. — *sanguilenta* *Stich.* *sanguilenta*. (134 k, l) has the costal black in the basal part broader and is said to have also yet a black cell-end stripe in the hindwing, which, however, is often rudimentary and, in the figured specimen, not even indicated; Rio Grande do Sul. (On the table the name is misprinted into *sanguinolenta*.) — Near Santos rather common, coming even quite near the town; near Rio it is rarer.

M. bomilcar *Stoll* (134 l). Like the preceding, red, black-margined, the costal stripe much broader, *bomilcar*. particularly towards the apex. Guiana. — *pullula* *Stich.* (134 l) is a smaller form, in which the red of the *pullula*. forewing is still more displaced by the black.

M. croceella *Bat.* (134 k) originates from Central America; ♂ more miniate than bright red, ♀ some- *croceella*. times quite pale.

M. hyale *Fldr.* (134 m). Smaller, hardly as large as *pullula*, the distal margin of all the wings very *hyale*. broad black. Colombia.

M. hya *Ww.* (134 m) has a red or yellow disc of the wings and a broad black margin of the wings, *hya*. in which there stands a white spot of varying size. Amazon. — *fenestrella* *Bat.*, not exactly recognizable *fenestrella*. according to the description, seems to refer to the forms with a small white punctiform spot (as, however, they occur in most of the red *Mesene*-species) and differs from typical *hya* besides by a narrower black

paraene. margin. — *paraene* *Bat.* from Para has a still narrower black margin; a white dot is no more to be seen.
guttata. — *guttata* *Stich.* seems to denote a transition from *hya* to *monostigma*, being similar to the former, though with the red being reduced on the forewing. Paraguay. — *monostigma* *Er.* (135 b) has the forewing blackish-brown except a narrow inner-marginal spot, the hindwings being more yellowish-red than vermilion, but the colouring is not constant. — By the denomination of *leucophrys* BATES understands both narrow- and broad-margined red forms, with a red or black body, exhibiting a white nucleus only in the dark border of the forewing; the diagnose is not applicable to a geographically definable form. — The white spot and the black margin vary to such an extent at every habitat, that entirely equal specimens are not at all before me; even specimens denoting the „Rio Songo“ as the finding-place, that are before me, exhibit a quite narrow and a broader margin of the hindwing. Near Humayta on the Amazon this margin grows to be 3 mm broad. Apparently rather common.

epalia. *M. epalia* *Godt.* (135 a). Recognizable by the more stretched, one-coloured wings being quite narrowly bordered in black. In typical *epalia* the ♂ is vermilion, the ♀ somewhat paler. — *simplex* *Bat.* has saffron-coloured ♀♀ and in *philonis* *Hev.* the ♀ is orange-yellow. STICHEL regarded these forms as synonymous, as he states later on, because he took the lighter specimens to be faded; but there occur such in all shades, even in a pale ochre-yellow hue; the colouring probably depends on the red or yellow models (*Endule* etc.) flying at the same places. South America; more to the east.

epaphus. *M. epaphus* *Stoll* (134 m). Above like *epalia*, but beneath the black apex of the forewing exhibits a white and a red spot. Guiana. — In *speculum* *form. nov.* appears an irregular marginal band of the hindwing, sometimes linguiformly radiating towards the centre of the wing, and the white preapical spot of the forewing appears above in reddish-yellow; Cayenne. — *albiplaga* *form. nov.* shows this spot also above gloriingly white, whereby such a great resemblance is created with certain *Heterocera*, that the model and the copy cannot be distinguished at all in the open air, while in the net they are difficult to discern, as they keep their wings quite uniformly*). — *nola* *H.-Schäff.* (134 m) is like *albiplaga*, but the black of the apex of the forewing is cut off straight and the border of the hindwing more irregular. Amazon, Guiana.

nola. — *mulleola* *Stich.* seems to approximate *albiplaga*, but the black costal stripe is narrowed, beginning from the cell-end; the black border of the hindwing is the broadest at the anal angle. Upper Amazon. — *pyrrha* *Bat.* likewise approximates *nola*, being above abundantly orange-red, on the hindwing the middle of the distal margin exhibits a leather-coloured spot; the apical third of the forewing is black, but its margin irregular and in its lower part deeply indented; Tefé. — *eupteryx* *Bat.* likewise resembles *nola*, but it is more miniate than orange-red; the black border of the hindwing is broken up into spots in the middle of the border, but it extends at the anal angle yet for some distance up to the inner margin. The latter is also the case in the ♀ (= *mydia* *Bot.*) which, however, has an ochreous-yellow ground-colour. — In *seriata* *Stich.* (135 a) both the white and the red spots of the apex of the forewing appear also above and the hindwing exhibits black marginal wedges also above like in *speculum*, but without counting these a very narrow border of the hindwing. Western Amazon. — Of this species new modifications of the markings are probably found at every new habitat; it seems to be distributed over the whole northern part of South America, but not common.

nepticula. *M. nepticula* *Mschlr.* (135 b). Crocus-yellow, in the black apex of the forewing above 3, beneath 2 small spots of the ground-colour. Surinam. — *stigmosa* *Stich.* from the Amazon and Ecuador has in the apical part also above only 3 small spots being white.

margaretta. *M. margaretta* *White* (135 a). Similar to an *epalia*-♀, but from the narrow black margin of the wings numerous black rays run into the wing. Beneath, the spaces between these rays are in specimens lying before me from Colombia of the ground-colour, in those from Venezuela (? = *oriens* *Btlr.*) white. In Central Americans the rays are above very short. — *semiradiata* *Fldr.* (135 a) has a black apical part of the forewing, with white rays through it; Colombia and Venezuela, but presumably at other flying-places than the preceding. — In *eromena* *Stich.* (135 a) the forewings exhibit fewer white marginal rays, the hindwings of the ♂ none at all. We figure ♂ from Colombia, ♀ from Bolivia, and it is doubtful whether both belong together. I am inclined to believe that the figured ♀ is quite a different species of butterflies, the ♂ of which resembles the ♀, but it is not before me. — *sardonyx* *Stich.* resembles *margaretta*, but the black marginal rays are thicker, their intermediate rays whitish, and in the disc of the wings there are some small black dots; Bolivia. Lying before me from Coroico (taken at an altitude of 1200 m), but in specimens exhibiting black dots only in the cell of the forewing, not also in that of the hindwing (like STICHEL'S figure, Gen. Insect., Riodinidae t. 261, fig. 55). — Homochromous to these forms are tiny red night-butterflies, such as *Pseudom. coccinea*.

silaris. *M. silaris* *G. and S.* (135 b). Disc of the wings chrome-yellow, margin and apical part broadly black (in the ♀ somewhat narrower). The legs are yellow. Nicaragua. — *leucopus* *G. and S.* from Guatemala is quite similar, but smaller, and the forelegs are white. — *icterias* *Stich.*, unknown to me, is said to be with respect to the black margining like *hyale* (134 m), but smaller and the ground-colour yellow instead of red; Venezuela, Peru.

* A secondary resemblance thereby arises also with certain *Aricoris*, such as *A. heliodora* *Stgr.*

M. capissene Hew. (135 b). Easily recognizable by the rows of discal dots traversing the narrowly blackish-margined red forewing before and behind the middle. South Brazil, rare. According to STICHEL, *M. strigulata* Schs. (being unknown to me) is said to be identical with it. *capissene*.

M. martha Schs. from Peru and Ecuador is about as large as *silaris*, but in typical specimens with a narrower margin and fine black cell-end streaks and tiny spots on the under surface. — In **verecunda** Stich. (142 b) from North-East Peru the black costal stripe in the basal part of the forewing is thickened, so that the red discal area appears narrowed and turned round into a tooth projecting costalwards behind the cell. *martha*, *verecunda*.

52. Genus: **Phaenochitonía** Stich.

This genus is composed of 4 groups of butterflies (*cingulus*-, *sagaris*-, *bocchoris*-, and *phoenicura*-group) which STICHEL detaches from the red *Mesene*. These groups, however, greatly differ again among each other, and the great sexual difference of *Phaenochitonía* mentioned by STICHEL in separating them does not prove correct in all their species. The differences in the veins (mentioned in *Mesene*), however, may very well justify the detachment, if they are to be applied to all the species. — I was able to ascertain a difference in the habits, since some *Phaenochitonía* are animatedly swarming about in the sunshine in day-time (*sagaris*, *bocchoris*, *dukinfildia*), whereas I frequently chased up the *Mesene* s. s., though I never saw them swarming spontaneously, even at the places where they were common. This may be also the reason why the *Mesene* are mostly quite red, the *Phaenochitonía*, however, of an inconspicuous black ground-colour.

Ph. cingulus Stoll (= *aerope* Ww.) (134 h). ♂ black with a vermilion basal half of the hindwing, ♀ with a red median band, resembling *Crocozona* (134 e). From Surinam to Bolivia. — **trucidata** Btlr. is presumably only a slight deviation of the ♀ with a broader margin of the forewing. Amazon. — Not common. *cingulus*, *trucidata*.

Ph. pyrsoëdes Bat. In the shape and size it approximates the preceding species, but the red of the hindwing in the ♂ is also continued on the forewing, the disc of which is occupied by it almost as far as the subcostal. Teffé. The ♀ is unknown to me. — **eanes** Godm. (134 h) is probably only a somewhat smaller form with a lighter, more brightly marked under surface; Amazon. *pyrsoëdes*, *eanes*.

Ph. debilis Bat. already reminds us somewhat of *sagaris* (134 h, i), but it is considerably smaller and more delicate. Both the sexes are above deep dark-brown. With an orange band running from the centre of the forewing or already from below the costa to the inner margin, where it continues on the hindwing at the base of which it is curved. The under surface is brown, finely speckled in grey; near the inner margin of the forewings a yellow spot. From the Tapajoz. *debilis*.

Ph. ignicauda G. and S. differs but little from *cingulus*-♂; recognizable by the scarlet abdomen and by the red of the base of the hindwing extending far beyond the cell. — In *ignicauda*.

Ph. ignipicta Schs. (134 h) the basal red of the hindwing extends only to the basal part of the cell, but it accompanies the inner margin almost to the anal angle; Costa Rica; the figured specimen was taken near Guapiles. *ignipicta*.

Ph. fuliginea Bat. Above entirely like the ♂ of *cingulus*, also the fringes white-speckled, but the red in the hindwing is absent; the latter is also quite velvety black. From Villa Nova (Amazon). *fuliginea*.

Ph. sophistes Bat. (= *pactolus* Mschlr.) (134 h). Resembles *cingulus*-♀, but the red median band is narrower, especially on the hindwing, and the ground-colour lighter brown; traversed by parallel darker spots and stripes. Under surface lighter and more variegated, almost like in *eanes*, but the median band of the forewing broad. Amazon. *sophistes*.

Ph. phoenicura G. and S. (= *noctis* Stgr.) (134 i). Ground-colour as in *sophistes*, lighter brown, traversed by numerous, darker, small transverse stripes; the red median band of *sophistes* is absent, but the end of the abdomen is broad red. Central America to Colombia. *phoenicura*.

Ph. mandosa Drc. Marking and colouring almost exactly as in the preceding, but larger, the abdominal end not red and the under surface with a green lustre. Rio de Janeiro. Apparently rare. *mandosa*.

Ph. arbuscula Mschlr. Similar to the preceding, above resembling a *Caria*, the marking above more faded, consisting of 6 transverse bands separated by spots, the 4th and 5th of which flow together in cellule 2. Beneath the greenish lustre is replaced by a dull, somewhat brilliant bluish black, the wings somewhat narrower. Described according to a ♂ from Paramaribo. *arbuscula*.

Ph. dukinfildia Schs. (134 i). This elegant animal from South Brazil looks differently at every habitat. Nearly always recognizable by an orange belt cutting off the apical part and by a cell-end spot of the fore- *dukinfildia*.

wing and a similar transverse stripe in the hindwing. In specimens from Castro in Paraná, a small fine transverse stripe is at the cell-end of the forewing; in specimens from Villaprudente in the State of São Paulo, a thick orange wedge stands here; in specimens from Ypiranga, the small band of the hindwing is as thin as a hair, almost obliterated etc. It is of no use to denominate all these forms. — Not rare.

bocchoris. **Ph. bocchoris** Hew. (134 i). Only an orange oblique band on the forewing, which is narrow and *suavis*, obsolete at both its ends, but better developed in *suavis* Stch. (134 i). South Brazil, rarer than the preceding species, but less local.

vittata. **Ph. vittata** Stch. Both the wings with a broad orange band running beyond the middle from the costa as far as in front of the anal angle. Amazon. I cannot decide whether this species not lying before me, as well as *suapure* Weeks (from Venezuela) being likewise unknown to me in nature, belong into this genus indeed.

crocostigma. **Ph. crocostigma** Bat. Shape as in *sagaris* (134 h, i), forewing speckled dark with black transverse streaks. On the hindwing a richly orange-coloured, oblong transverse spot runs through the disc. Guiana and Amazon.

apoplecta. **Ph. apoplecta** Bat. seems to be very similar to *crocostigma*; upper surface dark brown, speckled in blackish; near the border the dark spots form a submarginal row. Fringes at the apex white, otherwise black. From the disc of the hindwing to the inner margin runs a saffron-coloured spot; Rio Tapajoz.

basilissa. **Ph. basilissa** Bat. Black, in the cell of the forewing begins an orange band running to the anal angle of the hindwing; this band is indented at the cell of the forewing and at the inner side on the hindwing, which is not the case in *sagaris*. The animal hardly belongs into the same genus with *cingulus* etc., the body is strong and the shape of the wings already approximates that of *Synnachia* and *Caria* by the bulging costa of the forewing and the long straight inner margin of the hindwing. Was described as *Mesene*. Para.

sagaris. **Ph. sagaris** Cr. (♀ = *satnius*) (134 h, i). The typical form is rather small. In the ♂ an orange stripe begins directly above the middle of the inner margin of the forewing, running obliquely across the hindwing and also the abdomen, so that its middle is orange, the base and end, however, being black. The ♀ is entirely different, it has broad wings and only on the forewing an orange-yellow oblique spot. It is undoubtedly altered by mimicry, in the same way as also the ♀ of *Panara phereclus* looking quite different in the same sex; the model to both of them are presumably certain oil-secreting *Arctiidae*. Typical *sagaris* particularly come from Guiana and the Amazon. There occur, however, also larger specimens, as I took them

tyriotes. almost exclusively in South Brazil: this is the form *tyriotes* G. and S. (134 i). These generally have a narrower band extending on the forewing upwards in a twisted point beyond the middle of the forewing; but there are in South Brazil (probably also elsewhere) also specimens with a broader point ending more obtusely in the forewing; these were again detached as *majorina* Stch. (134 h *) . I remark yet that another sexual dimorphism consists in the oblique band of the forewing appearing in the ♀ also, beneath, though that of the ♂ does not show through, the ♂ being beneath entirely black, only with a light (unscaled) inner margin of the forewing. — The name of *matronalis* Stch. seems to refer to an aberration of the ♀, in which here

majorina. or there a small ochreous spot appears on the hindwing. — ab. *phrygania* Stch. from São Paulo in Brazil has narrower bands, otherwise like *satnius* (*majorina* Stch.), but the bands of the ♂ are still broader than in specimens from Curitiba. — The *sagaris*-♂♂ fly in the shade of the woods, on narrow roads, where the rays of the sun pierce the leafy roof. I took them near Santos at two places where, whenever I passed there, I always saw one male dancing about, which whenever I had captured it, was always replaced again on the next day by another flying at exactly the same place; I obtained the ♀♀ only on ransacking the bushes along the same road.

iasis. **Ph. iasis** Godm. (134 i). Larger than *sagaris* and easily discernible by the orange stripe on the hindwing not extending as far as to the posterior margin nor across the abdomen, but terminating obtusely soon below the middle of the hindwing. Besides the wings exhibit a beautiful dark-blue reflection on both surfaces. Of course, the same variations occur here as in *sagaris*; thus, for instance, the spot of the forewing in the specimen I figured is much rounder than in the one from GODMANS collection, figured in the Trans. Ent. Soc. Lond. 1903 t. 22 fig. 7. Whoever wants to disseminate diverse names as this has been done in *sagaris*, may introduce further denominations here.

pluto. **Ph. pluto** Stch. (142 b). Shape and size like in the preceding; but above in the middle of the hindwing there is a large hemochrome spot and the back of the abdomen is of a bright hemochrome behind the middle. Colombia.

*) According to an investigation having been published in the meantime, STICHEL corrects his former explanation of this species by stating that *satnius* Dalm. does not represent the ♀ of typical *sagaris*, but that of his *majorina*, so that the name of *majorina* Stch. would have to be replaced by *satnius* Dalm. *tyriotes* G. & S. is said to be a form of *crocostigma*, without the orange band of the hindwing. — STICHEL supposes our figure of *tyriotes* (134 i) to be approximating *satnius* Dalm. (his *majorina*). In fact, the original was collected only 3 hours by train from the finding-place of typical ♂♂ of *satnius*, near São Paulo. From Curitiba there is a specimen before me (Paris Museum), in which the orange band is still narrower and, at the anal part of the hindwing, entirely obliterated; the more attempts are made to denominate all these deviations of the habitats, the greater grows the confusion.

53. Genus: **Cricosoma** Fldr.

The species of this genus are closely allied to those of the following, but they differ from the *Symphachia* by the costa of the forewing (particularly of the ♂♂) not being bulged out. The name of *Cricosoma* may by no means disappear, as long as only one species described as *Cricosoma* is regarded as belonging to no otherwise denominated genus. But besides, the forms described as *Cricosoma*, maybe with some exceptions, form a very well distinguished group which would at least have to be maintained as a subgenus.

C. irrorata Godm. (142 g). This species, unknown to me in its free state, and described from the *irrorata*. Carimang River in Guiana, is the smallest of the genus; the ♂ is dirty yellowish grey, at the margin lighter, both the wings dotted in blackish. According to STICHEL, the 1. subcostal vein of the forewing touches the costal for a short distance; this, however, is only an effect of the costa forming a crookback, the expanding precostal area pressing the costal near to the subcostal veins; this is a slighter degree of the development as we find it in the following genera in a still greater measure. The species seems to be rare, maybe because the resemblance to the *Charis*-species (*chaonitis*, *argyrodon* etc.) occurring in crowds in the same country makes it difficult to discover them.

C. eraste Bat. (142 g). Smaller than the *irrorata*, the apex of the forewing more pointed, the colour *eraste*. dull red-brown, the black dots arranged more in transverse rows. According to STICHEL, the identification of the figure in the British Museum copied by us has taken place with BATES' original. Teffé on the Amazon.

C. batesi Stgr. (128 h). Somewhat larger than the preceding, the forewings not pointed at the apex; *batesi*. the dark spots in some places converge forming blackish clouds. Discovered by Dr. HAHNEL near Coary on the Upper Amazon. — **punctata** Btlr. differs probably only by a somewhat different arrangement of the *punctata*. dots on the upper surface. — Both occur in the Amazon district.

C. hippea H.-Schäff. (135 d) is an extremely variable species, the ground-colour of which is entirely *hippea*. blackish-brown, but it may also be so much interspersed with brownish-red that the upper surface appears almost red. It is always recognizable by the small light oblique band of the forewing which, however, runs sometimes more steeply, sometimes more flatly. Guiana. Not rare.

C. phaedra Bat. (135 c). Bright orange-red; the black small dots do not form any clouds, but they *phaedra*. grow somewhat larger towards the distal margin and represent thin transverse streaks in the cell of the forewing. In the forests of the Rio Tapajoz.

C. asclepia Hew. (128 h). Very much like the preceding, but the dark dots are absent in the disc *asclepia*. of the upper surface of the wings. Ecuador. — In **xypete** Hew. (128 h, 135 b), being somewhat larger, the *xypete*. dots are combined to distal-marginal chains or costal transverse streaks of the forewing, sometimes more, sometimes less. Here the ♂ is mostly darker red than the ♀. Central America. Rather common.

C. leopardinum Fldr. (128 e, as *leopardina*). Bright ochre-yellow, the black transverse streaks in the *leopardinum*. costal part of the forewing still more abundant and dense than in *xypete*, but also the other surface of the wings densely covered with black dots. Bahia; rare. — **hilaria** Hew. Here the crowds of black dots become *hilaria*. condensed in the apical part of the forewing to a black cloud. From the Amazon.

54. Genus: **Pachythone** Bat.

The *Pachythone* are so easily recognizable that scarcely one of them has ever been brought into a wrong genus; in the *Erycinidae* this fact is rare and a proof for this genus being one of the most natural. Though the body is small, it is of a very clumsy structure; the head and thorax are almost globular, the abdomen relatively stout and short; the antennae shorter than in nearly all the other genera and at the ends with a short, knob-like, small club; the palpi are also short, with a very short, relatively stout terminal joint; the veins do not exhibit any peculiarities except the cell of the hindwing, which is otherwise short in many *Erycinidae*, being here almost as long as that of the forewing. — The *Pachythone* are mostly very rare butterflies, not differing in their habits, as far as is known nowadays, from the allied genera. In the structure of the body, they somewhat resemble *Mesene*, but also *Syrmatia* and *Symphachia*.

P. erebia Bat. (142 i) is a small, above jet-black butterfly with white fringes of the hindwing. Under *erebia*. surface paler, likewise without markings. Amazon. Rare.

P. pasicles Hew. (142 i). Dark brown, the margin of the forewing lighter with a series of dark dots. *pasicles*. Forewing above with dark transverse dots in the basal part and a curved stripe beyond the middle, hindwing with 3 shortened stripes in the basal part, 3 transverse stripes crossing the distal part of the wings, and a dark border. Beneath like above, the transverse stripes are absent or broken up to strigiform dots. Espiritu Santo. Rare.

P. palades Hew. (142 i). Sooty blackish-brown, darker markings than in *pasicles*, besides a light-yellow *palades*. oblique band of the forewing. South Brazil, rare. — **philonis** Hew. is quite a similar species from Colombia *philonis*.

and Panama, but the dark bands of the hindwings are not distinctly noticeable, and the oblique band of the forewing is narrower, beneath more pointed and more orange than bright yellow.

mimula. **P. mimula** *Bat.* In the inner half of the dark brown forewings stands a yellow triangle, and in the middle of the apical half a yellow longitudinal spot. The basal part of the hindwing is yellow as far as beyond the middle of the wing, this colour bending in into the dark distal margin; thus the appearance, so very favourite in South America, of one of the black-yellow *Cyllopodina* results therefrom. From Santarem.

gigas. **P. gigas** *G. and S.* (142 k). ♀ similar to the preceding, larger, the yellow increased, so that the appearance of certain Heterocera (*Atyria isis*, *Flavinia postica* etc.) is produced. ♂ more rusty-coloured Panama. Distinguishable from similarly coloured *Aricoris*-♀ by the short palpi.

thauvaria. **P. thauvaria** *Stich.* As large as *coccineata* (142 i), miniate with a black margin of the wings and a black, white-pupilled apical part of the forewing. It resembles certain *Mesene*, though secondarily; the model for both may be small, *Endule*-like Heterocera, flying in day-time and being rather common.

xanthe. **P. xanthe** *Bat.* resembles the preceding, but the colouring of the ground of the wings as well as of the apical pupil is saffron. Border of the hindwing narrow, irregular. From the black costa of the forewing 2 black triangles penetrate the cellular space. Teffé.

distigma. **P. distigma** *Bat.* Dark brown; in the hindwing, between the cell and border, is a rusty-brown transverse spot, not reaching the inner margin. This spot is obliterated on the paler-coloured under surface, but here we notice in front of the border a series of dark dots in a light area. Size like that of the preceding species. It resembles *Phaenochitonina crocostigma*.

ignifer. **P. ignifer** *Stich.* is described according to a ♂ from the Rio San Juan in Colombia. Wings above reddish ochreous yellow. Forewings at the costal margin and border rather uniform, at the apex bordered more broadly. Here a circular patch of the ground-colour is cut off by an oblique stripe from the costal margin to the border; the border of the hindwing is black, bending somewhat round at the apex and inner margin. Under surface more light yellow.

lateritia. **P. lateritia** *Bat.* (142 i). Above brick-red, sometimes more sparsely, sometimes more copiously covered with small dark dots being arranged into straight rows in the basal part and in front of the border and forming a curved chain behind the cell. Under surface (♀ also above) with a dark distal margin of both wings.

coccineata. Northern parts of South America. — **coccineata** *Kaye* (142 i) I figure according to a specimen from Tabaquite (Central Trinidad). Here the disc of the forewing is above almost unspotted. Similar specimens occur also at certain places of the continent. Guiana-specimens are often very small.

55. Genus: *Symmachia* *Hbn.*

This genus is distinguished by a strong bulging-out of the costa of the forewing of the ♂♂, this characteristic bulge recedes in but few species, presumably owing to a mimetic transformation. This widening of the forewing is accompanied by a peculiar flight resembling that of *Thecla*, which becomes very conspicuous in the non-mimetic species, whereas in the mimetic species it is replaced by that of the casual originals to which reference is made in the single species, and which may more correctly be eliminated from the genus. They are more closely allied to the *Cricosoma* than the non-mimetic species, but we shall here give the precedence to the more typical forms. Many *Symmachia* are great rarities, and they are extremely peculiar in the shape as well as in the colouring. Of many there exists but one specimen in collections, for what reason our illustration of this genus is mostly composed of copies according to FELDER, HEWITSON etc. They fly in day-time, not continuously, and rest beneath leaves.

A. Non-mimetic species: Costal margin of the forewings bulging out in the basal part.

tigrina. **S. tigrina** *Hew.* (128 e). Similar to *Cricosoma leopardinum*, like the latter yellowish-red ochreous, the black costal transverse streaks flow several times together; in front of the border black dots. The convexity of the base of the costa being in reality great, is not prominent enough in our figure. — In *virgatula* *Stich.* the apical transverse stripes are confluent; Rio San Juan (Colombia).

suevia. **S. suevia** *Hew.* (128 e) is a species (or subspecies) similar to the preceding, the black marking being arranged to marginal rays also before the border.

arion. **S. arion** *Fldr.* (128 f). Considerably larger, the transverse streaks in the costal part of the wings rather straight, in the disc of the forewing dark shades, below the costa of the hindwing a broad, yellow ray. The patria of the only specimen (which I saw in the Tring Museum) is not exactly stated.

stigmiosissima. **S. stigmiosissima** *Stich.* seems to be allied to *tigrina*, but to be also similar to *Cricosoma leopardinum*. The species is said to be dotted like the latter, but to have black triangles at the costa of the forewing.

Under surface silky smoke-brown, dotted. The diagnose does not state whether the costa of the forewing is sinuous, as in *Symm. tigrina* or uniformly round (as in *Cricos. leopardinum*). Not lying before me. Bolivia.

S. virgaurea *Stich.* (142 c). Similar to *virgatula*, but whereas the latter has a more red-brown ground-colour, that of *virgaurea* is brighter red, so that it reminds us of our *Chrysophanus virgaureae*. The apical area of the forewing broad, the border narrow black. Between the 4 coniform, costal transverse stripes a fine striation. Larger than *tigrina*. Colombia.

S. praxila *Ww.* (128 g). Bright yellow dotted on a black ground, the small spots next to the base and border of the forewing red. The most conspicuous of it is the colouring of the hunch of the base of the costa, which seems to represent plastically a thick, curved appendage, looking like a feathered antenna laid over the costal margin of the forewing. South Brazil.

S. norina *Hew.* (128 g) greatly resembles the preceding, but it is smaller, the fine markings sparser and duller yellowish instead of white. Amazon.

S. calligrapha *Hew.* stands in the middle between the two preceding species, with respect to the size as well as to the copious light small spots. From the Rio Tapajoz; a somewhat duller spotted specimen from Guiana was regarded as the ♀ of the species.

S. calliste *Hew.* (128 h, as *hippea*) already resembles the following species *cleonyma* by most of the tiny spots of the upper surface being coloured in a bright red-brown; only above, at and below the cell-end they are yet of a light colour. — A somewhat smaller form of another flying-place, which, however, is not to be denominated and represents a transition to *norina*, we have figured 128 h; it was by mistake denoted as „*hippea*“ on the table, Brazil.

S. cleonyma *Hew.* (128 h). All the small spots of a bright red-brown; but besides the disc of the hindwing is rather extensively brightened up by red-brown. We figure a specimen from Nicaragua; HEWITSON supplies a rather deviating figure; we reproduce the copy of it 134 g, which was by mistake denoted as „*calagutis*“ on the table. — **leena** *Hew.* (128 g) is somewhat smaller, but otherwise quite similar, some of the small spots of the upper surface ring-shaped, as for instance at the base and anal angle of the forewing. Likewise from Nicaragua *. — **harmodius** *G.* and *S.* from Colombia is like *leena*, but the forewing without spots, the brown cloud in the hindwing, however, distinct. — **multesima** *Stich.* from Colombia is said to be similar, but to have a whitish costal spot, and in the forewing (like *leena*) a red-brown area.

S. pardalis *Hew.* resembles *praxila* (128 g), but it is very much more densely and brightly coloured in a reddish yellow, with red-yellow, small transverse bands in the costal part of the forewings. In the disc of the wings the small spots are lighter yellow. — The last 9 forms, together with **juratrix** *Ww.* being unknown to me in nature, are undoubtedly very closely allied to each other. Most of them are of only one very narrowly circumscribed flying-place, and known only in 1 specimen, and it is not unlikely that they are modifications of very few widely distributed, but throughout rare species.

S. menetas *Drury* (= *tacitus* *F.*) (128 d). A great part of the forewing and the whole hindwing bright red, the costal part of the forewing black with white spots. In the ♀ (= *eurina* *Schs.*) the red runs before the distal margin towards the apex. An extremely conspicuous butterfly already resembling in the flight certain Lithosiids (which are also imitated by Microlepidoptera) in which, however, the proximal half of the wings is red, the distal part being black and white, so that the resemblance disappears in the resting animal. South Brazil. — In **pilarius** *Stich.* (128 d) the black in the wing is increased, particularly the dark border of the hindwing is broader. Likewise in South Brazil. — The species is very rare.

S. rubina *Bat.* (= *irata* *Stgr.*) (128 d). The black-white part in the forewing towards the red not straight, but irregularly defined, moreover, the base of the forewing is broadly black. Mexico to Colombia. — In **technema** *Stich.* (128 d) from Guiana the hindwings are still broadly margined in black. — The latter is also the case in **maeonius** *Stgr.* from the Amazon, but here the black-white part of the forewing is so much developed that the bright red is confined to the inner-marginal part of the forewing. — Very rare.

S. titiana *Hew.* (128 f) is orange-yellow, with black margins of the wings and a black costal triangle embedded with white on the forewing. Ecuador. Very rare.

S. arcuata *Hew.* (128 e). The red is here more miniate and confined to the inner marginal part and the disc of the hindwing. In the black part of the forewing only sparse, small white spots. Amazon.

S. hetaerina *Hew.* (128 e), originating like *arcuata* from the Amazon, is a very closely allied species or form, in which the inner spot of the wings is dull bone-yellow. — **hesione** *Stich.* has the median area pale ochreous or pale reddish; Upper Amazon. — Rare.

*) GODMAN and SALVIN call our attention to a hair-pencil in the middle of the costal margin of the hindwing, by which *leena* is said to be distinguished from nearly all the other *Symmachia*.

- threissa*. **S. threissa** Hew. (128 e) is a larger species, the forewings without red, only in front of the cell and a white cuneiform spot; in the hindwing the cell is red-brown. Nicaragua. Rare.
- jugurtha*. **S. jugurtha** Stgr. (128 f). Forewing black with much white forming in the centre of the wing a large costal triangle and behind it a macular band. The inner margin of the forewing and 2 thick rays in the hindwing bright red. Colombia. Rare.
- aconia*. **S. aconia** Hew. has the red inner marginal stripe of both wings like in *jugurtha*, but the white in the black forewing is reduced to some minute splashes, and the red wedge below the costa of the hindwing is absent. Bolivia. Rare.
- miron*. **S. miron** Sm. has the forewings quite similar to *jugurtha*, but the hindwing is uniformly red, only narrowly margined in black. Ecuador.
- accusatrix*. **S. accusatrix** Ww. (128 f). Forewing black (♀ blackish brown) in the costal part very much spotted in white. The ♀ has white and reddish dots in the disc, in the ♂ the costal part of the hindwing is scarlet red. Central America to the Amazon. Rare.
- probetor*. **S. probetor** Stoll (= *probetrix* Hbn.) (128 g). Quite black, only in the middle of the costa of the forewing a small white wedge, and along the costa of the hindwing a red stripe. — In the form *astiana* form. nov. (128 g) the white is absent in the forewing; from Guiana and the Amazon. — In *belti* G. and *S.* being somewhat smaller than typical *probetor* the ♀ has reddish-yellow, instead of white, small spots in the forewing. Colombia. I do not know of any authentically patented model to this species, but in the form *astiana* (with quite dark forewings) the species already resembles some other *Erycinidae*, such as *Euselasia gelon*-♂ (= *sabinus* Stoll, t. 121 b) and *Xenandra heliodes*-♂ (131 i).
- championi*. **S. championi** G. and *S.* greatly resembles *probetor*, but the forewings are more blackish-green with a black-spotted base; the ♀ is on the whole darker. Mexico and the adjoining parts of Central America. Rare.
- falcistriga*. **S. falcistriga** Stsch. (128 g) flies on the Lower Amazon and in Guiana together with homochromous *Caria*-species. It is black, above with a greenish lustre, hardly well discernible from a *Caria*. Thus the two last-mentioned species form the transition to the mimetic forms. The figured specimen of this species is in the Paris Museum and originates from the Maroni River.

B. **Mimetic species.** Forewing longer, more pointed, the costa bent uniformly.

- triangularis*. **S. triangularis** Thm. (128 h). By the oblique orange stripe on the black ground of the forewing it reminds us of numerous smaller Arctiids with the same scheme of colouring, and of just as numerous imitators of these Arctiids, several of which belong to the *Erycinidae*, but apparently also Geometrids which otherwise supply but few examples of mimicry are concerned in this imitation. Colombia.
- tricolor*. **S. tricolor** Hew. (128 g). Beside the median band running across the abdomen (as described in *sagaris*), we find here yet 4 small orange distal bands. Amazon and Colombia. — *hedemanni* Fldr. (= *niciades* Bsd.) (134 i) has all the bands lighter yellow and the distal ones shortened to oval spots. Central America. — These forms are homochromous with *Heterocera* as well as with *Erycinidae* from the genera *Baeotis*, *Nymphidium* etc. Rare.
- rita*. **S. rita** Stgr. (128 g). In the exterior it resembles *falcistriga* above, but the costal part of the hindwing exhibits a lustrous blue, whereby it becomes similar to certain *Thecla*, and, of the *Erycinidae*, to certain *Euselasia*. The tiny animals are rare. Beneath they resemble, like the somewhat similar *S. falcistriga*, certain species of *Charis*. The figure has been done according to a specimen from Iquitos.

56. Genus: **Caria** Hbn.

In the shape of the compact, robust body and of the costa of the forewing projecting arcuately before the middle, in the flight and habits, as well as in the veins of the wings, there is hardly any difference to be noticed between this genus and the chief group of *Symmachia* (i. e. those species that are not deformed by mimicry). GODMAN and SALVIN, however, emphasize differences in the sexual organs of the ♂♂, and ever since the two genera are separated afar in the catalogues. The *Caria* generally have a dark upper surface which, however, is more or less ornamented with golden scales of a magnificent green reflection; the under surface sometimes exhibits a conspicuous red, particularly in the cell of the forewing. The ♀♀ show a decided relationship of the genus with the *Emesia* which, however, deviate from them in a different direction of development, from the previously mentioned *Mesene*, so that the relationship cannot be described in a continuous line. The *Caria* described hitherto are probably only vicarious forms of few species. The animals sit, with their wings spread, on sandy banks and are rather timid.

- mantinea*. **C. mantinea** Fldr. (135 e). Beside *lampeto* the largest species. Above at the base of the forewing and in the disc dusted with a metallic bluish-green, and a faintly lustrous, straight line before the distal margin. Of a brighter bluish-green lustre is an undulated submarginal cloud at the hindwing. Under surface sooty

blackish-brown; cell of the forewing red, above it (in the bulged-out costa-bow) and behind it (behind the cell-end), at the apex and between both, metallic spots. Before me from Bolivia (Province of Sara) and from the Coll. BANG-HAAS from the Pachitea; described from Ecuador. — *amazonica* *Bat.* has a more copious metallic sealing, particularly beneath, where often the whole cell of the forewing is embedded in metallic spots, whereas the red in the cell is somewhat reduced; from Teffé.

C. lampeto *G.* and *S.* (135 f). Above almost exactly as the form *amazonica* of the preceding species, *lampeto*. beneath, however, the metallic sealing is reduced to faint traces above the cell and maybe a small faint spot at the apex. Central America to Bolivia. Not rare, particularly near Muzo in Colombia.

C. trochilus *Er.* is smaller than the preceding, the ground-colour of the upper surface blacker, beneath there is no red in the cell of the forewing, but in the costal part are numerous metallic spots, especially also in the cell of the forewing itself. Guiana. — *arete* *Fldr.* (135 f) has the same under surface, but above less gold which is more prominent almost only in the anal part of the hindwing; the submarginal metallic line of the forewing is absent altogether; Amazon to Peru and Ecuador.

C. castalia. The most common form is *marsyas* *Godm.* (135 e) recognizable by the under surface of the forewings, where the cell being filled out with red is interspersed with small metallic spots. Above similar to the preceding species, but with a faint metallic line before the border. South Brazil and Paraguay. In the typical *castalia* *Men.* (*tabrenthia* *Schs.*) from Brazil and Peru the ♂ has no red at all in the cell of the forewing beneath. — ab. *philema* *Stich.* is the name of a specimen with a red-yellow stripe beneath before the border. — *smaragdina* *Godm.* (135 e) is above very brightly sealed in green, the light metallic stripe before the border on the forewing broad; under surface without red in the cell of the forewing. Bolivia. — The species is not rare.

C. colubris *Hbn.* (= *paridion* *Dalm.*, *argiope* *Godt.*) (135 f). Easily recognized by the bridge which runs through between the green of the base and the disc on the middle of the forewing being narrow, jet-black and filled up narrowly with brown. Before the apex mostly a bright orange spot. Beneath similar to *lampeto*. — ab. *fulvimargo* *Lathy* (135 e) is the denomination of a light specimen being bordered by orange-yellow above on the hindwing, beneath also on the forewing; a colouring often occurring in the ♀♀ of the other *Caria*-species. Interior of Brazil to Peru. — In *plutargus* *F.* STICHEL presumes a ♀ of „*argiope*“; the figure of this form, being supplied by DONOVAN, exhibits a rough dotting which presumably scarcely answers to nature. Brazil.

C. domitianus *F.* (135 f) has on the upper surface of the forewing the golden green exactly in the middle of the wing, i. e. at the place, where it is absent in *mantinea*, *lampeto* etc. Easily recognizable by the yellowish-red under surface exhibiting metallic spots in the costal part of the forewing, while it is otherwise covered all over with black spots. Guadeloupe. — *ino* *G.* and *S.* from Mexico deviates especially by the absence of all the golden green scales on the upper surface; — *melicerta* *Schs.* which extends still farther to the north as far as Texas, with very few dispersed golden scales, forms a transition between the two forms; — *galbula* *Fldr.* is, on the contrary, the southern form, described from the Province of Caracas (Venezuela), looks above almost like a small *castalia*, but is immediately distinguished by the red-yellow under surface. In this form the golden-green strewing of the upper surface is the most copious.

C. rhacotis *G.* and *S.* (135 f) exhibits in the median area of the forewing an accurately defined, irregular spot of a golden green lustre; the under surface is deeper red-brown, particularly in the ♂, with black dots of which those along the costa of the forewing exhibit a dull leaden lustre. Honduras to Colombia. — *harmonia* *G.* and *S.*, described according to 1 specimen, from the Isthmus, may only be an aberration without the leaden spots on the under surface along the costa of the forewing.

C. stillaticia *Dyar* (143 e, f). Upper surface almost quite blackish brown with jet-black spots; metallic bluish-green sealing is noticed almost only in the anal region of the hindwings, and a metallic line may run along in front of the border of the hindwing or also be absent altogether. Very characteristic is the dark red-brown under surface by nearly all the black spots of the hindwing and all those of the costal half of the forewing being brightly centred in silver. Mexico; the specimens before me originate from Guerrero.

C. melino *Dyar.* Dark leaden grey with tiny black spots of a greenish lustre. Forewing with a spot in the cell, behind the latter a series of small spots and in front of the border a double row. On the hindwing dispersed small spots scarcely forming a row, whereas the double submarginal row is almost formed by lines between which there is a copper-like tinge. Under surface dull red, the spots like above and more distinct, scattered across the base of both wings; above the apex of the forewing lies a broad shade and a narrow one runs along the border of the hindwing; the inner margin of the forewing grey. 22 mm. Tehuacan in Mexico; discovered in 1911 by ROBERT MUELLER.

C. chrysame *Hew.* (135 g). Distinguished from all the species enumerated so far by the fact that not the median area but the whole wings are above coloured in golden green; only the marginal area is blackish grey, bordered by bright bluish-green metallic lines, of which the outer one is as fine as a hair, sometimes interrupted in typical specimens from Bolivia; — in Peruvian specimens — *psittacus* *Hpflfr.* (= *scurra* *Stgr.*) — it is broad and distinct, almost like in *sponsa* (135 g). Under surface earthy-grey with rows of dark dots which may be numerous and distinct, but also be absent. Common.

sponsa. **C. sponsa** *Stgr.* (135 g). Similar to the preceding, but also the distal area is golden green, except a narrow border, a dark submarginal line and a dark large spot before the apex of the forewing. On the Jurimaguas.

57. Genus: **Chimastrum** *G.* and *S.*

The small, delicate butterflies of this genus consisting of but 2 species exhibit an alliance to the *Mesene* and *Esthemopsis*, and are placed before the *Symmachia* by STICHEL *). They differ from these two groups by white wings of a silken gloss, from the latter genus by the gently curved, not bulged-out costa of the forewing. The body is more delicate than in *Caria* and *Esthemopsis*, approximating more the *Baeotis*.

argenteum. **Ch. argenteum** *Bat.* (= *hewitsonii* *Bsd.*) (128 b). Silky-white with a rusty-yellow base of the wings and a black margin. Central America, particularly on the Chiriqui; single, though not rare.

carnutes. **Ch. carnutes** *Hew.* (128 b, as *carnutus*). Silky white, from the black distal margin black tips extend towards the base, two of which intersect each other in the shape of an X on the forewing. Colombia, not common.

58. Genus: **Baeotis** *Hbn.*

Tiny, black and yellow, sometimes also white and black butterflies flying about in the sunshine during day-time, with a delicate body, a somewhat projecting apex of the forewing and an extraordinarily short cell of the hindwing, which is not even half as large as the cell of the forewing. About a dozen of species are known.

felix. **B. felix** *Hew.* (134 f). White with a broad black border, the lemon-coloured base of both wings separated from the white ground-colour by a black stripe (from the middle of the costa of the forewing to the middle of the inner margin on the hindwing. Bolivia and Peru). — In *felicissima* *Thm.* (134 f) from Ecuador a lustrous light-yellow line runs through the black margin. — A specimen in FASSLS collection, from Co-roico in Bolivia, has a lemon-coloured ground-colour, without any white at all; I call it *ab. citrina* *ab. nov.* — Not rare.

nesaea. **B. nesaea** *G.* and *S.* (134 f) looks like the *ab. citrina* of the preceding species, but it is somewhat smaller and has a twice as broad black margin traversed by a yellow thin stripe running between 2 metallic *bacaenita* lines. Costa Rica, Chiriqui. — *bacaenita* *Schs.* (134 f) exhibits the yellow median area narrowed, particularly in its costal part of the forewing, but otherwise it is allied to *nesaea*. Peru and Bolivia, taken yet at *euprepes* an altitude of 300 m on the Juambari. — *euprepes* *Bat.* from the Rio Tapajoz is not before me; it has likewise 3 yellow stripes through both wings, the foremost of which, however, is more remote from the base of the wing.

bacaenita. **B. bacaenita** *Hew.* (134 f). Smaller than the preceding, the yellow basal stripe and the submarginal line as thin as a thread, the median area of both wings forms a white, conjoint oval. Ecuador. — *elegantula* *Hppfr.* (134 f) scarcely differs, the stripe at the base more ochreous-yellow as well as the line in the black distal margin, this line being expanded towards the costa of the forewing. Peru and Bolivia. — Common.

prima. **B. prima** *Bat.* This species, not lying before me, has likewise 3 yellow transverse stripes; the first runs along the inner margin of the hindwing, the middle stripe being oblique, the subapical one fine. On the under surface one yellow stripe in addition and the outer one in the anal part of the hindwing forked. One of the largest species. The forewings have a complete metallic line before the border. From the Rio Tapajoz. — This species is perhaps approximated by *orthotaenia* *spec. nov.* (134 f) from Bolivia, in which, however, the median stripe in the forewing stands straight, while the hindwings have a metallic line before the *dryades* border, the forewings, however, only indications of such a line before the apex. — *dryades* *Dogn.* is presumably also allied to this species, but it is smaller, the median stripe reaches neither the costa of the forewing nor the inner margin of the hindwing, it is strangulated in the middle, while the distal stripe is intersected in such a way that it is broken up on each wing into 2 spots (near the costal margin and the inner margin).

creusis. **B. creusis** *Hew.* (134 e). Very easily recognizable by the common median stripe being white, above and below tapering and slightly bent like an S. Bolivia. — In *creusina* *Stich.* (134 e) lying before me from Cuzco (Peru) the submarginal stripe is as fine as a hair and often even obsolete for some distance. — Not rare.

hisbon. **B. hisbon** *Cr.* (= *hisboena* *Hbn.*) (134 g). Much smaller than *creusis*; the median stripe slightly curved like an S, as in *creusis*, but on all the wings the distal stripe is greatly shortened, above and below. South *zonata* Brazil, rather rare. — In *zonata* *Fldr.* (= *simbla* *Bsd.*, *libna* *Btlr.*) (134 g) all the yellow stripes are considerably widened, particularly in the ♀, and behind the (shortened) outermost stripe of the forewing, which is mostly fusiform, we notice another small yellow spot in the anal angle of the forewing. Mexico to Colombia. Common. — *expleta* *Stich.*, on the contrary, denotes specimens in which the yellow spots in the distal part of the wings have disappeared altogether or to some traces of them. Described from Honduras.

capreolus. **B. capreolus** *Stich.* (134 g) approximates the preceding species, but the fusiform distal spots are coherent with the yellow median band by means of a broad pedicle. Colombia.

*) Genera Insectorum. Riodinidae p. 227.

B. melanis *Hbn.* (134 g). In typical specimens the median band is still narrower than on our figure; *melanis*. instead of it, however, also the hindwing exhibits yet a shortened and often darkened piece of the distal stripe, as for instance in specimens from Rio de Janeiro. The figured specimen originates from Petropolis; here only faint shades of the distal stripe are still noticeable. In specimens from São Paulo the distal stripe has entirely disappeared above, and the basal stripe is in no case visible above; beneath, however, all the stripes are to be seen, though they are often narrow.

B. johannae *E. Sh.* (134 g). I cannot tell for sure whether this species is justified to be placed into *johannae*. this genus; the wing-contour and the structure of the body deviate from the other *Baeotis*. We see here only yet a pale-yellow median band running broadly through the dull blackish wing. North Brazil. — In a ♀ from Ceara the median band is extremely narrow, but there are traces of a submarginal stripe to be seen; I denominate this form *cearaica* *form. nov.* (134 g). — We must remark yet that the width of the *cearaica*. median band, as well as its shape vary greatly according to the district. In the form *truncata* *Stich.* from *truncata*. Minos Geraes it is even obsolete for some distances. — Not common.

B. barce *Hew.*, which is not before me, seems to me to be only an aberrative form of a *Baeotis* *barce*. approximating *johannae*. Here the yellow median band is present only on the hindwings, whereas on the forewings it is obsolete except a tiny median spot and a faint beginning at the inner margin. It was described from Mexico. but I did not find anything similar in the copious collections from Mexico. which I examined.

B. barissus *Hew.* which has been placed here, but which probably is more correctly taken to the *barissus*. following genus, is a small dark-brown butterfly with 6 parallel, yellow transverse stripes; it pretty exactly resembles the ♀ of *Argyrogramma trochilia*, as we figure it t 135 d, but the light dots in the dark distal margin are absent. Ecuador is stated as its patria. The species is considerably smaller than *A. trochilia*.

59. Genus: *Argyrogramma* *Stich.*

This genus already approximates the *Charis*-group to which its species had formerly been placed. They all are small, extremely delicate butterflies, the structure of which is allied to that of the *Caria*, and of the *Phaenochitonina* which are likewise mostly dealt with as *Charis*. At the palpi the first joint is conspicuous for its great length being uncommon in *Erycinidae*. In the veins we have to mention the relatively long cell of the hindwing, being only little shorter than that of the forewing. From the subsequent Anteros it deviates by the shape of the hindwings. *Stichel* places 12 distinct species here, which are allied to the genera dealt with last in the habitus and the colouring.

A. trochilia *Ww.* (135 d). The ♂ is of a brilliant sky-blue with black transverse stripes and a dark *trochilia*. distal margin being finely filled up by orange. The ♀ has 5 yellow stripes on a dark ground and a metallic line often reduced to tiny spots before the border. Under surface of both sexes striped like a zebra. On the Lower Amazon the species is not very rare. — *leptographia* *Stich.* of which only the ♂ is before me, is *leptogra-* of a very bright sky-blue sapphire-lustre, with a broader orange filling in the border and a blackishly dotted *phia*. instead of striped under surface; taken by *Fassl* near Muzo in Colombia.

A. saphirina *Stgr.* (135 d) is considerably larger; the ♂ reminds us of *Voltinia theata*-♂ (126 d), but it *saphirina*. has a lighter blue lustre, and an under surface resembling exactly the upper surface of its ♀; in the latter both surfaces are almost alike, blackish brown with broad yellow stripes and a metallic line before the border of the forewing. Before me only from Colombia, but it is also mentioned from Peru and Bolivia. — In *subota* *subota*. *Hew.* from Ecuador the distal bands being interrupted in *saphirina* are complete.

A. glaucopis *Bat.* (142 g). From *Teffé* on the Amazon. Here the ♂ has behind the middle of the fore- *glaucopis*. wing a broad smalt-like transverse stripe, similar spots in the cell, and one in the distal part of the forewing; at the base of the forewing and at the inner margin of the hindwing dark red oblique spots. Before the border a blue metallic line. The under surface with numerous black chequered spots and an interrupted metallic line before the border. The ♀ which is not yet described and which we figure, resembles somewhat a small *saphirina*-♀; the transverse stripes of the forewing are complete, those of the hindwing interrupted; the yellow is darker, more ochreous, at the border of the hindwing even bright orange. Under surface with black spots which, however, are arranged to stripes.

A. barine *Stgr.* (135 c, as *barsine*). The ♂ has behind the middle of the forewing a smalt-like spot *barine*. placed on the inner margin, and dark small spots in the disc of both wings; the ♀ is lighter, yellowish-grey, with darker macular bands and a blackish distal marginal part of the forewing with a blue spot before the middle of the border. From the Rio San Juan in West Colombia.

A. amalfreda *Stgr.* (135 c). Here the whole hindwing, except the border, and the proximal half of *amalfreda*. the forewing are red with small fine black spots. In the black distal half of the forewing is a smalt-like spot; before the border a metallic line. *Pebas*. The ♀ is unknown to me. — *nurtia* *Stich.* (142 g) entirely *nurtia*. resembles the preceding, but it is larger; above the blue spot of the forewing is yet another blue, small spot; the border of the hindwing broader black; Bolivia, Peru. — In *physis* *Stich.* (137 f, as *rhesa*), on the contrary, *physis*.

the blue spot is much smaller than in *amalfreda*; Colombia. — *physis* exactly reproduces the appearance of *Lemonias rhesa* Hew., but the latter has a broader black apical part of the forewing and, before the border, a silvery line. — In *phyton* Stich. from the Amazon the blue spot is oblong, larger than in *physis*, smaller than in *nurtia*, and the antemarginal lines of the hindwings are broken up to small streaks.

- occidentalis*. **A. occidentalis** G. and S. (= *juanita* Stgr.) (135 c). As large as *amalfreda*, but the inner part of the wings more miniate than vermilion, more dotted in black, and in the distal part no blue spot. According to STICHEL, the ♀ resembles *A. venilia* Bates. Colombia. — **placibilis** Stich. from Peru has a less intensely darkened distal part of the wings, so that here the black markings are more distinctly prominent.
- venilia*. **A. venilia** Bat., from the Lower Amazon, is somewhat lighter yellow, otherwise similar to **crocea** G. and S. (135 c) from Central America, but just as densely and coarsely spotted. Both the forms are larger than *occidentalis*, with broader wings, and the darkened margin is narrower. Not common.
- stilbe*. **A. stilbe** Godt. (= *perone* Ww.) (135 c). Here the distal part of the wings is no more darkened at all, the dull ochreous-yellow upper surface exhibiting dark panther-like markings. Brazil.
- holosticta*. **A. holosticta** G. and S. (135 c), from Central America to Peru, is almost exactly like *stilbe*, but light lemon-coloured. Mexican specimens have smaller and more sparse dots.
- sulphurea*. **A. sulphurea** Fldr. from Mexico is just as bright light yellow, but the dark spots are larger, particularly at the margins of the wings. — **macularia** Bsd. (= *ochreas* G. and S.) (135 c) from Central America and Colombia has the spots thicker also on the disc of the wings. Not rare.

60. Genus: **Anteros** Hbn.

The species of this genus are immediately recognizable by the under surface in which small, brown or black-bordered spots with metallic centres stand on the light yellow ground. The upper surface is mostly black with a yellowish central spot. Morphologically, the species are distinguished by two characteristics: by a beard consisting of long cilia at the anal angle of the hindwing and by dense, brightly coloured flocks of hair at the legs. Most of the species are not common; they mostly rest on the under surface of leaves with their wings spread out, but sometimes they clap their wings together above the back. The flight is somewhat Lycaenid-like. Of *renaldus* forming already a transition to the *Ourocnemis* I saw the ♂♂ sometimes on open spaces in the woods, playing with each other and dashing up and down in enormous oscillations so rapidly that it was quite impossible to recognize them during their flight; it is the same peculiar habit I also noticed in some Indian butterflies of other families, in the Lycaenid *Bindahara phocides* and the Hesperid *Tagiades atticus*.

- chryso-pras-tus*. **A. chryso-prastus** Hew. (133 f). Under surface very pale yellow, the small spots dispersed and tiny, without a true brown halo. Upper surface blackish brown, the hindwings margined in bone-yellow. From Guatemala to Bolivia. The ♂♂ of the southern habitats mostly have in the forewing a tiny light median spot, specimens from Panama, the Chiriqui and Paramba are above without any small white spots at all, = **roratus** G. and S. (133 f); specimens from Bolivia (Rio Songo) form the intermediary, i. e. there is a faint trace of the median spot of the upper surface. Not rare.
- attectus*. **A. attectus** Ww. (133 f) entirely resembles the preceding and may be of the same species; the median spot on the upper surface of the forewing more distinct; beneath a dark beam above the cell-end of the forewing, and in the ♀ intense, dark spots with metallic centres above the anal angle of the forewing which are smaller or absent in ab. **cumulatus** Stich. (133 f). Chiefly at home in Colombia, where it is rather common; rarer in Central America and Ecuador.
- olho*. **A. olho** Ww. (133 f). Forewing above with a very large yellow spot occupying in the ♀ the whole centre of the wing; beneath, both wings with a very large dark median cloud. Lower Amazon. Maybe only a collateral-form of the preceding species.
- formosus*. **A. formosus** Cr. (= *croesus* F., *valens* F.) (133 f). Somewhat larger than the preceding, but the under surface densely covered with spots of a red-brown margin and a golden-centre. — The form **micon** Stich. (133 f, g) has beneath less, **lectabilis** Stich. (133 g) more brown spots; the former occurs more in the north, the latter in the south of the range. From the northern coast of South America to South Brazil and Peru, mostly not rare, but very local. *stramentarius* Stich. from la Paz in Bolivia, *maculosus* Stich. from Panama and *theleia* Stich. are transitions or insignificant deviations. — **cruentatus** Stich., according to a damaged and, as it seems, much flown specimen, is not before me and seems to me to be only a more sparsely spotted example of this species; from Colombia.
- acheus*. **A. acheus** Stoll (= *ampyx* Drc., *troas* Stich.) (133 g). Considerably larger than the preceding; under surface variable, but on the whole rather densely spotted, the spots arranged similarly as in *formosus*. In

typical specimens the forewing has a tiny central spot; in *kupris* Hew. (133 g) being mostly still larger a large rhombic spot stands in the centre of the forewing, above, behind or below which may be yet accessory small spots. *aureocultus* Stich. is the name for Bolivians being beneath very much spotted. From the northern coast of South America to Bolivia and South Brazil; not very rare.

A. bracteata Hew. (133 g). Under surface like that of the preceding species, but the upper surface unspotted, black, of a blue lustre. Amazon to Bolivia; apparently rare.

A. carausius Ww. (= medusa Drc.) (133 h). In this species the dark marking of the under surface has increased so much that it has removed the light yellow colour except some traces before the apex. Upper surface dark brown with 2 vitreous spots. Mexico and Central America. — In the smaller form *principalis* Hpffr. (= carus Godm.) (133 h) lying before me only from Bolivia, the under surface of the hindwings is marked more indefinitely and the forewings exhibit yet a third, very tiny spot. — In FELDERS collection in Tring there is a transition without the patria being stated. Apparently rather rare.

A. renaldus Stoll (133 h). Tiny vitreous spots, mostly only 1, comma-shaped, at the cell-end. Wings above deep dark blue except at the black apical part. Under surface earthy-brown with faintly lighter and darker shades. The name *indigator* Stich. denotes specimens in which the blue of the upper surface is narrowed. Central America to South Brazil. — *notius* Stich. (133 h) are South Brazilians with a more indefinitely marked under surface. — The butterflies are not rare, but very local and difficult to capture, as they fly rapidly.

61. Genus: **Ourocnemis** Bak.

Approximating the preceding genus, but immediately recognizable by the shape of the wings. The forewing more pointed, with a strongly bent costa, a more pointed apex and a slightly curved border. The hindwing projects not only in the anal part, but also in a faint tooth at the places where the lower median veins terminate. The palpi are long, with thick, club-shaped, projecting ends, the legs less long haired. The species are apparently extremely rare.

O. bouletti le Cerf (133 h). Under surface rather similar to that of *A. carausius*; upper surface blackish, the wings in the disc with a dull blue gloss, without vitreous spots, hindwings at the anal part of the distal margin faintly tinged in a rusty colour. The type I figure and which the Paris Museum had lent me, is denoted by „Matto-Grosso“; FASSL sent another specimen from the Rio Songo.

O. axiochus Hew. (133 h). The type has a dark, less variegated under surface, the booth at the end of the lower median vein is more obtuse, the blue lustre of the upper surface duller, more diffuse, the border of the hindwing not rusty red in its anal part. „Brazil“; before me from Cuyaba (Coll. BANG-HAAS).

62. Genus: **Sarota** Ww.

Differing from the preceding genera by the less hairy legs (which, in *Anteros*, look like hairy tassels) and by the hindwings of some species terminating, like in *Helicopsis*, into a series of divergent tail-points. The butterflies are brown, above without metallic colours, beneath, however, with a variegated marking decorated with metallic fillets, which somewhat reminds us of that of the Indian *Hypochrysois*. In contrast with the preceding genus the species of which number among the greatest rarities, the *Sarota* are not rare where they occur.

S. chrysus Cr. (133 h, i.). Blackish brown, hindwings lighter; ♀ above lighter with many large spots of the forewing, ♂ darker with less and small spots of the upper surface. Typical *chrysus* have light diffuse spots in the variegated marking of the under surface, of which the one before the middle of the distal margin is particularly large, rectangular, transverse. — In ab. *dematria* Ww. (133 i) the spots of the under surface are reduced, particularly the large, light, transverse spot is not prominent. — ab. *polypoecila* Stich. are very light ♀♀ with remarkably many light spots. — ab. *neglecta* Stich., on the contrary, has none or scarcely any light spots of the upper surface. — From Mexico, where the species flies near Misantla in very large dark specimens, through Central America and Colombia to the Amazon; in many districts common.

S. acanthoides H.-Schäff. Recognizable by sabre-shaped, feathered small tails being placed at all the terminations of veins at the border of the hindwing. Typical specimens from Guiana and the Lower Amazon have shorter tails, those from the Upper Amazon (Pebas) longer tails (= *spicata* Stgr. 133 i). The latter have also a darker under surface and more distinct black spots between the metallic stripes of it. — Rare.

S. acantus Cr. (= *acanthus* F.) (133 i). This species greatly resembles *gyas*; both are above blackish-brown, beneath with varyingly red and smalty-lustrous transverse stripes. *acantus*, however, differs from *gyas* by having black forelegs, while *gyas* has reddish-yellow ones. Guiana to Bolivia; not rare.

- gyas*. **S. gyas** Cr. (133 i). Mostly smaller than the preceding species; besides recognizable by the yellowish-red forelegs which are black in *acantus*. The marking beneath similar as in *acantus*; some ♀♀, however, have above a yellow border of the hindwing (= *lasciva* Stich.). Central America to Brazil.
- lasciva*. **S. myrtea** G. and S. replaces *gyas* to the north of Nicaragua, as far as Mexico, but differs by the black forelegs. Beneath the second submarginal metallic band, which in *acantus* runs almost as far as the costa, ends already at the median. Rarer.
- myrtea*. **S. gamelia** G. and S. (133 i) has like *gyas* yellowish-red forelegs, but the forewings have here beneath oblong submarginal spots which are absent in *gyas* and *myrtea*. Otherwise the species greatly resembles the latter, but *myrtea* has black forelegs like *acantus*. Common, Central America.
- gamelia*. **S. psaros** G. and S. Similar to the preceding, at the border of the hindwing there are small tips at the ends of the veins. The under surface is lighter, particularly in the disc of the wings, where it is almost whitish, the markings and spottings of the allied species are here scarcely indicated. This species was based upon a single ♀ from Guatemala. — **psaronius** Stich., based upon 2 South Brazilian ♀♀, is beneath almost white, in some places dusted in grey, and it has a red border of the wings, being also larger than *psaros* from Guatemala.

63. Genus: **Charis** Hbn.

This genus comprises a great number of tiny butterflies, all of which exhibit metallic lines before the border of the wings, which is pointed at the apex, the distal line running closely in front of the border of the wings, the second line 1 to 2 mm before it. The upper surface is rather unicolorously black or dark brown. The bodies are mostly very delicate. The butterflies, in contrast with most of the *Erycinidae*, are nearly all very common, sitting with their wings extended or spread out high (as if pinned) on umbels or compositae, mostly in their centres, which they do not like to leave. They then rise in a somewhat buzzing flight, usually only to the next blossom where they settle down again. Like many *Erycinidae*, they seem not to fly much spontaneously.

- anius*. **Ch. anius** Cr. (= *anius*, *avius* auct., *eleodora* Godt.) (134 a). The many hundreds of specimens lying before me of this common species vary scarcely; they are recognizable by the under surface of the ♂♂ with a magnificent deep blue reflection. The ♀ has not so distinctly white fringes of the hindwings and somewhat more pointed forewings than our figure which was depicted according to a very much flown specimen and retouched by a mistake in an exaggerated way by the artist. Also the speckling of the fringes of the forewings is always present, but often scarcely noticeable. From Central America to Brazil, Ecuador and Bolivia. — We may add here **calagutis** Hew. without the patria being exactly stated, exhibiting above only 1 silvery line, the under surface being dull dark grey instead of metallic blackish blue.
- calagutis*. **Ch. cleonus** Stoll (= *timaea* Dbl.) (134 a). Similar to *anius*, but recognizable by the white fringes of the hindwing and by the under surface of the ♂ being about like the upper surface, black with 2 parallel, blue-metallic lines in front of the border and white fringes of the hindwing. The ♀ has on both surfaces between the silvery lines a red-brown, dotted marginal band. Guiana to Brazil and Bolivia. Common. — **caryatis** Hew. (= *cleonus* Godt. nec *Stoll*) has a black under surface, with but 1 silvery line, being on the forewing widened like a band; from the Amazon.
- cleonus*. **Ch. gynea** Godt. Similar to the preceding, but much narrower fringes being mostly speckled on both wings, and differing by the ♂ being coloured like the ♀, i. e. dusted with red-brown. The metallic lines are above before the border quite thin, often only the distal line is preserved here, and quite faintly. South Brazil, preferably sitting on yellow compositae so persistently that one may take it away with the poison-glass, if done cautiously. — **zama** Bat. (134 a) from the Amazon is above more rusty brown, the leaden lines more intense, the spaces between the veins parted by dark; the under surface reddish-fawn-coloured. — **candiope** Drc. is above more greyish-brown, beneath red-brown, on the whole larger; from Colombia. — Common.
- zama*. **Ch. argyrea** Bat. resembles the preceding, but above it is still darker than *candiope*, with indistinct dark dots above. The fringes are not white-speckled, there are on those of the forewings at most few white dots; the space between the silvery lines is not red-brown, but dark brown. From Teffé; perhaps only a form of *zama*. — **aerigera** Stich. seems to approximate this form, but it is beneath dull yellowish-grey and the proximal silvery line is cut through by the veins. South Brazil. Unknown to me.
- candiope*. **Ch. jessa** Bsd. is a species which is said to originate from „Brazil“, unknown to me; there does not exist any description of it; STICHEL places it near *hermodora*; according to the figure it might belong to one of the species already quoted.
- argyrea*. **Ch. hermodora** Fldr. (134 b) is a small species from Colombia, Venezuela and Panama. It greatly approximates *anius*, but the under surface is here not of a lustrous blue, but like the upper surface, except that there is beneath only 1 silvery line. Not rare.
- aerigera*. **Ch. theodora** Fldr. (134 d). Above similar as *anius*, but the proximal metallic line on the hindwing is expanded to a band being broader in northern specimens, narrow in southern ones. Brazil, Bolivia and Peru.

— *stilbos* *Stich.* (134 d) is the representative of the species from Colombia, in which the proximal metallic *stilbos*. line is broader also on the forewing and, on the hindwing, so broad that it is partly confluent with the distal one. — On compositae common.

Ch. panurga *Stich.* has an under surface similar to that of *anius*, but it is considerably larger and *panurga*. has only 1 silvery line and white fringes; the upper surface is blackish-grey with a blue lustre, similar to *hermodora*. I do not find the patria being stated.

Ch. lypera *Bat.*, from the Upper Amazon, has already the size of the following form and also its *lypera*. dark brown upper surface; the black discal spots are partly confluent to a median line, the reddish distal marginal band is defined by a silvery line, traversed by a row of dots. Upper Amazon; very closely allied to *chaonitis* (134 d).

Ch. chaonitis *Hew.* (134 d). Very similar to the preceding species, but instead of the black line formed *chaonitis*. of fine streaks, a sinuous nebulous band runs through the centre of the wings. From Guiana to Bolivia.

Ch. chelonis *Hew.* stands in the middle between *chaonitis* and *epijessa*. The distal silvery line is absent altogether or it is exhibited only in single, small silvery scales, the proximal line being also duller. *chelonis*. Also the colouring forms the intermediary between that of *chaonitis* and *epijessa*, being in specimens from the lowlands (Rio de Janeiro) yet rather violettish-brown, in those from the highlands more dark brown. Apparently very rare; specimens like those figured by HEWITSON are not known to me at all, but only such forming transitions to

Ch. epijessa *Prittw.* (= *calicene Hew.*, *calinice Stich.*) (134 b, as *chelonis*) from the summit of the *epijessa*. Corcovado and from the Organ Mountains; here, however, the ground-colour turns entirely fox-coloured, the silvery lines are entirely extinct beneath, while above they are so only here and there, the black dots in the marginal band are finer, but owing to the lighter ground-colour more prominent than in typical *chelonis*. Moreover both forms, exhibiting probably differences of the habitats (? elevation), are very closely allied to each other, but the ♂ of *chelonis* has broader forewings. — As a smaller, darker form from the south (Espiritu Santo) **charis** *Hew.* may be considered, in which the proximal silvery line is sometimes fairly well preserved, but sometimes also hardly recognizable. This is probably also the place where **azora** *Godt.* belongs, *charis*. which is unknown to me, although I collected numerous *Charis* to be inserted here in its patria South Brazil; *azora*. it may be only a subrace of *Charis charis*.

Ch. velutina *G.* and *S.* (134 c) has the shape of *chelonis*, but a darker, almost black colouring which, *velutina*. in the ♂, shows beneath a bluish tinge. Recognizable by the proximal metallic line being irregular, several times interrupted. Central America to Colombia. — **iris** *Stgr.* belongs hereto, according to the description, *iris*. though nothing is mentioned regarding the course of the proximal silvery line; it is denoted to be „the most closely allied to *cleonus* or *zama*“. *iris* is unknown to me; from the Chiriqui.

Ch. cadytis *Hew.* (134 c, as *cadytes*). Easily recognizable by the proximal silvery line being shaded *cadytis*. orange-yellow above at the costa. South Brazil, Paraguay. — **acroxantha** *Stich.* (134 d), likewise from South *acroxantha*. Brazil, is said to have „transformed the red submarginal stripe of the forewing to an ochreous-yellow, oblong subapical spot“; but as the author declares not to be able himself to tell whether our figure represents one or the other form, the name is probably better to be abolished.

The following species, mostly from North America, deviate from those enumerated so far in several details (genus *Calephelis* *Gr.* and *Rob.*); they have somewhat more obtuse forewings, but nearly always distinctly the silvery lines of the *Charis*-species.

Ch. borealis *Gr.* and *Rob.* (134 c). Above dark brown with very indistinct silvery lines, the proximal *borealis*. one being irregular and often interrupted. Under surface reddish-yellow, the discal, dark dots arranged in 3 or 4 arcuate rows. United States, more to the east and rare.

Ch. nemesis *Edw.* is presumably only the western representative of the preceding, from more arid *nemesis*. districts of Arizona and South California, considerably smaller (only as large as *caeneus*); across the middle of the wings above runs a dark, angular shade, more distinct than in *borealis*.

Ch. australis *Edw.* (= *guadeloupe Streck.*) (134 b) is likewise very closely allied to the preceding, but *australis*. it has darker markings than *nemesis*; the brown median band is more prominent, the wings are without the white dots of the fringes exhibited in *nemesis*. Mexico, Texas. — *costaricola* *Stgr.* exactly corresponds with *australis*, as it flies in some places of Mexico (Misantla). — **fulmen** *Stich.*, like the preceding from Costa Rica, *fulmen*. is unknown to me; it is said to have the form of *iris*, but a black band across the middle of the wings and speckled fringes. Under surface light rusty brown.

Ch. caeneus *L.* (= *pumila Bsd.*, *virginiensis Gray*) (134 c). The name is assigned to a somewhat dubious *caeneus*. species of LINNÉ, as which, however, the butterfly belonging here was generally considered, although the name was several times misspelled as *caenius*, *cenea*, *ceneus*, *cerea* etc. Fresh specimens exhibit the brown, black-spotted upper surface finely strewn with isolated blue, somewhat metallic, small silvery scales being

united to groups at some of the small black spots and forming beneath (sometimes also above) two lines parallel to the border. The small silvery scales are much too fine to be reproduced on a figure. Not rare in Florida; to the north as far as Virginia, to the south as far as Texas. — **argyrodines** *Bat.* (134 b) is the South American form, darker, sometimes above almost black, the ♀♀ also larger; the upper surface dotted more distinctly, the silvery lines of the under surface more prominent, the proximal one running also somewhat differently. Between the ranges of the two forms there occur intermediate forms, as for instance **laverna** *G.* and **S.** from Mexico and Central America, with a somewhat more pointed apex of the forewing, and **nilus** *Fldr.*, from Venezuela, with a more deeply coloured upper surface, a grey macular marking and dull-lustrous leaden lines. — The forms can neither be strictly separated from each other nor be arranged according to patriae. The animals rest spread out, as if pinned, on yellow compositae resembling our *Leontodon*, close at the soil, and can be taken off with the poison-glass. On being chased away, they fly beneath the nearest leaves of the bush and soon return to their flower again. Very common. — Regarding a species unknown to me and not recognizable according to the description, *azora* *Godt.*, which is said to originate from South Brazil, though I did not discover it, I doubt whether it is allied hereto as the southernmost form, or — as STICHEL wants — to the South Brazilian *epijessa*, resp. *calicene*, where we have mentioned it. — **xanthosa** *Stich.* (142 g) is certainly allied hereto, a bright red-yellow form, the silvery scales are presumably extinct; type from the Coll. SCHENCK VON SCHWEINSBERG at Darmstadt, now in the Berlin Museum, presumably from South Brazil.

aphanis. **Ch. aphanis** *Stich.* (142 g) from Uruguay is larger and of a grey ground-colour.

ocellata. **Ch. ocellata** *Hew.* (134 b). I was not able to find the type in HEWITSON'S collection. It seems to be an aberration of a *Charis*, in which the silvery lines are absent and the red-brown, black-dotted band lying otherwise between them has turned a chain of eye-spots in which single eye-spots are especially distinctly prominent. It is scarcely a *Symmachia*, as HEWITSON supposed; much rather an unfringed *Ch. zama*. From Venezuela.

64. Genus: **Crocozona** *Fldr.*

The structure of the body, the very delicate, outside broad wings with a long-stretched apex and a very much rounded border, the metallic lines or small scales ally this genus immediately to the *chaonitis*-group of the preceding genus. The inner margin of the forewings is almost as long as the costal margin, the hindwings are very broad. The colouring is black with scarlet or orange-red bands which are partly bordered in metallic lines. Only 3 or 4 species are known occurring in the northern part of South America, where they are not rare; FASSL found them early in the morning drinking from the dew on the leaves.

caecias. **C. caecias** *Hew.* (134 d, e). Both the wings are traversed by a scarlet transverse stripe running rather parallel to the border. Beneath it is in the ♂ greatly widened and tapering at both ends. Bolivia, Peru and on the Amazon; near Pozuzo (Huanuco) and on the Chanchamayo at an elevation of up to 1000 m not rare. — **arcuata** *Godm.* (134 e) deviates by the red stripe of the forewing running more inwardly towards the costa. Colombia, not rare. The red stripe varies, moreover, according to the finding-places not inconsiderably in width, particularly beneath.

pheretima. **C. pheretima** *Fldr.* (= *caciparis* *Hew.*) (134 e). The red stripe of the forewing lies obliquely, that of the hindwing is absent. On the under surface the whole disc of the forewing is red as far as to the base. In Colombia, in some parts not rare; taken by FASSL in December in the Canon del Gallo, at an elevation of 1600 m, and near Muzo (1500 m).

fasciata. **C. fasciata** *Hpffr.* (= *clusia* *Hew.*) (134 e). Larger than the preceding; the spot of the forewing is shortened to a more transverse oblique spot. Peru and Bolivia; La Merced in August and September.

65. Genus: **Astraeodes** *Schatz.*

A comparatively large butterfly deviating entirely from all the other *Erycinidae* in its exterior, but distributed over a great part of South America, forms this genus. The veins do not differ essentially from those of *Baeotis* and the other allied groups. The body is delicately and gracefully built, the wings are very broad, with a metallic line in front of the border. Nothing has become known to me with respect to its habits.

areuta. **A. areuta** *Ww.* (128 i). Orange-yellow, with 3 dark transverse stripes, a golden line before the border and a row of dots in front of this. From East Brazil through the Amazon Valley to Peru and Bolivia. The variation of the different finding-places refers to the more lemon-coloured or pale ground-colour, to single dark spots before the border of the hindwing beneath, and the thickness of the transverse stripes. Everywhere rare.

66. Genus: **Amblygonia** Fldr.

After eliminating the species placed here by FELDER, the name of the genus remains for the following species. A tiny, square-built butterfly with a robust body and broad wings traversed by a yellow band. Silvery lines are absent; remarkable are 4 larger spots of the wings occurring in the ♀ — a form of the sexual dimorphism being otherwise not common.

A. amarynthina Fldr. (= monogramma Bat., barzanes Hew., ♀ = quatrinetata Bldr.) (132 h). A small species. Blackish brown with a small orange-yellow, above often darkened median band, the much rarer ♀ with one light yellowish-white dot in front of the middle of the distal margin on each wing. The ♂♂ are not rare in almost the whole of South America, from Argentina to Colombia. The band varies considerably in width and intensity of colouring, but it is in the ♂ beneath always broader and brighter than above.

67. Genus: **Amarynthis** Hbn.

This genus has likewise only one, very singularly coloured species. Larger than the preceding species, less robustly built, the wings very delicate; the veins deviate from those of the *Amblygonia* only by the 3rd subcostal vein not rising immediately before the cell-end, but immediately behind it. The species forming this genus is very widely distributed.

A. meneria Cr. (132 f). Black with a narrow red transverse band and sparse light, small dots; in the cell of the forewing a red cuneiform streak, behind it a small red spot. — In **superior** form. nov. (132 g) flying near Humayta and lying before me in great numbers, the red band, particularly beneath, is more than twice as broad and the dots are of a bright white, larger and increased; the form itself is very large. — In contrast with it, ab. **maecenas** F. (132 g) is without any small white dots. A form being especially in the female sex extremely broad-banded and rather small originates from Nouveau-Chantier in French Guianais **coccincta** form. nov. (132 g), but already in Cayenne there occur again narrow-banded specimens. This character is local, but not temporal, for I possess homogeneous specimens from April, October, December and February. — **stenogramma** Stich. (132 g) contrasts with **coccincta** by the red band being here as thin as a thread, even extinct in some places; from Ecuador, where, however, there occur also specimens hardly distinguishable from Peruvians. — **micalia** Cr. (132 f) is the common form living in almost the whole northern part of South America, with a distinct, unabridged, but moderately broad band, in which there is in the cell-end a small red spot isolated from the basal streak, which is confluent with the latter in ab. **conflata** Stich. **meneria** ist not so common as we might be induced to believe according to the numerous specimens in the collections (before me are about 300); but it is one of the most conspicuous butterflies, being equally keenly collected by European and native collectors. — I call the reader's attention to a strange coincidence: at the same place ((Humayta on the Amazon), where *A. meneria* exhibits a broad, coloured band and a conspicuously copious white dotting, the same symptom occurs also in another, but very distantly allied *Erycinidae* (*Riodina lysippus* L.)*.

68. Genus: **Exoplisia** G. and S.

This genus was formerly united with the preceding to which it is very closely allied, but its members have somewhat shorter palpi. Certainly the total appearance greatly deviates from that of the *Amarynthis* by the entirely different colouring, but the anatomical structure makes it doubtful whether *Exoplisia* is to be separated from *Amarynthis*. From the following *Nelone*, *Exoplisia* is separated by the finer clubs of the antennae, the appressed palpi, the shape of the wings, particularly the stretched costa of the forewing, the fringes at the anal part of the hindwing being prolonged to a regular beard. Only one species.

E. hypochalybe Fldr. (= praxitha Bsd.) (132 g). Above dark brown, beneath of a lustrous light blue, with black veins; on both surfaces numerous straight black transverse stripes. Reported from Central America to Peru. — **muscolor** Weeks (132 h) differs scarcely above, beneath, however, the distal transverse stripe running parallel to the border of the forewing is absent. Bolivia. Not rare.

69. Genus: **Nelone** Bsd.

Distinguished from the *Exoplisia* by the projecting palpi, the more strongly clubbed antennae, the quite different shape of the forewings exhibiting an arched distal margin, a curved border, a rounded anal angle and a longer proximal margin, and by the absence of a regular beard at the border of the hindwing, where only longer fringes are formed; the marking is quite different, the veins exhibit metallic rays before their termination, the fringes are speckled. As the species are not congeneric with *hypochalybe*, this being,

* This symptom which has presumably nothing to do with mimicry, is denoted in the zoology as a local character of variation.

however, the type of *Nelone* to which they are transferred in STICHEL'S catalogue, a new name for the genus would be necessary, if *Nelone* would give way to the (dispensable) *Exoptisia*.

cadmeis. **N. cadmeis** Hew. (132 h). Above sooty brownish-grey, more darkly clouded, beneath of a steel-blue reflection, on both surfaces with black transverse stripes, with a row of dots in front of the border and, on the forewings, speckled, on the hindwings, white fringes. A series of comma-like streaks in front of the distal margin are distinct particularly on the hindwing. Panama to Peru and South Brazil. Rare.

incoides. **N. incoides** Schs. (= myrtis Drc.) (132 h). Scarcely half as large as *cadmeis*; above similar, but the fringes of the hindwing likewise speckled, the streaks in front of the border shorter and noticeable only in a certain exposure to light. Beneath like above, not steel-blue. North Argentina, the adjoining Bolivia and Peru; the figured specimen from Tucuman (North Argentina).

hypochloris. **N. hypochloris** Bat. has the size of *cadmeis*, white fringes being scarcely speckled on the forewings; also the upper surface of it is dark steel-blue, with black markings; beneath like *cadmeis*, without the small black transverse streaks of the latter, but the whole surface of the wings darkened except the distal marginal part being of an intense blue lustre.

70. Genus: **Callistium** Stich.

In the structure of the body it approximates *Amarynthis*, but the shape of the wings is quite different. Undoubtedly allied to *Lasaia* from which it forms the transition to *Charis* as which the only species was originally described. Head uncommonly stout with protruding, furry eyes. The veins do not exhibit any deviations. In its exterior similar to the preceding genus. Only 1 species.

cleadas. **C. cleadas** Hew. (135 i) resembles *N. cadmeis* so much that STAUDINGER took it to be the ♀ of it; but the ♂ is beneath not blue, but shows the same colouring and marking as above. The transverse streaks are thicker than in *N. cadmeis* and differently arranged. On the figure (according to a specimen from Onoribo) we see very distinct white costal spots which, however, are absent in specimens from other districts. Guiana, Amazon. Rare.

71. Genus: **Lasaia** Bat.

Of the shape of *N. cadmeis*, but the lustrous blue colouring is exhibited here on the upper surface, while the under surface is marbled brown and grey; ♀ above greyish-brown. Head and thorax are robust, the abdomen short and small, the antennae long, scarcely thickened at the ends, the wings slightly dentate, particularly the hindwings. Costa of the forewing somewhat curved. The butterflies fly in day-time on flowers, where they sit with their wings spread out horizontally, and they come to wet places on the road; the blue colour glistens brightly in the sun, just like the *Tharops* in the company of which the *Lasaia* are often found. Like the *Charis*, they belong to the more common species. As they sit very tightly on the flowers, they are easy to capture as soon as they are drinking.

meris. **L. meris** Cr. (135 g). Recognizable by a white spot at the middle of the costa on the upper surface of the ♂ hindwing, in which there is mostly (not always) a^b small black dot. The typical, smaller, darker form being brightly coloured beneath inhabits the district from Mexico to the Amazon; the larger form being beneath more unicolorous, **arsis** *Stgr.* (135 g), goes from there to the south as far as Paraguay, Bolivia and Peru. The ♀♀ are above smoky-grey with a slight greenish tinge. — Not very common.

sula. **L. sula** *Stgr.* Almost exactly like the preceding, though more sparsely marked in black; the costal area of the hindwings above dull honey-yellow. Mexico to Colombia. The ♀ is not before me.

agesilas. **L. agesilas** Latr. (135 g, h). Above not so very black as the preceding, the small black transverse streaks more united to chains, the costa of the hindwing without a white spot, blackish. The ♀♀ are unicolorously dark grey, on both surfaces very similar to *Call. cleadas* (153 i). South Brazil and Paraguay. —

narses. **narses** *Stgr.* (135 h), from the Amazon to the north as far as Central America, has a more blue than green ground-colour of the ♂♂ and a black half-band behind the cell. — Common; nor are the ♀♀ drinking from blossoms like the ♂♂ rare. The butterfly figured by us t. 135 i as „*sessilis*“, differing from *narses* only by a greater regularity of the half-band behind the cell of the forewing and a clearer, less black striated discal part of the upper surface of the ♂, is not that species, but merely the Mexican form of *narses* which needs scarcely be denominated specially. Whereas

sessilis. **L. sessilis** Schs. (142 f) which can probably scarcely be separated from *sula*, is smaller, above more obtuse and more violetish-blue, the small black transverse streaks being very regularly arranged. It has a characteristic under surface being dirty fawn-coloured in the ♂, both the wings are traversed by a faintly iridescent, mother-of-pearl white band. Mexico, near Misantla and Guerrero common.

moeros. **L. moeros** *Stgr.* (= *rosamonda* Weeks) (135 h, as *pura*). The species is larger and of a brighter bluish-green reflection than the preceding, the black streaks finer, regularly united to rows, the under surface purer

kennethi. and more one-coloured, the distal part without any black speckles. Peru. — **kennethi** Weeks (135 i) from

Bolivia to South Peru has the wings above traversed by regular lines, particularly the hindwing is very much marked. — *merita* Godm. (135 i) has no more black markings on the hindwing, except a row of dots in front of the border; the under surface is tinged reddish; from Coroico (Bolivia).

L. oileus Godm. (135 h). Only half as large as most of the other species. Above dirty dark-brown, clouded irregularly, speckled in black, before the apical part of the costa 2 very small whitish vitreous spots. Beneath in the costal part of the forewing blackish, otherwise dull bluish-white, with dark speckles. In the (larger) ♀ the ground-colour shows a yellowish-brown hue. Widely distributed, probably at home in the whole tropical South America, but rather rare.

72. Genus: *Amphiseleenis* Rüb.

An isolated species which is sufficiently characterized by the shape of the wings. The apex is prolonged in the shape of a sickle, and the middle of the border exhibits an obtuse, lobular tooth. In the exterior the animal greatly resembles certain *Achlyodes* with which it corresponds also in the colouring.

A. chama Stgr. (128 h). Dark-brown, the forewings with indentations at the apex, the inner angle, before and behind the middle of the border; the hindwing with an obtuse tooth; both wings are crossed by dark nebulous lines, the distal one of the ♂ beneath being faintly metallic. The ♀ is above more brownish yellow, beneath yellowish, almost entirely without metallic lines; in the Cauca Valley in Colombia and in Venezuela; but not common.

73. Genus: *Calydna* Dbl.

The essential difference of this genus from most of the other genera of the *Erycinidae* consists in the constancy of its forms, resulting in the specimens of one species, even from very remote habitats, not exhibiting any differences. I consider this persevering adherence to the typical form to be an effect of the great power of flight and a reduced adherence to localities. The *Calydna* are robust animals with strong wings and a power of flight and diffusibility comparable with that of the Hesperids of which the *Calydna* remind us also in their habits. They have, moreover, the habits of the other *Erycinidae*, coming to wet places and blossoms, they have an almost buzzing motion of the wings and a compact shape. The antennae are of medium length with a feeble club, the head is broad with a flat forehead beyond which the palpi do not project, the thorax is in many species, such as *caieta*, stout almost like in night-butterflies and decorated with variegated markings. The wings are often densely dotted and marked with transparent spots, the legs are rather short; in the forewings only the first subcostal vein branches off before the cell-end out of which the 2nd and 3rd rise. — In the hindwing the veins do not exhibit any deviations; frequently, however, the anal part of the hindwing is slightly lobate and the apex of the forewing produced. MENGEL includes 29, STICHEL 24 species in this genus.

C. thersander Stoll (135 i, k). One of the largest species, blackish-brown, marbled in slate-blue, spotted darker, the forewings with small white vitreous dots, the hindwings in the ♂ with a sky-blue, in the ♀ with a slate-blue distal-marginal part. Guiana and Brazil. Not common.

C. charila Hew. (135 l). The ♂ resembles the *thersander*-♀, but the small vitreous spots in the forewing are somewhat larger, and the blue united to festoon-like arcuate lines, particularly in front of the border. The ♀ is quite different, similar to the ♀ of *caieta* (135 l), but in place of the uniform yellow spots of the latter there appear small fenestrae bordered by red-brown and alternating with opaque red-brown spots, between which blue-metallic intermediate spots are embedded. Upper Amazon, as far as into Peru (Pachitea); rare.

C. caieta Hew. (135 l). The wings are densely covered with whitish-yellow (♂) or honey-yellow (♀) spots; beneath like above, the spots slightly larger. Reported from the Upper Amazon; before me are typical specimens of both sexes only from Venezuela (Rio Caura, Suapure). Rare.

C. chaseba Hew. (136 a). On the upper surface the reddish iron-grey ground-colour is crowded with white vitreous dots which turn to streaks in the cell of the forewing. Beneath the hindwings are dusted with a mealy white colour. The ♂ is almost exactly like the figured ♀, but the small spots are a little finer and the forewings somewhat more pointed. Before me are typical specimens only from South Brazil (Rio de Janeiro, Espiritu Santo), but it is described from the Amazon. Rare.

C. punctata Fldr. (136 a, as *punctula*) resembles the preceding species, but it is smaller, the ♂ above jet-black, the ♀ yellowish-brown, the small dots fine like the stings of a needle, the under surface not powdered in white. Ecuador, Peru, Bolivia. The finding-place „Santa Catharina“ is probably due to a confusion with the preceding species. Less rare. It reminds us of *Cremna actoris*.

C. calamisa Hew. (135 l). ♂ black with bands and spots of a magnificently deep-blue lustre, between them white vitreous dots. Under surface dark brown, finely striated and chased, the small vitreous spots here of a mother-of-pearl lustre. ♀ entirely different, on both surfaces like the ♂ beneath, copiously striated; the small vitreous spots are somewhat larger. The ♂ somewhat reminds us of *Cremna meleagris*, just like *Calydna caieta* of *Cremna eucharila*. On the Amazon, from Santarem to Peru.

- lusca*. **C. lusca** Hbn. (135 k). ♂ similar to *charilla*-♂, smaller, the forewings with some larger vitreous spots at the costa, the hindwings angular in the middle of the border. ♀ similar to that of *calamisa*, but the small vitreous spots scarcer and in some places larger, the ground-colour intermixed with red-brown. Colombia to Peru. — *venusta* G. and S. is the northern form going as far as Mexico; here the ♂ is more brightly marked, the fenestrae larger, the black ground-colour more intermixed with lighter bows. ♀ brown, otherwise like the ♂. Rare.
- euthria*. **C. euthria** Ww. (135 k). Quite similar to the preceding, but scarcely more than half as large, much more unsteadily marked, on each wing only 1 larger vitreous spot. Amazon; some more finding-places are doubtful.
- micra*. **C. micra** Bat. approximates the preceding, is velvety brown, irregularly speckled in brown and spotted in black, before the border a number of black, brown-tinged spots are arranged to a band. Numerous vitreous dots, those in cells of the wings larger, as well as some near the apex. Amazon; rare.
- sturnula*. **C. sturnula** Hbn.-G. (135 k). Similar to the preceding, larger, the dark-brown ground-colour exhibits numerous red-brown embeddings, the forewing behind the cell with a larger vitreous spot and several dots as fine as the stings of a needle. Guiana to North Brazil. — *hegyas* Fldr. from Central America and Mexico chiefly differs by the small white spots being not so distinctly prominent. — Rare.
- sinuata*. **C. sinuata** Fldr. This species described from Actajac in Mexico is said to be like *hegyas*, but smaller by one third, with a somewhat sickle-shaped apex of the forewing and a dentate border; the hindwings more gnawed out, the colouring above more dark ashy grey, the fringes speckled in a dirty white.
- calyce*. **C. calyce** Hew. (135 k). Differing from the preceding by the basal and distal parts of the hindwings being brownish-yellow in the ♂, more honey-yellow in the ♀, the centre being dark, though decorated with several small vitreous spots. The under surface similar to the upper surface. Amazon; we figure it from Santarem.
- cabira*. **C. cabira** Hew. (135 k). ♂ black, ♀ brown, both recognizable by the two white vitreous spots behind the cell-end being joined to an oblique band. Amazon. Not common.
- cephissa*. **C. cephissa** Hew. This species from the Upper Amazon has on a blackish-brown ground honey-yellow spots in, behind and below the cell-end as well as before the anal angle of the forewing and behind the cell-end of the hindwing. — Before the distal margin a series of fine vitreous dots, as small as the sting of a needle. The under surface somewhat resembles that of *Apodemia erostratus* (141 a) or of certain *Phyciodes*, but it has no brownish-yellow at the base of the wings. From the Upper Amazon.
- maculosa*. **C. maculosa** Bat. Unknown to me; is said to have the shape of *cabira* (135 k), but a less produced apex of the forewing and a less angled border of the hindwing. Above fawn-coloured with many dark square spots in a yellowish-brown corona and many small whitish spots, one of which is in each cell of the wings, below the rising of the first median vein, and a series of 7 or 8 behind the cell. Fringes darker and with lighter brown speckles. Likewise from the Upper Amazon.
- caprina*. **C. caprina** Hew. (136 a). Larger than the preceding, but blackish-brown with a white oblique oval of the forewings, beneath fawn-coloured, with a darker tinge, at the costa of the forewing and the inner margin of the hindwing lighter and striated in black. North Brazil.
- catiena*. **C. catiena** Hew. Similar to the preceding, but the upper surface unicolorously dark brown, except the white oblique oval of the forewing. Beneath dark fawn-coloured, striated dark and with some scattered black dots. Apex of the forewing pointed, border not gnawed out. Brazil.
- carneia*. **C. carneia** Hew. (136 b). Very near to *cabira*, but the white transparent band formed by the double-spot behind the cell-end is angled, as the lower spot extends towards the border. Larger than *cabira*. Beneath at the base of the forewing a reddish-yellow spot. Amazon. Rare.
- catana*. **C. catana** Hew. (136 b). In the ♂ the two white fenestrae of the forewing are moved apart, so that the black ground-colour passes through between them. On the hindwing appears a small white subbasal band. In the (brown) ♀ the two spots of the forewing as well as the spot near the base of the hindwing are considerably smaller. Venezuela and the adjoining district of the Amazon (Humayta).
- hiria*. **C. hiria** Godt. (= *calitas* Hew.) (136 a). The forewings exhibit only yet a white square spot and above it, below the costa, another dot, the hindwings near the base a bottle-shaped spot. In the ♀ all the spots are smaller and stand on a yellowish-brown speckled ground. Widely distributed. Specimens from Peru (Pachitea) are considerably larger than those from the Amazon or from farther to the north. Rare.
- cea*. **C. cea** Hew. (= ? *zea* Schs.) (136 b). Forewings like in the preceding species; but the hindwings have no white basal band, but in the ♂ a sky-blue distal margin. Before me are only ♂♂ from Bolivia.

74. Genus: **Emesis** F.

Whereas the preceding genus was composed of almost unexceptionally rare butterflies, the *Emesis* consist of almost universally common species. In the Erycinidae, rarity and commonness may very well be connected with their habits, whether they fly in day-time or not. In single *Emesis* there prevails the habit of hiding beneath leaves during day-time, and I have, for instance, often beaten out *Emesis fastidiosa*. *E. mandane*, however, is always found on blossoms and swarms in the hot sun of the forenoon. *E. fatima* mostly rests beneath leaves, but it often comes forth to visit flowers. When, at one occasion, a *fatima* ventured to come out of its hiding-place within sight of me, it was immediately pursued by a *Colaenis julia*-♂ dashing upon it and so unmercifully belaboured with its feet and wings, that its delicate wings were broken and the poor animal at last lay in the dust incapable of flying. On the whole, we may say that the stout *Emesis* (such as *mandane*) are good flyers, the slender ones (such as *fastidiosa*) are bad flyers. The colour of the *Emesis* is mostly brown, with a dark undulate marking, the antennae are long and stretched straight forward by the living animal. The moderately long palpi are so closely appressed to the forehead, that their tips are not to be seen from above. The legs are strong, but not very hairy, the wings entire, with a frequently produced or sickle-shaped apex, in the veins there is no difference from the general type of the *Erycinidae*. About 50 forms have been distinguished.

E. lucinda. The typical species is the largest of the genus and at the same time one of the largest *Erycinidae* altogether. — The most common form in the European collections is the South Brazilian **fastidiosa** Mén. (136 d). Above dark-brown, undulated in black; the ♂ has a rusty-yellow apex and a red-yellow under surface, the ♀ a white-spotted apex and a pale-yellow under surface; this under surface is in both sexes richly decorated with brown transverse streaks and chains of bows. — **aurimna** Bsd. (136 d, e) from Central America to Colombia, is above more deeply black with a faint steel-blue lustre. — ab. **albida** ab. nov. (136 e) has in the female a drab upper surface which is almost as vividly marked as the under surface; from Central Brazil (Bahia). — **opaca** Stsch. (136 d) exhibits in both sexes the wings very dark and without a distinct brightening at the apex; from the Upper Amazon (Iquitos, Pebas). — **lucinda** Cr. (= *dynamia* Cr., lassus F.) (136 b, c) exhibits above a blue reflection in the ♂♂ being beneath rusty-red, while the ♀ is brown with an oval white subapical spot; from Guiana and Venezuela. — **spreta** Bat. from Teffé on the Amazon is in both sexes slate-grey, at the apex of the forewing is an indistinctly defined red-brown spot which in the ♀ replaces the otherwise mostly white subapical spot. — **saturata** G. and S., described according to 1 specimen from South Mexico, is above bright and intensely brown, in the basal part are some indistinct transverse lines, in front of the border a broad, lighter line; beneath rusty-red, ruled with black lines, with a similar submarginal band. The palpi are rusty-red. They are recognizable by the colour of the upper surface. — **liodes** G. and S. is smaller, the ♂ above quite unicolorously dark brown with a scarcely noticeable transverse marking, the ♀ with a dull bone-yellow subapical spot of quite the same shape as in the ♀ of *lucinda* (136 c). — **eurydice** Godm. (136 c) is a form from Ecuador the ♂ of which is above preponderantly bluish-grey, beneath claret-coloured, on both surfaces with very dark markings; the ♀ is above dull brown, beneath yellow-coloured. — **castigata** Stsch. from Peru and Bolivia does not differ considerably in the female above from specimens of *lucinda*, but it is darker and beneath more reddish; ♂ usually larger than the typical subspecies (*lucinda*), with the apex of the forewing being produced somewhat more pointedly. — *lucinda* and its forms are rather common, at open spaces in the woods, where they sit beneath leaves.

E. tenedia Fldr. (136 g). ♂ of the shape of the preceding species, but the upper surface mostly brown; the ♀ may be quite ochreous brown, but it may also exhibit on the forewing a whitish or yellow, band-like brightening which is differently shaped, mostly also differently coloured at every habitat (= ♀-form of *fastidiosa* Strd.). Beneath both sexes exhibit, instead of the coherent transverse lines of the preceding species, more scattered comma-streaks. From Mexico across Central America and the eastern parts of South America as far as South Brazil and Paraguay. Mexicans as well as quite southern animals are often much smaller than the figured ones. The species varies greatly. — **melancholica** Stsch. is said to be larger than the typical form, above unicolorously intensely smoke-brown, the undulated transverse lines not very conspicuous, the median area scarcely darker, under surface lighter rusty brown, the transverse lines more distinct. South Brazil. Unknown to me. — **lupina** G. and S., described from Central America, though not bound to a certain district, shows a more grey upper surface, Mexicans from Misantla are of a bright red, the specimen figured by us forms the intermediary between the two. — **ravidula** Stsch. is denoted by its author as a „faintly differentiated subspecies“, „on an average lighter, dull greyish-yellow to pale smoky-brown, with a somewhat rounder contour of the hindwing“. In the south of the range. — **cilix** Hew. described from Ecuador is smaller than *tenedia*, with more pointed, almost sickle-shaped forewings, a uniformly sooty-brown upper surface and a reddish-yellow under surface; the dark transverse stripes on both surfaces scarcer than in *tenedia*. — **sinuatus** Hew. with still more curved borders of the wings, likewise from Ecuador, may belong hereto.

E. angularis Hew. (136 g, as *angulata*). Recognizable by the wing-contour; the forewing somewhat concavely indented below the pointed apex, and the middle of the border on both wings projects geniculatedly. Ecuador, Bolivia and Peru.

- vulpina*. **E. vulpina** *G.* and *S.* is based upon 3 ♂♂ from Presidio in Mexico that are said to resemble *tenedia*, but to be of a brighter, red colour, almost like *fatima* (136 f). The wings above are scarcely noticeably ruled, the marking beneath is likewise obsolete.
- mandana*. **E. mandana** *Cr.* (= *polymenus F.*, *arminius F.*, ops. *Latr.*) (136 e). Entire with regularly shaped wings, above dark red-brown, beneath brownish-yellow with dark transverse streaks being united above to transverse lines. Specimens before me from Mexico (Guerrero) and those which I captured near Santos in South Brazil exhibit but quite faint differences (Mexicans are marked somewhat more distinctly). ♀♀ from Muzo and the adjoining Central America sometimes have a slightly geniculated border of the hindwing and more pointed forewings (*angulariformis Strd.*). — *furor Btlr.* and *Drc.* and *aurelia Bat.* from Maranhão likewise do not exhibit any difference worth mentioning. — **diogenia** *Prittiv.* (136 e) from South Brazil are said to be smaller and lighter specimens, but it is just South Brazil where there occur especially large and dark specimens, and large and small ones are sometimes found resting on the same bush. — *mandana* is a common butterfly visiting particularly the flower-buds of blossoming bushes and flying all the year round in warm districts; from Mexico to South Brazil, Paraguay and Peru. — The ♀♀ are often considerably larger than the ♂♂. Beside typical *mandana* and *furor* there occur some more forms approximating *mandana* in Mexico; as for instance **tegula** *G.* and *S.* (136 f) which is about the most closely allied to *diogenia*.
- russula*. **E. russula** *Stich.* (136 f). Smaller than normal *mandana*, above duller and often darker, between the transverse lines „a grey, almost bluish-grey tinge“. Under surface light ochreous-yellow, the marking reddish-brown, finer than in *mandana*, the nebulous band before the border is absent, sometimes replaced by obsolete dots. The types originate from la Paz in Bolivia and from Sao Leopoldo in Brazil. — The marks are partly those of typical *mandana*, partly they are found in *mandana* from the most different countries; it is presumably scarcely a distinct species.
- fatima*. **E. fatima** *Cr.* (= *fatimella Ww.*) (136 f). Much more slimly built than *mandana*, with more delicate wings and of a burning brown-red (♂) or brown-yellow (♀) colouring. From Colombia to Brazil. Not rare.
- ocypore*. **E. ocypore** *Hbn.-G.* (136 g). Size and the shape of the wings of a small *mandana*, but the body much more delicate and the colouring on both surfaces dark nut-brown. Marking almost exactly as in *mandana*;
- aethalia*. Amazon, Peru. — **aethalia** *Bat.* from Central America and Colombia has a produced apex of the forewing and a similar anal angle of the hindwing and is beneath of a lighter colour than above; on the whole but little deviating. — **zelotes** *Hew.* originating from South Brazil and Paraguay has a red-brown ground-colour, similar as *mandana*; the ♀ entirely resembles a ♀ of *tenedius*, but it is more red-brown than dark yellowish brown, and the band in front of the distal-marginal part is not so very light. Whether *zelotes* is a subspecies of *ocypore* as which it has been dealt with, is doubtful.
- ovidius*. **E. ovidius** *F.* (= *fatima Cr. p. p.*, *cerea Hbn.*, *caeneus Stich.*) (136 h as *caeneus*). We choose this name of *Fabricius* being still vacant in the *Erycinidae*, because a yellowish-red *Emesis* has been undoubtedly figured by CRAMER as *fatima* and the name of *caeneus* was conferred on a small *Charis*, and therefore certainly a confusion would be inevitable. *ovidius* has, on a dark-brown ground, numerous silvery arcuate streaks which are united to a bossy chain. At the costa, before the apex of the forewing mostly a honey-yellow, light patch. From Guiana and Venezuela to Peru. Not rare.
- neemias*. **E. neemias** *Hew.* (137 a). Like the preceding species with silvery-blue arcuate streaks above, but dark blackish-brown, and easily distinguishable by the under surface being without any silver, whereas in *ovidius* also beneath the dark transverse streaks are silvery. Brazil, Paraguay, Bolivia and Peru; not common.
- poeas*. **E. poeas** *G.* and *S.* (136 f as *psaeas*). Recognizable by red-brown bands alternating with bluish-grey ones above. On regarding fresh specimens in the sun, we find that the upper surface is covered with single sparkling silvery scales. In specimens, where the long fringes are preserved, these also exhibit a faint lustre and are speckled, what is not to be seen on our figure. Beneath red-brown. Mexico; in the Tring Museum also from Zamora (Ecuador).
- brimo*. **E. brimo** *G.* and *S.* (137 a). Size of the preceding; forewing with a somewhat more pointed apex; upper surface dark brown. In the cell and the distal marginal part some lighter, faintly yellowish-brown patches, the disc of the ♂ with a cloud of a slight violet reflection. Very fine and sparse single, small silvery scales are scattered across the surface of the wings. Under surface rusty yellow, covered with dark punctiform streaks, except the distal marginal part. Colombia, and on the Chiriqui; often contained in the „Bogotá“-parcels. — **progne** *Godm.* (137 a) is somewhat smaller, the cloud with the violet reflection in the disc more lustrous, lighter, the distal margin of the under surface dark brown. Peru, Bolivia. Not rare.
- emesia*. **E. emesia** *Hew.* (= *yucatanensis G.* and *S.*) is not much larger than *progne*, has a strongly produced basal part of the costa, like a *Symnachia*, but almost exactly the colouring and marking of a *tenedius*-♀, except that the cell-end is traversed by a small bone-white band consisting of 3 adjoining spots. Mexico and the adjoining Central America; not common.

E. peruviana Lathy (137 a). Size of the preceding, but the upper surface of the wings greyish-brown; beneath the colouring of the forewings is rusty-red in the apical and costal parts, otherwise greyish-brown. The black transverse streaks and dots mostly arranged in rows. Peru.

E. temesa Hew. (137 a) is still somewhat smaller, the upper surface darker, so that the dark transverse streaks are less distinct. Distinguishable from the preceding by the bright brown-red under surface which is coloured almost like in *progne*, but darkened at the distal margin. From Ecuador. — *emesine* Stgr. *emesine*. are specimens from Pebas (Peru) with a red-brownish apex of the forewing above.

E. zela Btlr. (136 h). This common Mexican species being reported also from Colombia and Venezuela and, therefore, probably also occurring in Central America, has very pointed forewings and also a pointed anal part of the hindwing. Recognizable by the postmedian band above being brightened up in the forewing by a light greyish-brown, in the hindwing of a rusty-yellow colour. Under surface yellowish-red, similar as in *mandana*.

E. ares H. Edw. (136 h). Forewing dark brown with numerous small dark transverse bows; in the hindwing the whole costal half is of a burning red-yellow colour. North Mexico, Arizona. — *cleis* W. H. Edw. (136 h), also from Mexico and the adjoining Arizona, is lighter and more sparsely striated, but hardly different. — Hereto may also belong *toltec* Reak., unknown to me, in which the costal-marginal part of the hindwing is no more rusty red, but similarly coloured as the rest of the wing. Likewise from Mexico; common.

E. cypria Fldr. (136 i) has the shape of *tenedia* (136 g), the forewing, however, exhibits a honey-yellow oblique band ending in the ♂ taperingly, in the ♀ broadly in the anal angle. North-western parts of South America; common. — *paphia* Fldr. is the northern form from Central America and Mexico, the oblique band brownish, broader, always regularly defined. In the ♀ the dark transverse markings above, at least those near the base, are less distinct and the oblique band is duller ochreous. — ab. *capnodis* Stich. (137 a) is a not rare aberration with a dull brownish oblique band of the forewing; in some places, as for instance near Onaca (Sa. Martha, Colombia), it flies together with typical *cypria*.

E. lacrines Hew. Here the oblique band of the forewing is bright yolk-coloured, a small oblong-ovate band extends from the costa to the upper median vein; the shape and size is that of *mandana*. Under surface bright brownish-yellow, towards the base greyer; ♀ similar to the ♂, duller, the oblique band more ochreous than orange-yellow. From Chontales (Nicaragua).

E. guppyi Kaye (142 a) has somewhat the exterior of a small *cypria*, but the oblique band of the forewing is here not orange-coloured, but dark brown, only quite faintly lighter than the ground-colour. On the under surface, however, the oblique band is distinctly orange-yellow on a red-brown ground. The black transverse dots only insignificant. Colombia, Venezuela; described from the Isle of Trinidad.

E. heterochroa Hpffr. (136 i). As large as *cypria* or larger, easily discernible by the yellow band of the forewing being broadened as far as near the distal margin, but being lengthways intersected by a dark nebulous band. Peru, Bolivia; not particularly rare.

75. Genus: *Siseme* Ww.

This genus contains extremely variable species. *S. alectryo* which is before me in about 200 specimens varies at every habitat in constant deviations, so that dozens of new forms might be described among the material before me consisting of far more than 1000 *Siseme* from the most various habitats. The *Siseme* are all small, elegantly marked, but mostly dark-grey coloured butterflies with a median band through both the wings. The head is broad, the forehead flatly arched, the eyes large, the palpi long but closely appressed to the head, so that they are not distinctly projecting on being seen from above. Antennae of more than half the length of the costa, gradually thickened at the ends to a feeble spindle. The *Siseme* are lively animals fond of flying in the sun on the slopes of mountains, where they come to the water in the morning and are easily taken there.

A. Border of the hindwing convex bulging out.

S. peculiaris Dre. (133 a) blackish greyish-brown; the forewings with small white oblique bands, the hindwing with a white longitudinal oval showing a different shape at every habitat. Peru, particularly on the Pozuzo not rare at altitudes of 800 to 1000 m. The white spot of the hindwing mostly extends beneath to the base.

S. alectryo Ww. (133 b). Blackish bluish-grey, in the centre of both wings a joint white fusiform band; between it and the apex of the forewing a small white oblique band being often indistinctly defined. between it and the border of the hindwing a similar, small, band-like spot; in the anal part of the hindwing 2 red, often confluent maculae. Colombia and North Brazil, as far as Bahia. — *tantilla* Thm. (133 b) has instead of the white distal spots only light grey, more linear brightenings traversing the whole hindwing as blurred lines; it also flies in Colombia, but different habitats from those of typical *alectryo*, as for instance

near Villavicencio. Here the small oblique band of the forewing is still fairly preserved; in a specimen captured by FASSL on the Rio Negro (East Colombia) also the white oblique band on the forewing is transformed into a grey line, the small fusiform band being very narrow. — *megala form. nov.* (133 b) is a form of almost double the size of *tantilla*, with a very distinct marking, deep colouring, and a broad median band; *spectanda*. Monte Tolima and the Aguaca Valley. — In *spectanda Stich.* (133 b) the median band has turned a broad oval, the small oblique band of the forewing, however, to a small narrow stripe, the white distal spot of the hindwing only beneath distinct. Peru, Bolivia, Ecuador. — *transiens form. nov.* (133 b, c), a mountain-form from Bolivia, is smaller, with a still broader median spot, the small white oblique band of the forewing, which in *spectanda* is yet distinct and oval on the under surface, being here also nearly vanished. — It forms the transition to *lucilius Hpffr.* in which the median band occupies almost the whole disc of the wing as a broad, below rounded oval, whereas the small white distal bands are absent altogether; this form is likewise found in Peru and Bolivia. — Not rare.

aristoteles. **S. aristoteles** Latr. (133 d). The two dark wings are traversed in the distal part by a band of short light rays which are particularly beneath distinctly prominent, in front of it a yolk-coloured median band being above and below pointed. Colombia (Monte Tolima). — In *ochrotaenia form. nov.* (133 d) from Loja in Ecuador this yellow band is broad and terminates broadly at the costa; — in *minerva Fldr.* (133 e) from the Rio Negro (Colombia) it is preserved as thin as a thread on the forewing, on the hindwing it has almost disappeared; — in *leucodesma form. nov.* (133 e) from the Rio Dagua (type in the Tring Museum) *sprucei*. it is snow-white instead of yellow, in *sprucei* *Bat.* (= *nigrescens Menzel*) (133 e) it is shaded by grey. West Colombia. In Colombian *sprucei* the basal part of both wings is beneath light silvery blue; in *saturata Thm.* (133 e) from Ecuador, scarcely differing above, the whole under surface is dusted with dark (on our figure the two under surfaces of *sprucei* and *saturata* have been mixed up). Rather common.

B. Border of the hindwing between the apex and anal part drawn in or serrated.

S. pallas. This species resembles in different local forms almost all the forms of the preceding group of *Siseme*, so that on the whole the typical *pallas* corresponds with *lucilius* or *spectanda*, *pomona* with *sprucei*, *xanthogramma* with *ochrotaenia*, *albescens* with *leucodesma* etc. All the *pallas*-forms, however, are at once distinguished by the border of the hindwing being distally not round, but rather drawn in. — *pallas Latr.* (= *aristoteles Stgr.*) (133 c) is the form with a fusiform, in the middle broadly white median band; from Venezuela and North Colombia. — In *angustior form. nov.* (133 c), from considerable altitudes (Monte Tolima etc.) in Colombia, the median band is narrowed almost to one half, sometimes to one third. — In *pomona G. and S.* (133 c) lying before me from the Rio Negro (Colombia) the band is shaded with grey. — In *xanthogramma Bat.* (133 d) the median band is yolk-coloured, from the Rio-Negro in Colombia. — *atrytone Thm.* (133 d) exhibits half the median band yellow (Bolivia) or ochreous with a whitish brightening in the middle (Pozuzo, Peru), sometimes also nearly all white (*albescens Stich.*) from Ecuador and the neighbouring districts. — With respect to the width and pointedness of the fusiform median band, the species at every habitat exhibits certain, quite constant peculiarities. The butterflies are common.

neuroides. **S. neuroides** Fldr. (133 e). Very similar to the preceding species; smaller, recognizable by the broader red anal band and by the much more intense and longer white rays in the distal part of the under surface of the hindwings. I know this form only from Peru. — From Bolivia and Colombia, as well as from the Pozuzo (Peru) a more dark slate-blue form is known with the anal part of the hindwing being more extended and ending into a sharp tooth; to this form, *caudalis Bat.* (133 c), however, there are transitions found. — Common.

pedias. **S. pedias** G. (133 d) does not entirely belong to this genus and might form a connection with the *Ancylyris*-group. The total appearance reminds us of *pallas*, but the light patches, particularly beneath, show a bright hyacinth-blue reflection; the small red anal band of the hindwing varies in shape and width. Before me only from Bolivia; mostly from the Rio Songo. Apparently rare.

pseudopal-las. **S. pseudopallas** Weym. (= *hellotis Thm.*) (133 b). Greatly resembles *pallas*, but the median band of the forewing is more bone-yellow, above not pointed, but broadly reaching the costa. Beneath in the distal part of the forewing instead of the band formed of rays a white transverse line. Peru. — In *hyperion form. nov.* (133 a) being only half as large, from Huayabamba, the median band is anteriorly greatly narrowed and terminates behind in the middle of the hindwing. Not rare.

Note. A. *Siseme* from Argentina has not become known to me. Regarding *S. hothurus* Bg. cf. Additions.

76. Genus: **Drepanula** Rüb.

The genus is not closely allied to any other. The species described first was dealt with as *Lemonias*, but RÖBER combined its characteristics deviating from the *Lemonias*, already in 1892. From *Ematurgina* to which STICHEL allies the genus the subcostal system deviates essentially, the neuration corresponds rather with *Siseme* which, however, shows again a greater variability of the veins, although it undoubtedly represents

a well defined genus. *Drepanula* resembles *Bacotis* particularly by the shape of the wings, the structure of the body and the habits, though there is no close connection between the two genera.

D. calvus *Stgr.* (133 e) from Peru has a very falciform apex of the forewing and a unicolorously slate-grey upper surface; the distal margin, a median blurred spot at the costa and a costal triangle before the apex darker; in front of the border a series of white dots. Under surface marked very white, in the median area shaded in grey. Peru.

D. gerres *Thm.* (133 f) entirely resembles the preceding, above the dark clouds are more defined, the hindwings somewhat brighter. Quite different is the under surface, being unicolorously bluish-white with numerous small black dots. Colombia, before me from Muzo and Cananche.

D. leucates *Hew.* is smaller and the forewings are above quite sooty black except a small light longitudinal spot at the middle of the inner margin; the hindwings are in the middle entirely white only the base and the distal-marginal third are black. Unknown to me; may not belong into this genus; described without the patria being mentioned.

77. Genus: **Dinoplotis** *Stich.*

The genus is established for a small species unknown to me, having about the shape of the preceding genus, „but somewhat more circular hindwings“. One species from STAUDINGERS collection described from the Amazonas. In the veins of the forewings there is a conspicuous anastomosis between the costal and the second subcostal vein, in which may be seen the stunted remainders of the first subcostal vein.

D. orphana *Stich.* Size of *D. gerres*; upper surface quite unicolorously drab, only in the apical part of the forewing deeper blackish. Beneath the forewings exhibit small white spots at the border below the falciform apex and at the cell-end; the hindwings are beneath yellowish-grey, with a light median band shaded in black. From Massauary.

78. Genus: **Parnes** *Ww.*

The two small brownish-grey species belonging hereto are very much alike each other; they are above blackish-brown, beneath in the apex of each wing is a black eye-spot provided with 2 white pupils. The costal of the forewing runs for some distance together with the first subcostal vein. The animals are not common; nothing is known to me about their habits.

P. nycteis *Ww.* (138 f). This is the smaller species; fresh specimens have an entirely black upper surface; only in much flown specimens the colouring of the under surface shows faintly through, as in our figure. This colouring is dark brownish-grey, finely striated in yellow, before the apex in the forewing and hindwing small, white-pupilled eye-spots. Panama to the Amazon.

P. philotes *Ww.* (138 f). Larger, above sooty black, beneath dark grey, with 1 large eye-spot with 2 white pupils near the apex of all the 4 wings; some more small dotted eye-spots at the distal margin of the hindwing. Guiana, Amazon.

79. Genus: **Zabuella** *Stich.*

This genus is based upon a rather unicolorously grey animal which was described as *Lemonias*, but has evident connections with *Ematurgina*. The most conspicuous mark in the animal is a very thick knob of the antenna, which is hollow in the shape of a spoon, like in an *Argynnis*. Otherwise the shape is like that of the following genus, and both these genera belong to the southern part of the neotropical region.

Z. tenella *Burm.* (138 k). Dirty greyish-brown with a series of dull dotted eye-spots in front of the border and an irregularly curved median shade across both wings. Under surface dirty grey with black-pupilled, small eye-spots near the base and the border, and a chain of dark spots across the centre. Argentina, local, but numerous at the flying-places, as for instance near la Soledad in the Misiones and at other places.

80. Genus: **Ematurgina** *Röb.*

Three species, one of them greatly deviating, form this genus. They have long, projecting palpi, feebly thickened, not very long antennae, remarkably broad wings, the forewing with a stretched costa and four-branched subcostal, the two last branches of which form a fork with a long stalk. The compact abdomen reaches the anal angle of the hindwings, though it does not project beyond it. The butterflies are not common.

E. bifasciata *Meng.* (= *mabildei* *Röb.*) (140 e). Blackish-brown, with 2 parallel, ochreous oblique bands, being several times interrupted, through both wings, and with small ochreous spots before the border. Beneath like above. South Brazil and Paraguay. — In *ochrophlegma* *Stich.* the yellow markings are expanded; Argentina. Our ♀-figure, according to a specimen from GOYAZ, forms a transition to it.

axenus. **E. axenus** Hew. (140 e). Very similar to the preceding species, the bands above broader, in the ♀ also lighter yellow. The under surface, however, not like above, but the costa of the forewing and the base are also yet yellow, so that this colour outweighs the dark one. South Brazil.

leucotopus. **E. leucotopus** Stich. This species inserted here by its author has a white discal and submedian spot of the greyish-brown forewings and white hindwings bordered in grey. The under surface has more white. We figure a ♀ from Buenavista (Bolivia), which has a small white spot in the anal angle of the forewing and a light patch in the border of the hindwing (= subsp. **emphatica** Stich.) (140 e). Typical specimens as they lie before me from Tarapoto (Coll. BANG-HAAS) have this light patch somewhat duller, and the white spots of the forewings are smaller.

81. Genus: **Apodemia** Fldr.

This genus consists of about a dozen species showing a remarkable, though only superficial resemblance with *Melitaea*. A likeness with the genus *Stalactis* seems to be due to mimicry, though it is distinct enough to deceive even eminent experts, so that one species was described as *Stalactis*. The genus is absent in the supertropical forest-district, occurring only from Mexico to the north and again far to the south. The veins do not exhibit any deviation from the general type of the American *Erycinidae*.

nais. **A. nais** Edw. (141 g). Reminds us of a *Melitaea* of the *didyma*-group, also beneath; a distant resemblance with our *Nemeobius* may be only secondary. Bright reddish-brown, spotted in black, behind the middle below the costa, in the ♀ mostly also above the proximal margin, small whitish spots. — The green, turban-shaped egg with an hexagonally netted upper surface yields the larva which, being full-grown, is drab, across the dorsum with whitish-yellow spots and fluffy hairs, the shape being something like that of a wood-louse, flat and posteriorly pointed. It feeds on wild plums. Pupa dark brown, fastened by the cremaster and held loosely by a belt. Mexico and the southern states adjoining to the north of it. Not rare; fond of the open country.

mormo. **A. mormo** Fldr. (= *dumeti* Behr, *mormonia* Bsd.) (141 d). Somewhat smaller, with copious white dots on a blackish-brown ground, the disc of the forewing reddish-brown. Beneath the hindwings are almost white, with blackish markings. California to New Mexico; not rare. — *virgulti* Behr (♂ *sonorensis* Fldr.) (141 e) has above in the hindwing a reddish-yellow band and on the under surface of the hindwings intensely blackish-brown shades; South California and Mexico. — *cythera* Edw. (141 e) has almost the whole ground of the hindwing tinged with reddish-yellow; the white spots are enlarged and assume, particularly on the under surface of the hindwing, an oblong, more radiatiform shape. Arizona and Mexico. — *druryi* H. Edw. (= *druryi* Edw.) (141 d) is above lighter yellowish-red, the black and white spots are reduced. New Mexico. — *maxima* Weeks (141 e) which may perhaps deviate little or not at all from *mejicanus* Behr being unknown to me, is not only larger than the other forms of *mormo*, but also than the *nais* resembling it. Here the whole ground of the wings is yellowish-red, the white spots not radiatiform, but like in *druryi* bordered intensely in black, the black being united to irregular bands. North California. — Local, mostly not common.

palmerii. **A. palmerii** H. Edw. (141 e, f). Much smaller than the preceding, about comparable with the European *Melitaea asterie*. Blackish-grey, finely spotted in white, between there are small red-brown spots on the hindwing. Under surface marked like the upper, but of a dull ochreous-grey, white-powdered ground-colour. — *hypoglauca* G. and S. (141 e) not lying before me in nature, is reported to belong hereto*); it has above an iron-grey ground-colour, without white spotting; beneath yellowish-white, with rows of dark spots and lines. — The larva looks almost like a small *nais*-larva; on *Beleperone californica*. Western parts of the southern states and Mexico. — Local, but not rare.

hepburni. **A. hepburni** G. and S. (141 f). The smallest species of the genus; forewings reddish iron-grey, sparsely spotted in white, the under surface almost ochreous-yellow with white spots being faintly bordered in dark; differing from *palmerii* by the lighter, more reddish upper surface, a sparser white spotting and a paler under surface. Mexico, the figured ♀ from Sonora.

walkeri. **A. walkeri** G. and S. (141 f). Above grey, the bands and spots somewhat lighter, but not white; under surface with quite a faintly pale ochreous tinge. Mexico, local, but in some places very common. Specimens from Oaxaca are beneath more intensely marked in black; in those from Tehuacan the pale-yellow tinge is nearly altogether absent.

multiplaga. **A. multiplaga** Schs. (141 e). Much larger than the preceding, the spots of the upper surface of a pure white, the anal angle of the hindwing forms in the ♂ an apex provided with a fringing beard. Basal half of the hindwings beneath almost white. New Mexico. Rare.

carteri. **A. carteri** Holl. (141 a) from the Bahama Islands deviates somewhat from the other *Apodemia*, like the following species. Our figure most exactly reproduces the original. Under surface more dark greyish-brown with small blackish transverse spots in the forewing and small transverse streaks in the hindwing. In the anal angle of all the 4 wings a large, round, black spot.

* It probably belongs rather to *walkeri*.

A. stalactioides *Btlr.* (141 f, misprinted into *stalactoides*). Forewing somewhat less pointed, otherwise of the shape of the preceding, but above the black wings exhibit white spots, with a brown base of the wings and a brown antemarginal stripe. Ground-colour of the under surface preponderantly red-brown, much more copiously and densely spotted in white than the upper surface. São Paulo, Rio de Janeiro. — **A. canidia** *Drc.* is the smaller, more northern form (Central Brazil) with a preponderantly black ground-colour. — The species is always recognizable by the abdomen being above of a silky lustrous white beginning at the third ring. It imitates *Stalacthis susanna* from the same habitat. Rare.

A. castanea *Prittw.* (141 f) somewhat resembles above *Calydna punctata* (136 a) and *Cremna actoris* (126 h) with which it flies together, but the light dots are transparent like glass, not so brightly white, as they appear in our figure. Beneath something like *Zab. tenella* (138 k) of which it has also the same faint median shade of the upper surface noticeable in a certain exposure to light. South Brazil; rare.

82. Genus: **Hamearis** *Hbn.*

Butterflies with an exterior like small *Phyciodes* and certain Hesperids flying in their patria. The genus is only with difficulty separable from *Apodemia* with which it is combined by some. The body is robust in the larger species, the abdomen of the ♀♀ stout and long. In the ♂♂ the upper surface is mostly yellowish-brown with dark spots; the under surface of the hindwings is adapted to bark or stones. The palpi are long with a long, thin, styloid terminal joint projecting anteriorly beyond the head; the veins of the wings not deviating from those of *Apodemia*. They inhabit the Pampas in the south and the Llanos in the north, being mostly local and varying greatly already at short distances, but not rare at their flying-places.

H. epulus *Cr.* (141 b). This is perhaps nothing else but the *zachaeus* *F.* Above blackish, with few small white spots in the disc of the forewing and a dull red-yellow macular series in front of the border. Guiana. In specimens from Para also the ♂♂ exhibit much more red-brown, so that this sometimes occupies the greatest part of the disc of the hindwing. — **campestris** *Bat.* (= *propitia* *Stich.*) (141 b as *propitia*) has somewhat larger discal spots of the upper surface, which are also increased and all brown-red. From Itaituba and São Paulo di Olivença. — Bolivian specimens have the spots above bright light orange-coloured, almost like *erostratus*; also the under surface of the hindwings, forming in *campestris* on a violettish-brown ground in the middle a faint cloud out of tiny yellowish, mostly round spots, is in Bolivians more variegated, but more confused. — In **signata** *Stich.* (141 b) the small spots above are increased, but nearly all, also those in front of the border, are whitish instead of reddish-yellow; South Brazil, North Argentina (Salta). — Still more white-spotted, and with another under surface (hindwings beneath whitish, finely shaded by grey and brown) are the very small **minuscula** *Giac.* (142 h) from la Rioja, in West Argentina, of which there is before me a form being somewhat more variegated beneath, from San Ignacio (Misiones, East Argentina). In the open grass-districts, not rare.

H. notialis *Stich.* is known to me from *STICHELS* figure; above like *erostratus* (141 a) duller brown-red, of the yellowish-red band in the apical part only dull marks are noticeable, the hindwings beneath yellowish-grey, in the middle a whitish, black-tinged, tooth-like spot. Argentina.

H. erostratus *Ww.* (141 a, b). Above yellowish-red, with a blackish-brown distal part in which a yellowish-red oblique band extends in front of the apex and behind it in front of the border a yellowish-red macular chain. The under surface of the hindwings exhibits on a brown ground 2 yellowish-white transverse bands converging at the proximal margin. Venezuela (on the Orinoco), Colombia, Panama, on grass-plots, very common. — Near Merida in Venezuela occurs a form of double the size, in which the light transverse bands of the under surface of the hindwings begin to be divided into large whitish spots; it is **antaeus form.** *antaeus nov.* (141 b), presumably only an alpine form of the preceding. Type in the Tring Museum.

H. chilensis *Fldr.* (141 b). Light yellowish-red, the whole apical part of the forewings black with narrow, adjacent, small bands of the ground-colour; the under surface white, with confused grey and brown embeddings. The Andes of Chile and Argentina.

H. cisandina *sp. nov.* (141 d) is larger, in both sexes resembling the preceding above, but beneath much darker, so that the yellowish-red on the forewings beneath and the white on the hindwings beneath appears only inserted in smaller spots. Argentina (Chaco de Santiago del Estero, on the Rio Salado).

H. middletoni *E.-Sh.* (141 a). Above more or less dull brownish-red, with blackish spots, the distal margin likewise black. Immediately recognizable by the under surface of the hindwings, in which numerous bone-white, partly black-pupilled, small oval spots are arranged to 2 or 3 regular arcuate rows. South Brazil and Paraguay.

H. dovina *Schs.* (141 c). One of the largest species, above red-brown, forewing in the disc spotted dark, hindwing with a dark base, both wings have in the broadly blackish marginal area a chain of black-pupilled eye-spots of the ground-colour. The under surface reminds us of that of *middletoni*, but the white spots and markings are larger and not so numerous. Argentina and Bolivia.

- domina*. **H. domina** *Bat.* is just as large a species, above the ♂ likewise red-brown and similarly spotted; the ♀ before the apical part with a whitish-yellow macular band. Under surface marked somewhat differently; the species has hitherto only been known from Central America.
- aurinia*. **H. aurinia** *Hew.* (141 a) resembles the preceding species, being also about the same size, but blackish above; the forewings white and with rusty-red spots, recognizable by the brown, not white-spotted under surface of the hindwings. Brazil. — *incana* *Stich.* from Peru is larger, the hindwing above lighter ochreous, beneath we see instead of insignificant black transverse markings in the brown, in the ♀ light-clouded disc, distinct black, oval rings. — *gauchoana* *Stich.* from Uruguay is not before me; it is said to be smaller, on both surfaces lighter, with a red-yellow ground-colour of the forewings, the hindwings with smaller sub-marginal spots, otherwise nearly one-coloured, only in the basal and costal areas somewhat darker. Transitions of it also in Rio Grande do Sul.
- colchis*. **H. colchis** *Fldr.* (140 h). This species is on both surfaces considerably darker than *aurinia*; the spots in the ♂ ♂ are above sparse, also the under surface of the forewings very sparsely spotted at the apex and distal margin; the hindwings beneath dark brown with smaller eye-spot markings. Brazil.
- albinus*. **H. albinus** *Fldr.* (140 h, 141 a). Very variable, deviating at every habitat, particularly Panama-specimens (our figure of the under surface) differ entirely from those from Sa. Marta (141 a, upper surface) which are by far larger and beneath marked rusty-yellow instead of dark brown. Recognizable by the almost white upper surface of the disc of the wings. Not rare at its habitats; Panama to Venezuela.
- ochracea*. **H. ochracea** *Mengel* (141 d). Our figure exhibits specimens from Sapucay. Beneath the wings are cancellated in black almost like *Melitaea*; a median macular band of the hindwings is bone-white in the ♂, in the ♀ rusty-yellow. Paraguay; the butterfly seems not to be common; it flies in the company of certain *Stalactis* (*sonitella*) which it apparently imitates.
- theodora*. **H. theodora** *Godm.* (142 g), described as a probable *Riodina*, is inserted here by STICHEL. The ♂ differs from the figured ♀ by an oblique stripe being above yolk-coloured, beneath bone-white and running from the middle of the costa of the hindwing to its proximal margin. From Chapada in Brazil.
- albofasciata*. **H. albofasciata** *Godm.* (142 g) resembles the preceding, but the spots of the forewings are white also in the ♂, the discal ones placed more medianly, the oblique streak on the hindwing above distinct only in the costal part, beneath, however, running broadly to the middle of the inner-margin. Smaller than the preceding species. Corrientes and Cordoba in Argentina; Paraguay.
- cinericia*. **H. cinericia** *Stich.* Described according to a single ♀ from Argentina, is neither figured nor compared with a noted form. „Shape like that of the preceding“ (*notialis* and *albinus*); the size seems to approximate that of *epulus*. Upper surface dark ashy-grey, forewing with 3 small black spots in and behind the cell, between the distal ones the ground-colour is brightened up by whitish; distally from the cell a strongly angled row of whitish spots. Hindwings almost one-coloured, only at the border somewhat lighter and with a row of indistinct black dots. Beneath grey, forewings partly somewhat dull ochreous-yellow, the spots as above, more distinct. Hindwings with indistinct dark transverse lines, median area lighter, distal area costally somewhat grey, otherwise greyish-brown, gradually shaded lighter with a fine black marginal line and indistinct submarginal dots. — Unknown to me.
- guttata*. **H. guttata** *Stich.* according to a single ♀ from Mendoza in Argentina. Seems somewhat to resemble the ♀ of *epulus*, but is said to have conspicuously short palpi. Scheme of markings similar to that of *epulus*. — Unknown to me.

83. Genus: **Metacharis.**

Like in *Ematurgina*, also in *Metacharis* the anterior radial vein most peculiarly branches off only from the 3rd subcostal vein, instead of from the anterior cell-end, its basal part being grown together for some distance with that of this subcostal vein. Remarkable is the very long costal margin of the forewing; also that of the much smaller hindwing is relatively long. The ends of the veins are in nearly all the forms marked with greasy-lustrous pencil-streaks. The species mostly are common; in day-time they sit on the under surface of leaves with their wings spread out and the palpi stretched straight forward; on being chased away by beating they only fly for some paces following the forest-road, and are thus easily taken. 10 species are known.

- nigrella*. **M. nigrella** *Bat.* (= *sylves* *Hew.*) (137 c). Above blackish olive-coloured (♂) or dark olive-grey (♀) with small black transverse streaks and marginal dots. The dot in the apex of the forewing is the thickest and often (in the ♀) on a rusty-red cloud. Venezuela, Colombia to Peru. Not rare.
- cuparina*. **M. cuparina** *Bat.* (137 c) is smaller, above deep red-brown, beneath in the ♂ uniformly lustrous blue.
- victrix*. Colombia to Peru. — *victrix* *G.* and *S.* (137 c) are ♂♂ from Central America, the almost black upper surface

of which exhibits a wonderful ultra-marine blue lustre and often also orange-red, small distal spots. — **xanthocraspedum** *Stich.* (137 c) which we figure from Cachabé, are ♀♀ with a faintly olive-brown tinge on the upper surface and a broadly yellowish-brown distal band of the hindwing. — Not rare.

M. regalis *Btlr.* (♀ = *auria* *Drc.*) (137 b) has the upper surface similarly coloured as *victrix*; but the ♂ is beneath similarly coloured as the ♀ on both surfaces, i. e. red-brown, with black spots, whereas the ♂ of *victrix* looks blackish-blue beneath. Venezuela (Suapure), Colombia (Villavicencio) to Bolivia and Peru. Colombian specimens are beneath lighter red-brown than Peruvians. — **indissimilis** *Weeks* (137 d) is a form being above olive-brown, from Colombia, with a rusty-yellow (*rabutana* *Stich.*) or ochreous-yellow diffuse spot in front of the apex of the forewing.

M. ptolomaeus *F.* (= *agrius* *Dalm.*, *sylvestra* *Mén.*) (137 b, misprinted in *ptolemaeus*). Here both sexes are above red-brown, the under surface, however, in the ♂ black, with a blue reflection, the basal part of the wings powdered with a whitish blue. *ptolomaeus*-♂ is coloured contrarily to the preceding species, since the upper surface of *ptolomaeus* resembles the under surface of *regalis*, and the under surface of *ptolomaeus*-♂ the upper surface of *regalis*-♀. From the Amazon to South Brazil. Common.

M. lucius *F.* (= *nicaste* *H.-Schäff.*, *batesi* *Btlr.*) (137 b). Above coloured and marked almost like *nigrella*, but much smaller, the forewings posteriorly broader and the border of the hindwing almost straight. ♂ beneath grey-blue, with a lilac reflection, ♀ beneath rusty-yellow, similar to that of *ptolomaeus*, but the base of the wings not powdered with white as there. Guiana to Brazil. Common.

M. chia *Hbn.* Smaller than *lucius*, the pencil-streaks of the veins thicker and shorter, the upper surface deep dark-brown, but at the lower distal end of the disc of the forewing is a small orange spot. The under surface is light yellowish-brown, the wings dotted in black and broadly margined in dark. I only know HUEBNER'S figure which was inserted here by reason of the pencil streaks, but which otherwise resembles a *Crococoxona*. Guiana.

M. exigua *Bat.* is said not to be the ♀ of the preceding species, but closely allied to it. Above brown with small, cornered darker brown spots, and with less numerous, small orange spots between them; in front of the border a series of darker orange-brown bordered spots. Beneath brownish-yellow, spotted like above. Size of *lucius*; described according to 1 ♀ from the Tapajoz; unknown to me.

M. erotylus *Stich.* (137 k). Blackish, hindwings in the basal part covered with red-brown; recognizable by the orange spot of the forewing, the base of which occupies the whole inner margin, and which then extends anteriorly, twists inwardly and grows narrower, in order to end taperingly at the middle of the costa. On the under surface the forewing is similar as above, but the hindwings are dusted greyish-brown and covered with dark commastreaks. The pencil-streaks on the ends of the veins are in the ♂ distinct only on the hindwings above; in the dark-brown, yellow-spotted ♀ they are on both wings. Peru, Bolivia.

M. erythromelas *Sepp* (137 d). The ♀ already greatly resembles some ♀♀ of the next genus (e. g. *Le-monias emylus*). Dark, with an ochreous-yellow, irregular oblique band of the forewing. Behind this oblique band there are 3 to 5 small white diffuse spots, which occur also in the ♂, though only beneath. The ♂ is above black, only the basal half of the forewing (except the costa) and a slight flush at the base and inner margin of the hindwing are miniate, at least I myself consider such butterflies from Guiana to be the typical ♂♂ of *erythromelas*. — In the form *erythraea* *Stich.* from Espiritu Santo, unknown to me, the red is more extensive, and the description mentions a yellow ring-spot near the apex.

M. pocilloptera *G.* and *S.* (137 d) has in the ♂ somewhat more red than the preceding species, so that the proximal half of the wings may be called red, the distal one black. — **melusina** *Stgr.* (137 d) differs scarcely from it. The ♂ has the greatest part of the hindwing black. — Larva white, fluffily haired in white, on *Viscum verticellatum*; the pupa brown, fluffily haired in white (*Sepp*).

84. Genus: **Lemonias** *Ww.*

This adopted name is to be preferred to the *Polystichtis*, as no other genus of animals is called so, and it can by rights not pass as such. Neither the veins, nor the legs nor antennae call for a division into further genera; nor does the formation of the palpi give sufficient reason for a separation; according to STICHEL an examination of the copulation-organs resulted in „insufficient conclusions“. There remain, therefore, merely exterior differences of the habitus to which we attach little importance. Thus the genus remains on the whole in the limits assigned by WESTWOOD and the older authors, such as BATES and KIRBY. — Hereto belong graceful, mostly brightly coloured, rather small butterflies with a long, slender body, mostly rather glaring colours of the upper surface and a one-coloured, often white under surface decorated with tiny dots and streaks. The ♀♀ mostly greatly deviate from the ♂♂, frequently with an oblique band of the forewing. The under surface and still more the shape and colouring of some ♀♀ exhibit a close alliance to *Echenais*; sometimes to such an extent that one might be inclined to regard the separation of the two genera to be not quite natural.

- rhodope*. **L. rhodope** *Hew.* (137 e) resembles *Metach. melusina* above, but the under surface is marked very similarly to that of *emylius*, though it is duller violettish-green. The ♀ is unknown to me; the specimen figured as *ancile* by HEWITSON may perhaps belong as ♀ to *rhodope*; the forewings are similar, more orange-coloured, but the hindwings are unicolorously blackish-brown and the under surface is marked differently. I was not able to obtain two equal ♂♂; the boundary between the black and red of the upper surface varies at every habitat. Amazon. — **bubo** *Btlr.* has near the anal angle before the black distal margin a small white spot, while the ♀ (according to BUTLER) has a kind of a light spot in the middle of the dark-brown hindwing. — **amphis** *Hew.* (137 d) are specimens with a greatly narrowed margin of the hindwing.
- cerealis*. **L. cerealis** *Hew.* (♂ = *cuprea Btlr.*) (137 g). ♂ brick-red in the cell and before the border, some specimens also in the disc with black markings. Before the apex little spots of a blue lustre. ♀ dull yellowish-red, with a panther-like, copious marking. Under surface of the ♂ similar to that of *emylius*, more one-coloured leaden-grey. Extremely inconstant, differently marked at every habitat, also the ♀ in which the spotting in the disc of the forewing may disappear nearly altogether (= *caecina Fldr.*). From the Amazon, rather rare.
- zeanger*. **L. zeanger** *Stoll* (137 g). Presumably scarcely specifically different from the preceding species which it replaces in Guiana. Typical *zeanger* resemble *cerealis*, but the bluish-lustrous apical spots of the ♂ are increased. Surinam. — **rhesa** *Hew.* has the blue spot larger, more metallic, more remote from the apex, whereby a certain exterior resemblance is created with *Argyrogramma amalfreda physis* *Stich.*, so that the figure of the latter was denoted by mistake as *rhesa*, although the blue-silvery line in front of the border of the forewing shows that it must be a *physis* with which also the marking at the border of the hindwing corresponds. — **pirene** *Godm.* (137 g) from the Upper Amazon has the black apical part of the ♂ forewing increased and traversed by a broad blue band, and in **gyges** *Stich.* (137 g) from Humayta (Amazon) and Peru the blue spot is still larger, so that it occupies nearly the whole distal half of the forewing, and the dots in front of the border of the hindwing are partly confluent. Varying at every habitat and representing an almost uninterrupted series of transitions. Not common.
- parthaon*. **L. parthaon** *Dolm.* (= *thermodocë Hbn.-G.*, *rhesa Btlr.* p. p., ♀ = *ancile Hew.* p. p.) (137 e, as *parthaon*). Here the red on the forewings has disappeared except a minute spot before the anal angle; the ♂ has blue, the ♀ white spots before the apex of the forewing; described from Guiana. — **pelarge** *G.* and *S.* (137 e) scarcely differs from *parthaon*; the blue spot of the forewing is said to be smaller, but it varies in both forms; as a chief difference the black colouring of the abdomen in *pelarge* (from Mexico and Central America) is mentioned, which, however, occurs also in Amazon-specimens. — Rare.
- florus*. **L. florus** *Stgr.* (137 k). Approximating the preceding species, but the red of the hindwing shaped into an oval disc before the distal margin. The forewing brown, with a diffuse, bluish-violet lustre, above the basal inner-marginal part with a reddish gloss. The ♀ with a pale yellow oblique band of the forewing. Ecuador to Venezuela.
- lasthenes*. **L. lasthenes** *Hew.* (137 i, k) greatly approximates the preceding, but in the ♂ the orange-yellow band of the hindwing, in the ♀ the bone-yellow band of the forewing is shaped differently. Central America. Rare.
- zeurippa*. — **zeurippa** *Bsd.* greatly resembles *martia*: on the forewing the violet reflection of the apical part does not extend proximally beyond the centre of the wing; the orange-brown anal spot of the hindwing is shorter, broader, rounder, the animal as large as *lasthenes*; the ♀ like in *lasthenes*, but the band of the forewing with a slight ochreous tinge and curved. Mexico and Honduras.
- martia*. **L. martia** *Godm.* (137 k) is allied to the preceding, larger; the ♂ with a more intense reddish tinge, the apical part of the forewing of a bright violet lustre. The ♀ is unknown to me. Described according to a single ♂ from Colombia (Rio San Juan).
- sudias*. **L. sudias** *Hew.* nec *Stgr.* (137 k). In the ♂ the disc of the forewing is entirely suffused by blue, the border of the hindwing broadly orange-yellow. The ♀ resembles those of *florus* and *lasthenes*, but the oblique band of the forewing is white and does not reach the anal angle, quite similarly as in the ♀ of *argenissa* (137 i). Mexico and Central America. Rare.
- apotheta*. **L. apotheta** *Bat.* From „Brazil“, without the habitat being more explicitly mentioned, unknown to me. Upper surface dark ochreous-brown, the wings traversed by few short, fine, darker streaks, the marginal part with a reddish tinge, in front of the border a regular row of dark, light-encircled dots. — **maeon** *Godm.* (137 h) from Guiana has a darker apical part of the forewing and a greyish-white under surface; — **maeonides** *Godm.* from Colombia (137 h) almost the whole forewing, except the narrow inner-marginal part, has a dark tinge, and the under surface is light slate-grey, without a very dark border. — **idmon** *G.* and *S.* from Panama and the adjoining Colombia entirely resembles *maeon* (137 h), but the darkening does not cover the costal and apical parts, but it extends also above along the distal margin and is not intense. The ♀ is larger, more dirty greyish-brown, uniformly coloured, with distinct black markings. Beneath like *maeon*, but the margins are developed more distinctly. Rare.
- arachne*. **L. arachne** *Stich.* I do not know; it is said to be like *idmon*, the wings above rusty-brown with 3 rows of black streaks; forewings with dark brown spots and obsolete whitish submarginal lunae, hindwings with

white posterior half and black marginal dots. Beneath marked just the same with a brownish-grey ground-colour in some parts mixed with white. Amazon.

L. argenissa Stoll (= *petronius* F., *sudias* Stgr., *staudingeri* Godm.) (137 i). In the ♂ the whole upper surface is suffused with violettish-blue, narrowly marked with black; ♀ greyish-brown with a white oblique band of the forewing ending broadly before the anal angle. Colombia, Panama.

L. fannia Godm. (137 i) is known to me only from GODMAN'S figure of the ♂. Above dark brown, the distal part of the hindwings violettish-blue; under surface with small blackish streaks in the disc, a dull band before the border and dark-pupilled eye-spots before the border of the hindwing. Guiana.

L. laobatas Hew. (= *labotas* G. & S. p. p.) (137 h). ♀ blackish-brown, in the apical part of the forewing and before the border of the hindwing sparsely spotted in white, in the disc of both wings small black dashes. ♂ very similar to the figured **andraemon** Stich. (137 i), but the upper surface of the ♂ more reddish than blackish-brown (= **trötschi** G. & S.), the under surface more shaded and streaked in dark. Colombia and Panama. — **simpliaris** Stich. from the Amazon is smaller than *laobatas* and has no white intermixture in the forewing; in the hindwing the white is increased, but the blue is absent.

L. caligata Stich. Shape of the wings like in *idmon*, the anal angle of the hindwings somewhat more rounded. „Upper surface greyish-green, under surface light-blue, on both surfaces black spots, the position of which corresponds with the general scheme of markings of the genus.“ In the hindwing besides 2 more spots near the costal margin on a grey ground. Near the margin of both wings a scarcely appreciable silvery line. Beneath all the spots are smaller. Rio San Juan (Colombia).

L. antanitis Hew. probably does not belong into this genus (rather to *Pandemos*), in case HEWITSON'S figure really represents a ♂. Snow-white, forewing with a broad black marginal band ending broadly in front of the anal angle. A black wedge runs from the base of the forewing to the cell-end along the costa. Hindwing quite snow-white. Under surface with a brownish median shade being broad at the costa of the forewing. and an undulate brown line in front of the marginal part. It resembles on the whole a white *Dynamine* (101 A a). Bolivia.

L. byzeres Hew. (142 d). Above brown with fewer darker dots and streaks corresponding about with those beneath. Brazil.

L. lucretes Hew. (142 d). I doubt whether it belongs hereto. The under surface like the upper one, but orange-red and the white subapical spot of the forewing larger. Ecuador. Somewhat homochromous with certain Geometrids from that region (*Devarodes*).

L. pione Bat. (137 h). Deep blackish-blue, above with numerous, small dark spots and dashes. It faintly reminds us of an *Emesis ocyptore* (136 g), but it is smaller and more lustrous. Para.

L. pulchra Lathy (137 h). Similar to the preceding in the shape, but much lighter blue, the wings at the base above dirty brownish grey, the disc almost without small black spots. ♀ unknown. Ecuador and Peru. Rare.

L. thara Hew. (♀ = *melia* Bat.) (137 g, h). ♂ blue, with rows of black spots, the base of the wings and the inner marginal part of the hindwing dirty yellowish-brown. ♀ quite different, whitish-yellow with black macular bands, the disc of the forewing like a band bone-white. GODMAN separates the Guiana-form as *nomia* from the (typical) Amazon-form. But 2 ♂♂ of my collection from Surinam deviate from each other more than from a *Humayta*-specimen. The ♀♀ from the Amazon are somewhat yellower than the figured ♀ from Cayenne, which belongs perhaps to GODMAN'S *nomia*; **martialis** Fldr. is presumably only a ♀-form from Surinam.

L. emylius Cr. (♂ = *crispus* Cr.) (137 f). ♂ vermilion with a black apical part and costal-marginal part of the wings, under surface silvery bluish-white; disc of the wings with blackish dots. The ♀ quite different. Above dark-brown with an ochreous yellow oblique band of the forewing; before the apex and border small white spots. Guiana, Amazon. — **emyliana** Stich. (= *emylius* Stgr.) from Peru, Ecuador and the Amazon which I do not know is said to be larger and to have in the male increased and deeper red. Of my Peruvian specimens all the ♂♂ exhibit a lighter red which is more interspersed with black, the ♀♀ have a more irregular oblique band on a lighter ground-colour: = **crispinella** Stich. (137 f as *crispinellus*).

L. cilissa Hew. (137 f). ♂ quite similar to the preceding, but the light vermilion is replaced by orange red. The ♀♀ are quite wax-coloured with a broad dark brown margin of the forewing and a narrower dark margin of the hindwing. From Nicaragua to Colombia. Typical ♀♀ only have a border as fine as a line, the fringes of the hindwing being brown. In specimens from Costa Rica, as we figure them, the border of the hindwing is broadly brown.

L. asteria Stich., unknown to me, is placed between *cilissa* and *emylius*; ♂ above red-brown, the costa, the apical part as far as the cell-end, and the border broadly blackish-brown. In front of the apex 4 or 5 white

dots, the second being the largest. In the cell 2 or 3 sometimes indistinct transverse streaks, behind the cell 4 black strigiform spots. Hindwing with a white costal area, below it 3 rows of black strigiform spots, each of the two proximal ones with 2, the distal one with 6 or 7 spots, the latter row curved like an S. Colombia.

luciana. **L. luciana** F. (= *nepia* Ww.) (137 e). Copper-brown; costa, apical part of the forewing and distal margin of all the wings darker brown; under surface bluish-white with a dark shade in the apical area of the forewing. All the wings above and beneath finely dotted in black. ♀ has broader wings and is somewhat darker than the ♂. Panama, Venezuela. — **pseudocrispus** Ww. (= *crispus* Cr.) (137 e) has the apical part of the forewing shaded somewhat darker and more distinctly defined towards the copper-red; hardly deserves a denomination. Guiana to Bolivia; we figure a specimen from Para, in order to show the slight difference. Not rare near Bahia. — **concinna** Stch. from the Rio San Juan in Colombia is said to be distinguished by a broader dark border of the hindwing in the ♂♂ and quite dark hindwings of the ♀♀. — **nepioides** Btlr. (= *luciana* Hbn., *melanogyra* Bat.) (137 e), may be a distinct species, or may be only a district-form, from South Guiana and the Amazon, has the copper-red more fiery and the darkened parts of the wings distinctly defined towards this colour. Common.

telephus. **L. telephus** Cr. (= *alphaea* Hbn., *timandra* Ww.) (138 f). ♂ forewings black with some dispersed white vitreous dots, hindwings orange-yellow with a broad black border. Under surface blackish, the hindwings speckled bluish-grey. The ♀ has the vitreous dots and the under surface like the ♂, but it is above yellowish-brown, with a dark apical part of the forewing and a black-dotted disc. The species varies with every habitat. The couple figured by me originates from Paramba. Surinam-♀♀ are of a much brighter bean-yellow colour and have smaller vitreous dots than the figured one, while the ♂♂ from there have a darker yellow of the hindwings. There is a very interesting ♂ with quite black hindwings being only in the centre narrowly red-yellow, but with black spots in the orange part, like in the ♀, in the Paris Museum. Near St. Jean du Maroni (French Guiana) the ♂ exhibits yet a narrow orange band parting the black distal marginal band of the hindwing from the direction of the proximal margin. In Colombian ♀♀, being above very light ochre-yellow, only the apical part is distinctly defined black; in a ♀ the patria of which is not stated, in FASSLS collection, the distal margin of both wings is also broadly black, the proximal half of the wings, however, fox-coloured. As there are often different forms flying near each other, they are not to be regarded as subspecies. — A genus of its own (*Elaphrotis* Stch.) has been established for the species itself; but the habitus and particularly the under surface exhibit its alliance to the *emylus*-group of *Lemonias*. We must remark yet that the abdomen is always yellow, not brown as on the figure.

lyncestes. **L. lyncestes** Hew. Size and under surface almost exactly like in the preceding, but the upper surface quite dark-brown with black dashes, only the border is broadly red-brown, containing a series of white, proximally black dots. Guiana, Brazil; according to HEWITSON'S figure the black marginal dots exhibit a white exterior which is absent in specimens I captured in South Brazil. Rarer than the preceding species.

bolena. **L. bolena** Btlr. (= *xanthobrunnea* Warr.) (138 k). Of a bright yellow, the base of the wings, a broad apical band of the forewing, the apex and anal angle of the hindwing resembling the colour of the trunk of a tree. Beneath dark-yellow on light-yellow, marked with dashes like the preceding species. South Brazil and Paraguay. Forms a transition to the genus *Echenais* which is not distinctly separable from *Lemonias*. The shape of the broad apical spot seems to be different at every habitat. In specimens from São Paulo it is the narrowest, similarly in Paraguay-specimens, in specimens from Espiritu Santo it is the broadest, in those from Rio Grande do Sul its lower part does not project so arcuately towards the base. Single and not common; flies in day-time and likes to rest on the trunks of trees.

85. Genus: **Echenais** Hbn.

Most of the species of this genus, the characteristics of which are still somewhat obscure and whose species vary in every district, have in the male sex the anal part of the hindwing white which gives a peculiar appearance to the butterfly particularly on the wing, as if it was hurt or wiped off behind. They rest in a Geometrid-like attitude on the under surface of leaves, but they come forth at some hours of the day in order to perform their gambols on the trunks of trees. ♂ and ♀ then sit on the trunk with their wings half open and execute short, skipping flights by ascending or descending the trunks in curves. *Echenais* is as little separable from the preceding genus as from the following, and might better be regarded as a group of the *Lemonias*; thus it happens that most of the species are sometimes quoted as *Echenais*, sometimes as *Lemonias*. The head is small, the abdomen long, that of the ♂ very slender and pointed, the forewings behind very broad; the hindwings rounded. The very long and capillary antennae are carried parallel and stretched straightly forward as the *Erycinidae* are used to do. The upper surface of the wings nearly always exhibits the dots and transverse streaks of the *Lemonias*, but mostly bordered light. Most of the *Echenais*, compared with other Erycinid-genera, are common butterflies.

tinca. **E. tinca** Bat. (142 g). The smallest species; by the speckled fringes it reminds us of a small *Calydna* as which it was also described. Dark brownish-grey; the black punctiform streaks of a dull lighter shade. Guiana and East Brazil, to the south as far as Matto Grosso; not rare.

E. eudocia *G. & S.* from Mexico resembles *tinea*, but it is often still somewhat smaller and darker, quite unicolorous, with black markings, the light spotted margins scarcely appreciable, the dark fringes of the forewings at 3 places interrupted by white. *eudocia*.

E. lampros *Bat.* is a little larger than the preceding, recognizable by the more violetish-brown colour of the forewings and the entirely violetish-blue hindwings of the ♂. From Tefé on the Amazon. *lampros*.

E. leucophaea *Hbn.* (138 i) dirty dark yellowish-brown, the upper surface copiously decorated with punctiform streaks, in front of the border of the forewing rows of black spots; there are mostly 2 of them, but the submarginal spots may also be single; such a ♀ was likewise figured, but erroneously termed *tinea*. Brazil, in some districts common; it approximates the following species. *leucophaea*.

E. aristus *Stoll* (138 f). CRAMERS figure is not distinct, but it seems to represent the most common species in Surinam, which we figure. Forewings almost like in *tinea*, dark, indistinctly marked in black, in front of the border a lighter line being particularly distinct in the ♀. Hindwings posteriorly white; this white colour may be narrower than on our figure (= *aristus*-♀ *E. Sh.*, *cretata* *Stich.*). *aristus*.

E. hübneri *Btlr.* (138 f), according to STICHEL unlike the preceding, has blue-marked (ringed) forewings and the ♂ exhibits the greater half of the hindwing white; Amazon. — In *sordida* *Btlr.* the otherwise bluish marking is darkened. Amazon, Guiana. — **pauzilla** *Stich.* from Peru is said to be smaller and of intense colours. *hübneri*. *sordida*. *pauzilla*.

E. alector *Btlr.* (= *violacea* *Btlr.*) (138 g, as *violacens*). Entirely like the figured form **mollis** *Btlr.* (138 g) except that in the ♂ the disc of the forewing above is traversed yet by a transverse macular band: in the ♀ of *alector* only the small white band of the forewing is somewhat darker and narrower than in the figured ♀ of *mollis*. — **glaucothris** *Stich.* is said to be a „transition“ of the two, „but without the white hinder-marginal diffuse spot of the forewing“. The species, moreover, greatly varies, particularly in the intensity and extent of the violetish-blue colour of the ♂ upper surface and in the shape of the small white band of the forewing in the ♀. From the Amazon to Bolivia, mostly common; in *asemna* *Stich.* the violet is almost entirely absent on the upper surface. *alector*. *mollis*. *glaucothris*. *asemna*.

E. leucocyana *Hbn.-G.* This common species from Guiana and the Amazon forms the intermediary between the two preceding species: in the ♂ the lower half of the hindwing is white, in the ♀ not. This form differs from *alector*-♂ by its smaller size, more brownish forewings and by scarcely half of the hindwing being white, not as in *alector* the greatest part; the ♀ resembles a *leucophaea*-♀, but it is lighter brown. *leucocyana*.

E. hemileuca *Bat.* Like the preceding, but with narrower wings, lighter greyish-brown, and only the lower part of the hindwing of the ♂ white. The transition-area from brown to the white colour is tinged bluish. It is said to occur beside *leucocyana* in Guiana; it is presumably only a local deviation from the preceding. — STICHEL denominates another side-form from the Amazon **epixanthe** the hindwings of which are brown, like the forewings marked in violet. *hemileuca*. *epixanthe*.

E. aminias *Hew.* (138 f, as *alector*). Immediately recognizable by the forewing and hindwing being of the same design. A violet median band runs broadly through both the wings, being finely dotted and streaked in black. We figure the species from Venezuela, in which the violet is somewhat clearer, the black spotting of the median band somewhat scarcer than in the type from the Amazon. — From this, on the other hand, the form figured as „*catenifera*“ (138 h) differs; it is darker than the figure of *aminias* with HEWITSON, the violet colour very dim, the animal itself larger. The comparison with the type, however, resulted in these differences being insignificant, for which reason the name chosen in the table (*catenifera*) is better not introduced, but replaced by *aminias*.

E. balista *Hew.* (142 f). Dark-brown with black, sparse punctiform streaks and a lighter, black-dotted margin. Beneath greyish-brown, the dotting in the disc more copious, the dots in front of the border with lighter rings around them. Upper Amazon. Ecuador. *balista*.

E. argiella *Bat.* is known to me only from the author's description; apparently exactly like the preceding, also of the same size, but also above more copiously spotted; instead of the light, black-dotted marginal band, a series of light, dark-centred rings stands in front of the border. South Brazil. *argiella*.

E. sejuncta *Stich.* Unknown to me; it is said to originate from Neu-Freyburg and Rio, allied to *hübneri*, smaller, forewings relatively shorter. ♂ above greyish-brown, faintly tinged in a rusty red, towards the margin lighter and redder, spotted like the allied species. Forewings beneath greyish-brown, the spots surrounded by a light tinge, the median row only distally shaded in white; hindwings similarly spotted, the spots in the median area placed together to a zigzag-line. ♀ above somewhat lighter greyish-brown, the marking as in the ♂, forewings beneath very much powdered with white. Fringes greyish-brown. *sejuncta*.

E. malea *Schs.* is similar, but it differs by the hindwings of the ♂ being white in the lower half, and by spots above, in the middle of the forewing, forming a dark nebulous band. Panama to Rio de Janeiro. *malea*.

- densemaculata*. **E. densemaculata** Hew. (= *debilis* G. & S.) (138 k). Above dark yellowish-brown, speckled ochreous, with brown spots encircled by ochreous ones which are connected with the distal margin. Beneath like above but paler, ♀ like the ♂. Apparently rare, but wide-spread; from Central America to Ecuador.
- zerna*. **E. zerna** Hew. (142 h). The figured specimen originates from Santos. Recognizable by the upper surface being marked greyish-green. Under surface bluish-white with black dots, forewing in the apical part with grey nebulous spots. Very local, but not very rare at its habitats. Brazil, Bolivia; from the latter country also the form *luteonaevia* Stsch., with more white markings, hindwing with an ochreous-yellow marginal zone.
- glauca*. **E. glauca** G. & S. (138 k) from Costa Rica is much more brightly marked in light blue, only the apical part of the forewing and 3 rows of small dashes arranged to transverse bands are black. Rare.
- curulis*. **E. curulis** Hew. (142 h). Very pointed wings, at once recognizable by the upper surface of a bright metallic sky-blue lustre, the colour of which almost comes near the splendour of *Mesosemia croesus*. STICHEL doubts whether *E. melitta* Thm., with a darker apical part of the forewing, is to be placed here. Bolivia (Ecuador). The figured ♂ from the Rio Songo.
- laius*. **E. laius** G. & S. resembles on the whole a small ♂ of *Nymphidium ethelinda*, the head, thorax, forewing and the costal part of the hindwing are chestnut-brown, the rest of the hindwings is yellowish-white. Size of the *pulcherrima*. I only know the ♂ in the Coll. GODMAN. Guatemala.
- pulcherrima*. **E. pulcherrima** Btlr. (140 c). Rather similar to *penthea* in both sexes, but in the ♂ the white of the hindwing passes over into the proximal margin of the forewing, in the ♀ the whitish oblique band of the forewing does not terminate before the proximal margin, but turns angularly round on the lower median vein and is irregularly continued on the hindwing. Amazon. — *comparata* Stsch. from Peru is more dark brown than red-brown, and the white spot at the proximal margin of the forewing is larger. East Peru. Common.
- lilina*. **E. lilina** Btlr. (140 c). Forewing blue, with black spots, a large spot behind the middle of the costa and the proximal-marginal area white. Hindwings, except the dark-grey base, quite snow-white. Mexico to Panama. Our figure according to a ♂ from Costa Rica.
- icterica*. **E. icterica** G. & S. (140 d). Forewings yellowish-brown, some spots round the proximal margin yellowish-white. Hindwings dull yellowish-white with a brown base. Panama. Rare.
- penthea*. **E. penthea** Cr. (138 h). ♂ red-brown, with blackish spots, the lower half of the hindwing white with small blackish spots at the apex and anal angle. ♀ dark-brown with a whitish, irregular oblique band of the forewing and a submarginal row of eye-spots of the hindwing. — Typical *penthea* come from Guiana and the eastern coast of Brazil, they are rather small, the ♀♀ above with traces at most of yellowish-red. — *auseris* Hew., from the Middle Amazon, are larger, the ♀♀ more brightly coloured, in front of the row of eye-spots on the hindwing a distinct red colouring. — *penthides* Stsch. (= *penthea* Stgr.) (138 h, i) is still larger, the band of the forewing of the ♀ is broad at the costa, the wings with bright red markings; from the western parts of South America. — *nitelina* Stsch., according to 1 ♀ from the Yurimaguas, with a triangular shaped band-spot of the forewing. — Of *echion* Stsch., like the type from Guiana, the ♂ is darker brown, and a series of spots runs through the centre of the hindwing. In the ♀ the white band of the forewing is losing itself from the margin in a downward line. — *nilios* Stsch. (138 i) which I figure according to specimens from the Itaituba (Amazon) shows in the ♂ the lower, otherwise white part of the hindwings almost entirely covered with brown arcuate bands, and in the ♀ the whitish band of the forewing is greatly narrowed. — At some places very common.
- annulifera*. **E. annulifera** Godm. (138 h). The ♂ has about the ground-colour of the ♀ of the preceding species, more dark greyish-brown than red-brown. In the hindwing the marginal part is broad white. The basal halves of the wings with thick, mostly round, light-ringed eye-spots. Only the ♂ is before me, from the Rio Mapiiri; reported also from Guiana.
- micator*. **E. micator** Sch. (138 h). Like the preceding allied to *alector*; twice as large as *annulifera*, the basal halves of the wings spotted like in the latter, but the forewing with a broader curved white median band, the hindwings entirely white, with the exception perhaps of the basal third. Under surface like the upper, duller, in front of the border of the hindwing grey nebulous spots. From the Rio Pachitea in Peru. The ♀ is not before me.
- galena*. **E. galena** Bat. (138 k). Above red-brown, the basal half with scarce dashes and bounded off from the purely red-brown distal part of the wings by a chain of such dashes. Beneath the black dots are more numerous and the whole proximal part of the wings is covered with small white scales, as if with powder. (The 2nd figure in the row t. 138 k is taken from beneath). Guiana and Western Amazon (Itaituba); local, but not rare.
- sentia*. **E. sentia** Hew. (138 i). On the red-brown wings there are alternating darker and lighter irregular bands. Before the apex of the forewing are two small whitish spots above each other, at the costa of the hindwing 2 next to each other. Beneath the boundaries between the lighter and darker bands are marked black. The figured specimen collected by BATES contains only the statement: „Amazon“.

E. borsippa Hew. from the Amazon is bright orange-red, almost miniate; the ♂ has a blackish-brown *borsippa*. apical part of the forewing and from the costa of the hindwing there extend the beginnings of black bands ending, however, incompletely in the centre of the wing. The under surface exhibits bluish-grey bands alternating with reddish-grey ones.

E. charessa Stich. is established according to a ♂ from the Rio Juruá. Small (12 mm); shape of the *charrassa*. preceding, forewings red-brown, with black spots, similar to *penthea*; in front of the border a series of black, oblong, small spots being proximally bordered in light. Inner marginal area grey as far as the submedian. Hindwings white, costal area and apex greyish-brown, at the border a fine black line, and in front of it small black spots. Unknown to me.

E. borsippina Btlr. A small species; only the ♀ known. On a dark-brown ground the forewings exhibit *borsippina*. 3 incomplete red-yellow macular bands before, in and behind the centre and a complete stripe before the border. Hindwings light yellow, costal part and apex brown, in front of the border some small black spots. From the Rio Tapajoz. Is not before me.

E. elpinice Godm. (♂ 142 f., ♀ 138 g). As the ♂ which was hitherto unknown and which I therefore *elpinice*. likewise figure, shows, a real *Echenais*. Under surface quite similar to that of *aelector*-♂. ♀ with obtuser wings, the ring-marking not so distinct. Bolivia, Colombia; the figured ♂ from the Rio Songo (Coll. FASSL).

E. aemulius F. (= *geris* Dbl., *hemixanthe* Fldr.) (138 g). Similar to the preceding species, larger, *aemulius*. and recognizable by the broad orange distal band of the hindwings passing over to the anal angle of the forewing. South Brazil. In Rio temporarily common, but local (e. g. near Botafogo). — **adelina** Btlr. (138 g) from *adelina*. Costa Rica to Ecuador has the hindwings, except the base, pale yellow which colour extends far on to the forewing.

86. Genus: **Calliona** Bat.

This genus is as little separable from *Lemonias* as the preceding. Its resemblance with *Aricoris* accepted by BUTLER only refers to the exterior. The ♂♂ do not resemble much the *Lemonias* owing to the large white discal spots on both wings, but anatomically there is hardly any difference. The *Calliona* are of a still more slender structure than most of the *Lemonias*, the palpi project greatly also in the ♂, the antennae are scarcely thickened at the ends; the ♂♂ with white discal orbs, the ♀♀, as far as is known, with a yellow oblique band of the forewing. The butterflies are apparently very rare.

C. irene Ww. (138 a). On each of the 4 black wings of the ♂ a white, roundish disc, the basal part *irene*. of the hindwings scarlet. Under surface greyish-brown with 4 white discs as above; in the basal part of the wings dark transverse bands. The ♀ looks entirely different, resembling somewhat *Mesene sagaris*-♀ (134 i), but the ground-colour is lighter brown and makes the same transverse streaks the ♂ also has appear in a dull shade Lower Amazon: Para, Humayta.

C. siaka Hew. (138 a). ♂ similar to *irene*, larger, hindwings along the costa red, along the border blue. *siaka*. Beneath in the basal part of the hindwings scarce dark small spots. I do not know the ♀. From Maipures on the Orinoco and Amazon.

C. latona Hew. (138 a). The ♂ has the forewings similar to the preceding, but it is smaller and its *latona*. hindwings have not a white, but a scarlet inner-marginal stripe. From the Amazon. — In *delia* Stich. the white *delia*. discal spot of the forewing is much smaller, the whole hindwing, except narrow margins, red and beneath there are no dark transverse streaks. Known to me only from STICHEL's figure and description; from Venezuela.

87. Genus: **Corachia** Schs.

This genus was based on a single ♀ which greatly approximates some ♀♀ of *Lemonias*. It has, however, a more strongly curved margin of the forewings and short, knobbed antennae. The upper median vein rises close at the lower cell-angle, the lower radial comes out of this, the cell-end vein is proximally convex, somewhat oblique. The hindwings are long, almost as long as the forewings, whereby nearly the exterior of an Indian *Gerydus* (*Allotivus*) is created.

C. leucoplaga Schs. (= *tablazonis* Strd.). ♀ quite similar to the ♀ of *Lemonias argenissa* (137 i), but *leucoplaga*. the white band of the forewing is broader with bulging margins and traverses the wing transversely, not obliquely. In the ♂ this band of the forewing is replaced by a faded, grey, costally parted discus-spot. Costa Rica, certainly rare.

88. Genus: **Nymphidium** F.

The uniformity of the veins argues against the branching-off of further genera such as *Peplia* Hbn., *Nymula* Bsd., etc. which have recently been again based upon differences in the palpi and the male exterior genitals. If the well done figures in the „Genera Insectorum“ are correct, I cannot find any essential difference between the palpi of *Peplia* and *Nymula*, and the clasping-organs vary also considerably in different undoubted *Nymphidium*. In the veins there is no difference. Some *Nymphidium* are obviously secondarily transformed

by mimicry, otherwise the almost exclusive colours are brown and white either of which being now and then preponderant. The wings have a normal shape without indentations, tail-appendages, lobing or coiling. The larva is known of but 1 species, shaped like a wood-louse, hunched, green with a yellow lateral streak, the neck-organ out of a transverse row of green spikes or bristles. It has a guard of ants. Papa green, fastened by a belt-like thread. The butterflies rest on the under surface of leaves and are chased up by beating the bushes, whereupon they fly like Geometrids for some paces, in order to hide themselves again. The swarming-time seems to be dawn, or the early morning, but I came across the ♀♀ yet in the sunshine of the morning on blossoms. They are easily taken and fly low.

- titia*. **N. titia** Cr. (= *tytia* F., *gnosis* Bsd., *eroe* Hew., *lytia* Kaye) (140 b). ♂ dark purple-brown with a small white spot below the costa of the forewing and a light-brown, blurred distal band of the hindwing. ♀ dark sepia-brown with 3 white spots of the forewing (in the disc, below the costa and before the anal angle), the hindwing with a white distal band. Under surface of both sexes similarly marked, but in the ♂ at the margin slightly brightened up, in the ♀ very much white-speckled. Guiana, near Cayenne not rare. — **arctos** Hew. (140 a, b) is larger, the ♂ with a very faint brightening before the border of the hindwing; the ♀ also lighter before the border of the hindwing, but without a real white band. Amazon. — ♀♀ from Tefé form the intermediary between the two forms; they have a very narrow white band. — ♂♂ from Ecuador and Peru are quite dark brown, without the brightening before the border of the hindwings, the small, white subcostal spot of the forewing being larger (= **ariadne** Stsch.)
- ariadne*. **N. ariadne** Stsch. (= **ariadne** Stsch.)
- orestes*. **N. orestes** Cr. (140 c). The butterfly occurs in 2 forms which, however, are not definable according to patriae. The typical form has above quite unicolorously dark red-brown ♂♂ being faintly dark-speckled, looking almost like the ♂♂ of *arctos* in which the brightenings below the costa and before the border of the hindwing are absent; the ♀ has an ochreous-yellow band of the forewing. — The second form, **arche** Hew. (140 b) has above an irregular transverse band being in the ♂ only slightly indicated, in the ♀ composed of large white spots. Guiana and the Amazon, common, also the ♀♀; according to STICHEL, also in Ecuador.
- candace*. **N. candace** Drc. Unknown to me in nature, mentioned from Rio de Janeiro. Size of the preceding, but the hindwings larger, rounder, the border not bevelled as in the preceding species. Above of a red-brown colouring without markings, beneath only faint traces of the numerous ring-marking of the proximal half. — Unless the patria be confounded, it must be very rare.
- sorana*. **N. sorana** Stoll approximates *orestes* and originates from Guiana; above dark red-brown, the oblique band of the forewing yolk-coloured, uniform.
- abaris*. **N. abaris** Cr. (= *tenes* Dbl., *spertias* Fldr.) (140 c). ♂ above velvety brown, at the border, sometimes also across the centre, copper-red. Below the costa a small light spot may stand as in our figure, but it may also be absent altogether. The dark-brown ♀, however, always has this spot, and besides the anal angle of the forewing and the border of the hindwing is bone-yellow or marked thus. Guiana and Amazon, very common; in Trinidad apparently rare.
- phylleus*. **N. phylleus** Cr. (= *phyleus* Mschl., *phylacis* Godt.) (140 a & *phyleus*). ♂ with a red-brown forewing with fox-coloured bands and rings, and a fox-coloured hindwing exhibiting black antemarginal dots, a dark-brown base and a similar median band. Below the costa a bone-coloured spot. The ♀ is dark-brown, with a broad bone-white band of the forewing and disc of the hindwing and a similar stripe in front of the border. The ♀ varies extremely; the white bands are of a different shape at every habitat; we figure an aberration in which all the whitish bands are darkened by a brown scaling (artificial production?). — **apame** Hew. (= *magnifica* Stsch.) scarcely differs in the male from typical *phylleus* except the red bands being narrower; in the ♀, however, the white is greatly narrowed on both wings; from the Amazon. — **praeclara** Bat. (140 a), on the contrary, has the bone-yellow colour increased at the cost of the dark-brown ground-colour; from Guiana. The species is not common.
- licinias*. **N. licinias** Stgr. (142 f). Dark-brown, in the marginal area red, in the basal area with black markings; both the wings are traversed by a joint band bent proximally towards the costa of the forewing, being in the ♂ of a bright golden yellow, in the ♀ lighter, more brownish-yellow. From the Rio San Juan in Colombia. STAUBINGERS figure of a ♂ which we copy corresponds well with a specimen in GODMANS collection. Apparently very rare.
- dorilis*. **N. dorilis** Bat. resembles *licinias* to which it belongs according to STICHEL; but the red-yellow median area has here the shape of the white band of *calyce* (139 e).
- nymphidioides*. **N. nymphidioides** Btlr. (= *labdacus* G. & S.) (141 c). Size of *phylleus*; ♂ with light small median spots in the disc of the red-brown forewing. ♀ white, the forewings with a brown border and a brown basal part, in the latter white, dark-pupilled rings. Central America, rare.
- ethelinda*. **N. ethelinda** Hew. (139 i). ♂ chestnut-brown, forewings almost without any markings; hindwing except the basal third and the apex yellowish-white. ♀ similar to that of the preceding species, but at the costa of the forewing a broad, at the border of the hindwing an interrupted, brown stripe. Central and South Brazil. Rare.
- nycteus*. **N. nycteus** G. & S. (141 e). ♂ similar to that of the preceding, but the hindwing, except the brown apex, snow-white, and this colour also passes over to the forewing before its anal angle. ♀ white, through the whole forewing runs a broad, brown, black-marked longitudinal band from the base to the border above the anal angle. Central America.

N. grande *G. & S.* (139 i). The largest species of the genus. A broad oval white or yellow band *grande* begins behind the cell of the forewing and ends round before the inner margin of the hindwing. In front of the border a double row of small white spots, before it a red stripe. Beneath like above, somewhat duller, the small marginal spots larger. There occur ♀♀ with yellow as well as white bands. Colombia. Rare.

N. victrix *Rebel* (139 h). Conspicuous for the hindwings of the ♂ being pointed in the anal part and *victrix* provided with a straightly cut off border. Dark-brown with a white, rather narrow, joint median band of the wings; behind it a small, curved, red-yellow band, behind this, before the border, an irregular white stripe. Rio de Janeiro, but presumably scarcely near the town, but farther in the mountains and rare. Is said to occur also in the Amazon district (?). The species seems to be transformed by mimicry.

N. phliasus *Cr.* (= *hewitsoni Rebel*) (139 h). Likewise subject to mimicry, reproducing an *Adelpha phliasus* from its surroundings (*A. phliassa*). The orange spot behind the cell of the forewing projecting in a tooth towards the border passes over into the white median band without any separation. The width and shape of the band varies somewhat according to the habitat. Guiana. Rare.

N. maravalica *sp. nov.* (139 h, i). Only in the ♀ the *Adelpha*-resemblance is distinctly visible by a *maravalica* separated orange spot standing before the white, though orange-ending median band at the costa of the forewing; it imitates the *Adelpha*-form *duceleia Fruhst.* The ♂ has the shape of the bands of *phillone*, but the upper tip of the band is faintly tinged orange. Isle of Trinidad, presumably also opposite in Venezuela.

N. enimanga *sp. nov.* (139 g as *paulistina*). Without the orange spot before the apex of the forewing; *enimanga* the white median band is here so much broader that it covers the whole disc of the forewing and the whole hindwing except the border and base. The under surface is all white except a spotted costal stripe of the forewings and the moderately broad brown distal margin of both wings. Paraguay; the species is apparently not common *).

N. phillone *Godt.* (= *phliasus Rebel*) (139 g, h, as *paulistina*). At once discernible from the preceding group by the round border of the hindwing and a rusty-red tinge of the collar and sheaths (what is unfortunately not marked in the figure of the ♀). The white band of medium width varies at every habitat. In specimens before me from Neu-Freyburg the band ends obtusely in front (our ♀-figure), in the neighbouring Rio de Janeiro pointed (♂-figure). In specimens from Theresopolis (or San Pedro?) it is said to be narrower (= *pedronia Stich.*) and in specimens from São Paulo (= *paulistina Stich.* 142 g, not 139 g, h, as *phillone*) still *paulistina* narrower, as narrow as in *victrix*. (The animal denoted as *paulistina* on t. 139 g is another species — *enimanga* — and does not belong to *phillone Godt.*, but it is allied to *victrix*, *phliasus* and *maravalica*). — Not rare.

N. velabrum *G. & S.* (139 i). Above the upper end of the white band, being common to both wings, *velabrum* we notice an orange-yellow preapical spot. This creates the impression of an *Adelpha iphicleola* from Central America. Panama.

N. calyce *Fldr.* (139 d, e, as *calice*). Both sexes brown with black, light-bordered spots before the *calyce* margin. The moderately broad median band ends in the ♂ above taperingly, in the ♀ broad; the latter exhibits in typical specimens before the border a red-brown band being on both sides shaded with dark-brown. — In the form *mesoleucum Bates* described from Baranquilla in Colombia this red-brown band is absent, but the forewings exhibit a white submarginal stripe instead. — From the northern coast of South America, inclusive of Trinidad, to the south as far as South Brazil nearly everywhere common. The butterfly, being an Erycinid, is an uncommonly good flyer which, however, must nevertheless in day-time be invariably beaten out of the bushes skirting the forest-roads. It varies but little in its immense range; in the figured couple (from Rio) the bordering of the white band is almost smooth, in specimens from Cuyaba the inner (proximal) border of the band is somewhat more dentate etc. From Peru there are specimens of both sexes before me, with a pale yellow median band; in a specimen taken in Peru at 2000 m, however, the band is purely white. — *brennus* *Stich.* I cannot distinguish from typical *calyce* neither regarding the description nor according to the ♂ before me having been denoted with this i. l.-name by STAUDINGER; of *manius Stich.* the ♀ is said to resemble more *manius* that of *mycone*.

N. mycone *Hew.* (139 e) is, according to STICHEL, only a deviating form of the preceding species, *mycone*. The border of the forewing is more rounded, the hindwing of the ♂ somewhat more reduced in the anal part. ♂ above quite red-brown, without the white median band; the ♀ exhibits the latter and, therefore, greatly resembles that of *calyce*, but the band of the forewing is not so round above, but more obliquely cut off. Mexico and Central America as far as Colombia, where also *calyce* occurs.

N. gela *Hew.* (139 f). Very closely allied to *calyce* in the shape and marking, but the band pale yellow. *gela*. Typical specimens originate from the lower Amazon (Santarem); they are represented by our ♀-figure, exhibiting a red-brown base of the wings and a red-brown transverse stripe between the white band and the border of the wings. Specimens from French Guiana have a more blackish-brown base of the wings and, according to the habitat, they are large with a broad median band (opposite the Devil's Island) or small and with narrow bands (Cayenne). Common.

* According to STICHEL, the figure of our *phillone* 139 g, h represents his *paulistina*. Before me, however, are the types of STICHEL's *paulistina* (from the Coll. ROBER) which I figure (142 g). By STICHEL'S quotation „Hew. I, fig. 29“ in the typical *phillone Godt.* we recognize in *paulistina Stich.* a very slightly narrower white-banded deviation which cannot be combined with the quite differently shaped *victrix Rebel*.

pelops. **N. pelops** *F.* (= *pittheus* *Hfjgg.*) (139 g). Spelled „*pelope*“ by HÜBNER; it has a much broader median band covering the whole hindwing except the brown border; recognizable by a trapeziform projection of the brown costal band of the forewing. In specimens from Venezuela (Suapure) this projection is broad and has bevelled sides (= *cavifascia* *Bltr.*), in specimens from Ponte Boa (Amazon) the corners of it are blunted off (♀-figure); Para-specimens exhibit it shortened and almost unspotted, copper-red margins of the wings; in those from Medina (Colombia) the margin of the wings is blackish-brown, nearly without any red etc. — Not rare.

agle. **N. agle** *Hew.* (139 g). Very closely allied to the preceding, but the dark border of the forewing with a red filling, not with red rings. Instead of the trapezoid projection of *pelops* we notice a small comma-spot at the cell-end, projecting into the white of the disc. Range as in *pelops*, Guiana and North Brazil. The distal band may be broader or narrower (= *furva* *Stich.*) and with more intense (= *quinoni* *Weeks*) or less intense

menalcidas. (= *dirca* *Stich.*) markings. — Common. — **menalcidas** *form. nov.* (139 f, as *menalcus*) is larger, darker yellow, the margin above black, the marking above extinct, the dark marginal spots beneath smaller, more distinct; from the Kouron River, opposite the Devil's Island.

chaonia. **N. chaonia** *Hew.* (140 a, misprinted into *chionea*) is larger, yellowish-white and has a white crescent in the dark apex of the forewing, a white line embedded in the marginal band of the hindwing. Amazon to Bolivia; on the Rio Songo the subapical white spot is greatly reduced.

ochra. **N. ochra** *Bat.* (139 f) from Bolivia and the Upper Amazon entirely resembles *agle*, but the margin of the wing is black, not reddish and is traversed on the forewing by a single, on the hindwing by a double,

sicyon. pale-yellow line connected by rungs. — In *sicyon* *G. & S.* from Central America the yellow line is absent in the margin of the forewing, but in the hindwing it appears treble, not double, and without the connecting rungs. — Rarer.

regulus. **N. regulus** *F.* (= *ebusa* *Dbl.*) (140 e). The yellow median band is bevelled at its anterior end and does not appreciably expand towards the inner margin of the hindwing. Behind it the forewing exhibits 2 oval spots, the hindwing a stripe parallel to it. Brazil. — Specimens from the Upper Amazon and Bolivia usually have a broader median band (? = *syllvarum* *Bat.*), but the form varies according to the habitats. Thus both *regulus* and *syllvarum* are reported from Para, but they are still said to be „subspecies“ of one species.

lamis. **N. lamis** *Stoll* (139 c, d). Very similar to *calyce*, but larger, the ♀ with broader bands, the band of the forewing is mostly also more irregularly defined. Easily discernible by the longer and slender palpi of the ♂ (whereas in *calyce* only the ♀ has long palpi) and by the abdomen which in *calyce* appears only white-pruinous

azan. at the sides and beneath, being also above white in *lamis*. Mexico to the Amazon, varying greatly. — **azan** *Hew.* (= *australis* *Fldr.*) (139 d) is the southern form from South Brazil to the north as far as Bahia, common in Santos where I collected the ♀♀ on blossoming bushes. From those of typical *lamis* they differ by the white band being nearly twice as broad. Among these ♀♀ there flew uncommonly large ♂♂ of *calyce* one of which is by mistake figured as *azan*-♂ (t. 139 d, 2 nd fig.), as I had taken it together with *azan*-♀♀ and, therefore, regarded as the ♂ belonging thereto. The ♀♀ do not only vary regarding the boundary-line of the white band; some have the brown margin of the hindwings filled with red, some not; these, however, are no geographical differences of subspecies. — **completa** *Lathy* (139 d) are ♀♀ from Peru with a single, medium-broad, regularly

completa. bent band. — **molpe** *Hbn.* (139 b, c) is presumably nothing but a small form of *lamis* occurring from Mexico as far as the Amazon, being mostly very common and living more in the open country than in densely wooded

caucana. forests. — **caucana** *Stich.* has only the size of *molpe*, but an especially broad white band. Described from Colombia. — **ipsea** *G. & S.* are *molpe* from Nicaragua in which the median area is yellowish instead of white and rounded at its upper end. There exist, however, all the transitions to it, so that *ipsea* is hardly maintainable as a distinct subspecies.

azanoides. **N. azanoides** *Bltr.* (139 c). The ♂ entirely resembles that of *lamis*, but it is blackish-brown, the white band above pointed, smoothly defined, in the anal part of the hindwing a yellowish-red band being sometimes stunted to mere traces. The ♀, however, is quite different from that of *lamis* or *azan*, the white median band not broader than in the ♂, the red band in front of the border of the hindwing mostly broad and bright, the under surface variegated. Central America (Costa Rica), Colombia to Bolivia and Peru. In specimens from the two latter countries the bossy spots at the border are larger, higher, and the yellowish-red of the hindwing is reduced in the ♀, in the ♂ it has entirely disappeared above. Not rare.

lisimon. **N. lisimon** *Stoll* (139 b). Sometimes spelled *lysimon*, or *lisimaena* or *lisimond*, resembles *azanoides*, but it is scarcely of half its size, but the marking and colouring above is almost exactly the same as there, which

platea. is the case in both sexes. Guiana. — **platea** *Ww.* (139 b) is a larger form with a broad, not so taperingly terminating white band and a lighter red, occurring on the Upper Amazon and in Peru, where, however, it seems to be

*chimbora-
zum*. rare, while *lisimon* is common in Guiana. — **chimbora-
zum** *Bat.*, discovered by SFRUCE at 3000 ft. on the Chim-

hespericum. borasso, is an alpine form in which the hindwings exhibit red-yellow traces only yet in the anal angle; — in **hespericum** *Stich.*, on the contrary, the red stripe is prolonged towards the apex; from Peru. — **erythroic-
um** *Stich.* are specimens with more intensely red markings, particularly such that have several small red spots

also in the cell of the forewing, otherwise they resemble *platea*; — the same small spots occur also in **plinthobaphis** *Stich.*; but there the red band of the hindwing is also expanded almost to the border; Peru.

N. olinda *Bat.* (139 b). Quite similar to *lisimon*, but above there is no red at all, and the white oblique stripe beginning narrowly from the inner margin of the hindwing, grows more and more narrow and dim, so that it is obliterated near the centre of the hindwing. The ♀ which has already the long wings of *mantus* (140 e), exhibits a broader and above less darkened oblique band. Central America, rare. — The Colombian form, **fulminans** *Bat.* (139 b), with a considerably broader median band, is much more common.

N. nealces *Hew.* (140 d). A very rare butterfly of which I have seen but few specimens. The forewings similar to those of *baeotia* (140 d), in the hindwings, however, the whole inner-marginal part is orange. Beneath forewings likewise greatly resemble those of *baeotia*, the hindwings, however, are in the ♂ quite light-yellow with 5 brown marginal spots in front of which a narrow, small, curved brown band winds from the apex towards the anal angle which, however, it does not reach. ♀ with a broad, pale-yellow median band. Known to me only from Cayenne, from where also the figured specimen.

N. baeotia *Hew.* (140 d as *baeotica*) looks almost like a small *olinda*. The light median band is sometimes darkened by grey, varies somewhat in width and its upper end is obtuse in the ♀. The ♀ mostly has also whitish fringes of the hindwings. Guiana, Amazon. — **minuta** *Drc.* (142 h) is a form with a much broader and brightly white median band, a broad white border of the hindwing in the ♀ and an almost snow-white, scarcely black-spotted under surface of it. Before me from Matto Grosso, but also from the Chiriqui. At some places very common.

N. mantus *Cr.* (140 e). Larger than *baeotia*, similarly marked, but with a reflecting light-blue costal area of the forewing and a similar distal half of the wings; the surroundings of the white band black. — **ab. thryptica** *Stich.* (140 e) has a small rusty-yellow semi-band proceeding from the inner margin of the hindwing. From Guiana and Venezuela to Brazil. Not common.

N. omois *Hew.* (139 e). A small butterfly from the Amazon, forewing dark brown with a white, large triangle placed on the inner margin; hindwing white with a black-spotted marginal band. In front of the marginal spots runs a distinctly though irregularly defined, golden-yellow band. Rare.

N. caricae *L.* (139 a). Dark brown, with a broad white band beginning taperingly behind the cell of the forewing and terminating broadly at the inner margin of the hindwing. Costal part of the forewing with orange-red spots, in front of the border of both wings an orange-yellow band, behind it, in the brown shade of the border, whitish bows. Abdomen white. According to the habitat and even to the season, the distribution of the red-yellow and black varies considerably, as well as the size which varies between 20 and 36 mm in my specimens from Cayenne and Colombia. **ab. carmentis** *Stich.* has the white increased, being continued lacini-fermly at the upper end of the median band; — in **carissima** *Stich.* the marginal band of the hindwing is without the whitish bow-streaks. Guiana and Colombia. Here and there very common.

N. acherois *Bsd.* (139 a, only the ♂). Costal and distal parts of the hindwings blackish-brown, with broad orange-red fillings. Behind the upper end of the white median band a white subapical spot. — South Brazilian specimens exhibit a narrower golden-yellow border of the hindwing; the small white subapical spot may be stunted to traces, but also so enlarged that it is confluent with the median band. These forms ought not to be denominated, but the South Brazilians were separated as **erymanthus** *Mén.* (139 a, also the figure denoted as *acherois*-♀). Guiana to South Brazil; common.

N. balbinus *Stgr.* (139 a). Typical *balbinus* differ from our specimen originating from Chuchurras (Rio Polacaza) by a still broader red band of the hindwing, which, however, has no black dots and neither passes over to the forewing. The typical *balbinus* come from Rio San Juan in Colombia; only the ♂♂ are known.

N. haematostictum *G. & S.* (= *haemostaticum* *Stich.*) (139 a) from Panama and the adjoining part of Colombia resembles a ♀ of *acherois*, but it has more white which is slightly darkened by yellowish, and only in the marginal band of the hindwing there is yet an orange-yellow filling. Rarer.

N. onaeum *Hew.* (= *blakei* *Weeks*) (139 b). White with a dark-brown marginal band; cellular part of the costal stripe with red-yellow spots, before the marginal brown in the anal part of both wings there is likewise red-yellow. Central America from Honduras to Panama, Colombia and Venezuela; apparently not common.

N. chione *Bat.* (= *stilopteris* *Bthr.*) (139 f). Snow-white, with black margins, without any red-yellow, the white discal part irregularly defined. In the black marginal band white arcuate lines. Amazon to South Brazil.

N. menalcus. Of this species there exist 8 forms. In order to preserve the denominations, we might make the following differentiations: **cachrus** *F.* (= *damon* *Hbn.*) is a large form with a pale-yellow ground-colour, a copiously marked, proximally irregularly defined, jet-black marginal band. This form being especially common in Colombia, but occurring also in the Amazon District and Guiana, is represented by our ♂-figure; the ♀ of it is figured 142 h. — The animal figured 139 f as *cachrus*-♀ already forms a transition to the typical form of **menalcus** (= *onoba* *Hew.*) a couple of which is figured 142 h, being distinguished by a proximally smoothly

defined marginal band and a paler ground-colour, as well as a narrower dark margin; common in French Guiana.

heliotis. — *heliotis* *Bat.* differs considerably by the ground-colour being a pale ochreous-yellow with a brownish tinge. — *leucidiodes*. — *leucidiodes* *form. nov.* (142 i) is a pygmean form of which a series is before me from different places of Guiana and which may be the inhabitant of particularly dry habitats. — *ascolia* *Hew.* (142 k) is a large form, closely allied especially to *cachrus* and *menalcus*, recognizable by the very broad margins and a small red band in the anal part of the hindwings. — *ascolides*. — *ascolides* *Bsd.* exhibits an entirely black abdomen which in *cachrus* is whitish at the sides and beneath, partly also above; otherwise not differing from *ascolia* worth mentioning; from Central America. — *augea* *Drc.* (142 k) differs from *ascolia* only by a greater extent of the red band of the hindwing reaching in the ♂ almost to the apex, in the ♀ even beyond it to the forewing. Most of these forms are connected with each other by transitions and may scarcely be assumed to be subspecies. Common.

eutrapela. — *N. eutrapela* *Bat.* may also be only a form of the preceding species. Forewing with a dark-brown costal streak, a dark-brown base and a broad brown marginal band. From the costal stripe small transverse stripes extend into the white of the wing, which projects with 2 continuations into the brown marginal band; in the latter we notice the white arcuate streaks, being also distinct in *menalcus*, in front of the marginal band at the anal angle sometimes a little red-yellow. Recognizable by the abdomen being all white on both surfaces. Lower Amazon.

minias. — *N. minias* *Hew.* (140 d, as *minias*). White, without the dark costal stripe, the apical part of the forewing broadly violetish-brown, with white markings and anteriorly shaded with an ochreous yellow; hindwing with a similar marginal band. Upper Amazon. — *medusa* *Drc.* (140 d) which we figure from Humayta, but which flies quite similarly also in Peru, exhibits the marginal band of the hindwing reduced to few small dark marginal spots; — and in *galactina* *Stich.* there is no marginal marking whatever on the hindwings; from Cuyaba in Matto Grosso and on the Amazon. — Beside such specimens with purely white hindwings, however, there are near Cuyaba also such with a complete black, proximally undulately defined marginal band of both wings; they also have the dark basal spot along the costa of the forewing further expanded and they would then also have to be denominated: *undimargo* *form. nov.* (142 i). — Not rare.

leucosia. — *N. leucosia* *Hbn.* (140 d). Pale yellow, at the apex and above the anal angle of the forewing as well as at 3 places of the margin of the hindwing violetish-brown, white-marked spots. The base of the wings is likewise brown. Lower Amazon: Obidos, Santarem, Para. Rarer.

kadenii. — *N. kadenii* *Fldr.* (140 d). This species unknown to me in nature resembles an *acherois* in which the white is increased, the dark marginal band reduced and the orange stunted to a small subcostal spot. In front of the border, the marginal band is traversed by a metallic line. Venezuela. — STICHEL thinks it probable that the species belongs to the following genus.

cyncea. — *N. cyncea* *Hew.* (139 e). Yellow with a black, unmarked margin. A mimetic copy of a homochromous *Cylopodina* together with which the animal flies in Peru and Bolivia. The figured specimen originates from the Chanchamayo and has a broader margin than Bolivians. Beneath exactly like above. — The *Nymphidium* are not mimetic and it is, therefore, not likely that this species belongs here. The compact structure and the exterior borrowed from other butterflies much rather assign the species into the following genus, and the latter is again probably rather closely allied to *Esthemopsis*, *Ithomiola* or another of the mimetic genera than to the *Nymphidium*, being similar merely in the exterior.

89. Genus: **Imelda** *Hew.*

Only 2 or 3 distinct species are reckoned hereto, but presumably also the last species enumerated among the *Nymphidium* belongs to this genus, since it certainly does not represent a genuine *Nymphidium*. KIRBY inserts the genus between *Nymphidium* and *Lucilla*, MENGEL adds it to *Zelotaea*, STICHEL places it between the (newly established) genus *Elaphrotis* (*telephus* *Cr.*) and *Astraeodes*. The species have an uncommonly small head with a narrow forehead, a globular thorax and an abdomen that does not reach the anal angle of the hindwings. The wings, of a normal shape, exhibit the cell of the hindwing comparatively very long for an *Erycinidae*; the upper median vein of the forewing branches off far before the lower cell-angle.

mycea. — *I. mycea* *Hew.* (= *glaucoomia* ♀ *Thm.*). ♂ whitish-yellow, ♀ mostly paler; in the black margin at the apex 3 small white spots and in front of the border a yellow, lustrous line. Colombia. — *aenetus* *Hew.* (= *oenetus* *Mengel*) (128 i) has the small apical spots smaller and the metallic line in the marginal band of the hindwing bluish-grey; Bolivia and Peru. — As *leucophryne* *Stich.* (128 i) I figure a specimen from Marcapata (Peru, 4500 ft), beside a Bolivian specimen, in order to show on what slight differences this form is based. — Not very rare.

glaucoomia. — *I. glaucoomia* *Hew.* (128 i). Dark blue, of a metallic lustre, parallel to the border 2 or 3 black lines; recognizable by the small white subapical band of the forewing. Ecuador. — In a specimen before me from Colombia (Pacho, 2200 m, captured by FASSL) the proximal lines are straighter, the small white band traversed by strong veins, and in front of the small band there is yet a tiny costal spot. I consider this to be only a local aberration; STICHEL denominates such Colombian specimens *terpna*. — *glaucoomia* shows a homochromism with *Mesosemia*, the preceding species with certain *Terias*.

terpna.

90. Genus: **Lucilla** Hew.

This genus is placed by KIRBY between *Imelda* and *Thisbe*, whereas STICHEL justly adds it to *Lymnas*. The shape of the body and wings resembles the preceding genus. As to the neuration, the genus differs from *Imelda* particularly in the system of the subcostal veins of the forewings, and the cell of the hindwing in *Lucilla* does not reach the centre of the wing, as in *Imelda*. Only 4 forms, being closely allied to each other, are known. All the *Lucilla* are rare.

L. camissa Hew. (128 c). A true copy of a *Catagramma* of the *brome-* and *denina*-group with a large *camissa*. orange spot of the forewing and a blue lustrous spot of the hindwing. Ecuador.

L. asterra Sm. From Colombia. Differs from the figured *pomposa* Stich. (128 c) by a narrower red *asterra*. band of the forewing and by the rays of the hindwings which are more distinct and more sky-blue, particularly *pompom*. towards the margin. *pompom*, not lying before me, is described from Peru.

L. suberra Hew. Black, in the disc of the forewing a large, miniate disc, similar to certain *Heterocera suberra*. from the *Nelo splendens-* and *veliterna*-group, together with which the species flies in Ecuador. Very likely this homochromy, however, is only secondary, and the model of both, the *Lucilla* as well as *Nelo*, are *Actinote* from the *callianthe*-group, with which they swarm on the sands of the river-banks.

91. Genus: **Thisbe** Hbn.

The genus is so very much altered by mimicry that it is difficult to find out its real alliance. STICHEL places it between *Rodinia* and *Lemonias*; it has nothing in common with these two. STICHEL, however, has justly abolished the insertion of a *Thisbe*-species in the *Nymphidium*, which had proceeded from a mimetic mystification. The body is uncommonly strong, the head Nymphalid-like, the palpi projecting, the antennae very long, in the ♂ to $\frac{3}{4}$ of the length of the costa. The hindwings pointed at the anal angle, in *lycorias* even produced in a broad tooth. The butterflies are less rare than is the case in most of the other mimetic species.

Th. lycorias Hew. (140 f). Dark brown with a white oblique band, above and behind which there *lycorias*. are white spots. Round the white median band are above red-yellow spots, beneath there are such only in the anal areas of both wings. Mexico and Central America. The typical form originates from Honduras and has in front of the margin of the hindwing another broad white stripe, as it is also found in all the Mexican specimens. — ab. **adelphina** G. & S. (140 f) shows this distal stripe obliterated. — **germanus** G. & S. (140 f) distributed from Colombia to Ecuador has the red spots much smaller, they are mostly also not so numerous in the *adelphina*. cell of the forewing. — **incarum** form. nov. (140 f) from Peru, from a very dry habitat, deviates the most from *germanus*. the typical form; it has a lighter ground-colour, a very narrow median band, the orange spots are pale and dim, particularly the one above the anal apex of the hindwing. — *lycorias* is in some places common. *incarum*.

Th. irenea Stoll (= *belise* Stoll [♂], *belides* Stich., *atlantis* Stich.) (140 f, g). ♂ black with a white *irenea*. median band embedded in blue, above the upper end of which we see a small whitish oblique band. The ♀ is quite different, without any blue above at all and with a broader median band and another, second oblique spot behind the small subapical oblique band. From Guiana there generally come ♀♀ with narrower bands than from Colombia (*belides* Stich.), but these forms are not to be arranged according to patriae. We figure a narrow-banded ♀ from above, a broad-banded one from beneath. Both are from Venezuela. We can just as little assert that the Isle of Trinidad possesses a subspecies of its own (*atlantis* Stich.); the latter is said to have more blue in the distal area of the ♂-hindwing. Such specimens, however, are before me also from Suapure. Much rather Costa-Rica-specimens would have to be denominated, in which the median band of the ♂♂ exhibits only quite a narrow blue bordering. In a ♂ from „Bolivia“ the white subapical stripe is as long and broad as in ♀♀ from Surinam etc. Central America and Guiana to the Amazon and Bolivia, local but mostly common. Like the *Dynamine* (being imitated by the ♀), the butterfly mostly flies about at a hardly accessible altitude on the tops of young trees.

Th. moiela Hew. (140 g). In the ♂ the blue median band of the forewing is not white-pupilled, but *moiela*. it has only at its upper end a tiny white spot. In the hindwing the white band of *irenea* is replaced by a dull, strigiform brightening which is often scarcely perceptible and grows distinct in some specimens (as the figured ♂ from the Amazon) only at the inner margin (ab. *palilis* Stich.). The ♀ resembles above that of *irenea*, but the under surface is marked quite differently, as the figures show. Not rare in Venezuela (Suapure). Guiana, Para and so on.

92. Genus: **Anatole** Hbn.

The genus consisted only of 1 species to which 3 more were recently added as being congenerous. They are robust animals, of the structure of the *Nymphidium*, with a considerable sexual dimorphism. The veins do not exhibit any peculiarities; the 3rd subcostal vein rises with the 1st radial from the upper, the 3rd radial with the 1st median from the lower angle of the cell of the forewing. The species are common at their habitats.

- glaphyra*. **A. glaphyra** Ww. (140 h) greatly approximates the *Thisbe*, also in the shape of the wings (preanal tooth of the hindwing) and in the shape and marking of the ♀, so that it might better be added to *Th. molela*. ♂ similar to the ♀, the latter like *molela*, but the wings from the white band to the base of the wings bluish-grey. Under surface white, with golden-brown markings. South Brazil and Paraguay. — **campicola** *form. nov.* (140 h) from Corrientes differs by a bright yellowish-brown marginal band of both wings and by a considerable size. — **modesta** *Meng.* is smaller, the shades in the proximal half of the wings are duller and scarcer, and the white spots before the border of the hindwing are smaller; Paraguay and the adjoining part of Brazil. — Not rare.
- zygia*. **A. zygia** Hbn. (= caletor *Dalm.*) (140 g). Dark brown, with white and yellow dots, hindwing of the ♂ with a white colouring of the anal part, being continued upwards by golden-yellow; in the ♀ an irregularly shaped band runs from the centre of the forewing to the proximal margin of the hindwing. Guiana and Venezuela to the Amazon. Guiana-♂♂ differ from the (figured) Amazon-form by the yellow not being defined from the white of the anal part of the hindwing. The ♀ varies still more; in the form **chea** *Hew.* (140 g as *epione*) the band of the hindwing is narrow and that of the forewing continued to the costa by a small oblique band; *Bolivia*, Amazon, inhabiting with typical ♀♀ the same district, but other flying-places. — **caliginea** *Btlr.* is a Mexican butterfly known to me only from the figure; it exhibits above only yet traces of the white, i. e. small chains of postdiscal spots on the forewing and an obliterated median diffuse spot on the hindwing; its position is not quite certain, since the figure and description are not very exact. — ♀-form **egaensis** *Btlr.* (= *amasis Hew.*), occurring not only on the Amazon, but also beside the other forms in Guiana, has a dull brown ground-colour and a uniformly curved, uninterrupted white band from the middle of the costa of the forewing reaching close to the front of the inner margin of the hindwing. *epione* *Godt.* refers to South Brazilian specimens that do not differ more from those from the Amazon than the latter differ among each other; of 16 specimens before me from Itaituba there are not 2 entirely alike; some belong to the form *baroptenosa* *Stich.* (more yellow dots of the forewing than white ones, ♀ like a *chea* but the band of the forewing without the strangulation in the middle); *peristera* *Stich.*: in the forewing more white dotting, only the discal area slightly dotted in yellowish, without the blackish-brown spot in the anal angle of the hindwing; from Bolivia. — Many such forms could be established from the copious material at hand.
- agave*. **A. agave** G. & S. (142 i). Likewise very variable; greyish red-brown, with dark spots; the distal part of the hindwing mixed with rusty-red. Forewing with 2 white spots, the costal one being small, the discal one larger; hindwing with a broad white band not reaching as far as the inner margin. Costa Rica to Colombia, the figured specimen from the Chiriqui in the Coll. BANG-HAAS. The ♂ differs from the figured ♀ by the costal of the forewing being very small and the anal part of the otherwise brown hindwing snow-white. There are, however, also ♀♀ that resemble these ♂♂, but are larger and somewhat more greyish-brown than red-brown. Rare; in thinly wooded savannas.
- leucogonia*. **A. leucogonia** *Stich.* Unknown to me; is not compared with any of the species known. The description runs thus: 1 ♂ from the Rio San Juan in Colombia; wings above brown, basal half darker, proximal dots, an angled discal transverse line, a row of dark small submarginal dots, hindwing with an oblong white anal spot. Under surface whitish, forewing with grey scales; proximal dot, row of discal dots and submarginal spots dark.

93. Genus: **Tharops** Hbn.

The butterflies of this genus are characterized by the very robust structure, the broad thorax, the uncommonly compact shape, the relatively short costal margin of the thick and hard wings. Only in the Gen. diurn. Lep. some are placed to *Lemonias*, otherwise they have always been dealt with separately owing to their deviating habitus. They have a somewhat whizzing, Hesperid-like flight and, in day-time in the sunshine, they visit blossoms on which they sit with their wings spread horizontally. Most of them exhibit, at least in the male, bright metallic colours with a very glaring lustre in the sun; in contrast with most of the other *Erycinidae*, some *Tharops* are common butterflies.

- hebrus*. **Th. hebrus** Cr. (= *pelidna* Hbn.) (138 d). In the ♂ the forewings are above spotted in a metallic blue; the hindwings entirely blue except the black-marked costal margin and apex. In the anal region a white brightening which, however, is covered so much with lustrous scales that it also shines blue in the sun. The ♀ is sepia-brown, with a red-shining apical area of the forewings; before this a blackish cloud behind which, at the costa, there often stands a small light spot. Guiana and the Amazon District. In Colombian ♂♂ the white of the hindwing is increased; in Bolivian specimens the white does not only cover half the hindwing, but it is also purer and rectilinearly cut off towards the metallic-spotted basal and apical parts; this is **ergines** *form. nov.* — On the contrary, **ion** Ww. (138 d) from Para exhibits the white of the male hindwing confined to the anal fold, the black apex of the forewing being unspotted. — **gemma** *form. nov.* (138 d) is the extreme form; the forewings have an entirely black costal half and of the white of the hindwing nothing whatever is noticeable. This form differs also entirely beneath from the typical form being blackish-dotted on a whitish-grey ground; its under surface is bestrewn with rusty-brown squares. In very dry districts, such as near Carabaya. — **cicuta** *Hew.* is presumably also only a form of *hebrus*. The ♂ is above of a lustrous light-blue, sparsely dotted in black, the apex of both wings and the base of the hindwings thickly black; ♀ dark brown, like that

of *ion*, but without the rusty red in the apex and the cloud below the costa, but dotted in black and with a black submarginal band. Amazon. — The species is not rare.

Th. clotho *Stich.* (138 b). This species not lying before me is based on a single ♀; the black upper surface is interspersed with diverse light markings some of which are of a blue reflection. We figure the type in the Berlin Museum, from Peru. Under surface greyish-yellow, dotted in brown; in front of the border lighter with a series of dark longitudinal spots.

Th. felsina *Hew.* (138 a, as *felina*). Sepia-brown, the distal part of the hindwing dull white. Under surface quite whitish, only the apex of the forewing darkened. Above darker markings, beneath dotted in blackish-brown. In the ♂ the white of the hindwing has a very faint bluish lustre. South Brazil. This species is rarer.

Th. pretus *Cr.* (138 c). Above black with golden-green undulate and dentate markings. Under surface dirty greyish-brown, with whitish and dark red-brown markings. East Brazil. — Colombian specimens exhibit duller green markings and have a yellow under surface being only in the ♀ more copiously marked in dark. — **picta** *G. & S.* (138 d) has a much more brightly lustrous, but more bluish-green marking of the upper surface, the under surface being more copiously decorated with whitish squares. Central America; Bolivia. The ♀ is above like the ♂, also of the same lustre, but it is larger. The butterflies are like all the *Tharops* fond of the open country, not of the woods.

Th. menander *Cr.* (= *petronius* *Godt.*) (138 b). Above very difficult to distinguish from the following species, but easily recognizable by the grey under surface exhibiting across the centre of the wings a somewhat dentate, brown shade projecting under the cell-end towards the base. Northern part of South America.

Th. nitida *Btlr.* (138 c) is the name of greenish-blue specimens with few dark spots above. According to STICHEL they originate from South Brazil, though the specimens from there mostly have a violet and not green reflection. — **thallus** *Stich.* is also said to have „often“ a greenish-blue ground-colour; moreover, the black in the apical part of the wings being reduced, it exhibits more distinctly the dark marking of it. As its patria the western part of the northern districts of South America is stated, though the forms are presumably difficult to separate geographically.

Th. coruscans *Btlr.* (143 e). Above very similar to the preceding and like there it is sometimes smooth and bright as a mirror, sometimes very much black-spotted, with a blue, green or purple glossy upper surface. Easily distinguishable by the under surface being grey, at the border darker and the disc of both wings being rather uniformly covered with greyish-brown dots and comma-stripes. Of the small marginal spots those below the apex and in the anal part of the hindwing often are particularly bright. Amazon, Bolivia. Common.

Th. purpurata *G. & S.* (138 c). Above blue, less spotted, in the anal part of the hindwing 3 dark macular bands above each other. Under surface yellowish-brown with whitish dusting and chestnut-brown marking. Central America.

Th. glaucoma *Hbn. G.* (138 b). Somewhat like the preceding species, but the hindwings in the ♂ almost without any markings, except the broad dark margin; most characteristic is the under surface exhibiting on the forewing large, on the hindwing small ringed eye-spots in front of the border. Brazil, rarer.

Th. splendida *Btlr.* Larger, the ♂ with a very pointed apex of the forewing and a long-stretched anal part of the hindwing. The black spots are arranged in 3 or 4 rows on the metallic bluish-green upper surface. The ♀ has on the forewing, above the blackish-brown disc, dispersed metallic bluish-green patches; in the hindwing particularly the costal part is of a bright light-blue. Para. — **superba** *Bat.* (143 c) from the Amazon is presumably scarcely a different species; the ♂ has more rounded hindwings, above of a bright metallic green, in the disc of the forewing and the costal part of the hindwing of a pure cyan-blue; beneath the ground-colour is a rusty yellow. The ♀ has no more blue at all on the forewing; on the hindwing this is confined to the costal part. Apparently very rare.

94. Genus: **Dysmathia** *Bat.*

Mostly attached to the preceding genus, but of a considerably punier structure, the wings more delicate, the forewings very broad, the antennae shorter. Only 3 or 4 species are known from the Amazon and Guiana. The butterflies seem to be rare.

D. portia *Bat.* (138 a). The very broad wings above dark-brown with copious black spots arranged in rows; the inner-marginal part of the forewing and the whole hindwings are above of a delicate violetish-blue lustre, though not reflecting as in the *Tharops*. Under surface dark yellowish-brown, the marking similar to that of above, the dark spots smaller. Guiana and Lower Amazon. — **glaucogonia** *Stich.* is somewhat smaller, the small dark spots above partly covered up by small blackish clouds, the marginal area of the wings lighter blue; Guiana.

D. cindra *Stgr.* (138 a). Above quite pale sky-blue with irregular black streak-markings. Under surface still lighter, with a dark-shaded anal part of the hindwing. Twice as large as the preceding species. Lower Amazon.

costalis. **D. costalis** *Bat.* Above greyish-brown, the forewings with 3 dark streaks in the cell and some irregular blackish markings; towards the border the colouring turns reddish. Hindwing with 6 dark lines, the 4th of which is bent and interrupted. Under surface bluish-grey, the marking similar to that above. Teffé.

95. Genus: **Pandemos**.

This genus, the 3 hitherto known species of which must yet be regarded as not fully ascertained with respect to their homogeneity, comprises only large and rare animals. One species, *godmannii*, is presumably — anatomically it is not known — well attachable to the *Tharops* dealt with last; but I do not know the ♀ which may look quite differently and may approximate an *Eurybia*. The two other species are entirely unlike this species as well as among each other. Head stout with large eyes and a medium-broad, flat forehead, palpi projecting but not very long, with a thin terminal stylus, wings differently shaped in each species, in the ♂ of one species with black scent-spots.

godmannii. **P. godmannii** *Dew.* (128 k as *godmani*). Forewings similar to those of the ♀ of the preceding species, but the white costal diffuse spot extends as a small curved band almost to the anal angle and the ground-colour is more red-brown than dark brown. The blue of the hindwing, which in *Tharops superba* is mostly covered by black in the distal part, covers here the whole wing except the yellowish-brown inner-marginal stripe. Undoubtedly very rare. The figure according to the specimen in GODMAN'S collection. Mexico.

pasiphaë. **P. pasiphaë** *Cr.* (= *arcos Cr.*, *ormenus Hbn.*, *perigone Godt.*) (128 k). ♂ with a less falciform, but still pointed apex. Here also the forewing is dusted with a dull violetish blue except the blackish apical part. Where the forewing and hindwing cover each other, there stands a black scent-spot. ♀ dull white with a broad dark margin of the forewing, of the exterior of a *Pieris orseis* (18 f). ♂♂ from Guiana have a blacker upper surface, those from the Rio Madeira a very bright blue one, and in ♀♀ from Colombia (Villavicencio) the border of the forewing has but quite a faint dark shade. Guiana to Colombia, Amazon and Peru.

palaeste. **P. palaeste** *Hew.* (128 k). ♂ above blackish-brown, the distal part of the hindwings with bluish-grey, sometimes greenish-lustrous longitudinal spots. Colombia. — In the form from Costa Rica, *salvator Stich.*, the bluish-grey radiate spots extend towards the base as far as beyond the centre of the hindwing, and before the anal angle of the forewing is a red semi-band. The ♀ is not described.

96. Genus: **Stalachtis** *Hbn.*

The *Stalachtis* are distributed from Central America to Paraguay and are almost all common animals. They are butterflies of more than medium size varying little in the shape, of a massive, in the ♀♀ clumsy structure. Head long, but not very broad; eyes large, palpi long, especially in the ♀, the end distinctly bent down. Antennae thick, filiform, at the end a scarcely noticeable thickened club. Thorax and abdomen strong, in the ♀ clumsy and so heavy that a flight like that of *Heterocera* or *Danaïdi* is produced thereby. Legs stout and strong. Wings broad with a rounded border, shaped like the wings of *Actinote* or *Ithomiini*. In the veins the uncommonly long cell of the forewing is worth mentioning; the cell seems to some degree still more prolonged by the posterior discocellular reaching the 3rd radial only far beyond the rising of the upper median vein, which is also the case on the hindwing. The construction of the veins thereby makes a somewhat tugged impression, as if the wing had been stretched into a shape dissimilar to its original one, by secondary influences. This influence might be explainable by the effect of models (*Acraeini*, *Ithomiini*) which have influenced all the *Stalachtis* known without any exception. The larvae are very differently represented; the actual shape is presumably that of a compact, cylindrical body with small fine spines across the dorsum and at the sides; the pupa is fastened to the cremaster similarly to that of *Hades noctula*, of an oblong shape slightly strangled behind the thorax, yellowish — or bluish — white with longitudinal rows of black spots (*St. calliope*). The butterflies are common; they fly in day-time in the sunshine, in a slow flight similar to that of their models, and drink from flowers; in this occupation they are so daring that they may be taken away by the hand if care is used. On being touched, they feign to be dead by folding up their wings above the back, bending the antennae under the body and folding their legs together; in this state they may be cautiously placed on the ground, like a captured *Gonepteryx rhamni*, without fear of their flying off immediately. Otherwise the animals rest beneath leaves with their wings kept flatly roof-shaped, the abdomen hanging down curved like a sabre.

phlegia. **S. phlegia** *Cr.* (143 c). Black, body and wings covered with white dots, the base of the wings of a bright red-brown. Guiana, to the south as far as Para. — **phlegetonia** *Perty* (= *phlegia Hbn.*) (143 c) is the southern form flying in Central Brazil, Paraguay, and Bolivia; here there is yet a red-brown, irregular band *irion*. between the basal brown and the border, as it is only sometimes indicated beneath in typical *phlegia*. — *irion*

form. nov. (143 c) is a very small pygmean form flying in May in (the town of) Goyaz. — *nocticoelum form. nocticoelum. nov.* (143 c) is a form from Obidos, quite black with white dots, the brown at the base of the wings having disappeared except some traces of it. — *sontella Schs.* (143 d) finally is the form from Paraná; here there are only quite few white dots, on the upper surface of the body none at all; the shape of the body and wings, moreover, deviates considerably from the other *phlegia*-forms, so that I doubt whether it belongs to *Stalactis*; the shape much rather resembles *Apodemia stalactoides* from which, however, it differs by the silvery white (in the latter) abdomen which is red-brown in *sontella*. — In *venezolana form. nov.* (143 c) the brown-red colouring is replaced by a light orange, so that it resembles the following species. In some places rather common.

S. susanna F. (143 d). Similar to *phlegia*, but recognizable by the shape of the distal orange band which stands only in the apical part on the forewing. Besides there are never white or black dots on the orange parts of the wings. Near Rio de Janeiro the distal orange band on the fore- and hindwing is broad and indented in the middle of its proximal border; in Espiritu Santo these bands are already narrowed and in specimens from São Paulo they are interrupted. South Brazil.

S. euterpe L. Black, only the orange bands in the distal parts of the wings are present, no orange at the base. The black part of the wings covered with white dots and small longitudinal spots. — *latefasciata Stgr.* (143 b) which we figure from the Itaituba, has broader orange bands than typical *euterpe* from Guiana; and *adelpa Stgr.* (143 d) from Obidos, Pará and other places on the Lower Amazon has the orange band only in the forewing, in the hindwing it is above absent altogether and beneath only faintly noticeable. Common.

S. magdalenae Ww. (143 c). This and the following species imitate *Mechanitis* resp. *Melinaea*, whereas the models of the preceding species were *Actinote*. The apical part of the forewing contains 2 white macular rows, whereas in the whole proximal part of the forewing the orange colour is predominant. Black are some discal spots of the forewing, its inner margin, and the margin as well as a longitudinal stripe of the hindwing. Colombia, where also, though at other habitats (Rio San Juan), the form *cleove Stgr.* occurs exhibiting only one white macular row in the apical part of the forewing. Rarer.

S. calliope. Above orange-red with black stripes and spots, and a black, white-spotted apex of the forewing. As the typical *calliope L.* (143 b) the form in LINNÉ'S collection ought to be looked upon as correct. From Surinam; the spots of the middle stripe of the hindwing are separated by the red-orange veins, under surface almost exactly like above. — In *terpsichore form. nov.* (143 c) from French Guiana the black is considerably increased, the middle stripe of the hindwing no more broken up into spots, the apex of the forewing broader black etc. — *eugenia Cr.* (= *calliope auct.*) (143 b) has the hindwing entirely black except a red longitudinal stripe; Surinam, but at different habitats from those of the typical form. — *crocofa Stich.* (= *calliope Clerck*) has distally yellowish-tinged forewings; this yellow discoloration occurs in all the modes of marking and is not bound to any place. — *voltumna Stich.* has the same light-yellow discoloration as *crocofa*, but beneath, except a costal stripe, quite black hindwings. It is mentioned from Ecuador; but the Ecuador-specimens before me exhibit the black under surface of the hindwings, but above they are orange-red, without any yellow. — *bicolor Stgr.* has the apex of the forewing likewise orange-red, not broad black, but only quite narrowly bordered in black, with 4 or 5 black punctiform spots. — Common.

S. phaedusa Hbn. (143 d). Wings hyaline, with black veins and margins, marginal area broad orange. In Guiana-specimens also the inner-marginal part of the forewing is hyaline; those from the Amazon (Obidos) exhibit the latter dusted with violet. — In *exul form. nov.* (143 d) from the Konrou River opposite the Devil's Island the orange in the marginal band has disappeared except some faint traces. — In *phaloe Stgr.* (143 e) from the Upper Amazon the orange is greatly increased and the disc of the forewing scaled in violet. — In *duvalii Perty* only the hindwings have a broad orange marginal band faintly passing over only to the anal angle of the forewing; the hindwings, however, are like the forewings violet except small strigiform spots in and behind the cell. — Common.

S. zephyritis Dalm. (= *margarita Bat.*) from Guiana greatly approximates the preceding species, but it is recognizable by the white-powdered under surface of the hindwings; on the forewings the inner-marginal part is violet, on the hindwings the costal part is black, the other rest of the wings hyaline, with black veins. — *evelina Btlr.* (143 d) from the Amazon are *zephyritis* in which also cellules 1 b and 2 in the forewing are dusted with a bluish grey. — Not rare.

S. lineata Guér. (143 d). Wings black, between the veins narrow hyaline streaks, before the apex of the forewing an orange crescentiform spot. Lower Amazon. In specimens from the Rio Madeira the orange spot grows twice as large and has an oval shape. At other places in the Amazon District it grows, on the contrary, smaller and may disappear except faint traces; this is *traiiü Btlr.* (143 e). Rarer.

97. Genus: *Aricoris* Ww.

This genus differs from the preceding by the mimicry being confined to the female sex which it has altered to the greatest extent. The only species not being sexually dimorphous resembles a Satyrid, but still it cannot be properly regarded as mimetic, since it has a somewhat different flight from that of the equally large *Euptychia* which might have served as models. This species, moreover, deviates from the other *Aricoris*,

so that STICHEL left it solely in the genus as being not congenerous, whereby it would become necessary to eliminate all the other *Aricoris* without exception from the genus. It probably suffices to distinguish 2 groups. As in the preceding genus, the palpi are somewhat projecting in the ♂, in the ♀ long, thin, lowered at the ends. The body of the ♂ is slim, in the ♀, however, uncommonly stout for a day-butterfly. The antennae are in the ♀ filiform, at the ends unnoticeably thickened, in the ♂ with small clubs being noticeable above. In the shape of the wings and in the veins both sexes of *Aricoris* differ from one another much more than the genus itself deviates from most of the other Erycinid-genera; only from the preceding genus they deviate by the subcostal and the upper radial of the hindwing branching off before the cell-end, instead of far behind it as in *Stalactis*. The few forms I observed flew in the open country, most of them presumably occur in the forest. They are mostly rare and so incompletely known, that of many only one sex is known and one hardly knows how the sexes belong together.

epitus. **A. epitus** Cr. (= cepha F., epiphania Stich., ♂ = bias F., jaera Hbn., cataleuca H.-Schäff.) (141 h).

The ♂ is above quite black with a dull blue reflection, beneath blackish-brown with a whitish-powdered border, resembling a homochromous *Euselasia*, sometimes of this species, sometimes of that species, according to the (great) variability of its size. The ♀ has an orange basal part of the wings and in the distal part of the forewing a large, bone-yellow oval which is broadly confluent with the basal yellow in the ♀-form **cephisa** Stich. (141 h). — In **parocemia** Stich. it runs band-shaped through the distal part of the forewing and extends in a thin costal stripe as far as the base of the wing whereby the appearance of a *Methonella*-♀ is feigned. On the whole, the marking is variable; the bone-white and orange-yellow parts vary in size at every habitat, being in Guiana-specimens sometimes large, sometimes small, sometimes also discoloured to whitish. This species seems to be by far the most common *Aricoris*.

disparilis. **A. disparilis** Bat. ♂ very much like that of *lagus* (141 k), but without the white on the upper surface of the hindwings (which, moreover, seems to be absent also in all the continental *lagus*) and beneath with an irregular orange spot at the base of the hindwing. The ♀ has about the scheme of markings of *epitus*-♀ (141 h), but the white oblique band of the forewing is narrower, and the basal area of both wings yellow instead of red. From the Rio Tapajoz.

gelasine. **A. gelasine** Bat. (141 i). ♂ above black with a bright blue reflection and an irregular white discal spot. ♀ similar to that of *disparilis*, but the oblique band of the forewing likewise lemon-coloured. Beneath the dark margin of the hindwing is dotted in white. Colombia and Amazon; often in the so-called Bogotá-collections, probably from Muzo or Cundinamarca.

myrtis. **A. myrtis** Ww. ♂ scarcely differing from the preceding; ♀♀ that seem to me to belong to *myrtis*, have more yellow than *gelasine*, so that the yellow oblique spot of the forewing touches the yellow basal part of the forewing; hindwing with a narrower black margin. Amazon, Colombia. — STICHEL considers *myrtis* and *gelasine* to be subforms of one species which is not unlikely, if the variability of most of the *Aricoris* is taken into consideration.

butleri. **A. butleri** Bat. (141 i). The ♂ resembles that of *salvini* (141 k), but above the white spot of the forewing is smaller, the blue duller, beneath there is no honey-yellow basal spot of the hindwing. The ♀ resembles that of *gelasine*, but the forewing has no yellow in the basal part, but only the small yellow oblique band. Tapajoz. STAUDINGER believes that it belongs to *lagus* as a special form of it.

epilecta. **A. epilecta** Stich. Unknown to me. ♂ like *velutina* (141 k), black with a velvety blue reflection, the forewings more obtuse, the hindwings more oval. Beneath the cell of the forewing is filled with ochreous yellow, the hindwing with a reddish ochreous-brown costal area. ♀ with an ochreous-yellow band-shaped spot which is tinged reddish towards its proximal margin. Hindwings orange-red with a dark margin. Peru.

velutina. **A. velutina** Btlr. (141 k). ♂ above velvety black with a bright blue reflection, beneath dark brown, at the border broadly brightened up, but not whitish as in *epitus*. The ♀♀ are entirely black and have only on the forewing a pale orange oblique band running from the middle of the costa to the anal angle.

buckleyi. **A. buckleyi** Sm. The ♂ is beneath immediately distinguishable from the similar *velutina* by white, often triangular, small spots standing before the border and by long yellowish-brown rays extending from the base of both wings as far as beyond the centre of the wings. The ♀ is above blackish-brown with a large orange oblique spot of the forewing, beginning broadly at the costa, then growing narrower and terminating in front of the anal angle rounded off sazeiformly. Ecuador.

phaedon. **A. phaedon** Godm. Above the ♂ resembles *velutina* (141 k), blackish-brown, with a violet reflection. Under surface lustrous dark-brown, between the veins ochreous. ♀ black, with a similar broad, but more ochreous and more regular band-spot of the forewing. Beneath the border of the hindwing is marked in white. Ecuador.

lagus. **A. lagus** Cr. (= persephatte Godt., ♀ = petavia Fldr., inquinata Btlr.) (141 k). ♂ with tiny, dark discal spots on a black ground of a blue reflection. Characteristic is the under surface being whitish-grey traversed by brown veins. In the hindwing a brown nebulous stripe extends from the proximal margin to the distal margin. The ♀ is blackish-brown with an orange-yellow, but sometimes also bone-white oblique band of the forewing.

Beneath, the hindwings exhibit lighter veins and mostly (not always) small white triangles in front of the border. Guiana, Amazon. The species is beside *epitus* the most common *Aricoris*. — **pythioides** *Bltr.* seems to be a *pythioides*. western form of *lagus*; from the quite similar *salvini* (141 k) the ♂ differs by the light discal spot in the forewing being small and often darkened, and by the entire absence of the light-blue cellular spot at the base of the forewing above. — **striata** is a denomination by DRUCE for ♀♀ from Ecuador with a white oblique band, in which *striata*. the anal part of the hindwing above exhibits blue striate spots. The ♂ is said to be beneath entirely like typical *lagus*, exhibiting above a somewhat larger discal spot and, in the inner-marginal area a blurred blue dusting.

A. serica *Ww.* undoubtedly approximates the preceding, particularly *velutina*. The ♂ has apparently *serica*. no white discal spot, but the metallic lustre extends almost over the whole forewing, so that only a broad costal stripe and the apical part remain black. In the hindwing the reflection is chiefly confined to the part between the lower cell-wall and the anal fold. Amazon.

A. amethystina *Bltr.* ♂ above black, with a violetish-blue reflection and a shortened white oblique *amethystina*. band; beneath like *pythia*, but it has a more stretched costal margin of the hindwing than the latter and was, therefore, looked at as another species. The ♀ is not described. From Santarem on the Lower Amazon.

A. pythia *Hew.* entirely resembles *salvini* (141 k), but it is smaller, the white spot of the forewing in *pythia*. proportion to the forewing larger, the hindwing blue only in the anal part. ♀ blackish-brown with a white oblique band having the shape of the yellow band in *lagus* (141 k). — **salvini** *Stgr.* (141 k) has above a white *salvini*. oblique spot of the forewing of the ♂ which is sacciformly expanded in the ♀; the ♂ has an almost entirely light-blue, dark-veined hindwing, exhibiting beneath a yellow basal spot; the ♀ has beneath, at the hindwing, triangular, white marginal spots. Upper Amazon and (somewhat less blue ♂♂) also in Colombia and Bolivia.

A. cyanea *Bltr.* ♂ above black, with a blue reflection and an indistinct white discal spot; ♀ with *cyanea*. an orange oblique band and a blue-reflecting disc of the wings. Upper Amazon, Ecuador. In the collections there is mostly the Central American form **jansoni** *Bltr.* (143 a). The ♂ has a large white discal spot, the ♀ *jansoni*. a more flatly drawn out orange band. Both forms, moreover, occur beside each other, and the shape and position of the oblique band varies to such an extent that entirely alike specimens come only from the same flying-place. Near Orosi (Costa Rica) the band is very broad, near Chontales (Nicaragua) uniformly band-shaped, narrower and lighter yellow, near Burica in Colombia behind the cell somewhat strangled etc. Beneath the ♂ shaded in a sepia-brown, except an oblique band in the forewing and white, towards the margin thickened rays in the hindwing.

A. alcmaeon *Hew.* (142 k). ♂ above and beneath dark-brown; above there is a violetish-blue stripe *alcmaeon*. above the inner margin of the forewing, and the hindwing is entirely violet, the veins black. Under surface without markings. Ecuador; we figure a specimen from Paramba. — **maja** *Godm.* (141 k) has above quite black *maja*. forewings and the hindwings have only at the border a brighter blue colouring; but the under surface also exhibits submarginal blurred spots. The ♀, in contrast with the preceding species, is more similar to the ♂, but in front of the distal margin it has white-blue wedge-shaped spots. Colombia.

A. rhodinosia *Stich.* „♀ of the shape of an *epitus*-♀ but a little smaller; above black, the forewing with *rhodinosia*. a broad, oblique pink band, the hindwing with long blue rays between the median veins; under surface paler with few whitish basal streaks, the hindwing with rusty-yellow veins and white submarginal spots.“ The type is a ♂, but it is not described*). From Sarayacu (Ecuador).

A. megalia *Stich.* Certainly a form of the preceding, a little larger (24 against 22 mm). Differing by *megalia*. a broader pink band of the forewing and more distinct blue rays of the hindwing. Peru.

A. fassli *sp. (?) nov.* (143 a). Considerably larger than the preceding (length of forewings 29 mm). Disc *fassli*. of all wings, except a costal stripe, of a bright metallic cyanic-blue. In front of the marginal part of both wings a light-red band of a magnificent purple-violet reflection, being on the forewing nearly twice as broad as on the hindwing. Under surface brown, the bands dull pink. Rio Songo, at an altitude of 750 m. Type a ♀ in FASSL's collection. — I am of opinion that all the 3 species described last are forms of one species.

A. tapaja *Sndrs.* (143 a). ♂ blackish-brown, forewing with a hemochrome, rather straight median *tapaja*. band. Under surface brown with a submarginal row of white dots. The ♂ varies at every habitat; sometimes the bands are hemochrome and on both wings (typical specimens, if the bands are absent beneath), sometimes the band of the forewing, or that of the hindwing appears also beneath; then again the band of the hindwing may be absent altogether (*hewitsoni* *Ky.*) and the band of the forewing may appear beneath instead; sometimes again the band of the forewing is above broader and bent round like a hook, the colour more crimson than hemochrome etc. As the ♀, STAUDINGER figures a butterfly with orange-yellow, distally black forewings and

*) I first took it to be a misprint that a ♀ is described of a species the only type of which is a ♂, but E. STRAND confirms once more in another work (Lepidoptera Niepeltiana, p. 51) that the type is a ♂.

blackish-brown hindwings; in front of the apex of the forewing a yellow band, before the border white dots. The ♀ will presumably vary just as much as the ♂; sometimes the forewings are carmine instead of yellow. Rare.

flammeola. **A. flammeia** *Bat.* (143 b). ♂ blackish-brown, before the apex a white oblique band and at the inner margin as well as on the hindwing hemochromic colouring. The rare butterfly of which not many specimens are known, presumably varies just as much as the preceding species. I figure a ♂ from Surinam; Amazon-♂♂ have more red in the forewing, the hindwings are not so very lobate, and on the under surface of the hindwing (where our specimen has only a moderately broad light ray) the whole disc is white. Guiana, Amazon. The ♀ resembles about a *Methonella*-♀ (122 i).

cruentata. **A. cruentata** *Bltr.* (142 h). ♂ glaringly light-red with a narrow black border; under surface yolk-coloured, the margin more greyish-black, but somewhat broader than above. It varies at every habitat; the dark border may grow considerably broader and enclose white pupils also in the ♂, so that the exterior approximates more the following form. The ♀ has a broadly dark distal part of the forewing and in it a white, band-shaped spot.

heliadora. — **heliadora** *Stgr.* (♀ = *cruentata* *Stgr.*, helice *Godm.*) is a form not before me in nature, but certainly allied to the preceding. Here the white subapical spot is band-shaped and stands in the broadly black apical part; in the ♀ it is confluent with the basal red. The species has the attire of certain *Mesene*, of *Lemonias luceres* and so on; but certainly only secondarily, since both imitate certain night-butterflies (*Arctiidae* and *Geometridae*) which are very often met with in the tropical parts of South America.

terias. **A. terias** *Godm.* (142 h). This butterfly, which is not very rare in summer in Paraguay (e. g. Sapucay), is, in spite of its deviating colouring, a genuine *Aricoris*, as is seen by the antennae being not thickened at the ends, but only somewhat bent, and by the long palpi being lowered in the ♀, as well as the whole structure. Dull yellowish-white with a black border, similar to one of the *Terias* frequently flying there. Beneath, the forewings are yellow, the hindwings brown with white rays.

lutana. **A. lutana** *Godt.* (= *tisiphone* *Dbl.* and *Ww.*, *bahiana* *Fldr.*) (141 g) exhibits a somewhat deviating structure and, above all, not sexual dimorphism being otherwise characteristic of the *Aricoris* and appearing also in *terias* only faintly developed. These species are, therefore, better placed into another group from the other species. *tutana* is on both surfaces unicolorously dark brown; in the form of Casa Branca in Brazil (= **monotona** *Stich.*, 141 g) almost without markings, in typical *tutana*, as they occur near Bahia and as I captured them myself in the gardens of the town, with a slightly marked under surface. Single, but not rare.

cleomedes. **A. cleomedes** *Hew.* certainly does not belong here; it resembles *Lepricornis bicolor* (136 b) and is perhaps better placed near that genus. — Nor can **aurigera** *Weeks*, which is likewise not before me, be an *Aricoris*, if it has the structure of the palpi deviating from this genus, stated by STICHEL (*Berl. Ent. Ztschr.* 55, p. 71). The same is the case with **hippocrate** *Godm.* which almost looks like a small, somewhat narrowly and light-banded *lagus*-♀ (which, by the way, has incorrect antennae in our figure 141 k), but which may also represent a somewhat aberrative ♀ of the greatly varying **A. jansonii**.

98. Genus: **Theope** *Dbl.*

The forms of this genus, of which more than 50 were described, may be reduced to quite a moderate number of species. Nearly 70 percent of them occur in the Amazon Valley. Some forms that are very much alike each other and come from the same district, make the impression as if they were only so-called deviations of the flying-place, so that they may be valued only as subraces. If we were to describe as new forms all those specimens that are not in every detail adaptable to the diagnoses mostly set up by BATES, their number would increase considerably. Whereas the *Theope* resemble in their exterior somewhat the *Lycaenidae* which, however, is more due to their colour than to their structure, they are still to be considered genuine *Erycinidae* by their neurulation, the palpi and antennae, the eyes, though not circular, are never bean-shaped, and have the well-developed forefeet of the ♀♀ etc.; besides the only larva having become known hitherto (of *Theope eudocia*) most conspicuously exhibits the neck-organ so characteristic of *Erytinidae*. The *Theope* mostly are very rare; in contrast with most of the other *Erycinidae*, they frequently sit on the upper surface of the leaves with raised wings and are mostly found only at quite circumscribed localities; a great number of forms has never been discovered again except by their authors.

pieridoides. **Th. pieridoides** *Fldr.* (143 f). White, above with a blackish apex of the forewing. In the ♀ the wings are not so pointed and the apical black is narrower. The butterfly is very rare in Bahia, from where it is described and from where also the figured specimen (a ♂) originates. As the most common butterflies in Bahia are entirely white *Hesperidae* (*Leucochitonea*), it is probably also very difficult to recognize.

eudocia. **Th. eudocia** *Ww.* (143 f). Above orange-red with a broad black costal and apical part of the male forewings. In front of their apex a large diffuse spot of a violetish-grey lustre. Under surface brass-coloured, without the dark margin. — Colombian specimens exhibit less black and no diffuse spot in the dark apical part; we figure them from East Colombia (from the Coll. FASSL). STICHEL denominates them **acosma** (143 f)

stating, however, their patria to be the Western Amazon; — Central American specimens in which the whole cell of the forewing is yellow, with a narrower blue spot, are denominated *pulchralis* *Stich.*, their patria is also stated yet to be „Colombia“. Thus presumably two forms occur there, according to the situation of the finding-place. The typical *eudocia* flies in Guiana and Venezuela. — Larva green with a black, white-marked head, surrounded by fine fluffy hair. At the neck it exhibits lateral clusters of small brown cones and at the anal end a glandular organ which is licked off by ants. The larva lives in a rolled-up leaf of the cocoa-plant in the surroundings of which the ants of the guard build their paper-nests; on trying to separate them from their larva, they appear very excited (GUPPY). Pupa green, held by the cremaster and a filiform belt. The butterfly is not common.

Th. pedias *H.-Schüff.* (♀ = *helpusa* *Hew.*) (143 f). Above violetish-blue with a black costal- and distal margin of the forewing, beneath one-coloured and unmarked golden-yellow. In the ♀ also the distal half of the inner-marginal part of the forewing above is black. From Guiana and Colombia to South Brazil and Bolivia. — *isia* *G. & S.* are specimens from Mexico and Central America, exhibiting a greyish-yellow dull under surface. — *hypoxanthe* *Bat.* from Pará has a brass-coloured, lustreless under surface. — Less rare.

Th. sericea *Bat.* (143 f). Similar to *pedias*, but larger; the apical part of the forewing broad, the margin, however, only narrower black; the rest of the wings violetish-blue, as *pedias*. Under surface of a magnificent golden red in the ♂, more yellow in the ♀. Amazon. Rare.

Th. lampropteryx *Bat.* Of the shape of *pedias*, but the forewings only at the base blue. Under surface ochreous-yellow, only faintly lustrous. Lower Amazon.

Th. caenina *G. & S.* Similar to *barea* (143 g); in the ♂ the forewings are dark brown, the cell to its end, the inner margin of the forewing and the whole hindwing are violetish-blue. Under surface almost light yellow. From the Chiriqui (Panama).

Th. barea *G. & S.* (143 g). Like the preceding, but below more brass-coloured than pale yellow. Upper surface light-blue, lustrous. Behind the cell of the ♂ a spot of a silky gloss. Panama to the Amazon. Not common.

Th. excelsa *Bat.* (143 f). The largest species of the group; more than twice as large as the preceding. Beneath abundantly brass-coloured with a faint lustre. Wings with a dark violetish-blue lustre, forewings with broad dark costal- and apical parts, and with a broad dark marginal band; hindwings only at the costal margin black. Amazon; if I have identified the species correctly by BATES, it also occurs in Guiana.

Th. aureonitens *Bat.* Very similar to the preceding, but much smaller, the blue of the hindwing reaches the costal area; in the disc of the ♂-forewing a dull brown spot. Under surface of a golden-yellow (♂) or straw-coloured (♀) lustre. Tefé on the Amazon.

Th. simplicia *Bat.* As large as *eudocia* (143 f). Forewings unmarked blue, hindwings violetish-blue; under surface dull whitish. The ♀ has a dark base of the hindwing. Pará. Not rare.

Th. hypoleuca *Bat.* Similar to the preceding, somewhat larger, recognizable by the almost purely white, unmarked under surface; above both sexes are of a more brightly lustrous blue (about like *Lycaena icarus*), costa narrow and the distal margin of the forewings broadly black. Lower Amazon.

Th. azurea *Bat.* resembles the preceding, but it differs by the shape; the ♂ has more triangular forewings with straight margins, whereas *hypoleuca* exhibits a somewhat bulging costal margin and a convex border. Upper surface of a bright blue lustre, costa narrow, apex and border of the forewing broadly black. Under surface quite light brownish, unmarked. Amazon.

Th. herta *G. & S.* (143 g) is a rather small species the ♂ of which is above almost blackish-brown, in the basal area there are hardly any blue radiating patches. The under surface is light earthy-grey, mostly almost without any marking at all, sometimes in the centre of the wings slightly darker. The species does not seem to be more closely allied to any other and to be very rare in its patria, Central America.

Th. lycaenina *Bat.* Size of *azurea*; deviating from the preceding species by the almost white under surface being faintly tinged brownish-grey. Upper surface black and, as in *herta*, only the inner part of the wings with an indistinctly defined blue (and only dull) lustre. Beneath the hindwings exhibit a series of dark dots being distinct only in the anal region. East Brazil, Pará, Espiritu Santo.

Th. foliorum *Bat.* has the size of *sericea* (143 f). Forewing black except a blue triangle above the inner margin covering about one third of the wing. The hindwings are above all light-blue, with a dark margin. In front of the border is a series of black, white-shaded dots. Under surface brownish-white, with few black dots before the border. ♀ with obtuser wings. Lower Amazon. — *punctipennis* *Bat.* is like *foliorum*, but smaller and the submarginal dots of the hindwings are more numerous and some appear also on the forewings beneath. Amazon and Venezuela. — *atima* *Bat.* likewise entirely resembles *foliorum*, but beneath it is darker and distinguished by the forewings being all black except a very narrow blue stripe in and below the cell. Tefé.

Th. leucanthe *Bat.* (143 g). If I identify *leucanthe* correctly in the figured small animal looking almost like a *Lycaenidae*, according to BATES' short description, it is above blackish, only in the basal part and on

the hindwing blue, in front of the border are fine blackish dots in a light halo. The under surface is unicolorously whitish-grey with very fine dark dots on the hindwing and in the anal part of the forewing. Amazon.

phineus. **Th. phineus** Schs. Described from Limon in Costa Rica. Forewings dark brown; cell posteriorly as well as the space below it as far as behind the middle of the wing bright blue, also the space between veins 3 and 5 up to close to the border. Hindwing likewise blue, only the costal margin and apex narrowly black. Under surface light brownish-grey, hindwings with black marginal dots the largest of which at the anal angle and below vein 3.

methemona. **Th. methemona** Bat. is considerably larger than the preceding, the forewings form a more regular triangle; the disc and base of both wings are blue, sharply delimited against the broad black margin; under surface light-brown. Forewing and hindwing with thick submarginal dots. Lower Amazon.

theritas. **Th. theritas** Hew. (143 g as *thersitus*) is larger and has a bright blue ground-colour with an intense lustre on the inner part of the forewing and on the whole hindwing. The under surface is light ochreous-brown with 2 black submarginal dots in the anal part of the hindwing. Amazon.

diores. **Th. diores** G. & S. (143 h). Differing from the preceding species chiefly by the costa of the forewing being more stretched and the black in the forewing being more extensive. Under surface very much like that of the preceding; in the anal part mostly only 1 dot. Mexico; mostly rare.

virgilius. **Th. virgilius** F. (143 h). One of the largest species varying exceedingly. Typical specimens come from Central America; the ♂ has more than half of the forewing black, but no blue pupil in the black apical part. The under surface is uniformly tinged in a pinkish brown. — **cupolis** Schs. (143 g) has the blue of the forewing in the ♂ confined to the basal part of the inner-marginal area; in the ♀ it is more violet, more extensive, and in the black apical part is an indistinct blurred spot. The under surface is more flesh-coloured than brown and has only 1 tiny eye-spot in the hindwing. Mexico; near Guerrero not very rare; before me also from Jalapa.

potimela. and in a remarkably small, more lilac-blue ♀ from Honduras. — **polimela** G. & S. has the upper surface of the typical *virgilius*, but without distal-marginal dots of the hindwings; the black of the apical part in the forewing somewhat reduced; the under surface of the hindwing without an eye-spot in the anal part. Colombia.

caerulea. — **caerulea** Bat., finally, is the South Brazilian form, is said to be more cyanic-blue than violetish-blue and

nobilis. the hindwing has darker veins and between them small, dark submarginal streaks. — **nobilis** Bat. is the Amazonian form; it is particularly large and has a more yellow than brown or pinkish-grey under surface with several small spots before the border. In some places common. — It may be that also **archimedes** F., unknown to me, belongs into this group; it is said to be marked similarly above and to have a greyish-brown under surface. The patria of this latter form not being known, it is undoubtedly difficult to ascertain.

speciosa. **Th. speciosa** G. & S. (= *fasciata* Lathy). Beneath just as monotonously coloured as the preceding, entirely earthy-grey with faint dark anal dots of the hindwing in a light halo. Above, however, also the ♂ exhibits in the black apical part a lustrous blue spot of a violet reflection, being by far larger than in the ♀♀ of the preceding species. Colombia.

publius. **Th. publius** Fldr. (143 h). This butterfly, like the ♀♀ of *virgilius*, has a bright blue spot in the black apical part of the forewing, but also in the ♂, where *virgilius* is without it. But besides the under surface is entirely different, chestnut-brown with a more deeply brown median shade of all the wings. Widely distributed and not very rare. From Panama to the Amazon.

comosa. **Th. comosa** Stich. Also here the ♂ has in the apical black of the forewing a blue pupil, like in *publius* (143 h) to which the upper surface is said to be similar. (But according to the figure in the „Genera Insectorum“, this blue spot is at a different place, from that of *publius*, at the cell-end, whereas there it is nearer to the apex.) The under surface, besides, is monotonously yellowish-grey, unmarked. Described according to a ♂ from Pebas (Peru).

talna. **Th. talna** G. & S. (143 h). From Honduras. Resembles *virgilius* (which, however, likewise flies in one form in Honduras); the blurred spot in the black apical part of the forewing is present, but otherwise the blue of the upper surface almost entirely confined to the base of the wings; the under surface exhibits a whole chain of anal dots of the hindwing.

cratylus. **Th. cratylus** G. & S. (143 e). This species, one of the largest of this genus, which we figure from the Chiriquí, neither in the ♂ nor in the ♀ has the black apical part of the forewing blue-pupilled. It is immediately recognizable by the somewhat irregular delimitation of the blue in the forewing, where it projects towards the apex, and by the dark border of the hindwing. Panama.

thootes. **Th. thootes** Hew. (143 i). Much smaller than the preceding, at once distinguishable by the blue of the forewing projecting behind the cell in a tip towards the margin and advancing a second time between the lower median vein and the submedian, but here as far as to the distal margin. Undersurface unicolorously greyish-brown, unmarked. Central America to the Amazon.

zostera. **Th. zostera** Bat. Above similar to the preceding, but the blue more extensive, so that only a black marginal band remains being deeply indented in the middle. Under surface entirely different; the here brownish-yellow wings are crossed by a brown belt. From the Upper Amazon.

Th. apheles *Bat.* Likewise from the Amazon; very similar to *thootes* (143 i), but smaller and lighter *apheles*. blue. Beneath light brown. — *sobrina* *Bat.* presumably likewise approximates *thootes*; described according *sobrina*. to a ♀; like *thootes*, but more violetish-blue instead of cyanic blue, and the under surface of a lustrous golden brown. From the Tapajoz.

Th. terambus *Godt.* (= *lytaea* *Hbn.-G.*) (143 h, i). The ♂ has a similar upper surface like *virgilius*, *terambus*. but a bright blue gloss and a very pointed apical part of the hindwing. The ♀ has no blue pupil in the apical black of the forewing. Immediately recognizable by the under surface, where the wings, on a brown, in the ♀ yellowish-tinged ground, exhibit a dark-brown stripe extending from in front of the apex of the forewing to the middle of the inner margin of the hindwing. South Brazil. Not common.

Th. tetrastigma *Bat.* This much smaller species is above unicolorously brown, without markings. *tetrastigma*. The under surface is dark brown too, but here are short light streaks at the end of both wings and, in front of the border black dots in a light halo. From the Tapajoz.

Th. thentis *G. & S.* This form, in the distribution of the blue, so greatly resembles *thootes* (143 i) *thentis*. that it was sometimes confounded with it. Like there, the black distal band of the ♂-forewing projects linguiformly as far as below the cell-end. But the forewings are much more pointed, the apex still more produced, the costal margin behind the base more bulging-out. Moreover, the under surface in *thootes* is entirely unicolorous, whereas here it is marked with dark shades. Central America.

Th. baccenis *Schs.* Larger, forewings black, proximal margin at the base broadly blue, hindwings *baccenis*. blue with a black costal margin. Under surface brown with an intensely brown, joint band running from the apex of the forewing, similarly as in the following species, to the middle of the proximal margin of the hindwing. Forewing at the base yellowish. Mexico. Unknown to me.

Th. phaeo *Prittw.* This is probably nothing else but the South Brazilian form of *folia* *G. & S.* *phaeo*. (143 i) living in the northern parts of South America and in Central America. This species has altogether the *folia*. distorted shape of *thentis*, very pointed forewings and a pointed anal part of the hindwing, but the colouring is that of *virgilius* (apical half of the forewing blackish, otherwise blue) which it approximates also in the size. Beneath dirty pinkish-grey; the centre of the wings is traversed by a dark nebulous belt. Rare.

Th. basilea *Bat.* (143 i). One of the largest species, above similarly coloured to *terambus* (143 h, i), *basilea*. but both sexes with a dark border of the hindwing, which decreases in width from the apex towards the anal angle. Under surface brown, with a dark stripe from the apex of the forewing to the proximal margin of the hindwing, like in *terambus*, but the dark ground of the wings is, in the disc, usually still more or less distinctly spotted. Central America. Not common.

Th. eleutho *G. & S.* The largest species; greatly approximating the preceding, but easily discernible *eleutho*. by the much broader black distal margin of the hindwing and by the under surface exhibiting also the belt-like stripe as *basilea*, but a lighter, more marked ground of the wings in which, above all, a chain of marginal eye-spots of the hindwing is conspicuous. Panama.

Th. mania *G. & S.* from Mexico is of a similar size and colouring, but easily distinguishable by *mania*. the unicolorously loam-yellow under surface being traversed only by the median stripe, as well as by the hindwing of the ♂ exhibiting no dark margin. Rare.

Th. syngenes *Bat.* Beneath rather similar to *mania*, but the hindwings always exhibit a distinct *syngenes*. dark anal spot, and at the apex of the forewing, at the beginning of the dark stripe, we notice a mostly somewhat square spot. Above the blue on the hindwing is more confined; the veins are distinctly brown; in the ♀ the black apical part of the forewing often shows a blue spot. Santarem.

Th. thebais *Hew.* This species has a deep dark-blue of a magnificent lustre, as it is exhibited by *thebais*. different *Thecla* and, of the Indian *Lycaenidae*, particularly by the *Arhopala*. Especially the form *matuta* *matuta*. *G. & S.* (143 i, misprinted into *matula*) exhibits this deep blue, and still more extensively than typical *thebais*, but in this respect the *matuta* from the different districts vary considerably. The fore- and hindwings are very broadly margined in black; particularly in typical *thebais* from the Amazon, where the blue covers scarcely yet $\frac{1}{2}$ of the upper surface of the wings. Beneath *thebais* shows a broad brown median band and a submarginal nebulous stripe; in *matuta* the under surface is more regularly brown, the veins distinctly darker, the transverse bands duller; it occurs in Central America and in particularly large specimens (*gloriosa* *B.-H.* i. l.) in Colombia.

Th. janus *Btlr.* In this species from the Lower Amazon the proximal half of the wings shows beneath *janus*. a yellow colouring which does not occur in any other allied *Theope*. Only *decorata* shows yet a basal yellow on the wings beneath, but only in the cell of the forewing; the latter, however, has also blue in the distal part of the forewing beneath and is smaller than *janus*.

Th. drepana *Bat.* A small species; the costa behind the base bulged and, in the ♂, the apex of the *drepana*. forewing greatly drawn forward. The forewings being above blue exhibit a dark margin and 2 very irregular lines formed by small streaks. Beneath are numerous, small red-yellow stripes on a lighter ground, being partly united to a belt-like stripe through the centre. Teffé.

thestias. **Th. thestias**. A very small form; it is immediately recognizable by the under surface. Here, below the costa of the forewing, we see a brimstone-coloured, oblong basal spot filling up the part of the wings between the costa-base and the subcostal, and extending yet narrowly into the cell of the forewing. The rest of the under surface is lilac-grey, with a broad brown median shade. Above typical *thestias* have entirely blue hindwings. — Those of the form **discus** *Bat.* have only the basal part of the hindwing blue. The species is easily distinguishable by a concave indentation at the anal part of the hindwing, effected by the receding anal fold. The species, varying according to the finding-places, not with respect to the countries, is apparently distributed over the greatest part of Central and South America; it was found from Costa Rica and Guiana to Rio Grande do Sul and Bolivia. — **decorata** *G. & S.* is the northernmost form; it shows blue patches embedded in the distal part of the forewings beneath. Apparently rather rare.

eurygonina. **Th. eurygonina** *Bat.* Recognizable by the shape being more that of an *Euselasia* than that of a *Thecpe*; the forewings are triangular with almost straight margins, and the hindwings have a rather long anal part. In the typical form from Santarem on the Amazon, the part of the forewing above the middle of the inner margin, the hindwing, however, entirely violettish-blue except broad dark marginal triangles of the ♀.

columbiana. Under surface brown, marked with rusty-brown transverse bands. — Colombian specimens, **columbiana** *Stgr.* (110 A e), are figured by their author with a light-brown, light-striped under surface and entirely blue hindwings, from the Rio San Juan; a specimen captured by A. H. FASSL on the Tolima at 1700 m has the whole distal half of the hindwings blackish, only the basal part being blue; the under surface shows very light grey bands. — From the Rio Dagua (Colombia) there is a most peculiar specimen before me, likewise taken by A. H. FASSL, which is similarly marked like the Tolima-specimen, but of a snow-white colour in the centre of the wings on both surfaces. It is not impossible that it is a different species, as also the marking beneath in the centre of the wings deviates somewhat from *eurygonina*. But as I have only 1 specimen before me, I include *sisemina*. it here and call it **sisemina** *form. nov.* (110 A e). — This species connects the genus with the preceding.

Additions and Corrections.

fulvescens. P. 623. — **Libythea fulvescens** *Lathy* (Proc. Zool. Soc. Lond. 1904 p. 451) scarcely differs from the form *terena*; it has only above more black and the yellow spots are more homochromous. From Dominica.

P. 624, line 12 from above, insert: typical *eucreitus* *Hew.* (121 a) originate from the Central Amazon.

P. 626, ,, 11 ,, ,, After *eustachius* insert: *J. & Hbst.* (121 e).

P. 626, ,, 13 ,, ,, for 121 f read: 121 e.

,, 19 ,, ,, After *rhodon* insert: (121 f).

P. 627, ,, 16 ,, ,, for (110 A f) read: (122 a, b).

P. 628, ,, 21 ,, ,, after *uria* insert: (121 h).

,, 27 ,, below, after *form. nov.*, for Hindwing read: Forewing.

P. 631, ,, 26 ,, ,, after *E. authe* insert:

ocalea. **E. ocalea** *Drc.* greatly approximates *authe*, but the yellowish-red on the forewing is more extensive and covers the whole hindwing except narrow margins. Beneath the whole distal half of the hindwing and a band distal from the (interrupted) postmedian line are white. La Paz (Bolivia). Above almost like *eucreus*, but beneath quite different.

P. 632, line 12 from below, add:

tysoni. **E. tysoni** *Weeks* from Suapure (Venezuela) has an expanse of 24½ mm. Hindwing very dentate; upper surface mouse-coloured with an obliterated yellow spot at the end of the submedian of the hindwing. Under surface yellowish-brown with a dark central transverse line, the anal region of the forewing whitish. At the border of the wings a white filiform line exhibiting in the hindwing white, black-bordered longitudinal spots; the median line of the hindwing bent round towards the proximal margin.

howlandi. **E. howlandi** *Weeks* is 27 mm, mouse-coloured, the forewings in the proximal third lighter; the hindwings also somewhat lighter in the middle of the upper surface. Under surface quite light-grey, with brown lines from the costa through the centre and also nearer to the apex of the forewing. Border of the hindwing dentate; antennae white. From Suapure (Venezuela).

P. 638, line 19 from above, to *attalus* add: (124 e).

P. 639, ,, 2 ,, ,, for *lapillus* read: *lapilla*.

,, 27 ,, below, for *magnesia* read: *magnessa*.

P. 641, ,, 20 ,, ,, for *menoetes* from Bolivia and Peru STICHEL establishes another name: *paetula*.

P. 642, line 12 from above. *M. mathania* *Schs.* which was wrongly placed to the *epidius*-group by STICHEL, belongs to the *odice*-group, according to the ♀ having in the meantime become known, and approximates *cymotaxis* *Stichel*.

P. 643. — Hereto we must remark that the two first figures of the row e of table 142 are exchanged by mistake.

P. 648, line 13 from above and Note: **M. ramsdeni** *Skinn.* Blackish-brown, forewing with 2 whitish *ramsdeni* costal spots and a similar transverse band shaded inside in dark; at the distal angle a black spot of about 2 mm, near the base 4 small dark crescents. The hindwings at the anal angle have a black eye-spot narrowly bordered in orange, at the base 2 black bands, at the distal margin 3 obliterated dark spots. ♂ has an expanse of 30 mm. Unknown to me.

P. 651, line 25 from above, add: *Napaea agroeca* *Stich.* Forewing more pointed, border less convex. *agroeca*. Wings above greyish-brown, outside darker. Espiritu Santo.

P. 652, line 17 from above, for *helydrias* read *thelydrias*.

P. 654, ,, 1 ,, ,, To *Tmetoclene* apparently belongs an *Erycinidae* which I call **trichroma** *trichroma*. *sp. nov.* (110 D f) and which was brought by A. H. FASSL from his last excursion to Colombia. Like *Tm. dodone*, but the basal half of the wings orange-red.

P. 655, line 19 from below, behind *jaeris* place *Bat.* instead of *Bsd.*

P. 658, ,, 5 ,, above, **Panara trabealis** *Stich.* (1916) is above blackish-brown, hindwing in the *trabealis*. anal region powdered in white; oblique band across both wings 3 to 4 mm broad, pale reddish ochreous-yellow, the costal end diffuse towards the base. Length of forewings 19 mm. Sao Paulo (South Brazil).

P. 658, line 17 from below. **Riodina pelta** *Schs.* Upper surface dark violettish black, between the *pelta*. veins greenish-brown streaks, the orange band in the forewing from the middle of the costa to the anal angle. Under surface black, internerval streaks lighter. Costal margin of the forewing at the base orange, oblique band paler; hindwing with a yellow dot at the base and a small orange dot near the anal angle.

P. 662, line 14 from above. *Lymanas hodia* *Btlr.* is allied to *jarbas (melantho)*; upper surface jet- *hodia*. black, the orange band of the forewing narrow; under surface lighter, more dark-brown with whitish veins, the oblique band paler. Forewing above with a deep-red dot near the base, sides of the body with a scarlet stripe. Venezuela. Type in the Coll. DRUCE.

P. 665, line 7 from below, for „oldros“ read „oluros“.

P. 666, ,, 2 ,, above, behind *naevianus* *Stich.* place: (130 e).

„ 22 ,, ,, for „Euerciina“ read „Euerycina“.

P. 671, ,, 1 ,, below, add: *Monethe albertus* with an ochreously darkened spot of the forewing are *nesotyus* *Stich.* — *paulus* *Stgr.* is synonymous with *albertus*.

P. 675, line 3 from below, add to *hya*, as well as to *fenestrella*: (110 A e). As presumably all the forms quoted as *hya* replace each other in the different districts, there may transitions be found, we therefore better figure these 2 forms once more.

P. 676, line 1 from above, for „paraena“ read „paraena“.

P. 679, ,, 15 ,, ,, for (142 g) read (135 d and 142 g).

P. 681, ,, 15 ,, ,, — STICHEL describes (Berl. Ent. Zschr. 1910, p. 81) as *Symmachia historica*, according to a single ♀ of his collection a butterfly which is said to resemble *S. calligrapha* in the shape of the hindwing, in the forewing, however, a *Mesene*. Blackish-brown, forewing with 4 ochreous-yellow transverse lines the 3 rd of which bifurcates towards the costal. In front of the border blackish, coherent spots. Hindwing with similar markings. From Panama.

P. 686, line 9 from below, behind *micon* read *Drc.* for *Stich.*

P. 687, ,, 24 ,, ,, behind *axiochus* *Hew.* place: (= *archyotus* *Stoll*).

P. 693, ,, 14 ,, ,, insert: **Z. candace** *Hew.* (135 l) ♂ similar to the following, but only at *candace*. the costal margin and base of the wings with scarce dots as small as the prick of a needle. ♀ loam-yellow, clouded in a dirty brown, with a chain of antemarginal eyespot-rings. From the Amazon.

P. 694, line 15 from above, for *hegyas* read *hegyas*.

P. 695, ,, 3 ,, below, before *E. angularis* place: **E. samius** *sp. nov.* (136 g) from the Pachitea *samius*. (Peru) has all the wings unicolorously nut-brown marked with somewhat irregular darker transverse bands. ♂ quite slightly darker than the ♀, but the wings more pointed. Beneath almost like above, the transverse line more distinct, ending into dark comma-spots. ♂♀ in the Coll. BANG-HAAS.

P. 696, line 1 from below. Behind „not common“ add: Colouring of the upper surface suffused by an intense yellow with very dull silvery markings, similar to *poas*.

P. 697, line 7 from above, to *Emesis temesa* add: **E. satema** *Schs.* being unknown to me. Wings *satema*. above quite dark brown, with still darker markings. The markings are traversed by the veins. At the border dark dots, in front of the border a shade. The distal line below the cell bent in, irregular. On the discocellular streaks; one basal line and 2 proximal lines lighter, 24 mm. Is said to originate from Petropolis in the Organ Mountains.

P. 698, line 6 from below. *Siseme hothurus* Berg differing from the other *Siseme* by exhibiting in the marginal area not the radiary striation, as *neurodes*, *pallas* etc., is said to originate from Argentina; it is not before me.

P. 700, line 28 from below, for „Apodemia *druryi* Edw. read „*druryi*“.

drucei. P. 701, „ 10 „ below. Insert here: **H. drucei** *Giacom.* Standing between *cisandina* and *chilensis*.

P. 707, „ 21 „ above, for „*glaucoalthris*“ read „*glaucoalthris*“.

P. 708, line 14 from below. The animal described here as *Echenais micator* and figured by this name t. 138 h has proved to be a ♀-form of *Ech. alector* Bltr. (p. 707), at a minute examination. It deviates especially much from the ♂-form and seems, in the figured form, to be confined to Peru.

P. 712, line 2 from below, for *hesperium* read *hespericum*, and for *erythroicum* read *erythraicum*.

tenocinium. P. 713. Insert here: *Nymph. lenocinium* Schs. 22 mm. Described according to 1 ♂ from La Florida in Costa Rica. Wings white, forewing with a broad brown costal margin. At the transverse vein a fine dark streak and a fine postmedial line on vein 5; the traces of a small, blue-bordered spot in the cell and outwards at the costa; the inner edge of the dark marginal band dentate; a fine blue submarginal line, a similar one at the border itself. Hindwing at the base narrowly black, distal margin blackish-brown, the subterminal line like in the forewing; border and fringes white. — The diagnose does not mention to which species this butterfly is allied.

P. 717, line 5 from below, for *glaucogonia* read: *glaucoconia*.

P. 718, „ 12 „ above, for „♀ of the preceding species“ read: „*Tharops superba*-♀“.

Alphabetical List

with reference to the original descriptions of the forms of the American *Erycinidae*.

* signifies that the form is also figured at the place cited.

- abaris Nymph. *Cr. Pap. Exot.* 1, p. 146. *
- acanthoides Sar. *H. Schäff.* Außereur. Schmett. p. 55. *
- acanthus Sar. *Cr. Pap. Exot.* 4, p. 179. *
- accusatrix Symm. *Wv. Dbl. & Hew.* Gen. Diurn. Lep. 2, p. 445.
- acherois Nymph. *Bsd. Spec. Gén. Léop.* 1, p. 5 (Tbl). *
- acheus Ant. *Stoll Cr. Pap. Exot.* 4, p. 121. *
- achroa Zel. *Bal. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 382.
- acis Helic. *F. Spec. Ins.* 2, App. p. 504.
- aconia Symm. *Hew. Exot. Butt.* 5. *
- acosma The. *Stich.* Berl. Ent. Zschr. 1910, p. 86.
- acroleuca Barb. *Berg.* Ann. Mus. Buen. Air. 5, p. 1. *
- acroleuca Lymm. *Fldr. Verh. Zool.-Bot. Ges. Wien* 19, p. 467.
- acroxantha Char. *Stich.* Berl. Ent. Zschr. 1910, p. 20.
- actoris Cremln. *Cr. Pap. Exot.* 1, p. 146. *
- acuta Mesos. *Hew. Exot. Butt.* 5. *
- adelina Ech. *Btlr. Cistul. Entomol.* 1, p. 79.
- adelpina Stal. *Strg. Exot. Tagf.* 1, p. 265. *
- adelpina Mesos. *Stich.* Berl. Ent. Zschr. 1909, p. 24.
- adelpina Thisbe G. & S. *Proc. Zool. Soc. Lond.* 1878, p. 368.
- ageates Lymu. *Hew. Descr. Butt. Boliv.* p. 19.
- aemulius Ech. *F. Entom. Syst.* 3, (1), p. 322.
- aenetus Im. *Hew. Descr. Butt. Boliv.* p. 14.
- aeniachus Esthemopsis *Hew. Exot. Butt.* 5. *
- aella Esthemopsis *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 433.
- aeolia Ithomeis *Sm. Rhop. Exot.* 3. *
- aerigera Char. *Stich.* Gen. Insect. 112, p. 168. *
- aethalia Emes. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 385.
- aetherea Mesos. *Stich.* Gen. Insect. 112, p. 34.
- aethiops Symm. *Slgr. Exot. Tagf.* 1, p. 250.
- agathon Noth. *Fldr. Novara Lep.* 2 (2), p. 308. *
- agave Anat. G. & S. *Biol. Centr.-Amer. Lep.* 1, p. 462. *
- agesilas Las. *Latr. Humb.-Bonpl. Rec. Zoolog.* 1, p. 396. *
- agle Nymph. *Hew. Exot. Butt.* 1. *
- agria Xen. *Hew. Exot. Butt.* 1. *
- agroeca Nap. *Stich.* Berl. Ent. Zschr. 1910, p. 93.
- aguilata Mesos. *Dogn. Ann. Soc. Ent. Belg.* 1893, p. 156.
- agyrtus Isap. *Cr. Pap. Exot.* 2. *
- ahava Mesos. *Hew. Equat. Lep.* p. 41.
- albertus Mon. *Fldr.* Wien. Ent. Mon. 6, p. 73.
- albesens Sis. *Stich.* Gen. Insect. 112, p. 278.
- albida Emes *Seitz.* Macrolep. 5, p. 695.
- albinus Ham. *Fldr.* Wien. Ent. Mon. 5, p. 101.
- albiplaga Mesene *Seitz.* Macrolep. 5, p. 676.
- albipluneta Mesos. *Schs. Proc. Zool. Soc. Lond.* 1913. *
- albitvitta Mesenops. *Lathy* Trans. Ent. Soc. Lond. 1904, p. 465. *
- albofasciata Ham. *Godm. Trans. Ent. Soc. Lond.* p. 535. *
- albugo Lymm. *Stich.* Gen. Insect. 112, p. 203.
- alcioneus Barb. *Seitz.* Macrolep. 5, p. 664. *
- alcmena Eus. *Dre. Ent. Month. Mag.* 1878, p. 101.
- alemaeon Aric. *Hew. Exot. Butt.* 5. *
- alector Ech. *Btlr. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 214. *
- alector Cremln. *Hbn.-G. Zutr. Smlg. Exot. Schmett.* 5, p. 43. *
- allectryo Sis. *Wv. Dbl. & Hew.* Gen. Diurn. Lep. 2, p. 463. *
- alena Lymm. *Hew. Exot. Butt.* 4. *
- alicia Esthemopsis *Bat. Ent. Month. Mag.* 1, p. 203.
- allectus Ant. *Wv. Dbl. & Hew.* Gen. Diurn. Lep. 2, p. 428.
- alphonsus Mon. *F. Entom. Syst.* 3 (1) p. 303.
- ama Mesos. *Hew. Equat. Lep.* p. 39.
- amalfreda Argyrogr. *Slgr. Exot. Tagf.* 1, p. 256. *
- amanda Mesos. *Seitz.* Macrolep. 5, p. 640. *
- amarynthina Ambl. *Fldr. Novara Lep.* 2 (2), p. 309.
- amazon Zeon. *Sndrs. Trans. Ent. Soc. Lond. (II)* 5, p. 96. *
- amazonica Car. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 393.
- ambryllis Lymm. *Hew. Descr. Butt. Boliv.* p. 19.
- amesis *Tles. Cr. Pap. Exot.* 2. *
- amethystina Aric. *Btlr. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 220. *
- amiana Mesos. *Fldr.* Wien. Ent. Mon. 5, p. 100.
- aminias Ech. *Hew. Exot. Butt.* 3. *
- amithrata Meth. *Seitz.* Macrolep. 5, p. 633. *
- ammon Cham. *Cr. Pap. Exot.* 2. *
- amona Mesos. *Hew. Exot. Butt.* 5. *
- amphidecta Eus. G. & S. *Proc. Zool. Soc. Lond.* 1878, p. 360.
- amphis Lem. *Hew. Equat. Lep.* p. 52.
- amyceus Dior. *Stich.* Berl. Ent. Zschr. 1909, p. 35.
- analoga Mesos. *Seitz.* Macrolep. 5, p. 640.
- anceps Mesos. *Stich.* Deutsch. Ent. Zschr. 1915, p. 687. *
- andania Lymm. *Hew. Exot. Butt.* 5. *
- andraemon Lem. *Stich.* Berl. Ent. Zschr. 1910, p. 77.
- androgynae Cyr. *Stich.* Gen. Insect. 112, p. 99. *
- angelus Noth. *Stich.* Berl. Ent. Zschr. 1910, p. 58.
- angularis Emes. *Hew. Trans. Ent. Soc. Lond.* 1870, p. 162.
- angulata Eus. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 376.
- angustior Sis. *Seitz.* Macrolep. 5, p. 698. *
- anica Eus. *H.-Schäff.* Exot. Schmett. Fig. 31/2.
- anims Char. *Cr. Pap. Exot.* 1, p. 114. *
- annulata Euryb. *Stich.* Gen. Insect. 112, p. 68.
- annulifera Ech. *Godm. Trans. Ent. Soc. Lond.* 1908, p. 542. *
- anophthalma Hyphil. *Fldr. Novara Lep.* 2 (2) p. 298. *
- antaerice Mesos. *Hew. Exot. Butt.* 2. *
- antacus Ham. *Seitz.* Macrolep. 5, p. 701. *
- antantius Lem. *Hew. Descr. Butt. Boliv.* p. 15.
- anthias Hyphil. *Hew. Descr. Butt. Boliv.* p. 14.
- apame Nymph. *Hew. Exot. Butt.* 3. *
- aphanis Char. *Stich.* Berl. Ent. Zschr. 1910, p. 19.
- apicles The. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 405.
- apollonia Lyr. *Wv. Dbl. & Hew.* Gen. Diurn. Lep. 2, p. 433. *
- apopteta Phaen. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 38.
- apotaeta Barb. *Stich.* Berl. Ent. Zschr. 1909, p. 43.
- apotheta Lem. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 399.
- arachne Lem. *Stich.* Gen. Insect. 112, p. 324.
- araguaya Lymm. *Seitz.* Macrolep. 5, p. 660. *
- arbas Eus. *Cr. Pap. Exot.* 4. *
- arbuscula Phaen. *Mschlr. Verh. Zool.-Bot. Ges. Wien* 1883, p. 314.
- arche Nymph. *Hew. Exot. Butt.* 3. *
- archelaus Eus. *Seitz.* Macrolep. 5, p. 632. *
- archimedes The. *F. Entom. Syst.* 3 (1), p. 320.
- arcus Dior. *L. Amoen. Acad.* 6, 409.
- arcifascia Pan. *Btlr. Trans. Ent. Soc. Lond.* 1874, p. 432.
- aretos Nymph. *Hew. Exot. Butt.* 1. *
- arcuata Croc. *Godm. Trans. Ent. Soc. Lond.* 1903, p. 539. *
- arcuata Symm. *Hew. Exot. Butt.* 4. *
- arcuata Astr. *Wv. Dbl. & Hew.* Gen. Diurn. Lep. 2, p. 70. *
- ares Emes. *H. Ede. Papilio*, 2, p. 137.
- arete Car. *Fldr.* Wien. Ent. Mon. 5, p. 98.
- argenissa Lem. *Stoll Cr. Pap. Exot. Suppl.* p. 130. *
- argentea Eus. *Hew. Trans. Ent. Soc. Lond.* 1871, p. 166.
- argenteum Chim. *Bat. Ent. Mon. Mag.* 3, p. 154.
- argiella Ech. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 394.
- argyrea Char. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 392.
- argyrodiues Char. *Bat. Ent. Month. Mag.* 3, p. 154.
- ariadne Nymph. *Stich.* Gen. Insect. 112, p. 370.
- arion Symm. *Fldr. Novara Lep.* 2 (2) p. 294. *
- aristodorus Anc. *Mor. Ann. Soc. Ent. Fr.* 6, p. 420.
- aristoteles Sis. *Latr. Humb. u. Bonpl. Rec. Zoolog.* 1, p. 387. *
- aristus Ech. *Stoll Cr. Pap. Exot. Suppl.* p. 170. *
- arsis Las. *Slgr. Exot. Tagf.* 1, p. 257. *
- arthurius Dior. *E.-Sh. Proc. Zool. Soc. Lond.* 1890, p. 572. *
- artos Eus. *H.-Schäff.* Exot. Schmett. Fig. 33/4.
- asa Mesos. *Hew. Trans. Ent. Soc. Lond.* 1869, p. 35.
- aselepis Aric. *Hew. Equat. Lep.* p. 51.
- ascolia Nymph. *Hew. Exot. Butt.* 1. *
- ascolides Nymph. *Bsd. Léop. Guatemala* p. 21.
- asenna Ech. *Stich.* Berl. Ent. Zschr. 1910, p. 31.
- assimulata Lymm. *Stich.* Gen. Insect. 112, p. 207.
- asteria Lem. *Stich.* Gen. Insect. 112, p. 321.
- asterra Luc. *Sm. Ann. Mag. Nat. Hist.* (7) 2, p. 72.
- astiana Symm. *Slgr. Exot. Tagf.* 1, p. 250.
- astrea Ithomeis *Fldr.* Wien. Ent. Mon. 6, p. 412.
- atahualpa Anc. *Sndrs. Trans. Ent. Soc. Lond. (II)* 5, p. 96. *
- ater Eus. *Seitz.* Macrolep. 5, p. 628. *
- aterima Barb. *Seitz.* Macrolep. 5, p. 663. *
- athena Eus. *Hew. Equat. Lep.* p. 46.
- atima The. *Bat. Journ. Linn. Soc. Lond. (Zool.)* 9, p. 407.
- atricolor Lepr. *Btlr. Ann. Mag. Nat. Hist.* (4) 8, p. 284.

- atroculis Mesos. *Bltr.* Trans. Ent. Soc. Lond. 1874, p. 429.
 atrytone Sis. *Thm.* Berl. Ent. Zschr. 1907, p. 10. *
 attalus Mesos. *Seitz*, Macrolep. 5, p. 638. *
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 augea Nymph. *Drc.* Proc. Zool. Soc. Lond. 1904, p. 488. *
 aulestes Anc. *Cr.* Pap. Exot. 2, p. 47. *
 aulia Anc. *Stich.* Berl. Ent. Zschr. 1910, p. 98.
 aulonia Lymm. *Hew.* Exot. Butt. 5. *
 aurantia Eus. *Bldr.* & *Drc.* Cistul. Entom. 1, p. 103.
 aurantiaca Eus. *G.* & *S.* Ann. Mag. Nat. Hist. (4) 2, p. 149.
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 aureizona Pan. *Bltr.* Trans. Ent. Soc. Lond. 1874, p. 431.
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9. Family: Lycaenidae.

The delimitation of this family is not difficult for the American forms either, if the characteristic of the *Lycaenidae* which are devoid of any real cleaning-paws is to be decisive. Thereby a contrast is effected with the *Danaomorphinae*, *Nymphalidae* and *Satyromorphinae*, in which both sexes, and with the *Erycinidae*, in which the ♂♂ exhibit the forefeet transformed into cleaning-paws*). The *Lycaenidae* are separated from the *Papilionidae* by such conspicuous differences of the habitus that not one word need to be said about them. In a similar manner the *Pieris* exhibit besides the remarkable peculiarity in the subcostal neuration of the forewings, a rise of the 3rd, 4th and 5th branches from a joint pedicel, whereas the *Lycaenidae* exhibit only a two-pronged bifurcation of the veins in the apex of the forewing, if not all the subcostal branches rise separately from one another. Another characteristic mark of the *Lycaenidae* are the bean-shaped outlines of the eyes being circular or slightly oval in the other day-butterflies.

So far about 900 to 1000 *Lycaenidae* have been described from America, less, therefore, than from the palearctic district in which many more names were distributed. But as the names of most of the American forms were allotted to well distinguished species, while those of most of the European forms were given to insignificant sub-forms or aberrative discolorations, the number of the American species is probably twice or thrice as large as that of the whole palearctic district. It has never occurred that an American species has been denominated by more than 20 different names as for instance the palearctic *Chrysophanus virgaureae*, *phlaeas* or *Lycaena icarus*. America, however, is inferior to the Indo-Australian fauna, regarding both the number of species and especially the variety of the genera of which there are more than 120 in the east; in America, however, but quite few. The Ethiopian region, however, is excelled by the American *Lycaenidae* as to the number of species. From Africa to the south of the Sahara, and from the islands belonging to it, we know about 6 to 700 *Lycaenidae*, one third of which belong to groups that have no allies in the American district, i. e. the *Lipteninae*. Such Lycaenid-groups, being to some degree isolated and characteristic of the special district like this subfamily or perhaps the *Liphyrini*, are not found in the American region; on the contrary, all the American species belong to such genera that are represented also in the Old World, with the sole exception of few species of the genus *Eumaeus* to which we shall revert later on.

In America itself the distribution is similar to that of the palearctic *Lycaenidae*; in the tropics there are considerably more species, though by no means in such great numbers as for instance the *Ithomiini* (the so-called Neotropids) in the equatorial districts, which disappear abruptly on reaching the northern or southern tropics. Not even in one of the Lycaenid-genera containing many more species, the tropics form the delimitation; except that the insignificant forms of the northern part of North America and the southern part of South America, being allied to the European forms, are replaced in tropical America by brightly coloured and variegated, often also very large *Lycaenidae*.

The geographical distribution of the *Lycaenidae*, which exhibits many striking peculiarities, is full of problems also in respect of American species. Some of them have analoga on the eastern hemisphere, just like in New Zealand and Australia there occur forms that have their nearest allies not in the interjacent India, but quite in the north (*Chrysophanus salustius*, *boldenarum*, the *Erebia*-like Satyrids *Argyrphenga* etc.); thus also the *Lycaenidae*, particularly the *Thecla*, grow, towards the southern point of South America, more and more similar, instead of dissimilar, to the North Americans. These resemblances are undoubtedly due to convergent symptoms, in which similar groups of animals react in a similar way upon the climate which naturally approximates in the extremest south to that of the northernmost region. By this, however, we cannot explain other symptoms, such as the occurrence of otherwise African genera on the high ridges of the Andes (genus *Cyclotrius* Btlr.). Such cases must involuntarily rouse the suspicion that these genera are no natural ones, since their homogeneity was established upon criteria that are not to be understood as the symptom of alliance, but as fortuitous or also as convergencies.

Of certain palearctic habitats we know that sometimes an enormous number of specimens of *Lycaenidae* gather there, sometimes entirely of one species, often composed of different species. We have already called the readers' attention to the small water-courses of the Alps, where the alpine *Lycaena* sometimes gather in

*) In the ♂♂ of the *Lycaenidae* the forelegs are at any rate smaller than in the ♀♀ and they have a plain terminal member. Cf. Vol. I, p. 257.

such crowds that whole clouds of them fly up in front of the perambulator. I have recorded the immense number of *Polyommatus baeticus* in India and of the very small *Zizera* of which the air sometimes seems to glisten. I have never been able to observe an analogous occurrence of crowds of *Lycaenidae* in America. Even in Brazil abounding so greatly in butterflies I almost everywhere met *Lycaenidae* only quite sporadically; in some daily captures not one single Lycaenid is represented by more than 1 specimen, only sometimes a greater number of specimens met at wet places on the road.

Except the fact, also applicable to other faunae, that the large and brightly metallic species are exclusively tropical also in America, the north of the western hemisphere exhibits a distinct preponderance of the groups which are spread also over Europe and North Asia, viz. the genuine *Lycaena*, the *Chrysophanus* and those *Thecla* that approximate their European allies in shape and colour. These species, resembling our palearctic species, disappear in Mexico and do not occur anymore to the south of the Central Mexican deserts. Only on the ridges of the Cordilleras small alpine forms resembling exteriorly our *Zizera*, *Everes* and the north-oriental *Chilades* extend over the whole continent, joined in the extremest south again by *Lycaena*-like blue butterflies and *Zephyrus*-like *Thecla* in the same degree as the variegated, large, often also long-tailed *Thecla* of the American tropical zone disappear.

The uniformity of the *Lycaenidae* is much greater in America than it is in India or Africa. In the palearctic region 34 genera have been distinguished the existence of all of which may be distinctly asserted, although they have not been universally acknowledged. The Ethiopian district has 48 genera, while in the Indo-Australian there are even more than 100 genera. Chiefly for the sake of perspicuity, an attempt has been made also to separate the many hundreds of American *Thecla* in a great number of genera, but these attempts have proved to be impracticable. In these attempts the same principles have not been pursued as in systematizing the palearctic species, else the ascertainment would have been made that among the American *Thecla* distinct resemblances of some species are to be found to *Zephyrus*, *Callophrys*, *Tajuria* or similar genera, that even in *Thecla*-forms, such as *cypria*, *nobilis*, *marsyas*, *loxurina* much greater extravagances in the shape and colouring are exhibited than sometimes in palearctics of different genera. But we have nevertheless not yet succeeded in accomplishing a disintegration of the American genus *Thecla*, which would have been conclusive, so that this genus, with about 800 forms, remains one of the most difficult to survey.

The more the *Thecla* are preponderant in America, the more the *Lycaena* recede; but their colour, the intensive blue of the upper surface, seems there to have passed on to the *Thecla*. The upper surface being throughout dark-brown in European *Thecla*, in the palearctic *Zephyrus* sometimes even orange-yellow, is exhibited in America to be preponderantly a radiant metallic blue or golden-green, so that the exterior habitus shows counterparts of the palearctic *Arkhopala* (*Th. hemon*), of the *Tajuria* (*Th. halesus*), of the *Lampides* (*Th. phydela*), of the *Horaga* (*Th. zaria*), of the *Cyaniris* (*Th. sito*), of the *Callophrys* (*Th. dumetorum*), of the *Satsuma* (*Th. henrici*) etc.

On the under surface the American *Lycaenidae*, in the north of the range, exhibit yet resemblances with the characteristic dotted eyespot-marking of most of our *Lycaena* which was looked at as an approximate reproduction of the stamina on the receptacles of blossoms abounding in honey. It may be connected with the habit of passing the night on the blossoms. Mostly, however, it is only a dull silhouette of the adornment with eye-spots, which we find in the Americans; only in *Lyc. acmon*, *daedalus*, *glaucon* and some others it grows more distinct; in America it scarcely attains the degree being usual in our more beautiful species, such as *Lyc. argus*, *icarus*, *arion*, *adonis*, *corydon* etc.

In spite of their great variability of the marking beneath, nearly all the *Thecla* exhibit the typical *Thecla*-marking consisting of a postmedian stripe and often also an antemedian stripe with an interjacent, small cell-end stripe. The anal eye-spot of the hindwing beneath being nearly always distinct in Indian *Theclini* and often even adorned with a metallic lustre, is of a much inferior importance in American species and, in many cases, it is not prominent at all. The real *Thecla*, as a rule, are not used to sleep on blossoms, but on the ground, on trunks or (mostly) in the bushes. Their under surface is accordingly often green like a leaf or adapted to a dry, withered or folded leaf.

Much more conspicuous than in the colouring, the extravagance of the American *Lycaenidae* is in the shape. This, however, always only refers to the wings; the body in all the species shows a conformity being found in scarcely any other family and, in the *Lycaenidae* themselves, also in no other fauna. In the *Nymphalidae* we have found sometimes long, thread-like antennae, sometimes short clubs; the palpi were sometimes inflated, sometimes prolonged like a nose or also short and pointed; the abdomen was in some cases long and thin as in a dragon-fly (as for instance in some *Heliconius*), then again it represented (in the *Anaea*) only a conic appendix to the excessively broad thorax, etc. In the *Lycaenidae*, however, a difference in size (usually not too great) is the only mark we can find in American species, whereas the *Liphya* and *Allotinus* in India, the *Curetis* in Asia, the *Liptena* in Africa show that a certain variety in the structure of the body is not entirely

foreign to the *Lycaenidae* in other parts of the world. Solely the *Eumaeus* which we shall have to mention later on also in a biological respect, deviate in manifold respects also in the structure of the body.

The most conspicuous part of the wings are the hindwings, in which the formation of delicate, small tails in the anal region has sometimes degenerated into long, thin, soft filiform appendages. Particularly the *Thecla* of the *imperialis*-group exhibit these formations which appear even more loosely arranged than those of numerous Indian forms, such as the *Sithon* and their allies. The long, sword-like or sabre-shaped tails, as are found in so many Indians (e. g. *Loxura*), do not occur in a similar development in America. But the longer appendages to the hindwings of some species are so delicate and soft that they dangle to and fro at the least puff of the wind. It is strange that these fine formations do not suffer more from the flight which is impetuously swift in some of these long- and thinly-tailed species. Nor do these tails, on capturing the animals in the net, break off as easily as one might fancy, considering their fineness, and I repeatedly captured much-flown and otherwise damaged specimens of *Thecla imperialis* in which the delicate appendages were well preserved.

Another peculiarity in the shape of the hindwings of the American *Thecla* are the small anal lobes which, being situated proximally to the filiform tails, may be of a laciniiform or bossy shape. Like in many palaearctic species, they are often so long that, in the resting butterfly, they reach down as far as below the anal end of the abdomen and would thereby be inconvenient, for which reason they are bent down rectangularly to the surface of the wings.

The proximal margin of the hindwings is mostly slightly bent in, but it may also be distorted to a deep indentation or notching. Exactly where, in the sitting butterfly, the apex of the abdomen rests on the support, there is in some species, such as *Thecla latraillei*, a strange indenture in the margin of the wing as if to render the sexual organs accessible to the copulation which organs, in encasing the abdomen, would otherwise be covered by the inner-marginal fold of the hindwings. The clasping-organs of the male, as much as is evident from the very scarce material examined so far, seem to be still more conformably built than in the *Erycinidae*; up to now the examinations of the clasping-organs have not yet yielded any surprising systematic results.

On the other hand, very many American *Lycaenidae* exhibit the scent-spots and male scales, which have already been profoundly studied in the European species. The former organs, serving according to one hypothesis for producing the scent, are found in very many *Theclini*, where they almost invariably are placed near the end of the forewing-cell and are exhibited as oval, more rarely circular, scale-pads of a red-yellow, brown or black colour, which are particularly bright and prominent in those species the upper surface of which exhibits a blue or golden-green metallic lustre which is absent in those scent-pads.

These pads exclusively occur in male specimens and are immediately noticeable for instance in *Thecla gemma*, *sista*, *aurora* (t. 151 a) and other *Thecla*, as well as in European *Theclini* (*Callophrys rubi* etc.). They consist, however, of scales showing no essential structural differences from the normal wing-scales, nor has there been, according to COURVOISIER, a proof produced of their function of producing the scent, though one cannot fail to recognize that a function of the male sexual activity is due to them.

We must distinguish from these the modified male-scales considered as real androconia and distributed over the upper surface of the wings, the structure of which was exhaustively investigated by KÖHLER 20 years ago and recently by COURVOISIER. They are sometimes apparently irregularly scattered across the surface of the wings, but mostly arranged to zones, stripes and bands which sometimes show a certain relationship to the shape and marking of the wings. They were sometimes found to be of the shape of a tennis-racket (WATSON), or sometimes utricular or vesicular (ANTHONY), and ILLIG discovered at the base of their footstalk glandular cells which he presumes to discharge their secretions over the scale thus representing in a certain manner a bowl for the evaporation and production of the scent. This agrees well with what COURVOISIER ascertained later on viz. that the shape of these scales is not that of a balloon, but more of a spoon.

On this occasion, the latter investigator also discovered the systematic applicability of these androconia. He evidenced for quite a number of species a characteristic formation adherent to the species. He was able to follow up the same forms of scales through a great number of aberrations, local forms and geographical races. In most cases all the forms belonging to one total species showed the same structure of the male scales, and numerous changes in the homogeneousness of subspecies and local races were proposed by reason of these investigations. The finer structure exhibited a steady number of the separate species of longitudinal ribs extending over a finely reticular surface. The transverse meshes, at the junctions show verrucous knots forming again characteristic figures, so that COURVOISIER comes to the conclusion that these scales are at least just as fit for specific differentiations as the clasping-organs.

Opinions differ greatly as to the intrinsic properties of these scales. They have been looked at as modifications of normal scales, or also as air-bellows in order to assist the flying-activity. KENNEL thinks that originally both sexes had been provided with such scales, but that these had then been lost by the females.

Against their function as scent-generators it was assigned that the frictional movements which were to generate the scent, were performed also by the females and by species in which both sexes were without the scent-pads as well as male scales, so that one must consider these frictional movements to be more the expression of comfort than that of sexual activity. But the strange fact that the *Lycaenini* in which the male scales are particularly well developed, are devoid of the scent-pads, and that, on the other hand, the *Thecla*, with distinct scent-spots, are apparently entirely without the androconia scattered over the surface of the wings, makes us anyhow think that both the formations replace each other. The striking fact remains that in several *Chrysophanini* that were examined neither pads nor male scales were found.

Most peculiar is a gibbous distortion exhibited by the forewing of some species at its costal margin. Shortly before the cell-end the costa grows into a linguiform continuation mostly matching well the scheme of markings beneath, as for instance in *Th. gibberosa*, *tomlinsoni* and some other species. There the under surface shows dark transverse bands on a white ground, and as if they would have to be prolonged beyond the surface of the wings, a lobate appendage extends beyond the margin of the wings, at their discharging-place at the costa. The purpose of this quaint formation is not to be ascertained, unless the biology of the different species be exactly known; the obvious presumption that room had to be made here for a greatly expanded scent-spot is not conclusive, since this appendage is not less developed in females than it is in males.

As to the variation, the American *Lycaenidae* are generally speaking most constant in their formation. Certainly in some forms, being to-day dealt with as separate species, it may turn out on getting knowledge of their biology and which as yet has been ascertained in but very few tropical species, that they are seasonal- or local-dimorphous forms of a species. Some species seem to be most peculiarly variable, since they are able to transform themselves from red into blue, in a similar way as e. g. in the palearctic *Chrysophanus alciphron* northern specimens are covered with a bright bluish violet, southern ones, however, of a glaring yellowish-red colour. It is a striking fact, however, that, while in the *Chrysophanus* the heat of the south takes away the violettish-blue cover, so that the fiery red shines forth unsubdued, in the American *Thecla loxurina*, according to A. H. FASSL's observations, the alpine climate of the Cordilleras favours the pure red, and the hot-house-heat of the lower districts changes the red into blue.

In many cases of the American *Lycaenidae* we may speak of a general adaptation of a brown under surface in species resting on the ground, of a green under surface in those resting in the dense foliage; but we do not notice an extremely minute copy of stones on the road, of tree-blossoms or of accurately ribbed leaves as we find it so much in *Nymphalidae*, *Satyridae*, and also in very many night-butterflies. The American *Lycaenidae* mostly rest hidden, often beneath the leaves or at the leaf-stalk, often they creep very far into the interior of the bushes, so that the enemies lying in wait in open spaces do not get much sight of them. Their tactic of escaping them consists in an intense concealment or slipping away (so-called „slippers“), during the swarming-time, however, in a very well developed flying-power to which I shall revert later on. A disguising by borrowed attires does not occur at all in the real American *Lycaenidae*; only one genus — *Eumaeus* being somewhat problematic in its position — shows a resemblance with patented butterflies of its range. The most remarkable resemblance of *Eumaeus atala* or *minyus* with the homochromous *Actinote neleus* is the more amazing, as beside the black, metallic-reflecting wings also the vermilion abdomen serves to complete the mimicry. From innumerable examples of other groups we know that just the mimetic adaptation of glaringly red places of the body cannot be so plain as spots or markings on the surface of the wings, because otherwise very well hit-off copies (e. g. the ♀ of *Papilio rhetenor*) are not able to imitate the red on the body of their model (*Papilio semperi*) and are thereby forced to transfer it on the wings in the shape of a red stripe being placed close to the body (which is of course not to be noticed in the living animal, since *rhetenor* is used to cover the red stripes of the wings partly over the body). It is therefore most amazing that in the family of the *Lycaenidae* exhibiting otherwise, except Africa, no mimicry and a very little developed adaptation, this high degree of mimicry is found in this one genus.

Another very striking mark in this genus just mentioned are the relations to the Erycinid-genus *Hades* with which it exhibits an extensive biological correspondance. Its gregarious occurrence at certain, mostly damp localities, its habitus, colour, size and way of flying, the same patria (Central America and the northern-most parts of South America) and the joint swarming-places with the likewise gregariously occurring *Morpheis ehrenbergii* are too evident to be regarded as a mere accidental coincidence. In the *Hades* and *Morpheis* the abdomen is certainly not red itself, but like in the mimicry-case already mentioned of *Papilio* (s. s.) *rhetenor* and *Papilio* (*Pharmacophagus*) *semperi* from the Philippines the red is attached directly next to the body on the under surface of the hindwings, somewhat proximally to the place where also the West-Indian *Eumaeus atala* Poey exhibits a red spot.

Also in the anatomy the *Eumaeus* differ considerably from all the other *Lycaenidae*. The transverse vein of the hindwing, being in the *Thecla* mostly quite faint, sometimes vanished to scarcely noticeable traces, is so strong that it forms a distinct termination of the discocellular. The first subcostal vein rises separately from the upper radial vein, whereas on the forewing the 3rd and 4th subcostal veins have a long joint footstalk. Finally, also the female forefeet are better developed than in most of the *Thecla*, and we may, therefore, see in the *Eumaeus* a similar transitional joint to the *Erycinidae*, as in the Indian *Curetis* which also deviate in many ways from the Lycaenid tribe. Like in many *Erycinidae*, we have also in the larvae of *Curetis* an organ being unexplained in its closer functions, which is not placed at the neck as in the American *Erycinidae*, but consists of rotatory whirling threads serving perhaps for the same purposes as the neck-organ of the Erycinid larvae, i. e. for protection.

The eggs of the *Lycaenidae* are cake- or turban-shaped, varying greatly in height and size, but are mostly conformable in shape. The surface is usually distinctly grained, less divided into areas or cells, the micropyle often drawn in.

We as yet know extremely little of the American — particularly South American — Lycaenid larvae. The species belonging here and being for the greatest part of the genus *Thecla* have presumably mostly tree-larvae, and it is, therefore, not astonishing that hardly anything is known of the early stages which are even at the habitat itself difficult to ascertain. The most we know of the North Americans of many of which already *Boisduval* and *Leconte* supplied the life-history (1833). Later on, in the sixties of the last century, particularly *Morris* and *Saunders* have acquainted us with many American Lycaenid-larvae. Still later on, W. H. EDWARDS, SCUDDER, PACKARD, FLETCHER, MISS MIDDLETON and others, published (mostly in the „Canadian Entomologist“) the life-histories of many species; but it is certainly not even the twentieth part of the American *Lycaenidae* with whose early stages we are familiar. On the whole it follows therefrom that, although the shape of American *Lycaenidae* seems not to deviate essentially from that of their palearctic representatives, still the habits, particularly the nutrition, are remarkable in different respects. Some *Thecla*-larvae feed from plants of families that are otherwise not known as the nourishment of *Lycaenidae*, such as the cotton plant (*Gossypium*) and the sarsaparilla (*Smilax*) belonging to the monocotyledons; *Thecla nippon* lives on conifers on which we do not meet with any Lycaenid-larvae in the Old World.

Most peculiar, however, is the life-history of *Feniseca tarquinius* being common in some parts of North America, the larvae of which live on plant-lice. But if HENRY EDWARDS says that this species is the only species among all the North American butterflies that has a carnivorous larva, he is only correct in as much as the other larvae of day-butterflies known from North America are under normal circumstances phytophagans. We know from CARLOS BERG that the larva of *Pyrameis carye* living likewise in North America becomes carnivorous and even cannibal in Patagonia, at the frontier of the region governed by phanerogamia. By its nutrition from plant-lice, the American genus *Feniseca* forms to a certain degree a parallel with the Indian *Gerydini* (cf. Vol. IX, p. 804) which have likewise entirely given up being phytophagans.

The large and brightly metallic-coloured *Lycaenidae* of America are real children of the sun. As soon as a cloud covers the sun, they disappear, i. e. they slip into the midst of the densest bushes, whereas in the intense sunshine, they cheerfully play round the twig-ends of large trees and the tops of bushes in the very same way as their European allies are used to do. The males then post themselves at the end of a twig projecting beyond the skirts of the woods, their heads always turned away from the woods and towards the open space, lying in wait for the females wandering restlessly along the skirts of the woods, until a male accompanies them. At their favourite haunts, being particularly the ends of forest-corners, the turnings of roads or also solitary bushes, we may see, almost invariably in South America, during summer in North America, some *Thecla* bustling about. On settling down the wings are always tightly closed, only some smaller species sometimes open them half, similar to our *Lycaena*, as for instance the species allied to *Th. elongata* flying more in the grass than on the bushes.

Most of the American *Lycaenidae* do not love flowers, except some blossoms abounding in honey, particularly umbels and tree-blossoms which are often visited by them. Nor do the American *Lycaenidae* frequently come to the bait, which is the more remarkable since some *Thecla*, such as *Th. ellida* and their allies nearly always fly near the trunks of trees the dripping sap of which, as soon as they exhibit luxuriant saccharomyces, exerts a great attraction upon most of the species of butterflies which we know as favourite visitors of the bait, such as *Catocalinae*, *Agrotis* etc. It seems, however, as if the *Thecla* were hunting on the trees more for certain lichens or algae than for the dripping sap, or as if they were swarming in order to discover the other sex; certainly the baiting for *Lycaenidae*, at least with the means having been used hitherto, is not successful.

On the other hand, the American *Lycaenidae* often and preferably come frequently to the water. The large, magnificent species, such as *Thecla regalis* and *imperialis* I saw, as soon as the morning-sun began to send down its hot rays into the open spaces in the woods, drinking the dew-drops from the leaves of the bushes. I never observed these large, magnificent forms coming down to the ground, in order to drink on the road; they seem persistently to remain in an altitude of about 2 or 3 m, so that I concluded that their larvae exclusively live on trees. I have already mentioned the gathering of *Lycaenidae* round watercourses being well-nigh typical for some mountain-slopes of the palearctic region, but I was not able to find a parallel case in America, although the *Eumaeus* are said to swarm in big crowds above the flooded surface of swampy fir-pine-woods, but to my knowledge nobody has ever reported from America a similar occurrence as for instance at the southern end of India proper, where the *Zizera*-species are whirling along above the ground in such crowds that the air seems to sparkle with them.

A most peculiar symptom is the habit of many *Thecla* of descending to the ground, at certain hours of the day, and of resting in the midst of the dust of the roads and highways. Wherever the desolate grassy plains of the pampas or prairies are interrupted by bushes or little woods, there are from time to time *Thecla* to be found resting on the sunny road, with their wings closed and without drinking. These are species that are extremely rarely met with at other occasions, and whoever has the chance of passing such places on the road at such an hour, may sometimes capture in a few hours dozens of *Lycaenidae* that are otherwise hardly obtainable. The same symptom I have observed in Germany in *Thecla w-album* being otherwise not common there, which I but once met with in great numbers, but which I otherwise discovered quite singly, some years not at all. The butterflies quite suddenly, from the tops of the trees, flew down to the highroad in the high dust of which they settled down. As their feet were not able to gain a footing in the fine dust, they sometimes tumbled down and remained lying on the side or made only faint attempts to raise themselves again.

The enemies of the American *Lycaenidae* presumably mostly consist in amphibia for the *Lycaena*, in reptiles for the *Thecla*. From the former they are probably protected by an ant-guard, from the latter not. The Indian *Lycaenidae* are known to be strictly guarded and fetched by the ants into their nests for the sake of their pupation; in doing so, the larvae were in due form escorted by the ants. The groups to which these palearctic species belong, have no representatives in America; some species approximating the species known from the Old World as the friends of ants, such as *Lycaena glaucon* etc. may have their larvae (not yet explored in their habits) living in symbiosis also in America. These relations, however, are very difficult to ascertain, and, for instance, we even do not know of some species which we have before us in Europe every summer, such as *Lyc. arion*, whether they pass their last larval weeks in the nests of ants or not. Ants that are a good hand in taking care of larvae, have also become known from Tropical America; it is, therefore, very likely that symbiosis with Lycaenid-larvae occurs there, too.

The flight of the American *Lycaenidae* is mostly nimble and easy, vivid, irregular, but only rarely as rapid as it is seen in some palearctic genera (e. g. *Polyommatus baeticus*). The larger butterflies of *Thecla* mostly only fly for a short distance, often only from one leaf to another. But on the other hand, there are groups, such as that of the *Th. leucogyna* and *phaea*, which are scarcely ever seen at rest, but always flying restlessly in the sun along the broad roads in the woods.

The pupae of the American *Lycaenidae* do not deviate considerably in the habitus from their palearctic allies. They resemble minute fruits, being of the shape of beans or buds and mostly fixed with the ventral surface on a petiole or twig. Their colour is mostly a subdued greenish or brown, some show a face-like figure on their dorsal surface, which is said to resemble a monkey's head in the genus *Feniseca*, something like in the palearctic genus *Spalgis*.

I. Group: Theclini.

1. Genus: **Eumaeus** Hbn.

This genus forming the transition to several *Erycinidae*, according to many examinations, is a real Lycaenid genus. The tarsi of the male forelegs are annexed to a cylindrical joint densely set with spines. The anterior tibiae, in their distal half, are likewise spinous and exhibit 2 longer spines at the tarsal end. At the proximal end of the median tibiae and at the distal end of the femur there are hair-spots. In the female all the 5 tarsal joints, inclusive of the distal end of the tibiae, exhibit strong spines, the terminal joint being as long as the 3rd and 4th together. The vigorous palpi are long and slender, the terminal joint in the ♀ longer than in the ♂. At the antennae we notice spines interspersed between the scaled cover. The eyes are almost naked, exhibiting only quite few, thinly scattered hairs. On the forewing the cell is narrow, before the cell-end there rise 2 subcostal veins, the upper discocellular is absent. On the hindwing the costal half of the cell is much shorter than the median half; the lower discocellular forms an acute angle with the median.

Further particulars referring to this genus containing 3 large, imposing species are to be found in the General Topics.

E. debora *Hbn.* (146 a) is the largest representative of the genus, above deep velvety-black with *debora*. green, metallic, submarginal cuneiform spots, which are on the forewings longer, on the hindwings shorter and more triangular; metallic-blue stripes are found yet subcostally, in the cell and along the submedian. Beneath unmistakable by the numerous greenish-golden spots, which are silvery-blue in fresh specimens as in the figured ♂. — The carmine, black-belted larva lives gregariously on an *Amaryllis* standing in the water. The butterfly flies in Mexico and Guatemala.

E. minyas *Hbn.* (= *toxæa* *Godt.*) (146 a, b) is smaller, the forewing with a blue, black-veined disc being *minyas*. of a very variable extent, the hindwing with golden-green, small cuneiform spots in front of the margin. Abdomen beneath orange-red. Widely distributed and common from the south-western part of Texas to Brazil. — We introduce the very imposing and extensively lustrous-blue Costa Rica-form by the name of: *costaricensis* *form. nov.* (146 b). — On the contrary, the more southern specimens from the Amazon etc. have particularly the ♀ above almost without any green at all; they may be named *brasiliensis* *form. nov.* *brasiliensis*. *atata*.

E. atala *Poey* (= *toxæa* *Gray* nec *Godt.*) (146 b; c as *toxæa*) is smaller and duller, the hindwings nearly entirely black with smaller, more blue marginal spots. Beneath the silvery-green macular bands of the hindwings are developed more proximally, costally more bent, the red inner-marginal spot mostly larger. The extension of the blue above also varies here greatly in the different specimens. From Florida and Cuba.

2. Genus: **Theorema** *Hew.*

Neuration almost like in *debora*, but the cell of the forewing is somewhat broader, the 1st subcostal vein placed nearer to the base. The hindwing exhibits a small tail at the lower median-vein. In the ♂ the forelegs are not so very spinous.

Th. eumenia *Hew.* (♀ = *titania* *Strecker*) (146 b, c) is a magnificent species, the ♂ above of a *eumenia*. radiant peacock-blue, warming into green towards the margin, with a broadly black costal area of the hindwing; the ♀ is black, on the forewing with a bluish-green submarginal band and a white apex, on the hindwing with greenish-golden marginal spots. Beneath the dull-black hindwings exhibit 4 greenish-silvery macular rows in front of the border, the ♂ an opalescent blue stripe in the cell of the forewing and between the median veins. Known from Guatemala, Nicaragua, Costa Rica, Panama, and Colombia, but so far everywhere extremely rare.

Th. dysmenia *spec. nov.* (153 a) resembles above somewhat the *E. debora*; velvety-black, towards *dysmenia*. the margin with an indigo-blue lustre, on all the wings with submarginal, greenish-blue silvery spots receding somewhat at the apex of the forewing. Beneath dull-black with darker veins and a narrow, greyish-white distal margin growing broader towards the apex on the forewing. The ♂ is not yet known and is presumably above more extensively blue. Described according to a ♀ from the Upper Rio Negro (Colombia) from the Coll. FASSL.

3. Genus: **Trichonis** *Hew.*

Robustly built, head large, eyes naked. Costal margin of the forewings at the base strongly convex, distal margin uniformly rounded, proximal margin of the forewings in both sexes very convex, covering a polished spot of the costal half of the hindwing. On the forewing the subcostal is 2-branched. Hindwings round, with a short cell and a very convex costal margin.

T. theanus *Cr.* (146 b) is above and beneath light greenish-blue, above with a black distal margin; *theanus*. the polished spot is reddish-brown, so is the inner-marginal part of the forewing beneath, as far as it is covered by the hindwing. This quite uncommonly rare species seems to be known only from Guiana.

4. Genus: **Thecla** *F.*

A multiform genus of very small to medium-sized butterflies, the chief mark by which they are distinguished from the other genera being the more or less produced, often indented, pointed or rounded anal angle of the hindwing. Another characteristic is the development of the tails found in most of the species. In case there is only one tail, it is situated at the lower median vein and appears only in very rare cases as a direct prolongation of this vein, but is much rather placed mostly nearly rectangularly to it in the direction of the anterior angle, being, however, sloping upwards close behind its rise, so that it nevertheless retains the direction of the vein. If there is a second tail, its place is at the upper median vein and it is smaller.

The main characteristics regarding the general exterior, the habits and so on has already been told in the Preface (p. 740 ff.). According to our present knowledge it is not yet possible to classify the genus comprising more than 800 described species and being certainly not to be delimited uniformly, according to definite principles. Whether the method of the secondary sexual characteristic marks already proposed by others and continued by COURVOISIER, will attain its object, seems still to be doubtful to us. The scent organs, being a somewhat relatively recent discovery, are easily influenced and variable and are often present

or absent in one and the same species (e. g. *Th. irus*); they are, therefore, in our opinion unable to comply with the development of the race which we would consider to be obviously the most correct method of division. This is proved, for instance, by very remote and certainly not in the least allied groups exhibiting entirely convergently developed scent-spots; on the other hand, closely allied groups would undoubtedly be inserted in remote groups.

Best to make use of the affinities of the tribe and the most steady and oldest character is by all means the principle of the marking of the under surface which repeats itself again and again in long series. In order to arrange somehow the chaos of species, we therefore thought it to be the most correct way and, at the same time, the most facilitating for the searching diagnoser, to undertake, according to this plan, a division into 120 groups corresponding substantially to the groups assumed by GODMAN and SALVIN in their *Biologia*. Certainly the division must be somewhat altered by including North and South America, whereby a great number of new elements are added.

Many attempts have already been made to divide the *Thecla* into genera according to the most various principles, as for instance by HÜBNER, SCUDDER, KAYE according to the shape of the wings, the influencing of the veins by the scent-organs, the number of the tails etc., but neither of them is entirely satisfactory. Many of these denominations of subgenera coincide with certain names of our groups and may then be applied so; conformably to this we have made notes to them in the respective groups. Other names, however, must be split into various groups, as for instance the genus *Eupsyche Scudder* containing the species *m-album*, *telea*, *martialis*, *hugon* and *jada*, species which we were forced to place in just as many different groups and which, in a philogenetic respect, have certainly very little in common with each other.

One of the greatest difficulties was offered by the fact that many small and insignificant, but also some remarkable species are partly extremely rare and were often described according to single specimens some of which have never been discovered anymore since; many of the types cannot be found, so that several species are no more to be identified. We have mostly placed such cases at the end of groups to which they are presumably allied.

1. Imperialis-Group (*Theritas Hbn.*).

- imperialis*. **Th. imperialis** Cr. (= *venus F.*, ? *actaeon F.*) (146 c) is above of a dazzling metallic greenish-blue, on the forewings with a broad black apex and in the ♂ with a blackish-brown scent-spot at the cell-end and behind it, which is parted by the transverse vein and is more red-brown in the posterior half. The ♀ is somewhat duller blue. Under surface golden-green, on the hindwings with a fine black transverse striation, without any distinct transverse lines, only at the anal angle short beginnings are noticeable. — In the form **ducalis** *Dbl.* (♀ = *oakesii Butl.*) (146 c) the disc of the hindwing is of a metallic carmine colour. The species is widely distributed from Nicaragua, Panama, Colombia, Guiana, Brazil to South Peru.
- cypria*. **Th. cypria** *Hbn.* (146 d) is above more green than the preceding, beneath with a broad, black, proximally whitebordered transverse-stripe on the hindwing, bending outwards below the cell. — The name of *paphia*. **paphia** *Fldr.* may, according to the figure, be maintained for the specimens with a fiery copper-red to carmine disc of the hindwing. From Mexico through the whole of Central America to Colombia.
- tuneta*. **Th. tuneta** *Hew.* (146 d) has broader, shorter wings than the preceding and the transverse stripe of the hindwing forms a regular, outwards concave bow shortly before the anal angle, bending then round almost rectangularly to the proximal margin. The scent-spot of the ♂ is small and lies behind the cell. Colombia, *splendor*. Brazil. — **splendor** *Drc.* (146 d) is probably only a form of this species with a submarginal dark transverse band on the forewing beneath, being also indicated on the hindwing. Described according to 1 specimen from Colombia.

2. Gabriela-Group.

- coronata*. **Th. coronata** *Hew.* (146 d, e) rather forms a group for itself by the forehead being in the ♂ crowned with a golden-lustrous cone. Above metallic-blue, the ♂ without any red anal spots which are very large and double in the ♀. On the golden-green under surface the black transverse band is proximally bordered by a light grey and touches the red band on the hindwing. From Guatemala to Colombia and Ecuador.
- ganymedes*. **Th. ganymedes** Cr. (= *teresina Hew.*) (146 e, f as *teresina*) is above blue with a narrow black distal margin, being faded towards the surface of the wings, in the ♂ without the scent-spot; beneath golden-green, in the proximal half of the forewing blue; the inner broad black, distally white-bordered transverse stripe of the forewing extends from the costal margin to the upper median vein; on the hindwings the black and the red bands are about of the same width, the latter, however, grows somewhat broader beneath the subcostal vein and strangulates here somewhat the black one; in an anal direction the red band usually exhibits no black spots. Widely distributed from Mexico to Colombia.

Th. gabriela *Cr.* (= *gabrielis* *Godt.*) (146 f) is very similar; on the under surface of the forewing the proximal transverse stripe extends down as far as below the lower median vein, on the hindwing the broad black transverse band forms an oval and, beneath the subcostal vein, it is broad and not strangled, forming a W at the proximal angle; the red band is very broad on both surfaces, but not sharply defined by white. Colombia, Amazon.

Th. sponsa *Mschlr.* differs from *gabriela* above by a larger, carmine anal-angle-spot of the hindwing, beneath by the red spot reaching from the proximal margin only to the upper median vein, in which there are 2 black spots. Surinam.

Th. batesii *Hew.* (146 f) likewise greatly resembles *gabriela*, though it is easily distinguishable by the under surface of the hindwings, exhibiting only a rather uniformly broad, red-brown band divided by a white line, and forms only a V, not a W, at the proximal angle. Brazil.

Th. sumptuosa *Drc.* (= *gabriela* *Godt.*) (146 f) is above separable by the large, silky-grey scent-spot of the forewing, being situated below and behind the cell. On the under surface of the hindwing there is only an oval, red-brown band being distally bordered by a white line and behind it by a black line. Brazil (Espírito Santo, São Paulo).

Th. candidus *Drc.* (147 a) is very similar and perhaps only a form of the preceding species with a scent-spot being taperingly prolonged towards the base below the cell. Beneath of a magnificent bluish-green with very distinct markings, the black being increased on the forewings, and like in *sponsa*, there is only some red with black spots therein towards the anal angle on the hindwing. From Colombia (Muzo).

Th. ornatrix *Drc.* (146 f) has beside the scent-spot of the preceding yet a second one above the median in the cell; beneath likewise very similar to *sponsa*. Described from Brit. Guiana.

Th. regalis *Cr.* (= *endymion* *F.*) (146 e) differs greatly from the preceding and approximates *coronata* the most, from which it differs beneath by the transverse lines being not distally but proximally bordered by whitish-grey; the one on the hindwing does not quite touch the red transverse band, but it is separated from it by the green ground-colour. Above the blue grows somewhat more greenish and there are red anal spots in both sexes. The black margin of the wings is comparatively broad and proximally not faded, but sharply defined. Occurs most widely distributed from Mexico to the Amazon.

3. *Tagyra*-Group.

Th. tagyra *Hew.* (147 b) is a very strange animal, above blue with a silky-grey sexual-spot of varying size, beneath likewise blue with black, distinct transverse bands. — **floralia** *Drc.* (147 b) has been raised to a species, but the only difference is the prolonged ♂-spot; the latter, however, varies (as in some other species) sometimes from one specimen to another, so that it cannot be a specific mark of distinction. Described from the Amazon district, also before me in a couple being beneath of a somewhat lighter turquoise-blue with narrower black bands, from the Rio Songo (FASSEL).

4. *Episcopalis*-Group.

Th. episcopalis *Fassl* (153 a). Very different from all the other species known. Above of a radiant golden-green with narrow black margins and a broader apex, beneath on the forewings metallic-blue, towards the margin warming into a golden-green; hindwings green with 3 black transverse bands being convergent towards the proximal angle and in an oblique light gleaming in a magnificent peacock-blue. Discovered by A. H. FASSL in the West Colombian Andes at an altitude of 2000 m (Rio Aguaca Valley), where the species was flying round the tops of trees in the morning-sun.

5. *Nobilis*-Group.

Th. nobilis *H.-Schäff.* (= *bimaculata* *Mschlr.*) (147 a ♀, 153 a ♂). This group, strictly speaking, likewise contains only one representative, if one does not want to place the species in the *gabriela*-group. The ♂ is greatly distinguished by the fact that, beside the roundish grey cell-stigma, there is another oblong black spot at the end of the submedian, which, however, does not contain any scent-scales. Beneath similar to the *gabriela*-group with a very broad red band of the hindwing. From Guatemala to Colombia and Guiana.

Th. telemus *Cr.* (= *antinous* *Fldr.*) (147 a, b) we include here for the sake of exterior resemblances. ♂ above lustrous sky-blue with an extremely fine black border; the tails are also blue. Stigma greyish-brown, behind the cell-end; ♀ of a more subdued blue, with broad, blackish-brown margins. Under surface green with an extremely variable marking and colouring, so that there is no distinct delimitation to *antinous*. The ♂ is sometimes without any red at all, particularly in southern specimens, so that there is a broad, sky-

blue marginal band, sometimes there is a large red spot which mostly grows very extensive in the ♀. Very common and widely distributed from Central America to Colombia, Guiana and the Amazon.

6. *Venulius*-Group (*Paiwarria* Kaye).

venulius. **Th. *venulius*** Cr. (153 a). Above lustreless greyish-blue, beneath likewise light-blue with 3 submarginal blackish bands, the proximal one mostly red-brown; between the median veins of the hindwings there is in the middle band a black spot being above bordered by orange. Widely distributed, but apparently very rare from Guiana to Bolivia (Rio Songo).

7. *Satyroides*-Group (*Macusia* Kaye).

satyroides. **Th. *satyroides*** Hew. (147 c). In the species of this group the broad costal space of the forewings is covered with long hairy scales directed downward. ♂ above dull violettish-blue, ♀ brown, hindwing with an orange-brown anal eye-spot, beneath very similar to *venulius*, ♂ more greyish-blue, ♀ brown. Amazon, Rio, Sta. Catharina.

temathea. **Th. *temathea*** Hew. (147 c) is above the same, beneath, however, the hindwing exhibits another transverse band nearer to the base. Amazon.

latreillei. **Th. *latreillei*** Hew. (147 c) we include here, because the costal margin of the forewings exhibits the same hairy covering and also beneath the scheme of markings is similar. The shape of the wings is very characteristic by the stunted apex of the forewing and the deep indenture at the proximal margin of the hindwing above the anal lobe. The tails are much broader than in the preceding. Above metallic dark blue, beneath brown with more intensely red-brown transverse bands and rows of lunular spots. Brazil (São Paulo, Sta. Catharina, Pt. Alegre) to Paraguay.

8. *Assula*-Group.

assula. **Th. *assula*** *spec. nov.* (153 a) is a very peculiar animal without any closer relations to other groups. By the deep indenture above the very well developed anal lobe and the slightly stunted apex of the forewing its shape resembles *latreillei*, but the hindwings exhibit only a broad, almost spoon-shaped tail. Above unicolorously deep purple-brown, the anal lobe and an indistinct marginal line on the forewings towards the hinder-angle deep chestnut-red; the base of the fringes particularly at the anal lobe and some scales in the centre of the apex of the tail bluish-white. Beneath the forewings are brown, towards the apex dusted in white with a lighter line beyond the centre as far as the lower median vein. Hindwing of a deeper blackish-brown; from the centre of the costal margin proceeds a lighter stripe ending directly in the tail with a distally concave bend and being distally strewn with single white scales and being united in front of the border with one row each of lighter lunular spots coming from both sides; in the anal lobe and in the cell-spaces between the median veins there are carmine spots standing behind; at the proximal margin some more, irregular, white-scaled markings. The base of the fringes white, more distinct than above. Described according to 2 ♀♀ from Colombia, a fresh one from Bogotá, a much-flown one without tails from the Monte Socorro, from the Coll. FASSL.

9. *Marsyas*-Group.

marsyas. **Th. *marsyas*** L. (147 d) is a well-known, large species with an almost falciform apex of the forewing which, however, varies in its development, above beautifully sky-blue with a broad, jet-black apex of the forewing. Beneath lilac-grey, on the hindwings towards the proximal angle white strewn with mildew-green scales, with black spots and linear markings which are well reproduced by our figure. — *cybele* *Godm. & Salv.* is an insignificant side-form with distally deeper blue wings. From Panama to South Brazil.

damo. **Th. *damo*** Drc. (147 d) is a species hardly separable from the former. It is above lighter and more silvery-blue than *marsyas* and is without the broad black apex of the forewing. In its size and the development of the falciform apex of the forewing it is just as variable as the preceding. — *dorcas* Drc. is a Peruvian form with distally deeper blue forewings, and in the ♀ the margins of the wings are narrower blackish-brown. The species extends in the north as far as Mexico, to the south as far as Ecuador; it very often flies at the skirts of the woods, but it is difficult to capture, as it flies very high.

10. *Theocritus*-Group (*Mithras* Hbn.).

theocritus. **Th. *theocritus*** F. (= *nepia* *Godm. & Salv.*) (147 e as *nepia*) is a very unique species, above almost silvery, the distal half of the forewing blackish-brown; the ♀ is somewhat bluer. Under surface blackish-brown with rows of metallic-green spots. Distributed from Mexico to Colombia (Muzo).

Th. augustula Ky. (= *augustinus* Btlr. & Drc.) (147 e) is very similar beneath, but the proximal margin of the forewings is brown, in *theocritus* silvery blue. The ground-colour above is a deep blue, with metallic green spots near the anal angle. From Mexico to Panama.

Th. monica Hew. (147 g) is above somewhat more greenish than the preceding with a less extensively black apex of the forewing; beneath duller greyish-brown with a light, partly white-chequered apical part and smaller indistinct greenish spots which are arranged almost like in *lisus* (148 a). The ♂-hindwings exhibit beneath yellowish-white scent-scales hidden in a hairy fold below the median. Venezuela, Colombia.

Th. gispa Hew. (147 e) probably also belongs into this group. It is larger, above metallic-blue with only narrow black margins, in the ♂ with a discal spot at the cell-end. Beneath dark-brown, the inner-marginal half of the forewing of a brilliant silvery-blue, the hindwing in the distal half green, clouded in brown, traversed by a brown band, veins broadly brown. Apparently very rare. Amazon.

Th. hamila Jones (147 f) is much smaller than the preceding, otherwise very closely allied to it with a large scent-spot. Beneath very easily recognizable by the sooty-black colour covering the whole wings, which is, however, much too little expressed in the figure. Castro (Paraná), Rio Grande do Sul, Sa. Catharina.

Th. crines Drc. (147 e, f) is very similar, the wings a little broader, above with a more intense metallic lustre, beneath the blackish-brown ground-colour in the basal third of both wings densely strewn with emerald-green scales and in front of the distal margin of the hindwing there stand 3 or 4 more or less complete rows of magnificently metallic-green lunular spots. The ♀ is of a much duller blue, above with very broad brown margins. So far it seems only to have been found in Colombia.

11. Hemon-Group.

Th. lisus Stoll (= *hisbon* Godm. & Salv.) (148 a, 147 f) is above metallic ultramarine-blue without a scent-spot with narrow black margins and a darkened apex, in the ♀ more greenish-blue with very broad brown margins. The under surface is very variable, brown to black with 3 whitish to green, undulated lines in front of the distal margin of the hindwing and an angularly broken row of small, bluish-white or green spots in the disc, the uppermost of which is black-pupilled outside at the costal margin. The differences mentioned by GODMAN as to his *hisbon* are merely individual. Wide-spread and everywhere common from Guatemala to Colombia and Bolivia.

Th. viresco Drc. (153 b) differs by a more compact structure, a greener upper surface with somewhat broader margins and the opalescent green disc of the forewing beneath. From Brazil and Colombia (Rio Negro). — **photeinos** Drc. (147 f), differing only above and beneath by a lustrous-blue colour is probably scarcely a different species. From Brit. Guiana.

Th. orsina Hew. (148 a) I do not know; it is presumably scarcely specifically separable from *lisus*; *orsina* it is said to differ by longer hindwings and a lighter greyish-brown under surface. Bolivia.

Th. phegeus Hew. (147 f, g). The figure is entirely unable to give an idea of the splendour of the colouring; the forewings are above brilliantly sky-blue with a milky-white prominent sexual-spot. Beneath marked as *lisus*, but of a dark-green ground-colour, at the proximal margin of the forewing blue. Bahia, Amazon.

Th. laudonia Hew. (148 a) forms the transition to the following species which it almost entirely resembles beneath, except the dark-green ground-colour as in *phegeus*. Above the wings are of a deep peacock-blue with a small, equally coloured scent-spot being visible only at an exposure to an oblique light. Amazon, Colombia.

Th. hemon Cr. (= *acmon* Cr.) (147 g) is larger than the preceding, above equally coloured, but with a very much larger scent-spot; beneath blackish-brown with a blue proximal half of the forewing. The ♀ is above dull brown, also beneath, here like the ♂ with metallic-green transverse lines and a white, black-pupilled eye-spot in the middle of the costal margin. The species flies the most frequently in Brazil in the Amazon district, in Guiana and Colombia, more rarely in Central America from Guatemala to Panama.

Th. arogeus Cr. is a species that has apparently not been identified hitherto, but presumably belonging here. Above like the preceding, beneath green, the darkest at the base of the hindwings, towards the margin light-blue with black transverse lines, the innermost of which in the centre forms 2 very large bows like the number 3. Described from Surinam.

12. Deniva-Group.

Th. deniva Hew. (147 c, d) approximates the preceding group by the split anal part of the hindwing; the marking beneath likewise shows a resemblance in the scheme; the apex of the forewing is clipped. Above the ♂ is metallic-blue, the ♀ dull violettish-blue, beneath brown. Brazil.

zava. **Th. zava** Hew. (153 b) which I know only from the author's description and figure, is ranged here. Above blue with broad dark-brown margins and a dark-brown discal spot. Beneath brown, darker undulated with 3 transverse bands and whitish-watered spots of the costal margin of the forewing before the centre and at the apex. No habitat mentioned.

13. Anna-Group.

anna. **Th. anna** Drc. (147 d) is an entirely isolated animal. Above metallic-blue, with broad blackish-brown margins. Beneath the forewings are brownish-grey, towards the margin strewn with whitish, in the disc opalescent blue; the hindwings are brown, densely strewn with whitish and darker scales and marked with black spots the arrangement of which approximates the most the *marsyas*-group; they exhibit 2 rather long and broad tails. Described according to 1 example from Colombia.

14. Mavors-Group.

mavors. **Th. mavors** Hbn. (148 b as *triquetra*). The ♂ is above bluish-green with a large brown scent-spot, also beneath green with fine black transverse lines, at the anal angle of the hindwing no distinct W. The ♀ is above and beneath plainly coloured in brown. The hindwings bear 2 tails. From Mexico through the whole of Central America to Colombia, Guiana and the Amazon; everywhere very common, but apparently not going up higher than 3 to 4000 ft.

triquetra. **Th. triquetra** Hew. (152 b) differs by having only one tail and a somewhat duller bluish-green colour above; beneath also in the ♂ the ground-colour is discoloured brown, only sparsely sprinkled with silvery-green scales, and the lines run somewhat differently. Panama, Surinam, Brazil.

ella. **Th. ella** Stgr. i. l. (148 b, as *mavors*) is easily discernible from the two preceding by the absence of the scent-spot, the under surface being quite brown also in the ♂ and the distinct W at the anal angle of the hindwing. The hindwing bears 2 tails. Colombia, Ecuador.

paupera. **Th. paupera** Fldr. (148 b) from Bogotá seems hitherto to be extremely rare. It resembles *ella* above, *harietta*. but it is of a more lustrous dark-green, beneath brown, marked like *triquetra*, without a distinct W. — **harietta** Weeks from Bolivia is probably only a variety of colours, above lustrous blue, towards the base warming into greenish.

15. Polybe-Group (*Atlides* Hbn.).

inachus. **Th. inachus** Cr. (= *baeton* Sepp) (148 f). A well-known species, above in the ♂ metallic indigo-blue with a moderately broad blackish-brown margin; the large, long, greyish-brown scent-spot is parted in two by the transverse vein. Hindwing at the anal angle with whitish-grey hair and variegated with silvery-green scales. The ♀ is in the basal half dull greenish bluish-grey, distally blackish-brown. Beneath brown, in the basal half of the forewing and the inner-marginal half of the hindwing green, in the basal area of the hindwing carmine with a large black eye-spot being narrowly bordered by silvery-green; abdomen beneath orange-yellow. From Panama to East Peru, Guiana and the Amazon. — **carpophora** Hew. (148 f) is the northern form and but little different; beneath, on the whole, darker brownish-black with less green and red, the black eye-spot mostly smaller and, instead, more broadly bordered with silvery-green. Mexico and Guatemala.

carpasia. **Th. carpasia** Hew. (148 d) is above similar, but with decidedly black veins; the proximal brown part of the scent-spot is twice as long as the distal black part. Beneath the brown wings are black-veined, without any transverse lines, only before the anal angle of the hindwing several silvery-green macular bands; in the red basal part there are 3 black spots with silvery-green pupils. Abdomen beneath orange-red. Mexico, Guatemala.

polybe. **Th. polybe** L. (= *atys* ♀ Cr., *scamander* Hbn.) (148 c). ♂ above turquoise-green, ♀ duller, more bluish-grey, with black veins running radiatingly into the broad blackish-brown border. Scent-spot double, the proximal half mostly lighter brown than the distal black half, the transverse vein separating both is likewise covered with modified scales of a greyish-blue colour. The under surface is olive in the ♂, in the ♀ more yellowish-brown, with black veins, the disc of the forewing in the ♂ opalescent blue. From Mexico to South Brazil and Argentina, but everywhere rare.

halesus. **Th. halesus** Cr. (= *dolichos* Hbn.) (148 c) is above metallic greenish-blue with a moderately broad black distal margin and a very broad black anterior angle of the hindwing. Scent-spot triple: between the smaller proximal brown part and the irregular larger distal part there is, on the transverse vein, a brown oval surrounded by single blue scales. Beneath brown; below the median of the forewing and along the proximal margin of the hindwing opalescent-blue stripes; at the base of the forewing 1, at the base of the hindwing 2 red spots, at the anal angle some golden and silvery-blue spots. Abdomen beneath orange. Widely distributed from the Southern States (Florida-California) to Mexico and Costa Rica. — Northern specimens, **juanita** Scudder, exhibit chestnut-red spots between the anal-angle-spots.

Th. gaumeri *Godm. & Salv.* (148 d) is smaller, with only 1 greyish-brown scent-spot, black veins *gaumeri*. and, at the apex of the forewing, white fringes. Beneath the blue of the forewing is much more extensive and fills up the whole cell; the anal-angle-spots at the hindwing are much broader and quite green. The ♀ is unicolorously greyish-brownish. Only from Mexico.

Th. cynara *Godm. & Salv.* (148 c). Likewise resembling *halesus*, but beneath without the discal blue, *cynara*. and the anal-angle-spots form a coherent, broad red-golden band. The margin of the forewings above much broader black. Mexico.

Th. atys *Cr.* (148 e). Larger than *halesus*, above more green, ♂-scent-spot something like that of *atys*. *polybe*, but the bordering of the proximal half, inclusive of the transverse vein, is leaden-grey. The ♀ is more silvery-green, the margins much broader dull blackish-brown. Under surface brownish, with broad darker veins and a dark band at the cell-end; at the base of the hindwing there are red spots, behind them silvery-green and 2 green macular rows in the black anal angle. Abdomen beneath orange-red. From Panama to Colombia.

Th. melidor *Drc.* (148 d, e) is above bluer than the preceding; beneath the dark cell-end-band is *melidor*. absent, along the costa of the hindwing and of the proximal margin there are long red stripes. Abdomen beneath vermilion. Captured in Peru in August.

Th. cosa *Hew.* (148 e). Smaller than *atys*, above deep metallic blue with somewhat broader blackish- *cosa*. brown margins; beneath lighter brown, the basal half of the forewing darker with a dark, distally light-bordered transverse band behind the cell, projecting far outwards below the lower radial vein; in front of the margin on both wings dark transverse lines, a similar one at the cell-end of the hindwing. Brazil.

Th. bacis *Godm. & Salv.* (148 d). Above likewise similar to *atys*, but of a more magnificent peacock- *bacis*. blue; the scent-spot triple as in *halesus*, the middle part more yellowish-brown. Beneath similar to *melidor*, but of a blacker fundamental tone; behind the cell of the forewing there is a series of green, small metallic spots, interrupted on the lower radial vein; the red stripes of the hindwings are of a magnificent carmine colour, between them there are opalescent silvery-green stripes. Panama. — STAUDINGER described as *vulnerata* specimens *vulnerata*. that are of a purer blue above, without a green reflection, with a narrower black margin; they are presumably scarcely to be separated.

Th. torfrida *Hew.* (148 e) differs from all the preceding species by the absence of a scent-spot on *torfrida*. the forewings, but instead there is a hair-tuft near the proximal margin of the hindwing beneath. Above dull indigo-blue with a very broad, blackish-brown apex. In the black anal part of the hindwing there are 3 silvery-green spots. Beneath almost like *atys*, but the light costal-marginal part of the forewing exhibits behind the cell a dark-brown triangular spot; of the same colour is the apex and the space between the lower median vein and the lower radial vein. Amazon.

Th. coccineifrons *Godm. & Salv.* (148 e) is very much alike, but immediately separable by the glaring *coccineifrons*. carmine forehead in both sexes and the almost black under surface of the hindwings, from which the metallic silvery-blue anal spots shine forth. From Mexico to Colombia.

Th. carthaea *Hew.* (148 g) approximates *halesus*, but it has no scent-spot; above magnificently deep *carthaea*. peacock-blue with an extremely narrow black margin, only the apex of the forewing somewhat broader black; in the black anal part of the hindwings are small, lustrous, metallic green spots. The under surface is almost black, at the bases of the wings are carmine and green spots, at the costal margin of the forewing behind the middle 3 green spots, in the anal part of the hindwing 2 short macular rows, the distal one green, the proximal one more golden. Apparently found hitherto only in Mexico.

Th. caranus *Cr.* (= *ceranus* *Godt.*, *pelops* *Cr.*, *petus* *F.*, *getus* *Ww.*) (148 g) is larger, otherwise above *caranus*. like the preceding, perhaps of a somewhat purer ultramarine blue. Beneath the bases of the wings are much more extensively deep carmine with numerous black, bluish-white-pupilled spots; the inner-marginal half of the forewing is in the ♂ violetish-blue, the ground-colour of the hindwings of a slight green lustre. From Panama, Colombia, Guiana and the Amazon.

Th. silumena *Hew.* (148 g) has a rounder shape of the wings, above lighter greenish-blue, very *silumena*. brilliant, with a broader black apex and costal margin of the wings; beneath the ground-colour is lighter, reddish-brown, the marking almost the same as in *caranus*. The forehead is read, in *caranus* almost black with silvery-blue margins round the eyes. Colombia.

Th. didymaon *Cr.* (148 g) is much smaller than the preceding with a considerably broader black apex *didymaon*. of the forewing, above deep ultramarine-blue; beneath dark brown with 3 very conspicuous white spots of the costal margin; the basal red is reduced. Brazil (Amazon, Sao Paulo).

Th. neora *Godm. & Salv.* (148 h) is still smaller, the blue more intense, still more reduced by the *neora*. extensive black, beneath the colouring and marking is just the same, but the small white spots are smaller and narrower; forehead and the hairs on the thorax are rusty-red, in *didymaon* black. Mexico, Guatemala, Colombia.

16. Phaleros-Group.

phaleros. **Th. phaleros** L. (= *silenus* Cr., *agis* Drury, *silenissa* Hbst., *chiton* F. (?) (150 a, b). Above extremely lustrous ultramarine-blue. The proximal half of the double scent-spot is round, jet-black, with grey rings, the distal half almost four-cornered, brownish-grey. The ♀ is above dull greyish-blue, with broad blackish-brown margins and the under surface-marking shining through. Beneath the ♂ is reddish-white, the ♀ more yellowish-white with 3 black transverse bands converging towards the proximal margin; distal margin with an orange tinge. Very common from Mexico to South Brazil.

battus. **Th. battus** Cr. (= *bathis* F., *bathildis* Fldr.) (150 a) has exactly the same scent-spot as the preceding, but it is smaller with narrower black margins and an orange-red anal spot of the hindwing. The ♀ is above almost white, of a pale violetish-blue lustre with the marking shining through from beneath, being well reproduced in our figure. The forehead is red. — The name of **aufidena** Hew. (= *jalan* Reak.) may be perhaps applied for the specimens originating mostly from the northern habitats, with a brilliant, deep violetish-blue, the typical *battus* being lighter blue. Very widely distributed from Mexico to Colombia.

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17. Viridicans-Group.

viridicans. **Th. viridicans** Fldr. (149 f) is above lustrous green with very broad black margins, beneath almost exactly marked and coloured as *barajo* (149 e), only the white line close before the border is absent. Colombia.

barajo. **Th. barajo** Reak. (= *desdemona* Hew.) (149 e) is above lustrous sky-blue and very much distinguished by the polished spot in the costal half of the hindwing above; the ♀ is duller and more greenish-blue with the marking shining through from beneath. The under surface is brown, each wing traversed by 4 white transverse lines converging towards the proximal angle; fringes white. From Mexico to Panama, everywhere very common.

laothoë. **Th. laothoë** Godm. & Salv. (149 g) greatly resembles the preceding, though it has broader dark distal margins and dark fringes, as well as a somewhat more greenish tinge of the upper surface, the polished spot of the hindwings being absent besides. Beneath there is little difference, at the anal angle of the hindwing more black at most. The scales of the forehead are turned upwards, in *barajo* downwards. Costa Rica, Guatemala.

oceia. **Th. oceia** Godm. & Salv. (149 g) resembles *laothoë* so much that the authors themselves thought a specific separation to be doubtful. It is above greener, the margins much narrower, the fringes white; beneath the white bands of the hindwings are narrower. Costa Rica and Panama.

theia. **Th. theia** Hew. (= *aethesa* Hew. *pro p.*) (150 c, d) we join here, though it deviates greatly. ♂ above lustrous green; ♀ somewhat bluer and duller with broad black margins. Under surface grey with black transverse lines being similarly arranged as in the preceding. In front of the border of the hindwing 3 orange-yellow spots. Apparently very rare, but it has been found from Panama to Bolivia.

erybathis. **Th. erybathis** Hew. (150 a) presumably also belongs to this group. Above almost like *barajo* (149 e), but without the polished spot and with broader margins of the wings; the tails are much broader, the whole animal very delicate, in the ♀ the marking beneath shines through above, the under surface being exactly like that of *battus* (150 a) except the anal lobe being white, not orange. Not rare in Mexico, nor in Honduras.

18. Gibberosa-Group.

gibberosa. **Th. gibberosa** Hew. (149 g ♂, not ♀). Very conspicuous by the hunch-shaped projection of the costal margin of the forewing in the ♂, which is absent in the ♀. The wings are white, with a lustrous bluish-green tinge in the basal half of the forewing and the basal half of the costa of the hindwing, the marking beneath shines through above. The ♀ is entirely white with broad black margins. Colombia, Bolivia. — f. **tomlinsoni** Drc. (149 f, g, ♂, not ♀) has been described from Peru, the whole wing being above covered by an opalescent bluish-green.

tomlinsoni. The ♀ is entirely white with broad black margins. Colombia, Bolivia. — f. **tomlinsoni** Drc. (149 f, g, ♂, not ♀) has been described from Peru, the whole wing being above covered by an opalescent bluish-green.

phydela. **Th. phydela** Hew. (149 f). ♂ above sky-blue, the hindwings distally white, the margins of the forewing rather broadly black, the ♀ all white; in both sexes the black transverse bands beneath shine through above. — *dealbata*. In *dealbata* form. nov. (149 g) the whole hindwing is blue. Both the forms fly in Brazil.

numen. **Th. numen** Drc. (149 e, f) is, according to the description, a good species, since the lower median vein of the forewing beneath is vesicularly inflated in its proximal half, like in *gibberosa*, which is not the case in *phydela* which it otherwise resembles very much. It is much larger, the forewings and the basal halves of the hindwings opalescent bluish-green, in the ♀ entirely white, also beneath nearly the same markings. Roraima (Brit. Guiana).

19. Ematheon-Group.

Th. ematheon Cr. (149 d, e) is an extremely rare species of which only 2 specimens have become *ematheon*. known hitherto, and most peculiarly from Surinam and Peru, so that it is certainly a very widely distributed animal. Above deep-blue, on the forewing in the disc a purple-violet reflection with a very large black discal spot; distal margin narrowly black. Beneath, the black ground exhibits white and brown irroration.

Th. busa Godm. & Salv. (149 d) is above somewhat similar, deep-blue, in the disc a purple reflection, *busa*. in which the large black cell-spot is situated; the margin is somewhat broader black. Beneath dark brown with silvery-grey transverse speckles being united to broad areas behind the middle. From Mexico to Costa Rica.

Th. perpenna Godm. & Salv. (149 e) from Panama is much smaller and of lighter colours with a *perpenna*. broad black apex of the forewing and a smaller discal spot without the spot at the cell-end.

Th. undulata Hew. (149 e). Above lustrous green like *viridicans* (149 f), without the scent-spot, beneath *undulata*. marked almost just like *busa*, but lighter brown. The ♀ is above a little duller and bluer with broader blackish-brown margins. Lying before me from Colombia and Brazil (Itaituba).

20. Tolmides-Group.

Th. tolmidēs Fldr. (149 a) is allied to the preceding group and forms the transition to the *aegides-tolmidēs*. group. Above lustrous blue with moderately broad black distal margins. In the black anal part of the hindwing we notice the beginnings of a blue marginal line. Beneath greyish-brown with very similar linear markings like those of the following group, in the basal part darker. The nomenclatural type occurs more to the south than the form *hyas* Godm. & Salv. (149 b) from Mexico, Guatemala, Costa Rica and Panama. The ♂ of it has *hyas*. above much narrower black margins and is beneath more chestnut-brown, the linear markings are less distinctly prominent.

Th. danaus Fldr. (149 b) likewise closely approaches to this type, though it might also better form *danaus*. a group for itself. Above more greenish-blue. Beneath blackish-grey with bluish-white linear markings; on the forewings only one oblique, bent line behind the cell, the margin somewhat darker; the proximal line of the hindwing is removed inwards in the broad subcostal area, the distal one gets jaggy towards the anal part, the space between it and the somewhat darkened margin is slightly dusted in whitish. The anal lobe is split off like in the *lisus*-group. Colombia, Bolivia, Peru.

Th. tityrus Fldr. (149 b) is above radiantly greenish-blue, the broad black margin sharply defined, *tityrus*. Beneath brown; on the forewing 2 white postdiscal lines, disappearing in the whitish proximal margin, the proximal one forms proximally an acute angle in the submedian area, the distal one is a little broader. Hindwing before and in the centre with 2 white lines, the latter forms at the proximal angle a distinct W. then the costal margin up to the lower median vein is followed by a coherent band of a magnificent deep carmine colour, on both sides bordered by white, next to it between the median veins a black spot; in front of the border yet a fine white line. Lying before me from Colombia, from the Rio Negro.

Th. appula Hew. (149 c) which we include here is apparently very rare; it is compared with *danaus appula*. by HEWITSON, but it differs greatly from all those known, exhibiting also resemblances to *phoenissa* (152 e) or *havila* (148 b). Before me is also a ♀ which is above duller blue than the ♂ which exhibits a small black scent-spot in the upper cell-corner, with broader black margins. Beneath light brown, the space between the two proximal white lines somewhat darkened, behind it extensively dusted in whitish. Colombia, Venezuela and Bolivia.

21. Aegides-Group.

Th. aegides Fldr. (148 h) is above blue with rather broad black margins without a sexual spot; *aegides*. in front of the border of the hindwing is, particularly distinct in an anal direction, a bluish-white line; fringes orange-brown; the ♀ is of somewhat duller colours. The under surface is cinnamon-red with 3 fine bluish-white transverse lines proceeding on the forewing from somewhat thicker and more purely white costal spots; on the hindwing, close before the border, there is a fourth, similar line; anal lobe black interspersed with cinnamon-brown scales; above it the proximal margin is somewhat sinuous and here there is a thicker white spot. Venezuela, Colombia. — form. **amplitudo** Drc. (149 b) has only half as broad black margins and a violet tinge in *amplitudo*. the blue; it is the form flying in Ecuador. — On the contrary, the form flying more to the north in Central America (Mexico and Guatemala), **furina** Godm. & Salv. (148 h), has much broader distal margins and a darker, *furina*. more blackish-brown under surface.

Th. cyda Godm. & Salv. (148 h) resembles *barba* (149 a) above by the very broad black distal *cyda*. margins and the lustrous blue colour; beneath it scarcely differs from *aegides*; both sexes are equally coloured. Costa Rica.

dignota. **Th. dignota** *sp. nov.* (153 b) differs from *aegides* (148 h) by a rather large, round, greyish-brown scent-spot at the cell-end, a very sharp apex of the forewing, below which the distal margin looks almost concave, red-brown fringes and tail; the anal lobe is likewise quite red-brown, in its centre pupilled with some greenish-silvery scales, the fringes at it partly white; the bluish-white line in front of the border is absent altogether. Beneath, on the cinnamon-brown ground-colour, are the same transverse lines, but they are fine black, strewn with silvery-grey scales and only towards the costa of the forewings somewhat broader and whiter; the third, counting from the base, is regular and sharply dentate with distally concave bows. Described according to a ♂ from Bogotá (Coll. FASSL).

comae. **Th. comae** *Drc.* (149 a) forms the transition to the following species by the ♂ forewing exhibiting a large discal spot of modified scales of an oval shape, which, however, stands out against the colour of the wings only in an oblique exposure to light; besides this the species resembles above *aegides* (148 h); the under surface is more blackish-brownish, the line-marking otherwise very similar, but on the forewings, subapically, are the beginnings of a 4th line and on the hindwings, between the median veins and in front of the black-pupilled anal lobe, are 2 black spots in light, reddish surroundings. Colombia (Muzo; Rio Aguaca Valley).

ion. **Th. ion** *Drc.* (149 a) has the same, hardly noticeable scent-spot, is somewhat lighter, more greenish-blue and has much narrower, black distal margins. Beneath like the preceding, but the ♂ has an opalescent blue discal spot of the forewing. Colombia. — From Medina (East Colombia) there is a ♂ before me (from the Coll. FASSL) which I should like to include here provisionally as a subform: **extrema** *form. nov.* (153 b).

extrema. It is above still lighter, greenish silvery-blue, entirely without a black distal margin, the discal spot is above still larger and beneath the whole forewing is opalescent blue, so that there remain of the transverse lines only 3 minute white spots at the costal margin.

barba. **Th. barba** *Drc.* (149 a) has narrower wings than the other representatives of the group, above very broad black margins and beneath on the forewings only one bluish-white transverse line crossing the disc; on the hindwings the basal transverse line is only indicated by a costal marginal streak, the marginal line is absent altogether. Colombia (Muzo; Rio Aguaca Valley).

auda. **Th. auda** *Hew.* (149 b, c) is a somewhat smaller species, above more violettish-blue with broad black margins; beneath greyish-brown with quite a similar linear marking as the preceding species, but in front of the border of the hindwing are 2 undulate, parallel, light lines, between them, at the anal angle, 3 black, triangular spots being above bordered by orange-red. Occurring in Colombia and common, but it also lies before me from Lino (Panama) from the Coll. FASSL.

chlamydem. **Th. chlamydem** *Drc.* (149 c, d) is perhaps only a form of *auda*; above more indigo-blue with broader black margins; beneath, on both wings, the distal white transverse lines are more distinct, and on the hindwings the discal markings are doubled by proximally white dusting. Peru, at an altitude of 5 to 6000 ft.

sala. **Th. sala** *Hew.* (159 a). We herewith include some species exhibiting at the same time close relations with the *coelicolor*-group following later on. *Sala* is above dull violettish-blue, on the forewings with broad blackish-brown margins, on the hindwings very narrowly margined with the fringes parted by white towards the anal angle. Beneath dark brown, in the ♂-disc of the forewing with a slight steel-blue shine. The marking is similar to that of *auda* (149 b, c), but on both wings the basal transverse lines are absent, and the post-discal of the hindwing runs almost straight from the costal margin to the lower median vein. Colombia.

maraches. **Th. maraches** *Drc.* (159 a) is very similar, above more lustrous steel-blue, the shape of the wings as in *epopea* (157 c) and the tails as fine as they are there. Beneath not so red-brown, more blackish-brown, the lines clear and distinctly light-blue, much straighter, on the forewings at the costal margin more moved apart, continued to the proximal margin, the submarginal on the lowest subcostal vein distally obtuse-angled. On the hindwings the postdiscal begins also much further towards the base, at the anal angle there are only 2 deep brown-red spots. Colombia (Cañon del Tolima, FASSL).

salaeides. **Th. salaeides** *sp. nov.* (159 a) is very closely allied to *sala*, but it is above of a lustrous ultramarine-blue, the margins and apex only half as broad and jet-black, the shape like *sala*, but the tails very fine. Beneath almost just the same as *sala*, but on the forewings the postdiscal makes a deep bend towards the base, below the lower median vein; on the hindwings it begins at the costal margin more towards the base, and there is a second, dusty-white lunular line in front of the border; 3 red anal lunae. Colombia: Pacho (FASSL).

peonida. **Th. peonida** *sp. nov.* (159 a) likewise greatly approximates the preceding species, above brilliantly metallic sky-blue, with a broad black apex and distal margin of the forewing, a similar costal margin of the hindwing, and a narrow distal margin; in the anal lobe a short white line; the base of the fringes in that lobe also white. Beneath very much like *salaeides*, distinguished by a short metallic-blue stripe in the disc of the

hindwing near the base; only one red eye-spot between the tails, between it and the black anal spot white dusting. Colombia: Rio Aguaca Valley (FASL).

Th. aurorina *sp. nov.* (159 a) is undoubtedly the most magnificent species of this group, above almost like *aurora*, radiantly light-blue with a large blackish-brown scent-spot filling up nearly the whole cell, and a moderately broad black apex, the margins otherwise very narrow black. Beneath blackish-brown, at the proximal margin of the forewing somewhat lighter, marked like *coelicolor* (157 b), but the lines beautifully light-blue, on the forewings bent uniformly; on the hindwings, in front of the border, indistinct darker spots in the spaces between; only one red spot of the tail. Colombia: Cañon del Tolima; Quindiu Pass (FASL).

Th. thargelia *Burm.* (159 a) is closely allied to this group, though greatly deviating. Above plainly greyish-brown, the ♂ with a blue disc, on the hindwing the black marginal line is proximally whitish bordered towards the anal. Beneath just as dark greyish-brown with whitish postdiscals being proximally finely bordered by black, on the hindwings running straight from before the middle of the costal margin to the lower median vein close in front of the border, in order to form towards the inner-margin a very high, pointed W; the sub-marginals are far off from the border, broader black, proximally white, analwards there are behind it 2 large orange, black-pupilled spots. The marginal line distinct, proximally on the hindwings very fine white. Fringes whitish. Abdomen beneath ochreous-yellow. Argentina.

Th. cadmus *Fldr.* (149 c) has, like the following, a much rounder shape of the wings, above in the basal half of a radiant greenish-blue, outside blackish-brown, before the anal angle with the beginnings of a blue marginal line. The ♀ is a little duller, more silvery. The under surface is red-yellow, again with the same light-blue linear markings which, however, are here much more dentate, particularly on the hindwings. Common in Panama, Colombia, Bolivia, Venezuela, Guiana.

Th. timaeus *Fldr.* (149 c) is above bluer, the apex of the forewing somewhat more pointed, the tails shorter. Beneath, the forewings have only one bluish-white transverse line, and at the apex there are 1 or 2 white dots, the lines on the hindwing are not so dentate, running more uniformly. Colombia, Bolivia.

Th. petelina *Hew.* (149 d) not lying before me is placed here. Above very much like the two preceding ones. Beneath red-brown, on both wings a white discal streak, behind it 3 white transverse lines; on the hindwing, besides, a moon-shaped spot near the base, in the centre a light-blue macular band and behind it a broad red-brown, white-bordered band; the spot of the tail and the anal spot brown, proximally bordered by light-yellow. From Costa Rica and Panama.

22. Havila-Group.

Th. adamsi *Drc.* (148 h) is difficult to place; as it is compared with *havila* by the author, it may be placed here, although it has no scent-spot and has 2 tails, for which reason it would have perhaps been better placed to the *aegides-* or *danaus-*group (p. 753). Above lustrous greenish-blue, towards the margin more purple; distal margin narrow black. Beneath chocolate-brown with bluish-white lines. Peru.

Th. havila *Hew.* (148 b) is not well recognizable from HEWITSON'S figure being copied here. The ♂ is above deep ultramarine-blue, towards the margin of a purple lustre. Scent-spot oblong, double, the part in the cell browner than the blackish part behind it; anterior angle of the hindwing particularly broad black. The under surface is greyish brown with 3, towards the anal angle somewhat convergent lines of a blue scaled striation, those towards the margin broader and more faded; between the median veins of the hindwing a small red-yellow, black-margined eye-spot. Abdomen beneath orange-yellow. Colombia.

Th. margaritacea *sp. nov.* (153 b). Upper surface light greenish-blue, with a mother-of-pearl gloss, entirely without the black margin, only the fringes blackish grey. The brown scent-spot small, procumbent-oval, pointed at both ends, behind the cell. Hindwings remarkably long-stretched; in the specimen before me there is only one tail, but there seems to have been a short small tail also at the upper median vein. Under surface of the forewings opalescent greenish-blue with a narrow, blackish-grey costal margin and apex, the place of the scent-spot prominent as a small hunch; hindwings blackish-grey, sparsely strewn with green, in the cell and towards the proximal margin covered with long hair. A little before the middle of the costal margin, in the subcostal space, a bluish-green streak-spot; in front of the border 3 rather closely adjacent, bluish-green silvery lines, indistinct, consisting only of scattered, single scales. Anal lobe as in *danaus* (149 b), to which it may also be allied, somewhat split. 1 ♂ from Muzo, Colombia. (Coll. FASL.)

Th. celelata *Hew.* (149 c) is likewise a species difficult to place. Above something like *cadmus* (149 c), beneath brown, marked like *havila* (148 b), but on each of the wings one whitish line nearer to the base; the costal margin of the forewing is strewn with white, all the white lines broad, somewhat faded and strewn with brown. Described from Brazil.

23. *Platyptera*-Group (*Micandra* Schatz).

platyptera. **Th. platyptera** Fldr. (153 c) according to our present conception, is not to be separated from *Thecla*, regarding the genus. In the scheme of markings beneath it offers close resemblances to *calmus* (149 c) and may, therefore, be placed here. Above like *ion* (149 a), also with a similar large scent-spot reaching further towards the base only in the cell. Beneath the forewing is of a brilliant blue, the proximal margin whitish-grey, the costal margin and distal margin narrowly black. Hindwings without tails, black with 4 very fine dentate lines consisting of single, scattered bluish-white scales; in front of the border are somewhat larger double-spots. Colombia, Venezuela, Peru.

circinata. **Th. circinata** Hew. (149 d) we also place here, as it is beneath marked exactly like *timaeus* (149 c), although it looks above quite differently: deep ultramarine-blue, with a black margin occupying almost half the forewing, the untaild hindwings are only at the costal-marginal angle somewhat broader black, the distal margin being narrow. Costal margin whitish-grey, below it a large, dark blue scent-spot strewn with black. Beneath the ground-colour is blackish-grey, the lines light-blue; the forewing exhibits an opalescent blue discal spot. Colombia, Bolivia. The species at the same time shows close relations with the following group.

sapho. **Th. sapho** Stgr. (146 c) has been placed to *Micandra* by the author without the reasons being mentioned, but it seems much rather to be a *Theorema*. It was described from Colombia and has hitherto apparently not been found any more.

24. *Eronos*-Group.

eronos. **Th. eronos** Drc. (153 c) is above magnificently peacock-blue with a darker apical third of the forewing, without a scent-spot and tails; the lower median vein of the hindwing is set with long hair. Beneath, the forewing is in the disc of an extensive opalescent blue, the hindwing almost black, strewn with scales of a greenish reflection, and with 2 similar, undulated, quite indistinct transverse lines. Colombia.

trochus. **Th. trochus** Drc. (153 c) is very similar, but above brilliantly green and beneath on the hindwings lighter with more distinct light transverse lines and a red, black-pupilled spot between the median veins. On the forewings the opalescent-blue colour is confined to the part round the median veins behind the cell. Colombia (Pacho, Muzo, Rio Aguaca Valley).

25. *Thara*-Group.

thara. **Th. thara** Hew. (= *ivelia* Gosse) (153 c). The ♂ is above magnificently light ultramarine-blue, the ♀ somewhat more greenish with a broad black apex of the forewing. Beneath brownish-grey with 2 rows of white, proximally darker-bordered lunular spots behind the middle, both wings with a white discal streak, the hindwings towards the base below the costal margin with an additional white streak-spot; the proximal white line forms a pointed W at the proximal margin of the hindwing, the surroundings of the distal line are here more or less strewn with bluish; anal spot black, above bordered by white, between the tails a black spot bordered above by orange. Brazil (Rio, Sta. Catharina).

eunus. **Th. eunus** G. & S. (153 d) is coloured and marked just the same on both surfaces and has also beneath the same black scent-spot at the base of the forewing below the median, but the costal margin of the hindwing is bent more convex and on the upper surface is a lustrously polished scent-spot like in *barajo* (149 e) below the costal margin at the base of the hindwing. From Guatemala to Colombia (Muzo).

26. *Gigantea*-Group.

gigantea. **Th. gigantea** Hew. (153 d). I know only from HEWITSON's description and figure. Above light-blue with brownish-black veins and margins and a very large discal spot. Beneath reddish-brown with cell-spots and dentate lines which are bordered by white on the forewings only distally, on the hindwings on both sides; in front of the border is yet a brownish, proximally white-bordered macular band, and at the anal angle 2 black spots being bordered above by red-yellow. Pará.

27. *Linus*-Group (*Aravacus* Kaye).

linus. **Th. linus** F. (= *lincus* Godt., *aetolus* Cr., *anelia* Hbst.) (150 c) is above white with the marking showing through from beneath, a broad blackish-brown distal margin and 2 similar lines in front of the border of the hindwing. The ♂ exhibits, below and behind the cell, a large, roundish scent-spot which mostly sends forth yet a tiny spot into the lower cell-corner and which, in contrast with the following species, always ends roundish outside on the lower median vein. Beneath there are 5 black stripes being convergent towards the proximal angle on the hindwing; the proximal and distal margins are orange, the latter colour bordered by the fifth black stripe running near and parallel to the distal margin, the two next ones approximating each other. Anal angle black with 4 white dots. Colombia, Venezuela, Amazon, Bolivia.

Th. togarna Hew. (150 b, c) is very similar, mostly somewhat smaller; the very variable scent-spot *togarna* is more triangular, on the veins, interrupting it by their light colour, it is distally produced taperingly, particularly on the lower median vein. Beneath, on the hindwings, there are only 4 black stripes not parallel to the distal margin, the orange border not defined by black, the two next stripes do not approximate each other more than the others; the anal angle is mostly much lighter in typical specimens. — **lincoides** *form. nov.* (150 c). I denote *lincoides* a larger, robust form resembling *linus* still more by its broader black beneath, and also above the discal spot it is larger and is almost or entirely confluent with the marginal band. This latter form flies more in Colombia and Ecuador, the type being widely distributed from Mexico to Bolivia.

Th. aethesa Hew. (150 e) is an extremely rare species from Bahia resembling *linus* almost entirely *aethesa* in the marking beneath, but the ground of the wings above and beneath is reddish-brown instead of white.

Th. leucogyne Fldr. (150 b) resembles in the ♀ above the *linus*- and *togarna*-♀♀, but it has an orange-yellow anal spot of the hindwings; the ♂ is above dark violettish-blue. Under surface creamy-white with fine black lines, an orange anal-angle spot of the hindwings and in the ♂ with a large black scent-spot below the cell of the forewing. Colombia. *leucogyne*.

Th. phaea G. & S. (= *sito* Btlr. & Drc. nec Bsd.) (150 b) is most similar to the preceding, the ♂ more bluish-grey, paler, the costal margin of the hindwing, and mostly a spot between the blue and the apex of the forewing, are whitish, the ♀ usually has a broader blackish-brown distal margin and on the hindwing mostly 2 distinct dark lines in front of the border (*leucogyne* is marked either without these lines at all or only with the beginnings of them at the anal angle). Beneath in the ♂ the black scent-spot has a narrower and brown border, in the form *phaenna* Godm. & Salv. quite chestnut-red. Central America (Honduras to Panama). *phaenna*.

Th. sito Bsd. (149 h) is above bluish-grey also in the ♀, the ♂ lustrous violettish-blue, easily discernible *sito* from the preceding by the polished scent-spot on the hindwing above near the costal margin, the one on the forewing beneath being bordered by orange-yellow approaching red-brown. Mexico to Nicaragua.

Th. melibaeus F. (= *euryides* Hbn.) (150 d) resembles the preceding above, but without the large orange-red anal spot; beneath the ground-colour is yellowish, the lines are finer and towards the costal margin they are traversed by the fine, black veins. Brazil. *melibaeus*.

Th. azaria Hew. (149 h) presumably belongs to the same group as the following, though it is above blackish-brown with a white, rounded median band and only little blue towards the base and in the disc of the hindwing. Beneath the black bands are much broader, more than in *battus* (150 a), entirely flown together at the base of the forewing. Patria unknown. *azaria*.

Th. pedusa Hew. (149 h) is above blackish-brown with a small round discal spot, the disc of the hindwing blue, at the anal angle an orange spot. The under surface is blackish brown with narrow silvery-white stripes. The ♀ is above lighter and more reddish brownish-grey. Amazon. *pedusa*.

28. Umbratus-Group.

Th. umbratus Hbn. According to HÜBNER'S figure, the butterfly has about the shape of *laothoë* *umbratus* (149 g), but it is smaller, only about half as large as *perpenna* (149 e). The wings are of a bright lustrous cyanide-blue above, the forewings with a broad, the hindwings with a narrower black margin; the scent-spot of the ♂ whitish. The under surface is dirty leaden-grey; the forewing with 2 parallel, the hindwing with 3 analwards convergent transverse stripes; before the apex of the hindwing a rusty-red, oval spot. Is stated to originate from Yucatan.

Th. parthenia Hew. (150 h) exhibits in its whole shape and scheme of markings also relations to *parthenia* the *loxurina*-group. Above lustrous blue with an oval scent-spot and a broad black apical part of both wings. The under surface is sooty grey, on the forewing with a dark-brown, faded band behind the centre and another one in front of the border. Hindwings speckled in black, in the basal part with several dark indefinite spots, a median band being pointedly broken towards the anal angle and in front of the border a series of small brownish spots. From Mexico to Nicaragua.

Th. catadupa Hew. (153 e) is unknown to me in nature, but seems to approximate the two preceding ones. Above lustrous blue with broad black margins, without a scent-spot; hindwing with a broad tail and a large anal lobe. Beneath greyish-brown, on the hindwings darker. Forewing with a broad brown band behind the centre and a narrower band in front of the border, both bordered by white on both sides; the hindwing exhibits 3 bands being equally distant from each other. Ecuador. *catadupa*.

Th. chaluma Schs., according to the description, seems to me the least unfit to be placed here. Above the basal $\frac{2}{3}$ of the forewings and the hindwings are dull violettish-blue, distally black. Hindwing with a velvety- *chaluma*.

black marginal line, proximally tinged whitish with a long broad tail. Beneath dull greyish-brown; forewing with a broad, distally whitish-dusted median shade, a similar one in front of the border and in front of it another one interrupted by the veins. Hindwing with a broad dark-brown median shade, the broadest in the cell, strewn with some bluish-white scales, and a narrower distal shade being dentate on the veins; in front of the border a broad, brown band being analwards dusted in grey, on the border a black line. Expanse of wings: 31 mm. Sta. Catharina.

29. *Loxurina*-Group.

loxurina. **Th. loxurina** *Fldr.* (150 g) is an extremely variable species. In the typical form as it flies e. g. near Bogotá, but also on the Cuesta de Cillutincara in Bolivia at an altitude of 3500 m, it is above deep violettish-blue with a rather broad black apex and distal margin and a small greyish-brown scent-spot in the upper cell-corner; the costal margin and the fringes are red-brown. The ♀ is duller, more greyish-blue with a much broader apex and distal margin; the tail and anal lobe deep red-brown, strewn with whitish scales. The under surface is dark cherry-coloured, strewn with bluish-white scales, so that particularly on the hindwings towards the anal part a violettish shade is created, with a red-brown line behind the centre, forming an acute angle on the lower median vein on the hindwing; in front of the border on both wings a series of small purple-brown spots. According to the locality, the occurrence of red creates a very different appearance: On the Quindiu Pass (3800 m) in the Colombian Central Cordilleras there appears at first a red colour towards the apex of the forewing, at the costal angle of the hindwing and at the anal angle (= **quindiensis** *form. nov.* 153 e), being extended to an almost entirely red upper surface, so that there remains only a black triangular spot in the middle of the costal margin of the forewing, by which the specimens resemble almost *atymna* (150 g): **atymnides** *form. nov.* (153 e). Beside the typical form there is another form in Bolivia at an altitude of 3000 m: **cillutincarae** *form. nov.* (153 e) in which most strangely the red occurs at the anal angle of the fore- and hindwings. Finally, on the Monte Socorro (West Cordilleras) at an altitude of 3500 m, the hindwings are more or less red, the forewings remain blue: **fassli** *Drc.* (= *socorrensis* *Dgn.* i. l.) (153 e). Perhaps the two last forms are to be separated as a species of their own.

amatista. **Th. amatista** *Dogn.* (= *candor* *Drc.*) (150 h) is very similar, smaller, with a darker, duller violet above; the anal part of the hindwing is extended to a short tail, a lobe is entirely absent. Beneath the whole basal half of the forewing is greyish-brown. Peru and Colombia.

atymna. **Th. atymna** *Hew.* (150 g) is likewise similar, but without a scent-spot, the ♂ deep violettish-blue, the ♀ is brown-orange. Beneath the forewings exhibit a dark cell-streak, both wings in front of the border another dark band. Tail and anal lobe as in *loxurina*. Ecuador, Bolivia.

catrea. **Th. catrea** *Hew.* (150 g) is presumably allied, as the shape of the hindwings corresponds with *loxurina*, but they are broader. Above radiantly blue with a broad black apex, beneath deep red-brown, strewn with white scales forming on the forewings behind the cell an indistinct short transverse line, on the hindwings in the centre a rectangularly broken dentate line, behind it yet a light shade; costal angle somewhat lighter brownish; below the costal margin, before the middle, there is yet a black, bluish-white-pupilled spot. Abdomen above blue, beneath orange-brownish. Brazil (Rio Grande do Sul).

dissentanea. **Th. dissentanea** *sp. nov.* (153 e). Shape of the wings as in *amatista*. Forewing yellowish-brownish, towards the base somewhat dusted in a light lilac-blue; hindwings light lilac-blue with a narrow brownish distal margin, fringes white; in the basal area the dark under surface gleams through. Beneath the forewings are greyish-brownish in the basal two thirds, on the lower median vein distally standing forth; marginal area white, at the proximal angle more yellowish with a narrow greyish-brown border and a similar line in front of it. Hindwing in the basal half blackish-grey, strewn with yellow and with white hair, particularly towards the proximal margin; distal area white, on the lower radial extending into the cell like a tooth; distal margin with the tail and a stripe before it being distinct only at the costal angle, are of the same colour as the basal part. Described according to 2 ♂♂ from Cuzco (Peru). (Coll. FASSL).

30. *Arria*-Group.

arria. **Th. arria** *Hew.* (153 f). Above dull greyish-brown, beginning from the median of the forewing greyish-blue, also in the disc of the hindwing; along the upper cell-edge of the forewing a narrow, long scent-spot. Anal angle of the hindwing somewhat advanced, without a tail. Beneath greyish-brownish, densely dusted in white; forewing at the proximal margin, beginning from the median, in the basal half shining greenish-blue, behind the middle with a yellow-brownish stripe; hindwing in front and behind the middle with just the same dentate lines and discal stripe. Colombia, Ecuador, Peru.

hybla. **Th. hybla** *Drc.* (153 e, f) is larger, above with a more brilliant and more extensive greenish-blue, without a scent-spot. On the under surface the dentate lines are purple-red and the surface of the wings is sparsely strewn with red, particularly towards the base; on the forewing, in the cell, there is a greenish-blue stripe, below it is an opalescent olive colour. Described from Ecuador.

Th. adunca *sp. nov.* (153 g) lying before me only in one ♀ is undoubtedly closely allied to *hybla*, though *adunca*. it has remarkably narrow forewings with a rectangular apex and very long-stretched hindwings with a concave costal margin and a long anal part being curved inwards. Above lustrous violettish-blue, on the forewings also above the cell, the costal margin narrow, the distal margin broad black. Costal angle of the hindwing broad blackish-brown, gradually tapering to the anal apex. Beneath the forewings are brownish-grey, with red scales at the cell-end; far behind the middle a darker undulate transverse band interspersed with red scales, extending as far as the lower median vein and being distally white-scaled like the outermost marginal area in front of which there are red crescentiform spots. Hindwings of a purer grey, strewn with red scales, with two strongly dentate red transverse lines and between them a red discal streak; the distal transverse line is distally tinged in white, running from the distal third of the costal margin in a straight direction as far as down to the submedian fold close in front of the border and then bending round acute-angled to the proximal angle, as it is the case in *loxurina*. The marginal part is, particularly towards the costal margin, lighter whitish, on the ends of the veins are thick black-red dots. Monte Tolima (Colombian Central Cordilleras at an altitude of 3200 m) in the Coll. FASSL.

Th. mirma *Hew.* (153 f) differs from *arria* by the absence of the scent-spot, above in the ♂ entirely *mirma*. brown forewings which are dusted in a greenish bluish-grey in the ♀. The under surface is browner with but one brown dentate line on the hindwings, behind it brightened up by reddish-white. Colombia. Peru.

Th. tyrius *Drc.* (153 f, g) is to be separated from the preceding by the light-brown oblong scent-spot *tyrius*. at the cell-end; above otherwise similar. Beneath brownish-grey strewn with dark-red scales, with the same dentate line behind the middle and an obsolete row of moonspots in front of the border; in the disc of the forewing, as in the preceding, an opalescent blue stripe. Ecuador.

Th. mishma *Hew.* (153 f) has above brilliant metallic-blue wings with broad, blackish-brown distal *mishma*. margins. The under surface greatly resembles that of *arria*, more red-brown, the dentate line of the forewing begins at the costal margin with an isolated spot. Colombia.

Th. oxida *Hew.* (153 f). Wings above deep violet, only the costal margin of the hindwing of a somewhat purer blue with a very narrow scent-scale-stripe, along the upper cell-edge of the forewing. Fringes blackish-grey. Beneath likewise marked very much like the preceding, darker brownish-grey, strewn with red, the dentate lines more interrupted, not so coherent, in the ♂ below the cell of the forewing opalescent blue. Ecuador, Peru.

Th. schausa *Jones* (153 f). The ♂ is above black, the cell and submedian area metallic purple blue, *schausa*. behind the cell with a small scent-spot, the anal angle of the hindwing tan-coloured, fringes grey. Under surface more purple-brown, thickly strewn in red with red dentate lines, a red marginal band and a tan-coloured border; the forehead is red, too. The ♀ is of a duller blue, with a broader black border. Brazil. (Castro, São Paulo.)

Th. aurugo *sp. nov.* (153 g) resembles *oxida* above by the deep violet colour, but it has no scent-scales *aurugo*. along the subcostal, the distal margin is narrower black, the fringes orange-brownish. On the under surface the wings are very conspicuously lemon-coloured, strewn with red scales, and with similar, though not no very dentate transverse lines. Nearly the whole proximal margin of the forewings inclusive of the lower cell-half is of an opalescent greyish-green colour, the abdomen beneath orange-brownish; the basal half of the proximal margin of the hindwing is more greyish-brown. According to 2 ♂♂ from Cuzco (Peru) from the Coll. FASSL.

Th. commodus *Fldr.* (153 g) to a certain degree approximates *hybla* and especially *adunca*. *commodus*. The shape of the hindwings like in the latter. Above lustrous greenish-blue with very broad blackish-brown margins; beginning from the distal half of the cell the blue colour warms into a deep metallic olive-green towards the apex. Beneath the scheme of markings is likewise similar; on the hindwings the two dentate lines are separated at the costal margin by a large, olive-greenish or yellowish triangular spot; the marginal area is olive-green with small, purple-brown spots in front of the border in whitish-grey rings, being proximally mounted by angular spots of the same colour. Colombia.

Th. elongata *Hew.* (150 f) is likewise another specialisation of the same group. The blackish-brown *elongata*. forewings are only below the cell strewn with metallic blue, at the cell-end is the hardly noticeable large black scent-spot. Hindwings in the inner-marginal half somewhat more extensively blue. Beneath blackish-brown, at the proximal margin and border of the forewing lighter, almost whitish, with several, irregularly undulate, dark lines. The hindwings appear marbled by densely strewn light scales and exhibit several very irregularly dentate transverse lines. Marginal line distinctly black. From Ecuador and Bolivia.

Th. bilix *sp. nov.* (153 g) approximates *mishma*. Above lustrous metallic-blue with broad black *bilix*. margins and apex, costa and fringes red-brown; hindwing with a long-extended anal angle and equally long tail on the lower median vein. Beneath greyish-brown, strewn with red, with transverse lines consisting of incoherent lunular spots, on the forewings 2 close in front of the border, on the hindwing 3 equally distant from each other; each wing exhibits red discal transverse streaks; the inner-marginal blue is absent. Described according to a ♂ from the Rio Aguaca Valley (Colombia) from the Coll. FASSL.

31. Goleta-Group.

Th. goleta *Hew.* (154 e) is immediately recognizable by the peculiar shape of the wings with the *goleta*. deep concave indenture between the median and radial veins of the forewing, and by the long-stretched anal

angle of the hindwing. Above brown; beneath dull brown, on the forewing before the apex at the costal margin a light small spot bordered on both sides by brown. Hindwings whitish, clouded in brown; a small spot at the base of the costal margin, a broader band in the centre and an irregular marginal band dark-brown. Colombia.

crambusa.

Th. *crambusa* Hew. (154 f) is somewhat larger, of the same shape of the wings, but with a short small tail on the lower median vein. Brown with small black spots in the anal part of the hindwing. Fringes white, on the forewing partly brownish. Beneath very much like the preceding, somewhat more multifariously marbled with a chestnut-brown spot bordered on both sides by whitish in the middle of the proximal margin of the hindwing, between the median veins a rusty-yellow spot and near the anal angle greyish-white dusting. Brazil, Bolivia.

binangula.

Th. *binangula* Schs. is unknown to me like the following, but presumably belongs here; the shape of the wings is the same as in *crambusa*. Above dark-brown with a darker spot at the cell-end and some blue at the base of the forewing; hindwing, except the broad brown costal margin, light-blue with a small black spot between the median veins. Beneath greyish-brown with a dark cell-end spot bordered on both sides by white; the whitish apex is marbled in brownish-grey and proximally bordered by a brown, distally white shade. Hindwing with a round brown, white-ringed spot at the base of the costal margin; postdiscal double, whitish, inwardly bordered at the costal margin and proximal margin by a white angular spot; distal margin darker, dusted in reddish towards the anal region. Expanse of wings: 19 mm. Peru.

bolima.

Th. *bolima* Schs. is much larger, the forewings more rounded. Above similarly coloured, but with black spots in front of the distal margin of the hindwings. Also beneath very similar with distinct brown, white-ringed spots in the centre of the costal-, cell- and proximal margin. Castro (Paraná).

32. *Culminicola*-Group.

culminicola.

Th. *culminicola* Stgr. (153 g). Above deep violet with black margins and a particularly broad apex. Fringes white-speckled. STAUDINGER, in his description, has overlooked the greyish-brown scent-spot at the upper cell-end. Beneath blackish-grey, particularly distally strewn with white, with black dentate lines. The ♀ is above extensively light bluish-grey with a lilac shine. Colombian Andes at an altitude of 3500 to 4400 m, also from Cuzco (Peru).

alatus.

Th. *alatus* Drc. (153 g, h) may be a distinct species owing to the unspeckled reddish fringes. The upper surface is lighter violetish-blue with a red lustre, the scent-spot is the same. The disc of the forewing beneath orange. Described from North Peru (11 500 ft.).

anosma.

Th. *anosma* sp. nov. (153 h) is above quite dark-brown without a scent-spot, only the hindwings exhibit a faint violet lustre in the disc on being obliquely exposed to the light. Fringes unspeckled, brown, hindwing with a longer small tail at the lower median vein. The monotonously greyish-brown under surface strewn with red scales, with incoherent dark lunular spots entirely resembles that of *bilix*. A ♂ from Bogotá (3000 m) from the Coll. FASSL.

33. *Irus*-Group (*Incisalia* Minot).

augustus.

Th. *augustus* Ky. (= *augustinus* Ww.) (153 h) undoubtedly is closely allied to the preceding group. Above brown, the hindwings analwards copper-reddish. The under surface is reddish-brown, in the basal half darker with a dark dentate median band of the hindwing and lighter, proximally darker-bordered, small triangular spots in front of the more purple-brown border. Distributed in the northern and western parts of North America. Larva carmine-red, with short hair.

iroides.

Th. *iroides* Bsd. is extremely allied to *augustus*, above not different, beneath the space behind the postdiscals is not lighter than the border, the markings are more indistinct, the forewings almost unmarked.

immaculata.

— f. *immaculata* Cokle is an albino form; straw-coloured to canary-yellow, above and beneath without any spots. A unique specimen from Kaslo in British Columbia.

foetis.

Th. *foetis* Strecker. Size and shape of *augustus* (153 h); above unicolorously dark-grey. Beneath the forewings are rather dark slate-grey; with a submarginal row of almost obsolete dark dots, a hardly distinguishable, irregular, darker line through the disc; inwardly from the latter the wing is strewn with lighter atoms. In contrast with *augustus*, the hindwing exhibits beneath near the distal margin a white line followed by a band which is composed of dispersed, black, small scales, proximally from it a series of round, white spots or dots, each of which exhibits some black atoms; proximally from it a not very distinct light, dark-tinged line. From Arizona.

hadros.

Th. *hadros* Cook & Watson. ♂ above brown, ♀ bright rusty-red with a copper-lustre, towards the margin and the base somewhat clouded. Fringes one-coloured, only near the apex with a white margin. Beneath dark-brown, the hindwings towards the margins dusted in grey, the broadest at the anal angle, otherwise marked like *irus*, mostly only faintly indicated; on the hindwings in the centre of the costal margin with a white diffuse spot; on the forewings stands a whitish postdiscal. Expanse of wings: 32 to 38 mm. — Texas.

Th. irus *Godt.* (153 h) is above unicolorously greyish-brown, beneath almost just the same as the *irus*. preceding, more blackish-brown; the transverse lines of both wings have a distal white tinge at the costal margin. In the large, more southern form **arsace** *Bsd.* there appear reddish-lustrous spots before the anal part of the *arsace*. hindwings. Distributed in North America. The larva lives on the plum-tree.

Th. mossi *Edw.* (= *polios* *Cook & Watson*) extremely resembles the preceding; beneath the marginal *mossi*. area of the forewing is not brightened up, the dark basal area of the hindwing somewhat more extensive, distally bordered by a fine white line which is often very broad so that it may grow to a band of the colour of a grey-horse of about 2 mm width; the distal part is more indistinctly marked. Widely distributed from New Jersey, New Hampshire, Nova Scotia, Colorado, Canada, Vancouver.

Th. henrici *Grote & Rob.* which was often disputed by American authors with respect of its right *henrici*. of being regarded as a species, differs above by broad distal margins of a copper-reddish tinge; beneath the blackish-brown basal part is sharply and very irregularly defined, often distally accompanied by a complete, white line. From Maine to West Virginia, rather rare. The larva lives just like the preceding. — f. **solatus** *Cook & Watson* from Texas has more uniformly coloured basal and marginal areas beneath, more chocolate-brown and yellowish-brown, above less coppery lustre.

Th. eryphon *Bsd.* (154 f) is above dark brown, on the hindwings in an anal direction warming into *eryphon*. copper-brown, fringes white-speckled. Beneath red-brown, on the hindwings more lilac-brown with purple-brown dentate lines, the proximal one bordered proximally by white, the distal one distally, with similar, small marginal spots and, in front of them, pointed, proximally black triangular spots. Distinguishable from the following, very similar species by the postdiscal being almost rectilinear on the forewing. California, Colorado.

Th. nippon *Hbn.* (154 f) is above and beneath extremely similar, but on the forewings beneath, the *nippon*. postdiscal projects sharply outside on the lower radial vein. The larva lives on pines. Nova Scotia to Colorado.

34. Dolyllas-Group.

Th. dolyllas *Cr.* (150 e). Above pale lilac-blue with very broad blackish-brown margins, in the ♂ *dolyllas*. with a very large, deep rust-brown, black margined scent-spot in the centre of the forewing. Beneath white towards the border yellowish with several blackish and brownish-yellow transverse markings. Widely distributed; from Guiana, Colombia, Bolivia, the Amazon.

Th. spurius *Fldr.* (= *dolosa* *Stgr.*) (150 f) is above, except extensively lighter hindwings, with a *spurius*. broad white costal margin and quite a narrow black distal margin, almost like the preceding, but it has no small tail and the scent-spot seems to be throughout lighter brown. Colombia.

Th. hypocrita *Schs.* (153 h) has neither a tail; above the blue is somewhat more extensive, the border *hypocrita*. of the hindwing equally broad black. Beneath the proximal part of the forewing as far as the border is broad blackish-brown, the costal base whitish, somewhat clouded in brown, the hindwings more yellow, the post-discal and submarginal brown transverse lines are united analwards and terminate into the anal angle. Mexico, Costa Rica.

Th. ellida *Hew.* (150 e) resembles the preceding above, is darker lilac-blue with a broad black apex *ellida*. of the forewing, rusty-yellow to brown fringes and without a scent-spot; HEWITSON describes such a scent-spot, but I am unable to find it. The hindwing exhibits in front of the border, in an anal direction, 3 small black spots. Beneath the ♀ is like the preceding, the ♂, however, much more variegated by the deep red-brown of the bands and of the triangular basal spot of the hindwing. Venezuela to South Brazil.

Th. malina *Hew.* (150 e) resembles *dolyllas* above, but it has quite a different scent-spot: the larger *malina*. part in the cell is dark-brown, the smaller part placed obliquely above and distally from it is more greyish-brown, the whole spot is surrounded distally by greenish-grey. Beneath brownish, towards the distal margin reddish ochreous-yellow with several brown, narrow bands being convergent towards the anal end on the hindwings. Brazil, Sao Paulo.

Th. palegon *Cr.* (= *myrtillus* *Cr.*, *juicha* *Reak.*) (150 d, e) is allied to the preceding species, above *palegon*. silky-glossy greyish-violet with much narrower margins and only a small, but likewise double scent-spot, the ♀ dull greyish-brown. Beneath the distal margin is brighter rusty-yellow, the proximal surface dusted with violettish-grey, the bands more dentate. From Mexico to South Brazil, common.

Th. cyrriana *Hew.* (153 h) greatly resembles the preceding according to the figure and description; *cyrriana*. above the black distal margin and apex are entirely absent, the small scent-spot is red-brown, the tail much smaller. Beneath the wings are marked as in *palegon*, but quite brown, the hindwings darker clouded, without the rusty-yellow border. Described from Peru.

Th. nannidion *Burm.* is said to resemble above *Th. lausus* (154 e) in size and colour: forewings *nannidion*. brown, hindwings light-blue like there, the under surface is said to approximate that of *palegon*, but to be lighter grey with fainter, posteriorly shortened, brown bands without the rusty-yellow marginal part. Immediately recognizable by the very long, 3rd palpal joint. Argentina (Corrientes).

jadr. **Th. jada** Hew. (150 f) we include here as the nearest ally of *malina*. Above lilac-blue with a very broad apex of the forewing, a red-brown anal lobe and small tail, fringes white; at the cell-end a slightly visible black streak-spot, the scent-spot being absent; the ♀ is coloured just the same except a somewhat rounder shape of the wings. Beneath yellowish-white with olive-brownish lines, similarly marked as *malina*. Common in Mexico and Guatemala.

calesia. **Th. calesia** Hew. (150 f) resembles somewhat *ellida* (150 e), but it might more correctly be placed beside *commodus* (153 g) in the *arria*-group. Above greenish-blue with a broad black apex and margins with 2 rather long tails beside the extended anal lobe; without a scent-spot. Beneath red-brown with deep dark-brown markings which are partly finely bordered by bluish-white; in the middle of the costal margin and of the border there is one larger, light, yellowish-brown patch each. Venezuela, Ecuador, Colombia.

35. Dinus-Group.

dinus. **Th. dinus** Hew. (150 f) is known to me only from the description and figure, for which reason its position here is dubious. Shape about that of *elongata* (150 f) or *commodus* (153 g), above similar, without a scent-spot. Beneath red-brown, on the forewing with a large brown triangular spot in the middle of the costal margin, and brown spots in front of the border; hindwing clouded in a darker brown, margin more rusty-yellow, a brown spot near the costal base and two macular bands behind the middle. Surroundings of the black anal lobe dusted in white. Described according to a ♀ from Brazil.

36. Amyntor-Group.

a) tailed species.

amyntor. **Th. amyntor** Cr. (= *menalcas* Cr.) (153 i). Above deep metallic indigo-blue, towards the margin gradually warming into the moderately broad, blackish-brown margin; anal lobes red-brown. Beneath brilliantly green, the proximal margin of the forewing grey; hindwing with a rudimentary row of lunular spots behind the middle, dark cherry-red, to black, distally white-pupilled, mostly there is at the costal margin only one, and analwards 3 or 4 eye-spots; between, below and above the median veins, in front of the border, are yet 3 small cherry-red spots, the one in the middle being the largest. Forehead metallic-green. Abdomen above indigo-blue, beneath yellowish. The ♀ is in the basal half dull greyish-blue, distally blackish-brown. Mexico to Brazil, rather rare.

sicrana. **Th. sicrana** Jones (153 i). I am unable to decide whether this animal is of a different species from the preceding. The description coincides with it except the forehead being described as brown, with metallic-green scales and a white spot between the antennae. The figure exhibits the hindwings beneath marked with larger white spots nearer to the border. Castro (Paraná).

chloris. **Th. chloris** Hew. (153 i) is described according to but 1 ♀; nor do I know it; it looks above alike, but, according to the figure, it seems to have 2 longer tails and a long-stretched anal lobe; beneath the postdiscal macular series of the hindwing is entirely black, distally not bordered by white. Brazil.

herodotus. **Th. herodotus** F. (= *leucania* Hew.) (153 i) is smaller, above duller indigo-blue with quite a narrow, black margin and few scent-scales in the upper cell-corner at the rising of the uppermost radial. Beneath green, equally, but much more finely marked than *amyntor*, the white macular line is mostly more complete, forehead metallic green. From Mexico to the Amazon at altitudes of up to 3000 ft., everywhere common. — In Argentina flies: **acastoides** Berg (= *acaste* Burm. nec *Prittw.*) differing by its larger size, the undulated brown marginal band of the hindwing beneath and a brown-tinged, white macular band.

fuscus. **Th. fuscus** Godm. & Salv. (153 i) differs merely by the brown colour of the upper surface. Mexico to Panama.

bertha. **Th. bertha** Jones (153 i). Distal margin of the hindwing more straight, not so inflated, anal lobe not developed. Above dull indigo-blue, beneath not to be mistaken for any other species by the peculiar, white-dusted median band. Paraná, Rio Grande do Sul.

pastor. **Th. pastor** Btlr. (154 a) is easily distinguishable by the uncommonly lustrous deep blue colour above, beneath by the brown lunular spots on the margin of the hindwing. The ♀♀ entirely resemble above those of the other species. Mexico to Panama.

b) untailed species.

longula. **Th. longula** Hew. (154 a) has above the same magnificent *Morpho*-blue as *pastor*, but a somewhat broader black margin and a longer extended anal angle. Beneath the green is tinged somewhat ochreous-yellowish; the macular band as in *herodotus* (153 i), only much less visible and inwardly darker shaded; between it and the border there runs a second nebulous band; at the base of the hindwing is often a brown spot of a variable size. Forehead brown, abdomen beneath yellow. The ♀ is above dull greyish-blue, with broad blackish-brown margins. From Colombia, Ecuador and Bolivia.

agricolor. **Th. agricolor** Btlr. (154 a). Shape of the wings similar to that of *bertha*; above coloured like *herodotus*, beneath differing from all the others by the hindwings being broadly marked in red-brown at the base and at the margin and being dusted in white; besides they exhibit in the centre yet a strongly undulated band. Mexico to Panama.

Th. acaste *Prittw.* (= *lycimna Hew.*) (154 a) entirely resembles *herodotus* (153 i) except the absence of the tail, but on the hindwing beneath, it exhibits a complete and scarcely interrupted, fine, white transverse line, being proximally mostly tinged with cherry-red; there is often also a white discal streak. Brazil (Sao Paulo, Rio Grande do Sul, Sta. Catharina).

Th. remus *Hew.* (154 b) is above more greenish-blue; beneath the transverse band of the hindwing consists of small red-brown spots, of which only the lowest is white-pupilled; close before the border there is yet a row of small black, white-dusted spots. The ♀ is above greyish-blue, beneath more richly marked in red-brown, as far as to the costal-marginal angle of the hindwing; also on the forewing there are behind the middle of the costal margin small red-brown spots. Brazil.

37. Dumetorum-Group (*Callophrys Billb.*).

Th. dumetorum *Bsd.* (= *viridis Edw.*) (154 b) replaces our *Th. (Callophrys) rubi* in North America. Above blackish-brown, in the ♂ with a smooth oval spot at the cell-end, fringes whitish, at the anal angle brown. Beneath deep green except the proximal margin of the forewings being brownish-grey; the proximal margin of the forewing red-yellow; both wings are traversed by a curved band of oblong, white small spots. — The egg is deposited on the flower-buds of *Hosackia argophylla*, but the larva is not yet known. California, Rocky Mountains.

Th. affinis *Edw.* does not differ above, but beneath it is quite unmarked green. Utah.

Th. apama *Edw.* from Arizona is above like *dumetorum* (154 b), beneath marked almost like *castalis*; untailed. Above blackish-brown with an oval, black stigma; beneath the forewings are yellowish-brown, in the apical area and at the costal margin golden-greenish; in the disc a transverse row of small spots consisting of black, distally white-tinged, proximally red-brownish-tinged, small streaks. On the hindwings there is a discal, somewhat irregular row of similar spots of which those in the costal half are moon-shaped; expanse of wings: 27 mm.

Th. sheridanii *Edw.* is the last species belonging to the „*Callophrys*“-group. It has hitherto been exclusively found in the Rocky Mountains.

38. Janias-Group.

Th. janias *Cr.* (= *romulus F.*, *cecina Hew.*) (154 b) is above magnificently deep ultramarine-blue with black veins, a broad black apex and a narrower black distal margin. In the upper cell-corner in the apical black a dark brownish-grey scent-spot. Beneath magnificently emerald-green including the thorax, legs, forehead, palpi, borders of the eyes and shoulders. On the hindwing there is a postdiscal transverse line mostly present only analwards and forming here a W, a spot between the median veins, the tail and the white-bordered fringes velvety-black. In the ♀ being above greyish-blue to brown, on the hindwing beneath, the black transverse line is complete as far as the costal margin, also a large black anal spot. — In the form *hassan Stoll* (154 b) the black spots above are bordered by a broad orange-red. Most widely distributed from Mexico through the whole of Central America as far as Guiana, Colombia, Bolivia, the Amazon, and South East Brazil.

Th. esmeralda *Jones* (154 b) is closely allied to the preceding, but it has above much broader margins; beneath the hindwing exhibits a fine, black, undulate postdiscal line, being the most distinct at the proximal margin. The spot between the median veins is quite orange. The ♀ is above brown with a faint lilac-grey lustre; beneath the black undulate line is more distinct, the orange spot larger, a second one is at the anal angle. Castro (Paraná).

39. Thabena-Group (= *Jaspis Kaye*).

Th. thabena *Hew.* (154 b). Above brilliant blue with a large black scent-spot in the cell of the forewing, a narrow black margin and a somewhat broader apex; beneath light-grey with 2 fine transverse lines, the proximal one inside bordered by orange, outside by white and beginning at the margin of the hindwing with a distally arranged, large black spot, strongly dentate; anal angle extensively yellow. The ♀ is above dark brown, at the anal angle of the hindwing and at the proximal margin white-spotted. Surinam to the Amazon.

Th. temesa *Hew.* (154 c) is beneath almost like *thabena*, but above very dark ultramarine-blue with a brown oval discal spot. Guiana to the Amazon.

Th. talayra *Hew.* (154 c) is above brilliant-blue, bordered like *thabena*, but with a small scent-scale-spot of the same colour at the upper cell-end. The under surface is lighter, almost white, the line-markings the same, but at the anal angle two orange-red spots. Common from Mexico to Brazil. — From Pará and Espiritu Santo the f. *castitas* *Drc.* (154 c) is described with a much duller, more greenish blue and a somewhat broader black margin; the under surface is darker, at the anal angle more red.

beera. **Th. beera** Hew. (154 c). More violettish-blue than the preceding with a broader black margin and a larger scent-spot; beneath darker grey, the line-markings the same except the costal-marginal spot of the hindwing being more streak-shaped; anal-angular spots smaller. Ecuador, Brazil.

exiguus. **Th. exiguus** Drc. (154 e) is marked like the preceding, but above more indigo-blue with a greenish tinge and without any scent-spot; beneath like the preceding. Surinam.

castimonia. **Th. castimonia** Drc. (154 c) is above as blue as *beera*, but without the scent-spot and with but quite a narrow black distal margin without getting broader at the apex and with a distinct red anal spot also above; the under surface is lighter with but little red at the anal angle of the hindwing. Colombia.

pura. **Th. pura** sp. nov. (154 c) is very well to be included here. Above unicolorously blackish-brown, the hindwing at the anal angle with a small yellowish spot and a short white marginal line before the otherwise black one. Beneath silvery-white with an extremely fine brownish postdiscal showing the same course as in *beera*, but being placed somewhat more into the centre of the wing; also the small spot being placed distally at the costal margin of the hindwing is very small and fine. There are no submarginals at all, only at the anal angle stands a tiny yellow spot being above bordered by black, next to it the traces of a blackish crescent. Described according to 1 ♂ from São Paulo.

40. Meton-Group (*Rekoa Kaye*).

meton. **Th. meton** Cr. (= *metus* Hbn., ♀ *augustus* F.) (150 d) on the one hand resembles *palegon*, on the other hand it forms the transition to the following group. The ♂ is above of a delicate light-lilac with a white scent-spot, the ♀ almost white. The under surface is light-yellow to rusty-yellow with similar lines as in *malina* but an eye-spot in the middle of the costal margin of the hindwing. From Mexico to Colombia and Brazil, everywhere very common.

phrynisca. **Th. phrynisca** Burm., perhaps a form of the preceding, is somewhat smaller, the forewings above much more extensively black, beneath at the costal margin of the hindwing there is no eye-spot. Described according to 2 ♀♀ from Argentina (Corrientes).

41. Mazurka-Group.

atesa. **Th. atesa** Hew. (154 d) is above only in the proximal half of the wings brilliant blue, a round brown scent-spot stands already in the apical black. Beneath light-brown, very peculiarly marked in red-brown with a large black eye-spot in the middle of the costal margin of the hindwing and a bronze-green dusting at the anal angle. Panama to the Amazon.

mazurka. **Th. mazurka** Hew. (154 d) is perhaps not allied at all to the preceding, it is only placed here on account of the analogy of the marking beneath. Above the blue is still more reduced in the ♂, a scent-spot is absent. Beneath the eye-like spot at the costal margin of the hindwing is much more developed and exhibits 2 blue pupils. The ♀ is above quite brown. Amazon.

42. Narbal-Group.

narbal. **Th. narbal** Stoll is unknown to me in nature. According to the figure and description it must be very closely allied to the following; it seems to be a little larger and has beneath at the base of the costal margin of the forewing and hindwing extensive red spots. Surinam.

amplus. **Th. amplus** Drc. (150 k) is above brilliant-blue with a moderately broad black distal margin and a small, blackish-grey scent-spot in the upper cell-corner. Beneath the forewings are brown, unmarked, except the narrow red base of the costal margin; the hindwing exhibits in the middle of the costal margin a black, distally white eye-spot, in front of the border a fine black, distally white undulate line, a black anal-angular spot and next to it a spot strewn with bluish-white. Venezuela, Amazon.

ophelia. **Th. ophelia** Hew. (150 k) is very similar, has above broader black margins and a larger scent-spot; beneath the costal-marginal eye-spot is absent, the base of the hindwing is more extensively red, a marginal spot between the median veins is black. Bolivia, Amazon.

hypsea. **Th. hypsea** Godm. & Salv. (150 k) differs by a decidedly greener blue above, the distal margin, particularly of the apex, is much narrower black; the scent-spot exhibits at its lower margin a narrow light-brown part. The under surface is as in *ophelia*, but the black marginal spot between the median veins is absent and replaced by only white dusting. Panama. — **stictos** Drc. (151 a) from Colombia I can only take to be a form of *hypsea* with a green upper surface, I do not find any other differences.

athymbra. **Th. athymbra** Hew. (150 i) is beneath exactly like *hypsea*, the bases of the wings more chestnut-brown, above the blue is reduced by the very broad black apex, the scent-spot is very large, double, proximally red-brown, distally greyish-brown. Amazon (Itaituba).

gemma. **Th. gemma** Drc. (151 a ♂; the figure (150 k) denoted as *gemma*-♀ is wrong, it represents the upper surface of the allied *rocena*) resembles the following species from which it is discernible by the upper surface

exhibiting a deeper purple-blue and an oval, somewhat smaller scent spot. Beneath the ground-colour is of a somewhat deeper tinge, the two small white spots on the forewing bordering on the basal red are absent, and the hindwings exhibit a second red spot at the inner-marginal base. Peru.

Th. minyia *Hew.* (150 h) is above lustrous blue, of a somewhat greenish tinge, the apical half blackish-brown, in it lies the small round greyish-brown scent-spot. The under surface is ochreous-brown, the bases of the wings red, on the forewings bordered by two, on the hindwings by one white spot, the former two distally, the latter proximally bordered by black; the forewings exhibit yet a white oblique band at the cell-end, the hindwing at the proximal margin the beginnings of a white undulate line, between it and the black anal angle there is some greenish or bluish-white dusting. French Guiana to the Amazon. *minyia.*

Th. porthura *Drc.* (150 h) is above deeper ultramarine blue, the scent-spot is placed in the dark purple-blue. The under surface is more ochreous-yellow on the hindwings, the forewings are without the two small white basal spots, but on the hindwing a black, bluish-white-ringed eye-spot borders on the basal red, the black, distally white postdiscal extends as far as to the centre of the wing, and mostly there is even yet a small white spot at the costal margin, the anal angle is more extensively green. Panama to Colombia. *porthura.*

Th. rocena *Hew.* (150 k a *gemma*-♀) has no scent-spot, but such a broad black costal margin that the deep violettish-blue remains confined to the basal inner-marginal half of the forewing. Beneath similarly marked as the preceding, but the ground more greyish-brown. Below the cell of the forewing is a large black spot; behind the cell, between the lower radial and lower median veins, there is a white arcuate line; the anal angle of the hindwing extensively strewn with metallic green, between the median veins a jet-black spot bordered above by orange. Colombia to the Amazon. *rocena.*

Th. fessa *Mschlr.* described only according to 1 ♀, seems to me to belong here. Above dark-brown, towards the base with a bluish-grey tinge. Under surface yellowish-brown, marked almost like *atena* (150 h), but the forewings without any marking, the hindwing with the costal-marginal eye-spot of *amplus* (150 k) and its allies, but without any basal red; farther outside there is another smaller white dot bordered distally by black; postdiscally, towards the proximal margin, a white, towards the base black undulate line, towards the margin whitish-blue dusting, at the anal angle a black spot being yellow towards the base. Surinam. Forewings 15 mm long. *fessa.*

Th. atena *Hew.* (150 h) is above brilliant-blue, towards the margin suffused in purple with a round, brownish-grey scent-spot in the upper cell-corner, and a broad black apex. Beneath like the preceding, but on the forewing a white oblique band at the cell-end, proximally bordered by black, forming on the lower median vein an acute angle projecting outside. The markings of the hindwings are bluish white, analwards very much metallic green dusting. Guatemala to the Amazon. *atena.*

Th. geba *Hew.* (150 h) resembles the preceding above, perhaps of a slightly greener tinge, beneath darker brown, the discal band of the hindwing more developed and especially behind the middle of the cell moved farther towards the base, all the markings a little more intense, the bluish-white still deeper blue. Before me from Bolivia and Colombia. *geba.*

Th. melleus *Drc.* (150 i) entirely resembles *atena* beneath, but above the blue is much less lustrous and strongly reduced by the apex and also the distal margin of the hindwing being much broader black. The scent-spot is the same. Colombia. *melleus.*

Th. florens *Drc.* (150 i) is likewise very closely allied to the preceding, on the forewings lustrous and extensively blue as *atena*, on the hindwings lighter blue. Beneath the ground-colour is darker, more leaden-coloured, towards the margin with a coppery lustre; the white line of the hindwing runs more uniformly and is less broken. Amazon (Tapajos). *florens.*

Th. ravus *Drc.* (150 i) is compared with *minyia* (150 h) by the author, above with a smaller, rounder scent-spot and a lighter, reduced blue. The under surface is brighter red-brown, the white spots bordering the basal-red are absent, so is the red colour on the hindwings, but the costal-marginal eye-spot is present instead. Amazon. *ravus.*

Th. color *Drc.* (150 i) resembles somewhat *athymbra* above, it is of a more brilliant blue than the latter, without any scent-scales, but with a dark spot in the distal half of the cell. Beneath lighter, almost without any basal red, only faintly tinged lilac-reddish, on the forewings with a postdiscal row of moon-spots, the markings only feebly expressed. Guiana. *color.*

Th. sista *Hew.* (151 a) initiates a special subordinate group of species resembling each other very much, with a much more slender structure and more delicate wings, partly almost diaphanous. Above brilliant blue with broad black margins and a quite uncommonly large scent-spot of a brown colour, being extended from the distal half of the cell almost to the proximal half of the radial and median veins. Beneath all these species are indiscriminately almost of the same colour and marking, grey with bluish-white transverse lines, on the hindwings broken, forming a W towards the anal part, anal margin lustrous metallic grass-green, in it two black spots bordered above by yellow, at the base of the costal margin of the hindwing an isolated white spot. Guiana, Colombia, Brazil. *sista.*

- aurora*. **Th. aurora** Drc. (151 a) is above much brighter and more extensively blue with a somewhat smaller, black scent-spot immersed in the blue; beneath lighter, more brownish, the markings finer. Brazil (Espiritu Santo, Sta. Catharina, Rio Grande do Sul).
- malvina*. **Th. malvina** Hew. (151 a) is a little larger, above duller violettish-blue with a somewhat broader, black apex than *aurora* and a large, red-brown scent-spot, beneath somewhat browner, the proximal line of the forewing very oblique and consisting of single, small spots. Brazil.
- janthina*. **Th. janthina** Hew. (151 b), with longer, almost diaphanous wings and a violet upper surface with a slight yellowish reflection, has only a small, narrow scent-spot at the lower cell-end on the median; beneath no difference. Guatemala to Brazil.
- armilla*. **Th. armilla** Drc. is coloured above like *janthina* (151 b), but the shape of the wings is that of *sista* (151 a), and the scent-spot at the lower cell-end is more prominent than in *janthina*; the under surface is darker. Rio de Janeiro.
- flosculus*. **Th. flosculus** Drc. (151 b, c) resembles *armilla* above, but the blue is more extensive, with a purple lustre and not so brilliant; the under surface is greyer, the markings more distinct, broader white. Espiritu Santo.
- cydonia*. **Th. cydonia** Drc. (151 b) has the shape of *janthina*, but quite black forewings and a somewhat broader black margin of the cornflower-coloured hindwings. Beneath there is no difference. Colombia.
- mutina*. **Th. mutina** Hew. (151 b) is beneath almost like *sista* of which it has the shape of the wings, but the anal angle of the hindwing has no green, but bluish-white dusting. The upper surface is entirely different, dark blackish-brown, on the proximal margin of the forewing, and in the larger inner-marginal half of the hindwing, it has a deep indigo-blue tinge, without a scent-spot. Guiana to the Amazon.
- mecrida*. **Th. mecrida** Hew. (151 b) has above a somewhat more extensive, more greenish blue, on the under surface there is instead of the small basal, costal-marginal spot of the hindwing a white stripe being distally bordered by blackish-brown and extending as far as the lower cell-angle. — In some cases this stripe is confluent
- anastomosis*. in the middle with the postdiscal dentate-line; this is **anastomosis form. nov.** (151 b). Guiana to the Amazon.
- conoveria*. **Th. conoveria** Schs. is a little larger, above more extensively metallic-blue with a dark spot at the cell-end, but without any scent-scales. Beneath there is hardly any difference, but on the hindwings the postdiscal (median) white line runs straight from the costal margin to the lower median vein on which it is broken, then running in the shape of a W to the proximal margin. Expanse of wings: 24 mm. Petropolis.
- myrtusa*. **Th. myrtusa** Hew. (154 d) resembles the following, but on the hindwing the distal band beneath is absent, on the forewing the white costal-marginal spot is removed more towards the base, and between the red spot of the tail and the anal angle there is extensive, bluish-white dusting. Amazon.
- myrtea*. **Th. myrtea** Hew. (151 b) is very similar, the ♂ above dull violettish-blue with a broad black apex, without a scent-spot, the ♀ dull bluish-grey, distally broad blackish-brown. Beneath brownish-grey, on either wing with two white rows of lunular spots, the proximal one being proximally bordered by black, the distal row distally, the hindwings in the ♂ with a very convex costal margin which covers a red-brown scent-scale-spot on the under surface of the forewing below the median. Marginal line subtile black, proximally white; between the tails an orange-red, black-pupilled spot, a smaller one at the anal angle, between them some white dusting. Colombia, Bolivia, Amazon.
- malvania*. **Th. malvania** Hew. (151 c) is larger, more lustrous metallic blue, but only in the basal third of the forewing; the costal margin of the hindwing broadly brown, the distal margin narrowly black. Beneath it resembles the preceding, but the white costal-marginal spot of the hindwing is removed more towards the margin as the beginning of the white postdiscal, the costal margin is less convex, and the forewing is without the distal macular line. The 3 last species might also be placed in the corresponding subordinate group of the *sichaeus*-group. Amazon.
- bianca*. **Th. bianca** Mschr., described according to a ♀ being closely allied to the preceding, has remained unknown. Above dark-brown, towards the base greyish blue, on the hindwings more extensive. Beneath greenish-grey, the postdiscal on the forewing consisting of separate, white, towards the base black, small spots, on the hindwing continued as a strongly broken stripe; submarginal, white, towards the margin black, small spots; spot of the tail oval, red, bordered by yellow; anal spot black, between both bluish-white dusting. From Surinam.

43. Polibetes-Group.

- polibetes*. **Th. polibetes** Cr. (= zoe *Reak.*) (152 c). This and the following species all exhibit a black or black and white costal-marginal spot near the base of the hindwing beneath. Above deep blue with a moderately broad, sharply delimited costal margin and distal margin and fine black veins and a large black median spot;

in the upper cell-corner is a round, brownish-grey scent-spot varying greatly in its colour, close below it a smaller, crescentiform, blackish-grey one and between both a reddish-brown, fine row of scales. The ♀ is more greenish-blue, with a much broader, blackish-brown border. The under surface is extremely variable, lighter or darker brown with a violet lustre, on the forewing an arcuate or straight line or row of spots, in front of the border blackish spots; on the hindwing, beside the basal dot, a curved row of spots, with a distal silvery-blue tinge, behind it a row of spots and between the tails a red, black-pupilled spot. — In *sedecia* Hew. (152 i) the line of the forewing is straight, distally, like all the spots anyhow, with a broader bluish-white tinge. Common from Mexico to Brazil.

Th. thyrea Hew. (152 f) is somewhat larger, the blue greatly reduced by very broad black margins, without the large black median spot, the single brown scent-spot surrounded by black. Beneath almost like *polibetes* (152 c), but of a more intense violet, the proximal margin of the forewing extensively yellowish-grey, on the forewings the macular band in front of the border is absent. Abdomen beneath yellow. The ♀ is above dull greyish-brown with broad blackish-brown margins, the under surface more grey with an orange tinge. Panama to the Amazon.

Th. arindela Hew. (152 b) has above more extensive greenish-blue, so that the scent-spot is situated in the ground-colour. Beneath the white macular lines are more developed, on the forewing there are beside the postdiscal yet two nearer to the proximal margin. Abdomen above greenish-blue, beneath orange. Nicaragua.

Th. epytus Godm. & Salv. (152 c) resembles above more *thyrea* (152 f) by the scent-spot being situated in the black, beneath the forewings are without markings, the hindwings as in *orgia* (152 e) with a dark discal streak of the hindwing. Panama.

Th. stigmatos Drc. (152 b) resembles *arindela* above, but it has a more obtuse and broader black apex of the forewing; the under surface is almost like in *orgia*, but the forewings are without any markings at all. It originates from the interior of Colombia.

Th. orgia Hew. (152 e) looks above like a small *polibetes* without a black median spot, the scent-spot is remarkably light. The ground-colour of the under surface is more yellowish-brownish, otherwise equally marked. Common from Mexico to the Amazon.

Th. m-album Bsd. (= *psyche* Bsd.) (152 d) for which SCUDDER has established the genus *Eupsyche*, is more slender, otherwise above like *orgia* (152 e), but with a distinct red anal spot of the hindwing and somewhat lighter blue. Beneath also marked the same, but the postdiscals form coherent white, proximally brown-bordered lines with a distinct W at the proximal margin. The red anal-angular spot is large and sends a connecting stripe towards the red tail-spot, between both there is bluish-white dusting on a blackish-brown ground. The range of the species extends from the Southern States (New Jersey, Wisconsin) to Venezuela. — The larva lives on *Quercus* and *Astragalus*.

Th. ostia Hew. (152 d) likewise resembles above *orgia* (152 e), but it is somewhat more greenish-blue and has an extensive black apex of the forewing. On the under surface the white macular bands are moved much nearer to the border, and on the hindwings they run more uniformly bent, parallel to the margin; the red spots are well developed. Brazil.

Th. vibidia Hew. (= *socigena* Hew.) (152 c) greatly resembles the preceding, above darker blue, the scent-spot more oblong, red-brown. The under surface, particularly of the hindwings, is darker brown, and here the proximal white macular band begins at the costal margin with a distally removed spot; the red spot between the tails appears to be placed more inside. Mexico to the Amazon.

Th. hecate Godm. & Salv. (154 d) from Mexico and Nicaragua is very closely allied, deeper blue, with a more distinct stigma. The forewings bear a discal line beneath.

Th. hewitsoni Ky. (= *ira* Hew.) (152 d as *ira*) greatly resembles *ostia* above, but the distal margin of the hindwings is only quite narrowly black, the scent-spot is smaller. Beneath the markings are more obsolete, the white lines finer, the forewings without any markings at all. Mexico.

Th. punctum H.-Schäff. (152 d) is smaller, more compact, with rounder hindwings, coloured like *m-album*, but without any red at the anal angle. Beneath coloured like *m-album*, the white macular band in front of the border of the forewing quite obsolete, on the hindwing removed very far towards the margin, the red spots intense, mostly connected. In the ♂ the white dot in the middle of the costal margin of the hindwing is very minute or it is absent altogether, in the ♀ being above dull greyish-blue it is more distinct. Guiana to the Amazon.

Th. nitor Drc. (152 h) is perhaps only an aberration of *punctum* with beneath unmarked forewings and almost absent submarginal spots on the hindwings, on which the proximal macular band is more distinct and more coherent. Amazon.

fancia. **Th. fancia** Jones (152 b) closely allied to the preceding is above brilliantly metallic-blue with a greenish lustre in the basal half. The under surface is more yellowish-grey, the submarginal macular band of the forewing is more distinct, distally broad white, reaching down as far as the lower median vein, on the hindwing the proximal macular band is placed not so near to the margin, the spot of the tail is smaller, orange. Castro (Paraná).

echelta. **Th. echelta** Hew. (152 f) is another stage of development of *polibetes* (152 c) in which there appears a broad black discal band on the fore- and hindwings; in the upper cell-corner is the small round red-brown scent-spot. The under surface is lighter reddish-brownish, the marking almost as in *vibidia* (152 c). Amazon.

phoenissa. **Th. phoenissa** Hew. (152 e) we include here; above like *thyrea* (152 f), somewhat duller indigo-blue with a greenish shine, the veins of the forewings broader black, the scent-spot somewhat larger. The ♀ is duller greyish-blue with a dull metallic lustre. The under surface makes the species very easily recognizable by the abundant white marking. From Nicaragua, Panama, Colombia to the Amazon.

selica. **Th. selica** Hew. (152 c) somewhat resembles *m-album* (152 d) beneath, but between the postdiscal lines and submarginal macular bands it has on each of the wings a straight broad band of bluish-white dusting inserted; on the hindwing the costal-marginal spot has turned a streak, and often, particularly in the ♀, there are in the basal area some more bluish-white streak-markings. Above lighter greenish-blue, with a small round brown scent-spot; the ♀ is very similar, duller, with broader margins. Colombia, Bolivia, Brazil.

44. Rustan-Group.

rustan. **Th. rustan** Stoll (= *macaria* Sws.) (152 a) has very close relations to the preceding group. The ♂ is above dark-brown, only in the basal inner-marginal half of the forewing it has a dull blue tinge, with red-brown fringes, on the hindwing analwards a black marginal line and white hair at the anal lobe. The scent-spot is extremely complicated; at the cell-end a dark-brown round spot, in which there is distally a light fawn-coloured sector; behind the cell a four-cornered black spot, the proximal one is yet surrounded by slate-grey. The ♀ is duller, more extensively greyish-blue. Beneath with very characteristic markings. From British Honduras, Panama to Brazil.

polama. **Th. polama** Schs. presumably belongs here. Above dark violettish-blue with a narrow black distal margin with a long scent-spot being parted by a violet line, the proximal half lighter, the distal half darker brown; fringes red-brown. Beneath of a silky-lustrous brown, very similarly marked to *rustan* (152 a), but the spots a little finer, not so thick and more bordered by white; abdomen with a golden yellow, black-margined ventral line. The ♂ exhibits above and beneath darker and duller colours. Petropolis in South Brazil. Expanse of wings: ♂ 35, ♀ 36 mm.

ortygus. **Th. ortygus** Cr. (152 a) is above lustrous lilac-blue with moderately broad black margins and only a small brown scent-spot at the upper cell-end; proximal margin and anal lobe almost white, the latter with a black spot. The under surface is very pale lilac-grey with thick black spots arranged in the same way as in *rustan*, but the forewings are without the antemarginal band; the anal angle of the hindwing is extensively greenish and strewn with bluish-white. The ♀ is above coloured the same, but it has broader brown margins. Everywhere common from Mexico to Brazil, also in Trinidad. — In the stony deserts of West Mexico (Guerrero) there flies a smaller, remarkable form which I denominate: **lauta** *form. nov.* (152 a); it is above lighter lilac, with a milky tinge, beneath with much smaller and dull brown markings that are tending to form more coherent lines.

45. Jebus-Group.

jebus. **Th. jebus** Godt. (152 b) is quite an isolated species, above dull steel-blue, with narrow black margins, and particularly in northern specimens with a red-brown anal spot of the hindwing and a small brown scent-spot in and above the upper cell-end. The ♀ is milky greyish-blue, with broad greyish-brown margins. The peculiarly brown marbled under surface of the hindwings makes it impossible to mix it up with other species. From Mexico to South Brazil and Peru, everywhere common.

46. Brescia-Group.

brescia. **Th. brescia** Hew. (= *thoana* Hew.) (152 f) is so closely allied to *punctum* (152 d) and its nearest allies that it must be made optional to the individual observer whether he prefers to range *punctum* into this family or not. Above lustrous blue with moderately broad black margins and a small, round, light-brown scent-spot at the upper cell-end, anal lobe orange. The ♀ is above greyish-brown, distally broad darker brown. The under surface is greyish-brown with a lilac reflection, marked almost the same as *punctum*, on the forewings with a distinct postdiscal band. Mexico to Nicaragua.

orses. **Th. orses** Godm. & Salv. (152 g). Like the preceding, with a broader black apex of the forewing and beneath at the anal angle with ochreous-yellow spots, not red ones. From Guatemala.

Th. figurina Hew. (152 e) is deep steel-blue with a purple tinge, with a small brown scent-spot *figurina*. at the cell-end, the ♀ greyish-blue with dark-brown, broader margius. Beneath ashy-grey, forewings without any markings, hindwings marked as in the preceding species, but the proximal band at the costal margin is placed more towards the base. Mexico to Panama.

Th. chlamys Drc. (152 g). Above like the preceding, but with a red-spotted anal lobe; beneath more *chlamys*. reddish, the red spots of the hindwing less developed, and the proximal white line less sinuous. The ♀ is above brown, in the disc greyish-blue. Paraguay.

Th. lyde Godm. & Salv. (152 f) is above metallic indigo-blue, the broad black apex and the narrow *lyde*. distal margin gradually pass over to the blue colour. The scent-spot at the cell-end is rather large, brown, bordered by an elevated, metallic greenish-grey ring; the anal lobe of the hindwing without any red. The ♀ is only little duller blue. Beneath ashy-grey, marked like the preceding species. Mexico to Panama.

Th. ergina Hew. (= *ela Hew.*) (152 e) is somewhat larger, otherwise above like *lyde*, also beneath *ergina*. alike, only more faintly marked, but of a light brownish ground-colour; the red spots of the hindwings larger, their black pupil smaller. Surinam, also from Jamaica.

Th. voltinia Hew. (152 k) is still larger, above deep indigo-blue with a greenish lustre and a large, *vollinia*. roundish, brown scent-spot with a greenish slate-colour floating round it, on the anal lobe a reddish spot; beneath darker brown than *ergina*; the two submarginal macular bands are closer together. Brazil, Bolivia.

Th. buccina Drc. (152 h) differs above from the preceding by a deep steel-blue colour, similarly as *buccina*. in *figurina*, and an entirely circular scent-spot; the ground-colour beneath is a warm red-brown, the two white lines of the hindwing are still closer together. Brazil.

Th. zebina Hew. (152 f as *zelina*) is also in the ♂ above bluish-grey with a roundish dark scent-spot *zebina*. and dark spots before the distal margin of the hindwing; anal lobe with red spots. The ♀ is above lighter, between the tails also above with a red, black-pupilled spot. Beneath light brownish-grey, on the hindwings similarly marked as in the preceding species, but the white lines are more remote from each other, the orange-red spots are very large and between them there is bluish-grey dusting; the forewings likewise exhibit 2 white. antemarginal macular lines. Mexico to Nicaragua.

Th. guadala Schs. is allied to *brescia* (152 f) and seems also to approximate *zebina*; I only know it *guadala*. from the description: above distinguishable by the metallic steel-blue colour, the black scent-spot at the cell-end being somewhat oval, the anal lobes likewise spotted in red. The ♀ is in the basal third bluish-grey, distally blackish-brown; hindwing at the distal margin spotted in black, anal lobe red. Beneath dark grey, marked like *brescia*. Mexico (Guadalajara). Expanse of wings: ♂ 30, ♀ 28 mm.

47. Cupentus-Group.

Th. cupentus Cr. (= *annulatus Gmel.*) (154 d) has the same scent-spot as *lyde* (152 f) and its allies, *cupentus*. but it is larger here and placed nearer to the base by the very short cell. The forewings are above brownish-black, proximally strewn with metallic blue. The under surface is brown with white transverse bands and on the hindwing a white discal streak forming a sling with the proximal band; between the tails an orange-brown, black-pupilled spot. Distributed from Nicaragua to Brazil, mostly common.

Th. comana Hew. (= *peralta Mschr.*) (154 e). The ♂ is above greyish-blue with a slight lilac lustre *comana*. and a broad black apex; scent-spot double, obliquely overlapping each other as in *thyesta* (152 g), beneath dark-brown, distally reddish-brown. The ♀ is brown, towards the base with a slight greyish-blue tinge with a red, above white-pupilled spot at the anal angle and proximally fine white, black marginal line. Beneath quite similar to *cupentus* (154 d), yellowish-brownish, on the hindwings with a lilac shine. On the forewings the proximal band extends only as far as the lower median vein and grows narrower costally; on the hindwings the red spot between the median veins is removed more inwards; all the markings are more indistinct, more blurred. Brazil.

Th. cambes Godm. & Salv. (154 c) is rather similar, above the pale lilac-blue is very much reduced, *cambes*. on the forewings confined to the basal inner-marginal part; the fringes, particularly on the hindwings, are more rusty-brownish. The lower part of the scent-spot is oval, jet-black, the upper part very small, about crescentiform, brownish-grey, both parts embedded in a greyish-blue scaled ring. Beneath very much like *comana*, easily recognizable by the broad, lilac-white dusting of the costal angle of the hindwing; on the forewings the postdiscal white band is united with the proximal submarginal band on the lower median vein. Mexico, (Jalapa), Guatemala.

Th. molena Jones (154 e). The ♂ is above subdued dark metallic blue, the distal margin and apex *molena*. of the forewing broad black; in and behind the cell is a large oval, black scent-spot, parted by the blue transverse vein; anal lobes of the hindwings red. The under surface is brown with a lilac shine on the hindwings

and in the marginal area of the forewings; the markings like in the following species, but more faded and more indistinct. The ♀ is above brown, in the basal area suffused by violettish-blue, beneath less lilac. Castro (Paraná).

lemona. **Th. lemona** Hew. (154 c), described only in the ♀, is larger, above greyish-brown, distally dark-brown. Beneath greyish-brown, on the forewings a postdiscal, straight, white band and two antemarginal rows of white lunular spots, particularly distinct towards the apex. Hindwings with a white undulate median line, at the cell-end in front of it 2 white streak-spots as in *cupentus*. Marginal area marked like on the forewings; the anal spot and a spot being pushed in more proximally between the median veins black, bordered above by red. Brazil.

lausus. **Th. lausus** Cr. (= *libanius* Cr.) (154 e) undoubtedly has close relations to *cambes*, for which reason we include it here. Above it resembles the said species, of a purer and more extensive milky lilac-blue, the scent-spot almost as it is there, but the upper brownish-grey part nearly just as large as the lower one, being deep velvety-black. The ♀ is duller and almost whitish. Beneath purple-brown with broad, purely white markings, on the hindwings arranged almost as in *cambes* with a very prominent white trapezoid-spot at the costal angle; the spot of the anal lobe is quite black. Distributed from Nicaragua to the Amazon.

48. Mycon-Group.

mycon. **Th. mycon** Godm. & Salv. (152 g). Above extremely lustrous ultramarine-blue with a very large, cinnamon-brown scent-spot filling up half the cell, and a narrow black margin. Beneath light greyish-brown with a very fine, proximally brown, distally white discal stripe being broken on the hindwing and forming a W at the proximal margin; in front of the border there are indistinct, small lunular spots, between the median veins a large red spot being proximally more yellow, distally black-pupilled; between this spot and the anal lobe being distally black, then white and proximally reddish-yellow, there is bluish-white dusting on a brown ground. The ♀ is above brown, towards the proximal margin, particularly on the hindwings, spread over by a pale blue. From Mexico to Colombia. The southern form from Brazil (Rio Grande), **murex** Drc. (152 h), is somewhat darker and duller blue with a larger scent-spot and a broad black margin, beneath lighter with a less angled discal stripe.

49. Thyesta-Group.

thyesta. **Th. thyesta** Hew. (152 g) and its nearest allies exhibit some resemblance to the *brescia*-group in the marking beneath, but the linear markings are finer and more streak-like. The shape of the wings and the upper surface is quite different: above metallic indigo-blue with a broad black apex of the forewing and costal margin of the hindwing. The scent-spot is double: the part in the cell is black, obliquely outside above it is the distal brown part which is not at all reproduced in the badly executed figure. The under surface is greyer than in the figure, the W ought to be placed nearer to the proximal angle. Colombia, Amazon.

caninius. **Th. caninius** Drc. (154 e) differs from the preceding by almost entirely blackish-brown forewings, only the proximal margin is strewn with blue, also the hindwings are opalescent blue only in the inner-marginal half. The under surface is browner, the markings fainter, placed nearer to the border and without any white dusting before the anal angle. Venezuela, Bolivia.

pharus. **Th. pharus** Drc. (152 k) is larger than *thyesta*, also the scent-spots larger and more intensely prominent; the blue has a somewhat greenish tinge and is more extensive than in *caninius*. The under surface is darker, the lines straighter. Amazon (Pará), Bolivia (Songo).

radiatio. **Th. radiatio** Drc. (152 k) has the same scent-spots, but quite black forewings, and on the hindwings also only the disc is purple-blue. The under surface is dark-brown, the forewings almost without any markings. At the anal angle the red spot is absent. Amazon.

munditia. **Th. munditia** Drc. (152 i). In this species only the distal brown part of the scent-spot is present, the black spot in the cell-end is visible in an oblique exposure to light, but it does not contain any scent-scales; it is a very small species, the blue as extensive as in *caninius*, but more slate-blue. Under surface reddish-grey, in the ♀ lighter, with the markings of *thyesta* (152 g). The ♀ is above unicolorously brown. British Guiana.

jactator. **Th. jactator** Drc. (152 i) entirely resembles *thyesta* (152 g) beneath, but it differs greatly above: on the blackish-brown forewings with a radiantly blue proximal part there is at the cell-end a rather large, deep velvety-black scent-spot; hindwings likewise blue with a black distal margin of about 1 mm width. Paraguay.

50. Avoca-Group.

avoca. **Th. avoca** Hew. (154 f) is above lustrous blue with a green reflection, dark-brown margins and a small, round, red-brown scent-spot. Beneath red-brown with a violet purple tinge, with a postdiscal white macular band and small, whitish-dusted antemarginal spots of the forewings. Hindwing in the larger anal

half lilac-white with a submarginal brown macular band and an orange spot between the median veins. In the purple-brown basal half there is a white macular band before the centre and behind it a second one being broadly dusted in grey on both sides. Amazon.

Th. olbia Hew. (154 f) has a larger, double, proximally black, distally brown scent-spot and the *olbia*. ground-colour is a purer sky-blue with a very broad blackish-brown apex. Beneath the forewings are reddish-brown-grey, towards the distal margin densely dusted in white with the same lines as the preceding, and a white discal streak; the hindwings are silvery white, densely clouded in brown, with an indistinct brown, distally white-bordered, undulate median band. Amazon. — In the form **phallica** Hew. (154 f) the white dusting beneath is almost entirely absent.

Th. erema Hew. (= *biston* *Mschlr.*) (154 f) exhibits above a somewhat more violet tinge in the *erema*. still more reduced blue and has a very complicated, uncommonly large scent-spot filling up almost the whole cell: red-brown, proximally bordered by slate-blue, distally with 2 irregular, darker brown triangles on it, the surroundings of which are, distally and towards the costal margin, again dusted in red-brown. Beneath brown with fine, white, torn markings and black spots at the anal angle and between the median veins. Guatemala, Guiana, Amazon.

Th. elsa Hew. (= *primno* *Godm. & Salv.*) (154 g) reminds us of the preceding, but it seems hitherto *elsa*. known only in the ♀. Above greenish-blue, with broad blackish-brown margins; beneath purple-brown, the proximal margin of the forewings whitish, otherwise marked as in *avoca* (154 f). Hindwings with irregular, fine, white markings and a white spot in the middle of the costal margin, distally broad whitish, dusted dark, between the median veins with a straw-coloured spot. Described from Panama.

Th. feretria Hew. (154 g) I do not know in nature, but it seems likewise to be allied to *erema* and *feretria*. to be described only according to 1 ♀. Above like *elsa*, beneath reddish-brown with a small white basal spot on each wing; forewing at the costal margin dusted in purple-brown with a white discal streak, a white post-discal macular band and light antimarginal band; hindwings at the base and in the centre purple-brown, with a very irregular white macular band in the middle and a light-brown antimarginal band; the anal lobe and a spot of the tail are black, the distal margin between is white. Habitat unknown.

Th. primnoza Dyar is perhaps the ♂ of *elsa*, above blackish-brown, in the basal two thirds of the *primnoza*. proximal margin as far as the lower cell-wall and in the disc of the hindwing light metallic blue, consequently about as in *erema* (154 f), with a most peculiar dark-grey scent-spot extending subcostally almost in half the length of the wings. Beneath dark grey, at the proximal margin whitish, hindwings only in the basal third grey, distally whitish, marked about as *elsa*, but the spot of the tail is above bordered by red. Expanse of wings: 30 mm. Mexico.

Th. hirsuta *Prittw.* is likewise unknown to me; it is described as a ♀, but according to the very *hirsuta*. peculiar scent-spot which seems to be equal to that of *primnoza*, it can only be a ♂; below it, at the cell-end there is yet a conform black spot. Forewings blackish-brown, dusted in blue, two thirds of the hindwings blue with a dark costal margin; fringes white and grey speckled. Beneath light-grey, the forewings marked as in *elsa*; hindwings behind the postdiscal dusted in a sooty brown, the darkest at the costal margin; in this area there is yet a line formed of white crescents; at the anal lobe and between the median veins there is one orange spot each with a black pupil. Size and shape of *Th. quercus*. Brazil.

Th. megamede *Prittw.* may also belong into this group. Above azure, with brownish black margins, *megamede*. the discal spot light grey. Forewings beneath grey, at the border whitish, the broadest at the apex, in it an obsolete, grey macular band, farther proximally follows a brown, somewhat curved band, still farther some small white spots at the costal margin. Hindwings chestnut-brown mixed with white, at the costal margin a conspicuous white trapezoid-spot dusted in the middle by yellowish; in the centre the traces of a white, dentate line, the basal area quite chestnut-brown; at the anal angle a black spot being bordered above by white. Patria? This species may belong near *olbia* (154 f). Size and shape of *Th. ilicis*.

Th. zenaida Dyar, likewise unknown to me, is the best ranged here. The ♂ is above black, dusted *zenaida*. all over in blue except the margins, with an elliptic brown scent-spot filling up the distal half of the cell. The ♀ is dusted in a duller blue. Under surface dark brownish-grey, on the forewings a fine white, antimarginal moon-spot-line, proximally shaded by a broad dark-grey. Hindwing with a dark-grey shade at the base and in front of the margin; the centre is crossed by a white moon-spot-line being marked very irregularly at the cell-end; behind it another irregular moon-spot-line; marginal area whitish with a dark undulate line before it; between the median veins a black spot being red above. Expanse of wings: 29—31 mm. Mexico.

51. Lycabas-Group.

Th. lycabas Cr. (= *tercentia* Hew.) (154 g). We unhesitatingly set down CRAMER's figure which *lycabas*. has hitherto not been noted to HEWITSON's species. The ♂ is above dark brown, suffused by a deep violet-blue

with a brownish-grey oval scent-spot, the ♀ is duller and more greenish blue with a marginal line being distally bordered by white, proximally by black, near the anal angle of the hindwing, which is long-stretched almost like a tail. The under surface has very characteristic markings similar to those of the *tedaea*-group. Panama, Colombia, Amazon.

52. Xami-Group.

xami. **Th. xami** Reak. (= *blenina* Hew., *siva* Edw.) (154 g) is above brown, in the disc often more or less red-yellow; beneath pea-green on a red-brown ground with curved red-brown, distally broad white postdiscals, behind them distinct submarginal spots and orange anal spots. Vancouver, Arizona, California, Mexico.

rhodope. **Th. rhodope** Godm. & Salv. (154 g) is similar to *xami*, but the hindwings exhibit above a large orange anal spot and small black submarginal spots. Beneath, the postdiscal band is more strongly undulate, at the median veins broken, but not deeply angled. Mexico.

loki. **Th. loki** Skinner is above light brown with a tiny black lunular spot at the anal angle of the hindwing, being proximally somewhat lighter. Beneath light brown with a greenish tinge, marked as *xami*, but easily separable by a series of black submarginal spots, extending from the costal margin to the anal angle. California.

spinetorum. **Th. spinetorum** Bsd. (= *ninus* Edw.) (154 g, h). Above greyish-brown, towards the base tinged in a greenish bluish-grey; beneath dull reddish-brown, marked like *xami*. Colorado, California, Mexico.

johnsoni. **Th. johnsoni** Skinner is regarded as a doubtful form of the preceding by the author. Above reddish brown without the bluish-grey tinge, with a darker costal margin. Beneath the same, but the white postdiscals not so coherent, more like small spots, particularly on the hindwings, on which the 5th (beginning from the costal margin) is displaced, the last being longer than the others. Marginal line black, on both sides with white borders, at the anal angle terminating into a black spot; there are no orange anal spots. The smaller and darker ♂ exhibits the usual sexual spot. Length of forewings 14 to 15,3 mm. British Colombia; Seattle, Washington.

castalis. **Th. castalis** Edw. ♂ above yellowish-brown, both wings with a broad dark costal and distal margin. Stigma small, oval. Hindwing somewhat darkened in the disc; the distal tail quite short, the other long with a white apex; forewings below at the base and in the apical part of the margin green, the rest chestnut-brown, the shortened, interrupted discal band white. Hindwings beneath green with a white marginal line exhibiting 3 small, bluish-grey crescents at the anal angle, at the middle one of which there is on top a black spot. Right across the disc runs a sinuous chain of small white spots being anteriorly margined in brown. ♀ above chestnut-brown, the green beneath darkened. Expanse of wings 27 to 30 mm. Waco (Texas).

ilavia. **Th. ilavia** Beutenm. from Texas has a resemblance to *autolyceus* (154 k), but it deviates by the under surface of both wings exhibiting only 1 transverse line. ♂ above brown with a large, red-yellow postdiscal spot of the forewing and a similar, though smaller spot in the anal part of the hindwing. Beneath rather light loam-coloured; on the forewing an interrupted, distally white-tinged transverse line. The dark line of the hindwing forms a W at the anal angle. At the anal angle itself a blue-scaled lunula, in front and behind this a small, black-marked, orange spot. ♀ similar. Expanse of wings 24 to 26 mm.

nelsonii. **Th. nelsonii** Bsd. (154 h) is above blackish-brown, in the disc bright red-yellow as *xami*, beneath duller reddish-brown, marked very much like the preceding species, but much more indistinct, the lines much finer, the small antimarginal spots smaller. — The form *exoleta* Edw. has beneath entirely obsolete transverse lines, f. *muirii* Edw. is smaller, with a darkened basal part of the hindwing beneath. California, Colorado.

adenostomat
is. **Th. adenostomatis** Edw. (154 h) is the largest species in this group, above greyer with a fine, white marginal line at the anal angle of the hindwing; the under surface is whitish brownish-grey; the somewhat lighter marginal area is defined on the forewing by a whitish line, on the hindwing by dark submarginal moons. California.

tacita. **Th. tacita** Edw. Allied to the preceding, above light leaden-coloured, at the margin somewhat darker, as well as the discal spot and the veins. The tails of the hindwings very small and thin; near the anal angle of the hindwing an obsolete ochreous shade; fringes of both wings dull white. Under surface lighter; before the border a line of dark, small crescents; across the centre a curved chain of small oval spots. Hindwings marked indistinctly, at the anal angle a small black spot, as well as a bluish spot and hereafter a triangular, light yellowish, black-margined spot. Expanse of wings 24,5 mm. California (Mendocino Co.).

sacpium. **Th. sacpium** Bsd. (154 h). Above yellow red-brown, beneath dull reddish-brown, with the usual lines being distally distinctly tinged in white; at the anal angle of the hindwing 2 small black spots, between *fulvescens*. which there is bluish-grey dusting. Pacific States. — In Colorado there occurs *fulvescens* Edw. being still lighter yellowish-red.

Th. chalcis *Behr* (154 h) is somewhat smaller, darker brown, also beneath darker, with much duller *chalcis*. markings, without any white. California, Utah.

53. Grunus-Group (*Habrodius* Scudd.).

Th. grunus *Bsd.* (154 i) is above light orange-brown, in the disc still lighter, particularly the ♀♀ *grunus*. are often bright orange. The under surface is likewise reddish-brown with 2 rows of tiny, often indistinct antemarginal spots; between the median veins and at the anal angle, often also between both, small black spots with green-silvery pupils. — The bluish-green, short-haired and lighter striped larva lives on *Quercus chrysolepis*. California, Nevada.

54. Crysalus-Group (*Hypaurotis* Scudd.).

Th. crysalus *Edw.* (154 i) is a large species differing greatly from all the others we know. Above *crysalus*. blackish-brown, in the basal half of the forewing and subapically, as well as in the disc of the hindwing, lilac, towards the anal angle of both wings spottend in orange. Beneath greyish-brown with darker discal streaks bordered on both sides by white, and with dark, distally white-tinged, postdiscal stripes on both wings, on the hindwing also with a proximally whitish additional basal streak; blackish submarginal lunae are proximally bordered by white on both wings, on the forewings analwards distally by orange-yellow; on the hindwing there is behind them towards the anal angle an increasing bluish-silvery dusting, between the median veins and at the anal lobe orange-red, black-pupilled spots being often connected by a bridge. California, Arizona, Utah, and South Colorado. — The form *citima* *Edw.* has above no orange spots and is beneath more grey-coloured. *citima*.

55. Calanus-Group.

Th. calanus *Hbn.* (= *falacer* *Godt.*, *inorata* *Grote & Rob.*) (154 i) is above plainly dark-brown with *calanus*. an oblong-oval — twice as long as broad — lighter scent-spot in the distal half of the cell; beneath nearly just as dark brown with postdiscal and submarginal rows of darker spots, distally bordered by fine bluish-white lines and similar discal spots. Between the median veins and above them, as well as at the anal angle, there are dark-red spots, the space between them is densely strewn with bluish-white. — f. *lorata* *Grote & Rob.* is *lorata*. somewhat smaller, beneath lighter with less distinct small spots. — The larva lives on oak-trees. In the Atlantic States and the Rocky Mountains it is common.

Th. heathii *Fletch.*, described only according to 1 ♀, is unknown to me. Above like *calanus*, beneath *heathii*. fawn-coloured with pearl-grey postdiscal spots, 4 of which on the forewing are oval, bordered on both sides by a darker band, 5 of which on the hindwing are more four-cornered, bordered on both sides by a black band; marginal spots as in *calanus*, towards the anal angle likewise scarlet, between them a plainly white, not blue spot. Expanse of wings 26 mm. Manitoba (Long River).

Th. ontario *Edw.* resembles *melinus* (159 g); expanse of wings 26 mm. On both surfaces brown, the *ontario*. forewing with a large, smooth, oval scent-spot, the fringes dark, in some places white; hindwings before the anal angle with some small, reddish-yellow scales. Beneath lighter brown, the small spots of the discal row touch each other on the forewing except 2; a distal row of more obsolete spots. On the hindwing the spots of the distal row are separated, the row straight, forming a W in the anal part. In front of the border black and bluish bordered interneural spots the 4 apical ones of which are small, the 5 th and 6 th marked in orange-red. Near the base of the tail a heap of blue scales; in the anal region a red spot marked in black and white. Based upon 1 ♂ from Ontario (July).

Th. liparops *Bsd.* (= *strigosa* *Harr.*) (154 i) is above brown like the others, beneath maybe some- *liparops*. what greyer, marked just the same, but by the widening of the dark spots the fine white stripes are much more apart from each other and often very indistinct. — The larva lives polyphagously on the most different foliage-trees, on Rosaceae and Ericaceae. Distributed in the North Atlantic States and the Rocky Mountains, but nowhere common.

Th. edwardsii *Snds.* (= *fabricii* *Ky.*) (154 i) vice versa differs beneath from *calanus* by a considerable *edwardsii*. diminution of the small dark spots which are mostly all round bordered by white, so that small eyespot-rows are produced; above there is hardly any difference, perhaps the brown tinge is somewhat lighter, the scent-spot is thrice as long as broad, appearing therefore narrower. — The larva lives on oaks. In the Northern States, mostly common.

Th. wittfeldi *Edw.* (154 k) is larger than the preceding, above differing by the darker colour and a *wittfeldi*. large orange spot between the median veins and a fine bluish-white, proximally black, marginal line analwards. Beneath the white lines are more continuous, placed nearer to the border, the red anal spots larger and more intense, the space between them less blue. Florida.

- autolyceus*. **Th. autolyceus** *Edw.* (154 k) resembles *melinus* (159 g) above, but the orange spots are much more extensive. Beneath brown, similar to the preceding species, with dark, distally white-bordered postdiscals and black submarginal crescents which are analwards distally spotted in red. Texas, Missouri and Kansas.
- alcestis*. **Th. alcestis** *Edw.* (154 k) is above dull-brown with the usual oval scent-spot in the ♂, beneath very much like *autolyceus* with whitish discal streaks and dusted greenish-blue in the submarginal submedian area of the hindwing. Texas and Arizona.
- oslari*. **Th. oslari** *Dyar* is closely allied to *alcestis*, but smaller, the upper surface greyer brown, beneath ashy-grey instead of brown, and the red markings outside the distal band are less developed. Expanse of wings 16 mm. Tucson, Arizona.
- acadica*. **Th. acadica** *Edw.* (= = souhegan *Whitney*) (154 k). The upper surface is brownish slate-grey, towards the anal angle with small orange spots on the hindwings and an oval scent-spot. Beneath differing by black cell-end-streaks and by the postmedian and submarginal macular rows being replaced by smaller black, white-ringed spots; analwards there are small antemarginal red spots, and between the spot of the tail and the anal spot there is greenish-blue dusting. — The larva lives on willows. Northern States, Nevada, Arizona.
- californica*. **Th. californica** *Edw.* (= *borus* *Bsd.*, *cygnus* *Edw.*) (154 k) differs from *acadica* above by its light-brown colour, also on the forewings at the proximal angle with 2 small orange spots; beneath grey, with a reddish-brown tinge, near the apex of the forewing with small reddish-yellow marginal lunulae. In the ♀ the under surface is more dirty white. California.
- itys*. **Th. itys** *Edw.* (154 k) is above brown, particularly in the ♀ with a light reddish-yellow brightening towards the proximal angle. Beneath light greyish-brown, the submarginal row of spots quite obsolete on the forewings, on the hindwings there is here a complete row of black dots; at the anal angle a velvety-black spot, above it some small orange scales; between this and the orange spot of the tail a bluish spot margined in black; the postdiscals consist of minute black, white-ringed spots. Expanse of wings: 32 mm. Prescott, Arizona.
- auretorum*. **Th. auretorum** *Bsd.* Above brown with 1 or 2 small orange spots towards the anal angle on the hindwing, beneath likewise brown, the row of eye-spots undulate, not very distinct and placed near the border, at the anal angle with 2 tiny reddish-yellow lunulae, the anal lobe bordered by black. California.
- dryope*. **Th. dryope** *Edw.* (154 k) is above quite light-brown, towards the base slate-grey, at the anal angle with 2 small yellowish-red spots, the one below the median veins being pupilled in black. The under surface is whitish-grey with the usual rows of eye-spots and a small orange spot between the tails. California, Nevada, Utah.
- sylvinus*. **Th. sylvinus** *Bsd.* is above darker blackish-brown, otherwise very similar to the preceding. Beneath light ashy-grey with a dark cell-streak and 2 curved rows of eye-spots, the hindwings between the tails with small orange, black-pupilled spots and towards the proximal margin from them a bluish-grey spot. Common in California.
- putnami*. **Th. putnami** *Edw.* 30 mm. Above fawn-coloured with white fringes. Hindwings with 4 indistinct, dark small crescents and an anal spot covered with golden-yellow. Tails black, with white margins and a broad white apex. Under surface greyish-white. Forewing with a discal luna and 6 submedian, oval spots, each with a white ring; near the anal angle 4 black streaks. Hindwing with a discal luna and a row of 7 spots. Marginal markings obsolete, anal spot orange, marked in black, the 2nd and 3rd with interspersed small blue scales, the 4th black, above orange. Utah, Colorado.
- spadix*. **Th. spadix** *Edw.* is allied to the preceding and just as large. Above mouse-coloured with a large, chestnut-brown shade on the forewing. The band-marking beneath very much blurred, on the hindwing irregularly broken; the anal spots are dirty brown, there is not the least to be noticed of orange or blue. Expanse of wings 24.5 mm. South Carolina.
- tetra*. **Th. tetra** *Behr.* Above light-brown, beneath lighter; both wings with a joint, more indistinctly tortuous median row of whitish lunulae; on the hindwings small black, antemarginal crescents, anteriorly with some whitish scales. Tail-spot orange, between it and the anal angle a blue spot. Expanse of wings: 30 mm. California.

56. Behrii-Group (*Callipsyche Scudd.*).

- behrii*. **Th. behrii** *Edw.* (= *kali* *Streck.*) (154 k) somewhat resembles the subgenus *Erora* in the scheme of markings beneath. Above red-yellowish brown with a broad blackish-brown costal and distal margin. Beneath yellowish-grey with a curved, on the hindwings strongly broken, postdiscal band of black, distally white, small spots and small submarginal lunular spots, between the median veins of the hindwings with a more intense black spot behind. Pacific States, Rocky Mountains.

57. Gargara-Group.

Th. gargara Hew. (155 a) is a smaller species which is difficult to range. The ♀ is blackish-brown *gargara*. above, towards the base blue; beneath brownish-grey, the indistinct postdiscal band darker brown, the space behind more red-brown; on the hindwing there is behind the dentate, dark-brown postdiscal a broad, lilac-white band; the two small anal spots are bordered upwards by orange, then by yellow. Amazon.

58. Ocrisia-Group.

Th. ocrisia Hew. (= *peruviana* Ersch.) (152 b) is above blackish-brown, on the forewing towards *ocrisia*. the proximal margin with a slight steel-blue reflection and near the base a large, round, brown scent-spot embedded in a slate-grey circumscription like an eye. The hindwing is in a very variable extension strewn with metallic-blue, mostly only in the inner-marginal half; there are also some blue antemarginal crescentiform spots. — In case the blue disappears altogether, we have *zora* Hew. before us. — Beneath likewise blackish-brown, fore-*zora*. wing at the proximal margin whitish-grey, at the apex yellowish-brown, marbled with very irregular and indistinct markings, between the median veins a small orange spot. Very widely distributed from Mexico through the whole of Central America as far as Peru, Bolivia, the Amazon, and Paraguay.

Th. ocrida Hew. (152 a) is above similar, the ♂ is more blue, also on the forewings, the scent-*ocrida*. spot proximally dark-brown, distally black; the ♀ unicolorously brown. Beneath very easily recognizable by the yellow anal angle of the hindwing, in the ♀ the whole distal margin is broad yellow. Colombia, Amazon.

Th. arpoxia sp. nov. (155 a) connects *ocrida* with *arpoxia*; shape and colouring above as in the *arpoxia*. former, cyanean-blue with a broad black apex and costal margin, also the scent-spot is the same. Beneath dark-brown, lighter marbled, like *ocrisia*, but with the silvery-blue linear markings of *arpoxia*, also parallel to the base of the costal margin there is one like it. Described according to 1 ♂ from the Rio Songo (Bolivia) from the Coll. FASSL.

59. Thales-Group.

Th. thales F. (= *thrasyllus* Hbn.) (155 a) is closely connected with the preceding group and has *thales*. the same shape of the wings. Above black, strewn with blue in a very variable extension, particularly in the shape of spots before the distal margin of the hindwings, often also at the anal angle of the forewing. The small, hardly visible scent-spot is dark-brown. Beneath purple-brown with 5 bluish-white costal-marginal spots of the forewings and fine blue linear markings, at the anal angle broadly strewn with greenish-golden. The ♀ is above unicolorously brown. Distributed from Nicaragua to South Brazil and common. — *thalesa* Hew. is *thalesa*. presumably only an insignificant form in which the costal spots beneath are more intense, and the last is situate closer to the apex.

Th. arpoxia Godm. & Salv. (= *clepsydra* Drc.) (155 a) really belongs into a group of its own, *arpoxia*. but as it greatly resembles the preceding beneath, we range it here. Above magnificently cyaneous with a broadly black apex and a large black spot filling up the distal half of the cell, the subcostal above it set with a silvery-grey scent-scale-stripe. Beneath purple-brown, at the apex of the forewing and at the anal angle of the hindwing lighter brownish with blue markings and some green dusting at the anal angle. Panama to Bolivia (Rio Songo).

60. Besidia-Group.

Th. besidia Hew. (152 h) is apparently a very rare, smaller species; the ♂ above lustrous blue, *besidia*. with a broadly black apex and a rather large, pear-shaped, dark scent-spot at the cell-end and behind it; the ♀ is above duller and lighter blue with an extensive black margin and apex. Beneath reddish-brown with a lilac reflection; there is a characteristic median band of the hindwing, being proximally broadly tinged in red (in the figure unfortunately greenish). Brazil, Colombia, Bolivia (Rio Songo, FASSL).

Th. torris Drc. (155 a) closely allied to the preceding, above more indigo-blue, darker, beneath lighter *torris*. greyish-brown without the purple tinge, both wings at the distal margins broadly whitish, the transverse bands proximally not shaded by red, but by sepia-brown; the orange spot between the tails is absent. Rio Grande.

Th. bagrada Hew. (152 k) differs from *besidia* by its duller lilac-blue colour being more confined; *bagrada*. below the brownish-grey part of the scent-spot it another black one on the base of the median veins. Beneath coloured like *besidia*; the proximally red median band of the hindwing begins at the costal margin with an isolated spot dislodged outwards and being bordered by black and white on both sides. The ♀ is above and beneath lighter. Amazon.

Th. obelus Drc. (152 k) approximates *bagrada*, is above more lustrous dark-blue with a smaller *obelus*. round single scent-spot at the cell-end, beneath darker red-brown, the median band of the hindwing more coherent and more sinuous. The ♀ is above brown, beneath somewhat paler. Brazil.

literatus. **Th. literatus** Drc. (155 a) has above quite brown forewings with a small, light, oval scent-spot; hindwings brown, in the larger proximal half metallic blue, with a red anal spot. The under surface is lighter, the markings as in *besidia*, but narrower and distally bordered by a pure white. The ♀ is on the hindwings dull greyish-blue with indistinct, small, brown marginal spots. Paraguay.

nugar. **Th. nugar** Schs. (155 b) is very closely allied to the preceding. Forewings brown with a small light scent-spot, hindwing in the larger proximal half metallic light lilac-blue. Beneath brownish-grey, the proximal line orange-brownish, distally white, between the radial veins dislodged outwards, the costal spot, however, only slightly so. Described from Mexico (Jalapa), but it is before me also from Colombia (Rio Aguaca Valley) and from the Songo (Bolivia) and, therefore, apparently widely distributed.

xorema. **Th. xorema** Schs. is likewise similar, above like *obelus* (152 k), beneath lighter; the transverse bands are dark-brown, not red, outside broadly whitish; the ♀ is above dark-brown, towards the base suffused with blue. Expanse of wings: 20 mm. Brazil.

cauter. **Th. cauter** Drc. (152 i). Above likewise very much like *obelus* (152 k), the blue more indigo-coloured, the distal margin of the hindwing broader black and with a very large, red anal spot. Beneath more rusty-brown, the markings very broadly tinged in red, the postdiscal band of the forewing, beginning from the lower radial vein, dislodged inwards, that of the hindwing on both sides bordered by black and then by white, the whole anal area extensively red. The ♀ is above brown with a large, orange anal spot. British Guiana, Brazil.

lanckena. **Th. lanckena** Schs. is allied to *bagrada* (152 k). Above unicolorously blackish-grey with a red anal spot of the hindwings. Beneath light-brown with red, distally black-, then white-bordered lines, on the hindwing at the costal margin, then between the radial veins distally expanded, otherwise like the allies. Expanse of wings: 28 mm. Peru.

61. Tiasa-Group.

tiasa. **Th. tiasa** Hew. (155 b). ♂ above deep purple-blue with comparatively narrow black margins and a small double scent-spot, inside black, outside greyish-brown; at the anal angle of the hindwing a red spot. Beneath brown with white lines, on the hindwings contiguous; the extensive red anal spot connected with the spot between the median veins by a red band. Amazon.

ortalus. **Th. ortalus** Godm. & Salv. (155 b) is very closely allied to the preceding; the ♂ is above less purple-blue; on the under surface of the hindwing the white lines diverge more from each other towards the costal margin. The ♀ is above plainly brownish-grey with a greenish reflection at the base of the wings. From Mexico.

praxis. **Th. praxis** Godm. & Salv. (155 b) differs from *ortalus* by the much broader blackish-brown apex of the forewing. The anal lobe is beneath black, upwards but quite slightly red, towards the proximal margin strewn with white; between it and the small red spot of the tail lies a blackish spot in the brown ground. The ♀ is above dull brownish-grey, towards the base with a slight, bluish-grey tinge. Panama to Brazil (Sta. Catharina).

62. Erix-Group.

erix. **Th. erix** Cr. (= *tyrrhenus* Hbn., *erissus* Hbst.) (155 b). Above magnificently ultramarine-blue with a moderately broad, black margin; the discoidal cell is very short, therefore the position of the small black scent-spot in the upper corner near the base, above at its outside it is touched by a tiny brown scent-spot at the base of the subcostal veins; at the anal angle a minute red-brown spot. Beneath coffee-brown, on the forewing with 2 antemarginal lines, the inner one of which is distally bordered by white. Hindwings darker with a bluish-white, proximally dark-tinged, postdiscal W-line and an antemarginal row of dark spots, bordered on both sides by a lighter colour and being interrupted between the median veins by a red, black-pupilled spot. In the anal lobe a red spot bordered above by black and white. Amazon.

timoclea. **Th. timoclea** Hew. (155 c) is considerably larger, darker indigo-blue, with a much larger, oval, blackish-brown scent-spot surrounded by slate-green scent-scales, with a broader black apex. Beneath similar to *erix*, the fine lines formed of silvery-blue scales sprinkled on it; at the base of the costal margin is a silvery-blue dot. From Ecuador.

cetra. **Th. cetra** sp. nov. (155 c) resembles the preceding above, but it has longer hindwings, a duller steel-blue colour and a larger, double scent-spot, the proximal half being red-brown, the distal half, being separated by the blue transverse vein, greyish-brown. Beneath very similar; on the forewings the curved proximal line is likewise bluish-white, on the hindwings the blue basal dot is absent, the postdiscal line is clearer, not composed of dispersed scales. According to a pure ♂ from Muzo (Colombia) from the Coll. FASSL.

Th. ismarus Cr. (155 c) of which we reproduce a copy of CRAMERS figure, seems to me to be closely allied to *ismarus*. allied to *timoclea*. The same seems to me to be the case with

Th. phalantus Cr., perhaps both are the sexes of one species; at any rate neither of them has been identified up to this day, for which reason we confine ourselves to this short remark; both originate from Surinam.

63. *Spurina*-Group.

Th. spurina Hew. (= *stagara* Hew., *volana* Hew., *timaea* Hew., *lydia* Ky.) (152 h, i) is above steel- or slate-bluish grey, with a dull greasy lustre, narrow black margins and a double scent-spot, the upper distal portion brownish-grey, the lower red-brown. Fringes blackish-grey, at the anal angle white with a black marginal line before it. The ♀ is dull greyish-brown, towards the base bluish-grey, towards the anal angle with blackish marginal spots and a reddish or bluish spot in the anal lobe. Beneath brown, the ♀ lighter. On the forewings a curved or straight row of lunular spots, brown, distally mostly whitish; on the hindwings a strongly curved, postdiscal similar one, and an antemarginal, very dull one, being lighter tinged on both sides; between the median veins a red crescent with a small, black dot; in the anal lobe a black spot with mostly some red above between it light-blue dusting. — The insignificant form **erenea** Hew. has a still narrower black distal margin and on the hindwings beneath a less curved median band. From Panama to Colombia and the Amazon.

Th. endera Hew. (= *thestia* Hew.) (155 c) is above greasy-lustrous greenish-blue, with a broadly blackish-brown apex and margins. Scent-spot large, oval, brown; ♀ duller greyish-brown, towards the base bluish-grey. Beneath more intensely brown than the preceding with more distinct submarginal lines on both wings and very much larger red spots. Amazon.

Th. genena Hew. (155 c) looks almost the same above, but the scent-spot is smaller; on the hindwings beneath, the postdiscal band makes an almost U-shaped curve, whereas in *endera* it runs almost rectilinearly to the proximal margin. Amazon.

Th. buris Drc. (155 d) differs from the preceding by its almost purely green upper surface and double scent-spot: in the cell black, behind it brown; beneath not different. The ♀ is above brown with an orange anal spot, beneath paler than the ♂ with more red at the anal angle. Amazon.

Th. illex Schs. seems to approximate the preceding and has the same double scent-spot; above metallic blue with a broadly black apex and a narrowly black distal margin and a red anal spot. Beneath brown with the same markings as *buris*, only somewhat more bluish instead of white. Expanse of wings: 33 mm. Colombia.

Th. caltha Drc. (154 d) is above dark-brown, towards the base suffused by purple-blue: almost the whole cell is occupied by a slightly conspicuous, purse-shaped scent-spot with a longitudinal opening from which whitish scent-scales spring forth. Beneath like *spurina* (152 h, i), but with more red at the anal angle. The ♀ is above quite brown with an orange anal spot. Amazon.

Th. emessa Hew. (155 d) resembles *endera* (155 c) above, but it is brighter bluish-green, the margins are deeper black and more sharply defined, so that the dark-brown scent-spot becomes more prominent. The ♀♀ are in all these species above equally coloured, dull brownish-grey, towards the base tinged bluish-grey. The under surface is lighter than in the others, orange-grey with the usual, little differing lines and small red anal spots. Amazon.

Th. eliatha Hew. (155 d) is above more extensively greenish-blue than *genena* (155 e) and possesses a large, double scent-spot, the proximal half of which is orange-brown, the distal half greyish-brown; beneath likewise similar to the said species, but on the hindwing the lines are not so close together and the distal one consists of conical or triangular, whitish spots being distally bordered by brown. Only between the tails there is a small red spot, the anal spot is black, between both there is bluish-white dusting. Brazil.

Th. ericusa Hew. (= *voconia* Hew.) (152 g, h) is the most closely allied to the larger *spurina* (152 h) and has the same greasy-lustrous, steel-grey colour, but only a small, brownish-grey scent-spot behind the cell, the proximal part has disappeared except some traces of it. Beneath somewhat lighter, with a lilac tinge, between the anal- and tail-spots dusted more bluishly, the marking the same. Colombia, Bolivia, Brazil.

Th. sycena Hew. (155 d) presumably also belongs to this group, although the ♂ is without the scent-spot. Above metallic blue with a black apex and a narrow distal margin. Under surface brownish-grey with the same markings; on the forewings the row of spots is almost straight, on the hindwings more strongly broken, than in the other species. Brazil.

legytha. **Th. legytha** Hew. (152 i) is so closely allied to *emessa* (155 d) that it may coincide with it. Above greenish-blue with a black costal margin and apex and a black scent-spot. Beneath on the hindwings the post-discal band runs somewhat differently towards the costal margin, otherwise everything is alike. Nicaragua.

gargophia. **Th. gargophia** Hew. (152 i) resembles the preceding, but it is above not so green, but of a purer blue, and it has a double scent-spot, proximally black, distally brownish-grey. Beneath alike. Brazil (Espiritu Santo).

64. Sophocles-Group.

sophocles. **Th. sophocles** F. (♀ = *basalides* Hbn., *wilhelmina* Ky., *sphinx* Godt., ♀ *dindymus* Ww., *virginia* Stgr. i. l.) (155 d) initiates a very characteristic group. The ♂ is above radiantly azure-blue, on the forewings, however, only in a parallel-bordered stripe between the proximal margin and the lower median vein, the rest is blackish-brown; three fourths of the cell are filled up by the deep-brown scent-spot. The under surface is whitish-grey, in the basal inner-marginal part of the forewing brownish-grey; on the forewings 2 lines composed of brownish crescentiform streaks, the proximal one very constant and characteristic by the luna between the upper radial veins receding towards the base; hindwing in the distal part almost white with a tiny orange spot between the median veins; the postdiscal strongly broken; there is mostly a third line in the basal part. Brazil.

sospes. **Th. sospes** sp. nov. (155 e) is very similar, above slightly duller blue, the just as broadly black apical part exhibits in the disc an indigo-blue lustre; in the upper distal cell-corner is the very small, oval, deep brown scent-spot; beneath very light brownish, of the lines only the postdiscal one is visible, being, however, also very slightly marked; the orange anal spots are both present, though small and dull. According to 1 ♂ from Colombia in my collection.

tephraeus. **Th. tephraeus** Hbn. (= *faventia* Hew.) (155 e) is above similar to *sophocles*, but the apex is less extensively black, so that the proximally brown, distally black scent-spot is entirely surrounded by blue. Beneath the ground-colour is light ashy-grey, in the place of the scent-spot brownish, the distal part of the hindwing very much dusted in white, the lines distally bordered by a clear white, brought nearer to the border, mostly with a fine white discal streak. The ♀ resembles the other species, it is of a duller blue, distally broader brownish-grey. Distributed from Mexico to the Amazon and everywhere common.

leucophaeus. **Th. leucophaeus** Hbn. (= *halala* Hew., *parvinotus* Kaye) (151 c ♀, 155 e ♂) differs above by only quite narrowly black distal margins and a smaller, more distinctly double scent-spot. Beneath grey as *tephraeus*, but the markings more like in *sophocles*, the distal margin of the hindwings mixed with white, the postdiscal line of the forewings almost straight. Brazil, Venezuela, Trinidad.

volupia. **Th. volupia** Hew. is above not to be distinguished from the preceding, beneath more monotonously grey, the anal lobe black, without a red border. Guatemala, Nicaragua.

purpurea. **Th. purpurea** Drc. (155 f). Above darker than *leucophaeus* and with a broader, black distal margin, the scent-spot still smaller and distinctly bipartite. Under surface pearl-grey without the white mixture at the distal margin, forewings quite unmarked; the postdiscal line on the hindwing separated more into single spots. Brazil (Espiritu Santo).

hostis. **Th. hostis** Schs. is likewise closely allied, but it has above a broader black apex and costal margin. The small double scent-spot is proximally brown, distally grey, both parts surrounded by blue, touching the black costal margin above. Beneath more brownish-grey, marked as in *leucophaeus* (154 e), the red spot of the tail much larger. Expanse of wings: 28 mm. Brazil (Novo-Friburgo).

65. Doryasa-Group.

doryasa. **Th. doryasa** Hew. (155 e) is above magnificently lustrous ultramarine blue with a sharply defined, velvety-black apex and a narrow distal margin. The larger, black part of the scent-spot is situated in the cell, the smaller, brownish-grey part behind it. The ♀ is dull blackish-brownish, on the hindwings suffused by a dark steel-blue. The under surface is brown with a fine black, distally white postdiscal line forming a W at the proximal margin. Marginal line quite obsolete, 2 red anal spots, between them bluish dusting; marginal line black, proximally intensely white. Colombia, Amazon. — **Th. epidius** Godm. & Salv. (155 f) is slightly different, but easily separable by the almost vanished, red spot on the tail of the hindwing beneath. Panama to Colombia.

nota. **Th. nota** Drc. (155 f). Above not to be distinguished from the preceding, beneath more light straw-coloured with fainter and less undulate transverse lines; the antemarginal rows of moon-spots are absent altogether, the red spots have almost disappeared. Colombia (San Sebastian).

leos. **Th. leos** Schs. (155 f) has above a much larger black scent-spot in the cell-end, otherwise very similar to *doryasa* (155 e). Beneath darker brown and easily recognizable by the peculiarly curved postdiscal line. Costa Rica.

Th. nivepunctata *Drc.* (155 f). We add here 2 very different species being otherwise not related to any other group. The species before us has above the greasy-lustrous indigo-blue of *spurina* (152 h, i), but a much broader dark apex and at the cell-end a pear-shaped, brownish scent-spot. Beneath not to be mistaken for any other species by the chocolate-coloured, white-dotted under surface. The ♀ is above duller coloured, otherwise the same. From British Guiana and Surinam.

Th. porphyreticus *Drc.* (155 f). Above about as *tephraeus*, but with a broader black margin and a smaller dark-brown scent-spot. Beneath brown with a violet reflection, very characteristic by the two large, white, costal-marginal spots of the hindwing. Peru (Rio Napo).

66. Syncellus-Group.

Th. syncellus *Cr.* (151 i, k). ♂ above magnificently lustrous blue with a moderately broad black margin and a black scent-spot behind the cell, bordered in the cell by a smaller, red-brown spot being circumscribed like an eye by slate-blue. Beneath greyish-black with a darker transverse line and silvery green dusting at the anal angle in the shape of 2 short transverse lines, the proximal one forming a W; abdomen beneath yellowish-white. The ♀ is above darker steel-blue, beneath more yellowish-brown. Everywhere extremely common from Mexico to the Amazon; northern specimens generally have a narrower black margin. — From West Mexico (Guerrero) I received a number of specimens of a smaller, much lighter form with an almost extinct scent-spot and beneath light yellowish-grey ground-colour, which I denominate *deserta form. nov.* (151 k); — *deserta. eribaea* *Hew.* (151 k) is a form with the postdiscal on the under surface being distally broadly dusted by light-blue, from the Amazon. — *bitias* *Cr.* is most probably a synonym of *syncellus*.

67. Hebraeus-Group.

Th. hebraeus *Hew.* (151 k) entirely resembles above our figure of *deserta* (151 k), but it is of a more violet colour, the scent-spot is the same, smaller than in *syncellus*, the extensive black part behind the cell is absent. Beneath brownish with undulate, black streak-markings which are well to be seen from the figure. Bahia.

Th. cimelium *Gosse* (151 k) is extremely similar and above not to be distinguished, the under surface, however, is much more clouded in dark and more indistinctly, more blurredly marked. Brazil to Paraguay.

68. Pelion-Group.

Th. pelion *Cr.* (= *simplex* *Walch.*, ♂ *thallus* *Cr.*, *aeolus* *F.*) (148 e). Above blue with a narrowly black margin and a large, black scent-spot. Beneath blackish-grey with a slight purple tinge and a broad, white band of the hindwing parted by the veins; between the median veins an antimarginal, carmine spot, at the anal angle some silvery-blue scaling. Brazil, Trinidad, Ecuador.

Th. paphlagon *Fldr.* (148 f). ♂ above radiantly greenish-blue with a large, black scent-spot at the cell-end and some black dusting behind it. Distal margin narrowly black. On the upper surface of the hindwing there is a pencil of black hair on the submedian. The ♀ is more green with a much broader, blackish-brown margin. Beneath brownish-grey with a whitish inner-marginal area and black veins, a small, white, costal-marginal spot of the forewing and a yellow apical spot of the hindwing, in front of the anal margin of which there are 2 red spots. Colombia, Venezuela, Peru.

Th. ochus *Godm. & Salv.* (148 f) resembles the preceding above, darker blue and with a much larger black discal spot below the scent-spot and a black hair-pencil at the submedian. Beneath likewise similar, the light costal marginal spot of the forewing is larger and triangular, the apical spot of the hindwing not yellow but whitish, extending subcostally as far as the base. Before the margin only one red spot, a smaller one in the anal lobe. Mexico, Guatemala, Panama, Costa Rica.

Th. boreas *Fldr.* (148 f) likewise belongs here; it is smaller, above similar to *paphlagon*, beneath much more variegated by more abundant yellow spotting, a red costal margin of the hindwing, and more extensively red spots between the median veins and above them. Colombia, Amazon.

69. Coelebs-Group.

Th. coelebs *H.-Schäff.* (= *fidena* *Hew.*) (155 f, g) is above lustrous steel-blue, more greenish than *spurina* (152 h, i), distally very broad blackish-brown with long hair above in the submedian space of the hindwing and a hair-pencil at the base of the subcostal, without a scent-spot. The ♀ is above duller greyish-blue. Beneath brown, the postdiscal line darker, on the hindwings distally white, beginning in the middle of the costal margin; anal lobe black, above bordered by white, between it and the large red spot of the tail blue dusting. Cuba, Hayti.

panchaea. **Th. panchaea** *Hew.* (= *scotcia* *Hew.*) (155 g) is above rather similar, in the ♂ bluer, the hindwings of a rounder shape. Beneath the transverse lines are fine, nearer to the margin and parallel to it, the red spot on the tail smaller. Amazon, Minas Geraes.

pion. **Th. pion** *Godm. & Salv.* (155 g) looks above like the preceding and has the same subcostal hair-pencil and the submedian hairing on the hindwings; beneath it is duller and more indistinctly marked, the small red spot quite insignificant. Perhaps it is a form of *panchaea* and its northern representative. Distributed from Mexico to Panama.

oppia. **Th. oppia** *Godm. & Salv.* (155 g) is above much more extensively blue and, on the hindwings, it has a distinct, small, red anal spot. Above the subcostal hair-pencil of the hindwing is a black scent-spot. Beneath it is much more abundantly marked in white, also before the margin. Described from Mexico.

piplea. **Th. piplea** *Godm. & Salv.* (= *subobscura* *Lathy.*) Allied to *pion* (155 g); the ♂ with the small hair-spot on the upper surface of the hindwing near the base of the subcostal vein. But beneath the wings are of a more intense colour than in *pion*. The dark-red anal spot of the hindwing is much larger, the two transverse macular stripes nearer to each other. West Indies: St. Vincent (Grenada).

martialis. **Th. martialis** *H.-Schüff.* (155 g) on the whole resembles *coelebs* above, but it is of a duller sky-blue and immediately distinguishable by the large, indistinctly defined, discal spot. Beneath the markings are likewise very similarly arranged, but instead of the rows of moonspots there are rather broad white lines. Florida, Cuba, Jamaica.

70. Strephon-Group.

strephon. **Th. strephon** *F.* (= *sichaeus* *Cr.*) (151 d). Upper surface magnificently cornflower-blue with a very broad black apex with indistinctly visible scent-scales; the anal angle of the hindwing above bordered by white, in the black lobe a small red spot. Beneath brownish-grey, the proximal margin of the forewing whitish with a large, oval, brown scent-spot below the median, covered by the convex, bulging margin of the hindwing. The postdiscal lines are white, running on the forewing from the middle of the costal margin straight to the lower median vein, and from here as far as the proximal margin in the shape of a W; submarginally placed is a row of brownish moon-spots, bordered on both sides by white, between the median veins and at the anal angle interrupted by red spots. Amazon.

cyllarus. **Th. cyllarus** *Cr.* (= *strephon* *Godt. nec F.*, *cyllarissus* *Hbst.*) (151 f) is above the same, only somewhat more greenish, and the angle between the median veins on the forewing is still blue, in *strephon* already situate in the apical black. Beneath much lighter, the markings duller and finer, parallel to the margin. The ♀, as almost all of this group, is above much duller and the blue more confined, the shape of the wings rounder and broader. Brazil to Peru. — **Th. deliciae** *Drc.* (151 i) seems to be based only upon an aberrative specimen in which all the black markings beneath are absent; taken in North Brazil.

porphyritis. **Th. porphyritis** *Drc.* (151 h) does not differ from *strephon* above and it is just as dark beneath, but the marking is parallel to the border as in *cyllarus*, the white colour very prominent, the scent-spot much smaller, nut-brown and nearer to the base; the disc exhibits a silky lustre. Brazil (Tapajoz and Para).

perola. **Th. perola** *Hew.* (151 g, h). Above like *cyllarus*, distinguished on the hindwing by the broad blackish-brown costal margin shining as if polished. Beneath the white markings are strongly developed, the post-discal line more strongly and irregularly broken, the blackish-brown scent-spot extends as far as the median. Amazon, Bolivia.

tyriam. **Th. tyriam** *Drc.* (151 h) differs from the preceding above by the reduced blue of the forewings, which does not reach the anal angle, but is cut off by the broadly black distal margin; the costal margin of the hindwing is likewise polished. The under surface is lighter, the scent-spot smaller, lighter straw-coloured than the ground. Brazil (Pará), Bolivia.

trebonia. **Th. trebonia** *Hew.* (151 e) differs from the preceding by the large scent-spot in the distal half of the cell; the ground-colour is a lighter, greener blue. Beneath as in *perola*. Ecuador.

uterkudante. **Th. uterkudante** *Drc.* (151 e) has above the blue of *strephon* (151 d) and no scent-spot; beneath it differs from the preceding by a straw-coloured scent-spot and much broader black and white transverse lines, the proximal one of which begins at the costal margin with a large triangular spot. Colombia.

ostrinus. **Th. ostrinus** *Drc.* (151 f). Above like *strephon*, but without the red spot in the anal angle of the hindwing. The ground-colour beneath is of a decidedly greenish tinge and the scent-spot is absent altogether Cayenne.

phoster. **Th. phoster** *Drc.* (151 f) does not differ from *cyllarus* above. The ground-colour beneath is much darker and lustrous; the scent-spot is much larger, but it does not contrast in the colour; the postdiscal band is very prominent; the red spots are very strongly developed. Surinam, Colombia (Muzo).

Th. foyi Schs. resembles the preceding above, in the anal lobe a small orange spot. Beneath light greyish-brown, without a scent-spot, the markings as in *phoster* (151 f), duller, but on the forewing the submarginal line is absent, the proximal one extends only as far as the lower median vein. Described from Peru.

Th. purpurantes Drc. (151 g) is above greener blue than *foyi* and has no orange spot in the anal lobe; beneath the black and white postdiscal line is more sharply broken angularly and more prominent. The scent-spot is of a silky-lustrous straw-colour, in the centre darker. Peru.

Th. acameda Hew. (= *paulina* Stgr. i. l.) (151 f) resembles *cyllarus* above, but it has a green-reflecting polished costal margin of the hindwing, the costal angle itself being blue. On the under surface the basal half, at the hindwings, particularly towards the costal margin, is darker brown, the scent-spot is quite light cement-coloured; the strongly broken lines are well reproduced in the figure. Amazon, Colombia, Peru.

Th. elika Hew. (151 g) has above a decidedly lighter and greener blue with a more narrowly black distal part. The under surface is much lighter whitish-grey, the lines finer, towards the costal margin on the hindwing more divergent, the red marginal spots smaller and duller, the costal margin of the hindwing is less convex, the scent-spot hardly contrasts with the ground. Brazil.

Th. ambrax Ww. (151 f) has a still much narrower black apex and distal margin, and is immediately recognizable by the large, oval, red-brown scent-spot at the upper cell-end. Beneath light ashy-grey, the large scent-spot clay-coloured, the lines as in *acameda* (151 f). Nicaragua, Panama, Colombia, Brazil.

Th. adela Stgr. (151 h) is a well characterized species, above something like *ostrinus* (151 f), the rather very much confined, with a distinct red anal spot and a broad, blackish-brown costal margin. The under surface is brown, not greenish, between the postdiscal transverse line and the distal margin, in the whole length, a brownish macular line extends, bordered on both sides by whitish. The costal margin of the hindwing scarcely bulged out, the forewings without any scent-spot. Amazon District.

Th. syedra Hew. (151 e). A smaller species, above almost like *strephon* (151 d), beneath entirely light brownish, the ♀ somewhat darker, the lines arranged about as in *cyllarus* (151 f), the costal margin of the hindwing strongly convex, covering the yellowish, large scent-spot; on the hindwings the antimarginal, macular line begins at the costal margin with 2 isolated brown spots. Guatemala to the Amazon.

Th. enenia Hew. (155 h) is allied to the preceding; above more greenish-blue, beneath very light grey, towards the apex on the forewings reddish-brown, the lines very much like those in *syedra* (151 e), the marginal area of the hindwings extensively whitish, the postdiscal broadly white, the submarginal line consisting of tiny brown spots, the second of which beginning from the costal margin is the largest. Brazil.

Th. rickmani Schs. seems to belong here and to resemble *purpurantes* (151 g); on the forewings the blue colour is confined to the surroundings of the submedian, the hindwings have only a narrowly black costal and distal margin; above the anal lobe in which there is no red there is a white spot. Beneath light olive-brown; on the hindwings the postdiscal line runs rectilinearly from the subcostal line to the lower radial; the anal red very broadly developed beyond the upper median vein. Colombia.

Th. imma Prittw. is a species that has hitherto not been identified, described according to a single ♀ which may belong here, but also to the *orcynia*-group (p. 788). Size and shape of *Th. quercus* (Vol. I, t. 74 d); above blackish-brown, in the basal part of the forewing and on the hindwing extensively dull sky-blue. Beneath light ashy-grey with the 2 usual white transverse lines reaching almost the proximal margin also on the forewings and touching each other on the hindwings in cell 4; the spot on the tail is red, the anal spot black, only proximally dusted in red. Patria?

Th. metanira Hew. (151 c) also belongs yet into this group, in spite of the deviating scent-spot on the upper surface of the forewing which is situate in and behind the cell-end; it is dark brownish-grey, in the proximal part a jet-black pupil. Forewings above rather extensively radiantly greenish-blue. Beneath the forewings are unmarked greyish-brown, without the scent-spot, the hindwings marked as in *perola* (151 g, h), but without a convex costal margin and with very slightly developed red, in the ♀ almost entirely without any red, but instead of it more copiously dusted in greenish, so that it also resembles the *atema*-group (= *narbal*-group, p. 765, t. 150 h—k). From the Amazon to Peru.

Th. lorea Mschr. which has remained unknown to me, seems to be the most closely allied to the preceding, unless it coincides with it. It is described to be above azure with a broadly blackish-brown costal margin, apex and distal margin, at the end of the discocellular with a round, blackish-brown scent-spot. Beneath dark brownish-grey, the marking of the hindwings is as in the preceding, the forewings likewise as they are there, without any markings. Surinam.

Th. ericeta Hew. (= *munatia* Hew.) (151 d). Above of a magnificent radiantly blue like *strephon*, with the same broadly black apex of the forewing; the costal margin of the hindwing has a polished black lustre, suffused by indigo-blue. The under surface is variable, brown or grey, the proximal white line diverges far

inside towards the costal margin as in *strephon*, also on the forewings which exhibit a whitish inner-marginal part and a large, somewhat darker brown scent-spot. Guatemala, Panama, Colombia.

pulchritudo. **Th. pulchritudo** Drc. (151 e) is allied to the preceding, above more extensively blue with a small polished spot on the hindwing, entirely covered by the forewing; the under surface is greenish-blue, not as in the figure on which the silvery greenish-blue opalescent spot in the discocellular is neither reproduced at all, below it a large, brownish scent-spot, the lines quite similar as in *ericeta*, only towards the costal margin not so greatly divergent; the red anal spots are almost entirely absent. Amazon, Colombia (Rio Negro: Coll. FASSEL).

carteia. **Th. carteia** Hew. (151 h, i) is above scarcely distinguishable from *ericeta* (151 d), the polished spot is very extensive, opalescent olive-green. Beneath brownish-grey with a large, blackish-brown, silky spot on the forewings; the costal margin of the hindwing is very strongly convex, the lines as in *ambrax* (151 f), only placed a little more towards the margin. Ecuador, Amazon.

zigira. **Th. zigira** Hew. (151 i) is much smaller than *carteia* with a more narrowly black apex of the forewing, otherwise very similar; also beneath similarly marked, but the ground of the wings is of a purer light grey, the hindwings at the distal margin more dusted in white. Amazon, Venezuela, Peru.

falerina. **Th. falerina** Hew. (151 i) we include here yet, although it makes a very different impression; much smaller, above deep violet-blue with very broad black distal margins and a brown-yellow, polished, unscaled spot at the base of the hindwing towards the costal margin. The under surface is greenish brownish-grey, the costal margin of the hindwing strongly convex, covering a lustrous, darker spot of the proximal margin of the forewing. On the hindwings the postdiscal begins with an isolated black spot, towards the base of it is a second, distally white spot. Guiana, Amazon.

71. Latagus-Group.

latagus. **Th. latagus** Godm. & Salv. (155 h) has certain relations to a part of the preceding group by the black spot of the costal margin of the hindwing above, being partly covered by the expanded proximal margin of the forewing; the ground-colour above is lustrous blue with a moderately broad black apex and a narrow distal margin, beneath brownish-grey with 4 white transverse lines before the margin of the hindwing and a red spot of the tail. Panama.

oratus. **Th. oratus** Godm. & Salv. (155 h) we append directly here; it is above silky blue, the hindwings with a yellowish-brown subcostal stigma, beneath grey with an irregular grey, proximally white bordered discal line and an indistinct, dark submarginal line bordered on both sides by white. The proximal margin of the forewing opalescent bluish-green. Mexico, Guatemala.

72. Gadira-Group.

gadira. **Th. gadira** Hew. (155 h) is without tails, above lustrous ultramarine-blue with a large, oval, brown scent-spot and a moderately broad, velvety-black margin. Beneath light brownish-grey with white lunular lines and 2 orange-red, black-pupilled anal spots. The ♀ is darker violettish-blue, particularly on the forewings very broadly bordered by blackish-brown. Guatemala to Colombia.

norax. **Th. norax** Godm. & Salv. (155 h) is smaller, lighter blue, with broader black margins and a rounder scent-spot; the under surface is somewhat lighter, striated with many white lunular lines. Guatemala to Colombia.

levis. **Th. levis** Drc. (155 h) greatly resembles *norax* above, but the scent-spot is smaller, round and black; beneath more yellowish-brown in the distal part, in the larger basal half sharply delimited darker brown; the markings on the whole similar, but not white, but brownish, the hindwing besides with an undulate, dark-brown median band. Amazon.

conchylium. **Th. conchylium** Drc. (155 i) also like *norax* with a somewhat narrower black margin; the scent-spot is much narrower and lighter. The red spots of the hindwing are almost entirely absent, and only in the dark-brown, towards the base blue-reflecting ♀ they are somewhat more visible. Brazil to Paraguay.

minthe. **Th. minthe** Godm. & Salv. (155 i) resembles *gadira*, being of a somewhat lighter, silky-lustrous blue and very easily recognizable by the under surface of the forewings which is opalescent blue in the inner-marginal half. From Mexico.

elana. **Th. elana** Hew. (152 g) resembles above *gadira* with its magnificent blue, but it has a tail and broader black margins. Beneath brownish-grey, at the proximal margin of the forewing lighter, the marking likewise resembles somewhat the said species, but it also resembles *punctum* (152 d) by a small black and white dot in the middle of the costal margin of the hindwing. Colombia to Brazil.

mulsus. **Th. mulsus** Drc. (152 d) is above deeper purple-blue than the preceding and has beneath entirely unmarked forewings, and the dot of the costal margin of the hindwing is absent, too. It likewise has a long tail. Amazon.

Th. vieca *Schs.*, apparently described according to a ♀, larger than *godira*, without a tail, above *vieca*. blackish-grey, in the basal inner-marginal part of the forewing lilac-grey, the hindwings white, dusted in lilac-blue with a blackish-grey costal margin and distal margin. Beneath light brown, marked like *conchylum* (155 i), in the median area broad whitish with a white costal marginal streak. Venezuela.

73. Laeta-Group (*Erora Scudd.*).

Th. laeta *Edw.* (= *clothilde* ♀ *Edw.*) (155 i) is the typical representative of a small group probably *laeta*. comprising only this one species, but varying a great deal. The name-type is distributed in North America but apparently very rare. Above brown, towards the base suffused by blue; beneath fawn-coloured with post-discal bands and such at the margin of the hindwings, composed of tiny, orange-red, distally white-bordered spots. It flies from Quebec to West Virginia and Arizona; there are no details known as to its life-history. — **quaderna** *Hew.* (155 i) from Mexico is above abundantly dusted in a violetish-blue, with small dark spots before *quaderna*. the distal margin of the hindwings and orange fringes. The colour beneath is of a shade like a grey-horse, distally with a greenish shine. This is probably the ♀ of **attalion** *Godm. & Salv.* (155 i) which is quite brown above, *attalion*. with tiny, blue, submarginal spots of the hindwings. — **aura** *Godm. & Salv.* (155 i) from Costa Rica and Panama *aura*. is likewise similar, but black above, the hindwings only in the centre blue without a blue submarginal; beneath the colour is more bluish-grey, without the red small submarginal spots, and the median line of the forewing is placed nearer to the distal margin.

Th. phrosine *Drc.* (146 e) is a peculiar small species, which perhaps belongs into this group; above *phrosine*. dark-brown, the fringes of the hindwings white. Beneath white with a faint silvery reflection, in the disc of the forewing a bluish tinge; the postdiscal band consists of single, tiny, copper-brown spots, on the hindwings there are besides minute submarginal dots. Abdomen beneath white. Peru, Bolivia.

Th. castrena *Jones* (156 d) differs above from *phrosine* by lilac-blue scales being strewn on the base *castrena*. of the proximal margin of the forewing and on the hindwings. The ground-colour beneath is light lilac-blue, in the ♀ more yellowish-grey with a similar marking as in the former, though more copious. Castro (Paraná).

74. Nana-Group.

Th. nana *Fldr.* (155 k) is a most peculiar species not to be mistaken for any other species. The shape *nana*. of the wings peculiarly high. The colour is above dull indigo-blue with a slight lilac lustre; the whole costal-marginal half of the hindwing is of a light-grey lustre and in its basal half there is a roundish scent-spot of the same colour. Beneath light bluish-green with a faint lilac shine, in the inner-marginal area of the forewings brownish-grey; on the hindwings with a fine white lunular line, towards the inner-margin proximally bordered by blackish, at the acute anal angle a small black spot; there is no tail. Forehead brown, palpi at the sides green. Colombia.

Th. facuna *Hew.* (156 a) is larger, of a more slender shape of the wings. Forewings above blackish-*facuna*. brown, in the basal inner-marginal part as far as the middle of the cell suffused by indigo-blue; hindwings in the disc of a violetish-blue lustre, from which the large brown scent-spot stands out in bold relief, filling up the whole basal part, inclusive of the cell; the costal margin itself is lustrous lighter brownish. The ♀ is duller and more extensively blue. Beneath emerald-green; forewings unmarked, in the inner-marginal part brown; the hindwings with an indistinct postdiscal line of blackish, distally lighter, though not white-bordered, small streak-spots. Fringes brownish, near the anal angle black, at the base white; at the tip a small black spot. Forehead, palpi and tibiae green, legs black, wreathed in white. Rio Grande.

Th. senta *sp. nov.* (156 a) greatly approximates the preceding, it is larger, the distal margin of the *senta*. hindwings more convex, the wings dusted in a purer blue, the hindwings much more extensively, because the distal and proximal margins are only narrowly black. The costal margin of the hindwings dark-brown, in its basal half we notice the much smaller, red-brown lustrous, though little contrasting scent-spot of an oblong shape. Beneath the green is a shade more yellow, of the postdiscal line there is only the beginning of a W left at the anal angle, behind it is a small black spot. Forehead, palpi and femur green. 1 ♂ from Colombia (Cañon del Tolima) from the Coll. FASSL.

Th. opisena *Drc.* (155 k) is a smaller, ultramarine species with a broadly velvety-black apex and *opisena*. distal margin. Beneath emerald-green, often only with the beginnings of a postdiscal at the proximal angle of the hindwings, which, however, may also be extended as far as the costal margin; a small spot and the fringes at the anal angle are black, occasionally with an orange-red upper tinge. Colombia.

Th. biblia *Hew.* (155 k). Above plainly brown, beneath of delicate bluish green, like all the following *biblia*. species with a peculiar lilac-blue shine of a silky or mother-of-pearl lustre; at the anal angle of the hindwing a tiny black spot. Amazon.

Th. ares *Godm. & Salv.* (155 k) greatly approximates the preceding, being above suffused with a *ares*. purple-violet; on the green under surface there is an indistinct, whitish postdiscal and also at the cell-end a streak. Forehead green. Guatemala, Amazon.

- smaragdus*. **Th. smaragdus** Drc. (155 a) exhibits above a purple-violet reflection like *ares*. Beneath the postdiscal is more distinct, also on the forewings there are traces of it; it is immediately recognizable by the white fringes beneath being velvety-black at the base. Colombia (Rio Aguaca Valley), Brazil.
- semones*. **Th. semones** Godm. & Salv. (155 k) differs from the preceding by the leaden-lustrous, indigo-coloured upper surface, black forehead and entirely unmarked green under surface. Mexico.
- subflorens*. **Th. subflorens** Schs. (156 a) resembles somewhat the preceding above, but it is strewn with a purer metallic blue, with a broadly black apex of the forewing, green forehead and beneath discal lines composed of small, high lunular spots on both wings, but on the forewings only indicated, between the median veins of the hindwings also traces of a small orange-red spot, and a light discal streak. Costa Rica to Colombia.
- campa*. **Th. campa** Jones (156 a) is above dull blackish-blue, distally purer black, hindwings with narrowly black margins, fringes brown. Beneath very pale green, with a particularly intense lilac-blue shine. Forewings unmarked, hindwings with a greyish-white discal streak and the discal line as in *subflorens*, but distinct only towards the proximal margin; in the anal lobe a black spot bordered above and beneath by white, between the median veins an orange-red, black-ringed spot; palpi white, forehead green. Paraná.
- quassa*. **Th. quassa** sp. nov. (156 a) greatly approximates the preceding, but it is above purple-brown, the hair of the proximal margin and the fringes of the hindwings snow-white. The under surface is the same, the postdiscal band as far as the costal margin very distinct, composed of high, proximally brown, distally white, lunae, also present on the forewing near the costal margin; fringes of the hindwing also beneath white, but with a deep velvety-black basal line. The forehead is black. 1 ♂ from Sa. Catharina (Coll. WERNICKE).

75. Schausi-Group.

- schausi*. **Th. schausi** Godm. & Salv. (156 a) is the typical representative of an extremely peculiar, small and very little known group the species of which are apparently all very rare hitherto. Above metallic ultramarine-blue, at the distal margin broadly brownish-black. Beneath blackish-grey, on the hindwings with jet-black veins. The disc of the forewing metallic blue, a whitish spot at the base of the costal margin of the hindwing, at the base of which there is a small, scarlet spot surrounded by some opalescent blue scales. Mexico, Nicaragua.
- miranda*. **Th. miranda** Godm. & Salv. (156 a) resembles the preceding, the anal angle of the hindwings is somewhat more drawn forwards, the wings above more purple; beneath the apex of the forewing exhibits a yellowish-white spot, the hindwings a tripartite, subapical spot, the base of the cell and the proximal margin likewise a yellowish-white spot; the abdomen is white beneath. Amazon, São Paulo.
- crepundia*. **Th. crepundia** Drc. (156 b) is above dull olive-brown, towards the base with an indigo-blue reflection. Beneath likewise olive-brown, with a yellowish-white, brown-veined apex of both wings, the forewings in and below the cell opalescent greyish-blue; at the base of the hindwings a large red spot. Peru.
- insignis*. **Th. insignis** Godm. & Salv. (156 a). Only the ♀ is known: above blackish-brown; beneath the forewings are just the same, at the proximal margin lighter with a yellowish-white apical spot; the hindwings are orange-yellow, with broad blackish-brown veins and small brownish spots at the costal angle and between and below the median veins. The bases of all the wings spotted in orange-red. Mexico, Panama.

76. Sesara-Group.

- sesara*. **Th. sesara** Godm. & Salv. (156 a) is an isolated species which would have to be renamed, if it remains in the large collective genus, since the same authors have already before denominated a *Thecla* with the same name. Above the forewings are blackish-brown, the hindwings blue with a fine, bluish-white marginal line in the black anal part, in which there is a reddish-brown spot; a small, short tail. Beneath silky brown, in the distal part lighter and more reddish; the postdiscal blackish-brown, on the hindwings irregular; in the anal part no red spots, only 2 black dots; fringes rusty-brown. From Mexico.

77. Orobiana-Group.

- orobia*. **Th. orobia** Hew. (152 a) is above deep peacock-blue with black veins and narrowly black margins. Beneath deep purple-brown, the proximal margin of the forewing light-grey; in the lower cell-half and behind it between the median veins scales of a brilliant bluish-green; at the costal margin in the middle and before the apex one whitish blurred spot each; from the proximal one there emanates a row of white dots. Hindwings with a blue basal dot and a postdiscal row of similar dots. Anal angle dusted in golden-green. Panama, Colombia, Bolivia, Venezuela, Amazon.
- orobiana*. **Th. orobiana** Hew. (152 a) is doubtful as to its being justified to be called a species, the chief mark is the absence of the blue stripe through the disc of the forewing beneath; the other marks stated are: larger,

with a broader black margin, above and beneath absent white costal-marginal diffuse spots vary greatly, if larger series are to be looked at. It lies before me from the Amazon and Colombia.

Th. orocana *Drc.* (156 b), however, is undoubtedly a different species; it has above all no tail, but an extended, inwardly curved anal lobe of the hindwing, as some species of the *amyntor*-group (p. 762). The colour above is a lighter, radiant greenish-blue, the apex of the forewing is very broad black; whereas in *orobia* and *orobiana* the blue colour of the hindwing above the upper radial vein extends constantly in the shape of a bow into the brown costal margin, it runs here below the said vein straight on to the distal margin. Beneath there is little difference: the blue discal stripe of the forewing is absent, on the hindwings there are at the anal angle but very sparse golden-green scales. Peru, Colombia (Cañon del Tolima).

78. Hyacinthus-Group.

Th. hyacinthus *Cr.* (156 b) is above sky-blue with a narrow black margin; beneath the forewings are greenish-blue with a narrow black margin and two bands before the distal margin, the hindwings exhibit a yellowish-brownish band from the middle of the proximal margin to the costal angle, broadly bordered in black, and black spots before the distal margin. West Indies.

Th. pholeus *Cr.* (= *philanthus* *Stoll*) (156 b) is a little similar, above peacock-blue, the ♀ brown; on the under surface the ♂ is greenish-blue, the ♀ yellowish-grey with black bands and a yellowish-brownish stripe on the hindwings as in the preceding. — Whereas the northern specimens from Surinam and Cayenne always exhibit some small, metallic greenish-blue spots in the median black band of the hindwing, the southern specimens from Brazil and Colombia are always without them, they may therefore be denominated **meridionalis** *form. nov.* (156 b). — At both the habitats there occur small ♂♂ with a brown ground-colour above like the ♀♀: **feminalis** *form. nov.*

Th. selina *Hew.* (156 b) cannot be justly called a distinct species, as long as a ♂ fitting to it has not been ascertained. The ♀ does not differ from that of *pholeus* above, but beneath the forewings are unicolorously brown with 2 darker submarginal bands; on the hindwings the costal margin next to the base is broad red-brown, otherwise as in *pholeus*. The most positive assertion for the qualification of the species is the fact that in the black median band there are always greenish-blue spots which are forever absent in southern specimens of *pholeus*. Brazil, Ecuador.

Th. nautes *Cr.* (153 b) is larger, above darker with a small, dark brown scent-spot and broadly darkened veins. The under surface is very characteristic and unmistakable. In the ♂ the proximal half of the forewing is peacock-blue, but not in the ♀ which is also above brown. Ecuador, Amazon.

Th. elis *Cr.* (156 c) preponderantly differs by its under surface; the forewing exhibits in the disc 3 or 4 black, blue-pupilled eye-spots standing below each other; on the hindwing there is at the costal margin nearer to the base another black, blue-pupilled eye-spot; the yellowish-grey longitudinal stripe extends towards the costal angle, in *nautes* between the radial veins to the distal margin. Brazil.

Th. bactriana *Hew.* (156 c) we insert here on account of the under surface resembling somewhat *bactriana*, *pholeus*, though it is otherwise quite isolated. Above light-blue with a broadly black apex and a large, light-ringed scent-spot. Beneath yellowish-brownish with similar spots and bands as *pholeus*. Amazon.

79. Empusa-Group.

Th. empusa *Hew.* (= *tympania* *Hew.*, *bethulia* *Hew.*, *halciones* *Btlr.*) (156 c) is above deep blue, in the larger apical half black. The under surface is light grey with fine brown postdiscal lines, distally bordered by white, proximally by a very fine orange-yellow, on the hindwing beginning with an outwardly displaced streak-spot at the costa; quite indistinct, small, submarginal lunular spots are only visible on the hindwing by being on both sides dusted in white; at the anal angle there is a small black spot, being above bordered at first by white, then by orange; proximally follows a white-dusted part, then between the median veins again an orange, small spot. Distributed from Mexico to the Amazon and Bolivia.

Th. purpuriticus *Drc.* (156 c) is above just the same, beneath darker, on the hindwings between the median veins before the border much more extensively dusted by orange, the submarginal shades placed nearer to the postdiscal and more proximally. Colombia.

Th. tarena *Hew.* (156 c) is most similar, above hardly different, but the costal margin of the hindwing is broadly brown. The under surface is more brown, the lines as in *empusa*, but more indistinct, the red spot of the tail placed more proximally. Guiana.

Th. gentiana *Drc.* (156 d) differs above from *tarena* by a very large, black, oval scent-spot being proximally surrounded by slate-blue scales. Beneath like the preceding, the lines still weaker and a little straighter, the red spot removed more towards the margin. Colombia.

- lemuria*. **Th. lemuria** Hew. (156 d) is considerably smaller, above deep ultramarine-blue, with an oval, dark-brown scent-spot behind the cell and a moderately broad black apex, a narrow distal margin. Beneath light brownish-grey, marked like *empusa*. Colombia, Brazil.
- collustra*. **Th. collustra** Drc. (156 d) does not differ beneath, but above it is greyish-black, of a purple lustre, without a scent-spot, the hindwing in the proximal half more indigo-blue with a small red anal spot. Trinidad.
- argerona*. **Th. argerona** Hew. (156 e) is on the forewings above only at the base and in the disc of the hindwing somewhat darker, more indigo-blue. Beneath light reddish-grey, marked like the preceding, on the forewing, only a short postdiscal extending neither to the costal margin nor to the proximal margin; on the hindwing the grey spot between the spot of the tail and the anal spot is above also bordered by red. Brazil.
- melma*. **Th. melma** Schs. (156 d) seems to belong into the same group. Above of a purer blue with a less extensive apical black than in *empusa*, beneath more olive-brownish, the lines more distinct and broader, the space between the anal spot and the spot of the tail dusted in a bluish white. Costa Rica, Panama.
- ophia*. **Th. ophia** Hew. (156 e) is above extensively blackish-brown, only towards the base and proximal margin greenish-blue with a large, dark, hardly visible discal spot without any scent-scales, the forewings entirely blue except the broad costal margin and narrow distal margin. Beneath brownish, marked like *lemuria* (156 c), but somewhat more prominent, the submarginal macular bands more distinct, also on the forewing. Amazon.
- laconia*. **Th. laconia** Hew. (156 e) looks above just the same, but it has a large, oval scent-spot. Beneath lighter, the lines finer, lighter, more strongly broken, more remote from the border. Amazon.
- cupa*. **Th. cupa** Drc. (156 e) differs from *laconia* by the blue entering into the cell of the forewing and a broader black costal margin of the hindwing; at the cell-end of the forewing lies only a small, round, indistinct scent-spot instead of the large oval one in *laconia*. The under surface is lighter, the discal bands proximally bordered by brown, on the forewing in the lower half removed more towards the margin. Rio Grande.
- gnosia*. **Th. gnosis** Hew. (156 e) probably belongs to the same group, it has a rounder shape of the wings, is smaller, above of a purer, though more subdued blue, the ♀ brownish, with violetish-blue hindwings. The under surface entirely resembles that of the preceding. Colombia, Peru, Bolivia.

80. Echion-Group.

- echion*. **Th. echion** L. (= *crolus* Cr.) (156 e, f) is a very variable species: above dull-lustrous indigo-blue with a very broad blackish-brown apex of the forewing and costal margin of the hindwing; the larger distal half of the cell is filled up with scarcely contrasting, dark-brown scent-scales of a slight steel-blue lustre. The ♀ is much duller with a white marginal line on the hindwings in the anal direction. Beneath lighter or darker brownish-grey, particularly in the ♀ often whitish-grey, in the ♂ the disc of the forewing is more brown, in some places clouded in a somewhat darker colour, the forewings with 2 lines, the hindwings with roundish, copper-coloured to light-orange spots, bordered by black, before the distal margin a dentate line, and the usual orange-red, black-pupilled, small spots. Very common from Mexico to South Brazil. — A smaller form flying in Mexico, *echiolus form. nov.* (156 f) shows the spots on the hindwings beneath more subdued, more pale-orange with a disappearing dark bordering.
- crolinus*. **Th. crolinus** Btlr. (156 f) is similar, but above much more extensively and brilliantly blue, so that the whole proximal half of the cell remains blue, behind it a four-cornered, black discal spot. Beneath not essentially different, but the spots on the hindwings are not so round, but more oblong, so that more of a transverse band is produced. Mexico to Panama.
- vomiba*. **Th. vomiba** Schs. seems to be closely allied to *crolinus*, on the forewing the blue is confined to an inner-marginal stripe, beneath it differs by a more complete additional basal of the hindwing, which is somewhat interrupted only above and below the cell. Expanse of wings: 22 mm. Petropolis in South Brazil.
- venustus*. **Th. venustus** Drc. (156 f) is above like *crolinus*, the fringes of the forewing copper-brown. Beneath darker brown, on the forewings the postdiscal band is much straighter; we do not find any real difference from *crolinus*. Described from Brazil.
- labeis*. **Th. labeis** Drc. (156 f) is smaller, above dull brown with a large black scent-spot, the hindwings only in the proximal half are slightly tinged in a greyish blue. Beneath there is no difference from *echion*; it is perhaps only a small form of it, from Trinidad.
- philinna*. **Th. philinna** Hew. (= *unilinea* Kaye) (156 g). Above similar to *echion*, but with quite a different scent-spot in two parts being placed almost vertically above each other; the upper part grey, the lower one brown. The under surface is likewise similar, but without the basal spots of the hindwings and extremely variable, white to brownish-grey, the spots themselves golden-yellow, sometimes copper-orange, or dull

brownish-grey, sometimes very large, sometimes very small. Just as common as *echion*. From Mexico to South Brazil. — The northernmost specimens from Mexico, **greppa Dyar**, have an almost white under surface. *greppa*.

Th. giapor Schs. (160 d). Above blue as *crolinus*, but with the double scent-spot of the preceding, *giapor*. the distal, grey portion smaller. The under surface likewise as in *crolinus*, but with a fine streak at the cell-end, the spots on the hindwings more coherent, linear, the postdiscal straight from the costal margin to the lower radial vein. São Paulo.

Th. fostera Schs. is unknown to me, but it presumably belongs here. Only the ♀ is known: above *fostera*. brown, the forewings only at the proximal margin, the hindwings more extensively dull light-blue; at the distal margin of the latter there are in the anal part 3 small red spots, above them some black ones. Beneath light-grey with a fine, red marginal line and a red streak at the cell-end; on the forewings a row of red spots from the costal margin to the lower median vein, the second spot from below inwardly displaced; on the hindwings a red cell-spot and one above it, postdiscally a row of large, red spots, forming a broken W at the proximal margin; at the border the 2 usual red spots; above the upper median vein yet a third, smaller one. On the head a red spot. São Paulo.

Th. cydrara Hew. (156 g) and its nearest allies we most appropriately combine with the *echion*-group *cydrara*. to which they exhibit many relations. Above almost like *echion*, only somewhat more metallic greenish-blue. Beneath very easily recognizable by the large, chocolate-brown, triangular spot at the costal margin of the forewing. Very common and widely distributed from Mexico to the Amazon.

Th. ufentina Hew. (156 g) is above considerably more extensively coloured in a radiant, metallic *ufentina*. greenish-blue with a scent-spot in the cell. Beneath the forewings are quite brown with a lilac reflection, the hindwings have a large, brown spot in the basal costal-marginal part. São Paulo.

Th. victa Hew. (156 g) has almost quite brown forewings and a very small scent-spot, only the proximal margin exhibits a narrow blue tinge, the hindwings are more extensively blue. Beneath like the preceding, only the brown costal-marginal spot is larger, and at the costal-angle there is also a brown spot. Amazon (Santarem).

Th. opalia Hew. (156 g, h) is above somewhat more extensively blue than the preceding, beneath *opalia*. quite purple-brown with white macular rows. Described from the Amazon.

Th. verania Hew. (156 h) initiates another subordinate group of mostly smaller species, which is likewise closely allied to *echion*; the copper-brown basal spots of the hindwings beneath are here partly united with the proximally displaced postdiscal. *verania* is above radiantly light blue with a very narrow, black distal margin and a but slightly broader apex, without a scent-spot. On the hindwing beneath the 2 usual, orange-red anal-spots are absent. Amazon, Ecuador and Bolivia.

Th. fabulla Hew. (156 h) resembles *phlinna* (156 h) above and has likewise a double scent-spot, the proximal lower part of which little contrasts with the brownish-black ground, the upper part being smaller and lighter grey. Beneath on the hindwings almost like *verania*, only darker brownish-grey, on the forewings with a straight, brown-red postdiscal band; in the anal angle we do not notice the distinct W of the said species, but only a triangular, brown-red spot; at the anal angle and between the tails 2 orange spots. Guiana, Venezuela, Amazon.

Th. dolium Hew. greatly resembles the preceding, more purple blue and duller, with an only single *dolium*. scent-spot at the cell-end-beneath lighter, the copper-red spots bordered with a more distinct white. Honduras.

Th. ceglusa Hew. (156 h) is above more extensively blue with a small, indistinct, brown scent-spot *ceglusa*. behind the cell and a small red anal spot. The under surface is very much like that of *fabulla*. Amazon.

Th. petilla Hew. (156 h) has much more extensively blackish-brown forewings which are blue only *petilla*. at the proximal margin, without a scent-spot. Hindwings lustrous greenish-blue. The under surface has a reddish or lilac tinge, the distinct, brown, submarginal, small lunular spots are on both sides bordered by white, the spots of the hindwings arranged about as in *fabulla*, but larger, the red anal spots large; on the forewing the postdiscal band is longer and more parted into small spots, the uppermost of which at the costal margin is quite isolated. Amazon.

Th. phobe Godm. & Salv. (156 h) is discernible from the preceding by the red-brown colour being *phobe*. on the hindwings much more extensive and flown together and reaching almost to the margin. Mexico, Guatemala.

Th. velina Hew. (156 i) likewise greatly resembles the preceding, but here the red-brown is still more *velina*. extensive and reaches as far as near the base of the hindwings, the ground-colour being lighter, almost whitish. Amazon.

81. Dindymus-Group.

Th. dindymus Cr. (= sphinx ♂ *Godt.*) (156 i) is allied to the *sophocles*-group by the under surface, *dindymus*. but above it is extensively brilliant blue, without a scent-spot, with a but little brownish-black apex. Beneath

very light whitish-grey with white, proximally grey-tinged, postdiscal dentate lines and grey submarginal lunae being on both sides bordered by white; the small orange anal spots are very small. Amazon, Bolivia, Peru.

stilbia. **Th. stilbia** Hew. (156 i) resembles the preceding above, but beneath it is easily discernible by the postdiscal band being composed of crescents and exhibiting at the costal margin a separate small spot, which is removed more towards the margin. Brazil (Espirito Santo).

villia. **Th. villia** Hew. (156 i) belongs likewise here, the ♀ above more greyish-brown, towards the base with a dull ultramarine-blue tinge; the under surface is also very similar, somewhat more brownish with a lilac shine; on the forewings the postdiscal band extends to the proximal margin, on the hindwings it runs a little more straight, and there is a whitish discal streak indicated; the orange spot of the tail is larger, pupilled with a black triangle. Honduras to the Amazon.

proba. **Th. proba** Godm. & Salv. (156 i) is above still more extensively and lighter blue than *dindymus*, beneath whitish, without any marking at all. From Panama.

lenitas. **Th. lenitas** Drc. (156 i) is above monotonously dull-brown, only at the proximal margin quite narrowly dusted with blue, the hindwings in the disc a little more extensively violettish-blue. Beneath light brownish-grey, marked like *dindymus*, but the orange anal spots are absent altogether. Brazil to Paraguay.

strenua. **Th. strenua** Hew. (156 i) may also be yet included here. It differs above from the similar preceding species by a somewhat more extensive and brighter blue colour; beneath the ground-colour is more red-brownish, the white, proximally dark-bordered lines are removed a little more inwardly, also the red spot between the median veins; between it and the small anal spot the ground is dusted in a bluish white. Brazil.

heloisa. **Th. heloisa** Mschr. is a species that has remained unknown, described according to a ♀: above brown, on the hindwings with a grey tinge, towards the base lustrous bluish-grey with a red anal spot. Beneath light greyish-yellow; the postdiscal white, proximally bordered by brown, on the forewings removed inwardly below the lower median vein, on the hindwings towards the proximal margin forming a W; a series of white submarginal lunular spots is on the forewings only visible between the radial veins, on the hindwings interrupted above the upper radial vein; the small red anal spots proximally bordered by white; between the lower radial veins the white submarginal lunae are double. Length of forewings: 16 mm. Paramaribo.

purissima. **Th. purissima** sp. nov. (156 k) is only half as large as *dindymus*, above in the ♀ very much like it, dull lustrous greyish-blue, distally broadly grey. Beneath quite snow-white with an extremely fine, blackish post-discal running almost the same, only less curved, more parallel to the border; the submarginal lunae the same, the tiny spot of the tail orange-red, between it and the blackish anal spot a small, grey, roundish spot. 1 ♀ from Panama (Lino) from the Coll. FASSL.

82. *Orcynia*-Group.

orcynia. **Th. orcynia** Hew. (= *anthracia* Hew., *ania* Hew.) (156 k) has a somewhat variably blue upper surface, sometimes more violet, sometimes more greenish-blue, and the larger apical half of the forewing black; at the anal angle of the hindwing an indistinct, small, red spot. Beneath likewise variable in a more grey or brown tinge with a mostly very clear white postdiscal being proximally tinged in a fine darker colour, forming inwardly a V on the forewing below the lower median vein, whereas on the hindwings it is displaced outwardly between the radial veins and forms a flat W at the anal angle; brownish submarginal lunae are on both sides dusted cloud-like in white, the broadest above the median veins; the orange anal spots very small; a white double streak at the cell-end may be present or absent. Very common and most widely distributed from Mexico to Venezuela, Colombia and Bolivia.

catharina. **Th. catharina** sp. nov. (156 k) is very closely allied to the preceding, but I take it to be decidedly a different species. It is above not quite as extensively dull violettish-blue, the apex very broad blackish-brown. Beneath the postdiscal line on the forewing is parallel to the distal margin and composed of flat lunae, in all the specimens seen of *orcynia* running nearer to the anal angle and much more linear; on the hindwings there is instead of the two white cell-end-streaks one dark one, the two orange-red anal spots are better developed. According to 2 fresh ♂♂ from Sa. Catharina from the Coll. WERNICKE.

ahola. **Th. ahola** Hew. (= *cordelia* Hew.) (156 k) is above decidedly more lustrous greenish-blue and beneath easily distinguishable from *orcynia* by the white, basal, transverse line on the hindwing. Mexico, Colombia, Venezuela.

marmoris. **Th. marmoris** Drc. does not differ above from *ahola*; beneath the forewings exhibit a double, white cell-end-streak, the postdiscal line is more undulate, and before the distal margin there are dark circular spots, surrounded by white, no crescents. Colombia.

Th. fidelia Hew. (156 k) is above magnificently radiant light turquoise-green, the apex of the forewing *fidelia*. not so extensively black, beneath scarcely different from *orecynia*. Venezuela, Bolivia.

Th. keila Hew. (= *parasia* Hew.) (157 a) resembles *orecynia* above, but it has a long oval scent-spot *keila*. in the cell, being very little conspicuous; the under surface is likewise similar, but the postdiscal on the hindwing is towards the costal margin much broader white, on both wings somewhat nearer to the margin. Nicaragua, Guatemala.

Th. humber Schs. is closely allied to the preceding, above metallic blue; the costal margin, apex *humber*. and distal margin about just as extensively black as in *fidelia*; without a scent-spot, with a small, red and black anal spot of the hindwing. Beneath light brownish-grey, marked like the preceding, but the postdiscal runs on the hindwings from the costal margin in a straight line to the lower radial, then only it is broken and forms a W at the proximal margin. Expanse of wings: 23 mm. Venezuela.

Th. thoria Hew. (152 e) likewise approximates *keila*, above more violettish-blue, on the forewings *thoria*. confined to a stripe parallel to the proximal margin; the scent-spot is double: in the cell black, behind it reddish-brown. The under surface is more reddish-brown, the cell-end-streaks are absent, on the hindwings there is often a white streak-spot in the middle of the costal margin. The ♀ is duller bluish-grey. Venezuela.

Th. bassania Hew. (157 a) entirely resembles *ahola* (156 k) above, but the red-brown anal spot is *bassania*. perhaps more strongly developed. Beneath on the darker brownish-grey ground all the transverse lines are double and consist of regular semi-bows. Mexico to Panama.

Th. gabatha Hew. (= *balius* Godm. & Salv.) (157 a) is closely allied to *keila* (156 k) and has the same *gabatha*. scent-spot, but it is considerably larger and has much longer-stretched hindwings with a large, red anal spot; the ♀ is duller and lighter blue with dark, marginal spots being partly bordered by orange-red, of the hindwings; also beneath very similar. The forehead is red. Guatemala, Brit. Honduras, Colombia.

Th. sylea Hew. (157 a) has likewise a red forehead; it is above duller blue, inclusive of the cell, as the *sylea*. scent-spot of the preceding is absent, and the shape of the wings is not so long-stretched. Beneath marked almost just the same, only the postdiscal, at the costal margin of the hindwing, is placed more towards the base and proximally tinged in red, not black. Amazon.

Th. iopas Godm. & Salv. (157 b) is placed here by the authors, but to me it seems almost to be more *iopas*. closely allied to the *galliena*-group (p. 791). Wings intensely cyanic-blue with black margins, the anal lobe with a red spot. Beneath red-brown with blackish, distally white postdiscal lines being placed very near to the border, on the hindwings broken, at the anal angle angled; the anal lobe is black, inwards with a red dot, next to it a black, white-dusted spot, and besides a black, red-bordered spot of the tail. Nicaragua.

Th. orios Godm. & Salv. (157 b) has likewise resemblances to the *keila*-group, but beneath it resem- *orios*. bles also *iopas* and *galliena* (157 f) by the postdiscal lines of the hindwings being placed very near to the border. Above blue with a broad black apex in which the rather large scent-spot is situate; the costal margin likewise rather broad brownish-grey. The anal angle somewhat produced, the tails only indicated. Beneath reddish brownish-grey. Guatemala.

83. Coelicolor-Group.

Th. coelicolor Btlr. (= *hena* Hew.) (157 b). The upper surface of the ♂ is sky-blue, with a broad black *coelicolor*. apex, in the anal lobe a small red spot. The ♀ is dull slate-blue with a lilac lustre. Beneath greyish-brown with white, straight postdiscal lines, on the forewing below the lower median vein displaced inwardly, on the hindwing near the proximal margin forming a very high W; before the border a brownish line, being proximally sharply, distally broadly and fadedly bordered by white; 2 red anal spots, white discal stripes are particularly in the ♀ well developed, or they are absent. From Nicaragua to Panama.

Th. pactya Hew. (157 b) greatly approximates the preceding; it is above more lustrous blue, beneath *pactya*. on the hindwings the postdiscal line is displaced somewhat inwardly below the lower radial vein, its dark bordering is proximally somewhat dusted in orange-red, the submarginal lunular line is much finer and bordered more by a brownish white. Ecuador, Colombia, Bolivia.

Th. peona Hew. (157 b) is above likewise similar, but it has a small dark discal spot, beneath almost *peona*. like *coelicolor*, the postdiscal running quite straight. Bolivia.

Th. cleocha Hew. (157 b) resembles the preceding above, but it also exhibits a likeness to the *cleon-* *cleocha*. group (p. 804, t. 159 d, e); the sky-blue is not so bright; the postdiscal line of the hindwing which is displaced inwardly on the hindwing below the lower radial vein like in *pactya*, is proximally bordered by black, then very broadly by orange-brown. Colombia.

endela. **Th. endela** Hew. (157 b) is above much more violetish-blue, the distal margin and apex duller blackish-brown; the under surface is browner, the postdiscal line of the hindwings not so rectilinear, but more irregularly broken, between two veins always displaced once distally, once proximally. Colombia, Venezuela.

epopea. **Th. epopea** Hew. (157 c). The upper surface is dull lustrous ultramarine-blue with a broad black apex, in the ♀ much duller. The under surface is brown, at the proximal margin of the forewing white, the lines intensely white, the proximal line about in the centre, the distal one consisting of separated, white, distally black-bordered, small spots; towards the margin a third row of small, round, white spots, on the forewing much more indistinct, the red anal spots are very large, connected by a red bridge. Ecuador, Colombia.

upupa. **Th. upupa** Drc. (157 e) is above of a purer and deeper blue than the preceding, of a broader, rounder shape of the wings, the apex of the forewing broader black; on the under surface the postdiscal of the hindwing runs more obliquely and is displaced far inwards below the lower median vein, on the hindwing it is quite irregularly broken; at the rise of the lower median vein there is another isolated, drop-shaped, white spot; the red anal spots are not connected. Costa Rica to Colombia (Rio Aguaca Valley in Coll. FASL).

epopeoides. **Th. epopeoides** Schs. is above at the proximal margin and in the basal half dull metallic blue with a broadly black apex, the hindwings finely bordered by black. On the grey under surface the postdiscal line of the forewing extends only as far as the lower median vein, on the hindwings it runs in a straight line from the costal margin to the lower median; the antemarginal line consists of fine, white, separate, small lunular spots which are distally bordered by black. Expanse of wings: 20 mm. Mexico.

picus. **Th. picus** Drc. (157 c) is somewhat larger than *upupa*, above dull violetish-blue with a white line before the fringes of the hindwing near the anal angle. Beneath it likewise greatly resembles the said species, but it is easily discernible by the very extensive white dusting at the distal margin of the hindwings which exhibit besides a small red spot at the costal angle. Brit. Guiana, Brazil (São Paulo, Sa. Catharina).

aholiba. **Th. aholiba** Hew. (= *aritides* Schs.) (157 c) is separated from the preceding species by the large brown scent-spot which the cell of the forewing exhibits within the very broad blackish-brown apical colour; only the small basal half of the proximal margin is violetish blue like the disc of the hindwing. Beneath the wings are deep purple-brown, in the distal-marginal area of the forewing lighter brown; the lines are similarly arranged as in *coelicolor*, of a bright light-blue; on the hindwings the postdiscal line is outwardly displaced between the radial veins; the red spots are connected by a bridge. Colombia, Venezuela.

alihoba. **Th. alihoba** Stgr. (157 d) from Bolivia is presumably a good species; the co-types lying before me exhibit above a somewhat dull milky blue; beneath on the hindwings the postdiscal line runs more uniformly, between it and the submarginal line there is a broad stripe of bluish-white dusting, all the lines are more pronounced.

aphaca. **Th. aphaca** Hew. (157 d) we range here owing to its very similar marking beneath. The ♂ is above violetish-blue with a roundish, brownish-grey scent-spot behind the cell-end and a narrow blackish-grey margin; the anal lobe is very much stretched forward inwardly, exhibiting a small black spot, and before its fringes for a short distance a white line. The ♀ is tinged in a very dull lilac-blue, outside broad brownish-grey. The under surface is brownish-grey, in the ♀ lighter with similarly arranged lines as in *coelicolor*, but they are broader white, the proximal submarginal line of the hindwing is removed more towards the base at the costal margin and the discal side of the W does not touch this submarginal line. Brazil (Rio Grande do Sul).

phacana. **Th. phacana** sp. nov. (157 d) is a very closely allied species. The ♀ is above light greenish-blue, broadly margined by blackish-brownish, on the hindwings analwards with 3 or 4 small blackish spots behind the whitish marginal line. Beneath almost the same colours and markings, but the two submarginal lines of the hindwings are much clearer and more remote from each other, the space between the red spot of the tail and the black spot of the anal lobe likewise exhibits an orange-red spot being beneath pupilled in black. The shape of the wings is much rounder. 2 ♀♀ from Colombia (Rio Negro and Aguaca Valley).

gaina. **Th. gaina** Hew. (157 d) is easily to be united with this group. Above dull greyish-brown, towards the base with a somewhat greyish-blue tinge. Hindwings before the black marginal line with a white line, particularly distinct towards the anal part and some small blackish spots. The under surface likewise entirely resembles that of *coelicolor* (157 b), but the space behind the proximal submarginal line is filled up by an orange-red band as far as the costal margin. The large spot of the tail situate in it exhibits a black triangular spot. Ecuador, Bolivia.

teatea. **Th. teatea** Hew. (157 d) greatly approximates the preceding; above of a delicate light-blue in the disc with a somewhat diaphanous marking beneath, which is just like in *gaina*, but the white postdiscal bands are twice or thrice as broad and the orange band is not so extensive. Colombia, Amazon.

japola. **Th. japola** Jones (157 h) is allied to *gaina*, but above dull steel-blue, distally broad greyish-black; hindwings at the anal lobe with a red spot. Beneath just like there, the white lines proximally with a broader red-brown tinge, the orange-red band of the hindwing is absent, only the 2 orange anal spots are present. Described from Castro (Paraná).

84. *Odinus*-Group.

Th. odinus *Godm. & Salv.* (157 e) is undoubtedly closely allied to *aholiba* (157 d). Above lustrous *odinus*. sky-blue, broadly margined in brownish-black with a blue submarginal line in the anal part of the hindwing. Beneath the forewings are marked as in *aholiba*, only the postdiscal line is more undulate and in the light inner-marginal area beneath the lower median vein it turns back with a distally open, obtuse angle. The hindwings are likewise alike, but more irregularly marked, the light-blue lines thicker and more luminous; at the costal angle of the hindwing there is often some red-brown dusting. Panama to Colombia

85. *Corolena*-Group.

Th. corolena *Hew.* (152 k) is above deep violet, with a broad black apex and distal margin and a *corolena*. small light-grey scent-spot in the cell. Beneath deep purple-brown, the forewings unmarked, the hindwings with the postdiscal and submarginal lines being brought very near to each other and very near to the border; the former consisting of white, proximally black, small streak-spots, the latter of dark lunae bordered on both sides by white dusting. Abdomen beneath yellowish white. Guiana.

Th. viola *sp. nov.* (157 e) is very similar, above deep purple-violet, so that the dark apex scarcely *viola*. contrasts with it, differing by a very large double scent-spot, the proximal portion at the cell-end deep blackish-brown, the distal part greenish slate-grey; in the anal lobe a large red spot. Beneath similarly greasy lustrous lilac-brownish-grey, marked just the same on the hindwings, but with a much smaller red spot of the tail and also on the forewings a postdiscal line forming an angle inward below the lower median vein in the lighter grey inner-marginal area. Abdomen beneath white. Amazon.

Th. guapila *Schs.* (157 e) differs above by a much purer metallic blue, a considerably smaller scent-spot *guapila*. the proximal part of which is small, black, the distal part being oval and brownish; in the anal lobe no red. Beneath slate-grey, on the forewings the postdiscal line extends only as far as the lower median vein, on the hindwings it is displaced more inward, otherwise of the same shape. Abdomen beneath yellowish-white. Costa Rica.

86. *Galliena*-Group.

Th. galliena *Hew.* (157 e) is above deep indigo-blue with moderately broad black margins and a red *galliena*. anal spot of the hindwing. Beneath dark red-brown, the postdiscal lines placed near the border, darker brown, with a fine, white, distal tinge, on the forewings, however, but very little; the submarginal line less distinct, darker brown; between the tails a deep red spot pupilled in black; between it and the black anal spot a white-dusted spot. Distinguished from the species of the preceding group merely by the absence of the scent-spot. Nicaragua to Brazil.

Th. nisaee *Godm. & Salv.* (154 e) is very similar, but above violetish purple-blue, beneath the sub- *nisaee*. marginal line of the hindwing has a whitish tinge analwards. Panama to Colombia and Bolivia.

Th. lophis *Drc.* (157 e) differs from *nisaee* by a more metallic, purer blue and a more broadly black *lophis*. apex of the forewing. Beneath easily recognizable by an orange-red spot at the costal base of the forewing. Expanse of wings: 35 mm. Colombia.

87. *Orcidia*-Group.

Th. orcidia *Hew.* (157 f). Above dull indigo-blue with a narrow black margin and a small red anal *orcidia*. spot, beneath light brown, the base, the proximal margin of the hindwing, and two broad postdiscal bands dark-brown. On both wings are indistinct double cell-end-streaks; the postdiscals are situate at the proximal edge of the brown bands, copper-red, on both sides bordered by black and on the hindwings distally yet by white; at the border are darker submarginal lunae and spots, at the anal angle 2 narrow red crescents. The width of the red postdiscal varies, it may also be absent altogether. Occurring from Mexico to Brazil.

Th. myrsina *Hew.* (157 f) is above just the same, beneath the basal spot is more sharply defined, the *myrsina*. postdiscal lies on the forewings outside the brown median band, on the hindwings inside, without the red bordering; on the forewing it is displaced far inward below the lower median vein. Nicaragua to Colombia.

Th. tabena *Godm. & Salv.* (157 f) looks beneath like *myrsina*, but above it is one-coloured brown. *tabena*. From Mexico and Guatemala.

Th. tarpa *Godm. & Salv.* (157 e) resembles *tabena* and is above brown like it, but it is considerably *tarpa*. smaller and has beneath a white discal line, also the distal margin of the forewing is whitish. Mexico.

Th. taminella *Schs.* is above one-coloured brown with an orange anal spot, beneath very much like *taminella*. *tabena*, the light band yellowish-white, the brown band behind it distally bordered by white, on the forewings

straight, on the hindwings on the lower radial vein broken, from here proximally bordered by black. Expanse of wings: 20 mm. Castro (Paraná).

- canacha.* **Th. canacha** *Hew.* (157 f) resembles *tabena* above, the ♂ is brown, the ♀ on the hindwings blue-tinged; beneath likewise very similar, the brown band on the forewing very narrow, easily recognizable by the double rows of small arcuate spots before the distal margin of the hindwing; the postdiscal lines are proximally tinged by an orange brownish. Venezuela, Colombia.
- arza.* **Th. arza** *Hew.* (157 f) is above likewise brown like the preceding, the ground-colour beneath, however, is yellowish-white, with which the broad brown bands and the basal area are sharply contrasting; in the hindwings the white, dark-tinged postdiscal line penetrates analwards into the brown band. Mexico to Panama.
- paralus.* **Th. paralus** *Godm. & Salv.* (157 f) greatly approximates *arza*, but it is smaller, and the ground-colour beneath more a dirty grey, the dark bands are removed more inward, more faded. Guatemala, Costa Rica.
- calatia.* **Th. calatia** *Hew.* (157 f) deviates from the preceding by its orange-yellow under surface; the white postdiscal line traverses the brown band on both wings; the distal margin remains one-coloured yellow. Guatemala, Nicaragua.
- annus.* **Th. annus** *Cr.* (157 f) we add yet to this group, though it deviates greatly. Above indigo-blue. The under surface is yellowish-white, towards the margin warming into lilac-brown; the base of both wings and a large triangular spot at the costal margin of the forewing are brown; the hindwings exhibit a double, brown discal streak, the postdiscal line is strongly broken and makes a bend inward on the forewing below the lower radial vein; small orange anal spots are merely indicated. Guiana to Brazil.
- duma.* **Th. duma** *Hew.* (157 g). We here append this quite isolated animal. Above dark-brown, with a blue tinge, beneath yellowish-white, large median spots, broad postdiscal bands, and the distal margin brown. Bogotá.

88. Maeonis-Group.

- maeonis.* **Th. maeonis** *Godm. & Salv.* (157 g) is above light-blue with a broad black apex, beneath rusty-brown and distinguished by the postdiscal being moved as far as into the middle of the wing; the lines are white, the proximal line inside, the distal one outside bordered by red-brown, at the anal angle of the hindwing by black; the anal lobe and spot of the tail black, proximally bordered by a broad red-brown, between them a black spot being inside dusted in white. Mexico, Guatemala.

89. Tema-Group.

- tema.* **Th. tema** *Hew.* (157 g). Above dark-brown, the forewing at the proximal margin and the hindwing in the disc dusted in blue. The under surface is chocolate-brown, each of the wings with 2 white transverse lines in the middle and behind it, on the forewings straight, on the hindwings broken and dentate; each wing besides with 2 indistinct, white, antemarginal lines. The hindwings have two fine tails, above them and at the anal angle the usual, small red spots. Amazon.
- paron.* **Th. paron** *Godm. & Salv.* (157 g, h) on the whole resembles the preceding, but it has only one tail and the under surface is more greenish black instead of brown. Guatemala.
- heraclides.* **Th. heraclides** *Godm. & Salv.* (157 g) greatly resembles *paron*, but above it is metallic bluish-green, with a large, dark discal spot, behind which the wings exhibit a black reflection; the shape of the wings is a little more obtuse. Costa Rica.
- sergius.* **Th. sergius** *Godm. & Salv.* is above almost the same, but the discal spot is of a radiant blue, the black distal margin broader. This species and the preceding exhibit also a resemblance to the *trochus*- and *ronos*-group (p. 756), but they greatly deviate by the tails and the scent-spots.
- dodava.* **Th. dodava** *Hew.* (157 g) we include in this group. It is above lilac with a large, black discal spot behind the cell; beneath grey with whitish discal streaks and dentate lines, in the ♂ the proximal margin of the forewing is blue. Panama.
- nora.* **Th. nora** *Jones* (157 g) is very closely allied, larger, more slender, more purple-violet, the distal margin and apex only narrowly black, the scent-spot is the same. The under surface is more blackish, the white transverse lines are more subdued, on the hindwings proximally bordered by orange, more strongly broken, above the upper median vein displaced outward, between the orange anal spot a black, white-strewn spot. Brazil (Castro; Amazon).
- aepea.* **Th. aepea** (157 g, h) is a small, above dull ultramarine-blue species with broad blackish-grey margins; the ♀ is duller and lighter blue, the hindwings almost entirely brownish-grey. Beneath light-grey, with clear

and sharp markings: 2 postdiscal lines on each wing, the proximal one tinged inside in brownish, the distal one outside, the proximal line on the forewing straight, on the hindwing dentately broken, the distal ones on both wings more crescentiform. Ecuador, Peru, Bolivia.

Th. muatta *Hew.* (157 h) may be inserted here. Above dull indigo-blue with broad blackish-grey *muatta*. margins and a fine white marginal line before the fringes of the hindwing. Beneath grey with an oblique white postdiscal line on the forewings, which makes an acute angle inward below the lower median vein and is proximally bordered by dark-grey; on the hindwings it is broken and forms a W at the proximal margin; the submarginal line consists of small brownish spots, on which we notice inside whitish crescents; 2 orange anal spots. Brazil.

Th. muattina *Schs.* differs from the preceding only by orange fringes of the forewing and an orange *muattina*. anal spot above. Castro (Paraná).

Th. aepeona *sp. nov.* (157 h). Very near to *aepea*, larger, above more lustrous blue with a narrow *aepeona*. black distal margin, only the apex is a little broader black. Beneath the forewings are marked about the same, on a lighter grey ground, on the hindwings, however, the postdiscal line begins in the middle of the costal margin and runs straight to the lower median vein, in order to form a W then; the submarginal lines are more apart from each other. Peru, Colombia.

Th. renidens *sp. nov.* (157 h) greatly approximates the preceding; it is above lustrous ultramarine- *renidens*. blue; the very broad blackish-brown apex runs in almost the same width close behind the cell as far as the lower median vein, then on the latter along to the very narrow black distal margin, its proximal bordering exhibits an intense violet lustre; the cell, on being exposed to an oblique light, is covered with indigo-blue scales. The under surface likewise resembles the preceding, the ground-colour is just a little more brownish; on the forewings the space between the submarginal lines, particularly towards the proximal margin, is filled up by orange-brownish; on the hindwings the proximal submarginal line is more irregularly broken, between the subcostal vein and the upper radial it protrudes more inwardly. Peru (Marcapata), Bolivia.

Th. mimula *sp. nov.* (157 g) differs by its smaller size and above by its plainly brown ground-colouring; *mimula*. the fringes of the hindwing at the base white, distally black, close behind there is a black marginal line being proximally bordered again by white. Beneath also very much like the preceding, pale olive-brownish grey; on the forewings the postdiscal line is situate close behind the cell and extends only to the lower median vein, the proximal submarginal line is removed far inward, the distal one being sharply separated from the white marginal line by an olive-brownish line. Hindwings marked about as in the preceding, but the distal margin, particularly within the scope of the orange spots, is extensively white. Pachitea (Peru).

90. Thespia-Group.

Th. bosora *Hew.* (157 k) forms the transition from the preceding group to this group. Above dull *bosora*. blue, the apex and distal margin of the forewings broadly brown-black, in the disc a large, brilliant, ultramarine-blue scent-spot; the marginal line of the hindwings black, proximally white; fringes likewise white, bordered by black. Beneath brown with clear, light-blue, undulate, on the hindwings broken transverse lines and discal streaks; on the forewings the postdiscal is proximally delimited below the lower median vein and runs very obliquely towards the whitish anal angle. In the anal part and at the costal angle of the hindwings there are red-brown spots. Ecuador to the Amazon.

Th. thespia *Hew.* (157) is above magnificently *Morpho*-blue with a narrow black apex, beneath pecu- *thespia*. liarly greyish-green with about the same linear markings as *bosora*, but the white discal streaks are absent; also here a red spot is situate at the costal angle. The ♀ is above dull-blue, very broadly bordered by greyish-black, beneath lighter, the red spots at the anal angle broadly flown together. Ecuador, Amazon.

Th. photismos *Drc.* (157 h) is allied to the preceding; above brilliantly bright sky-blue, with a moderately *photismos*. broad black-brown margin. Under surface greenish-grey with the same linear markings as the preceding, but without the red spot of the costal angle and with broadly flown together, red spots at the anal angle of the hindwing. Ecuador (Sarayaçu).

Th. margarita *sp. nov.* (157 i) is another similar species, above at once to be distinguished by the *margarita*. peculiarly mother-of-pearl green colour, exactly as in *margaritacea* (153 b), with a but extremely fine black marginal line and black, on the hindwings proximally white fringes. Beneath almost like *thespia*, without the costal-angular spot of the hindwing, the postdiscal line of which runs from the middle of the costal margin almost straight through to the W. Bolivia (Rio Songo).

Th. azurinus *Bth.* (157 i) we append here, although there are no closer affinities on account of the *azurinus*. similar under surface. Above blue with a red-brown, oval scent-spot and a broadly black apex; beneath greyish-green with similar linear markings as the preceding, but on the forewings only 2; they are less undulate and are, particularly on the hindwings, situate nearer to the border. Costa Rica.

91. *Critola*-Group.

critola. **Th. critola** Hew. (157 i) is an entirely isolated animal. Above lustrous ultramarine-blue with narrow black margins and a large black scent-spot. Beneath grey with brown transverse dashes, behind them on the forewings with a rusty-brown band and on the hindwings a chain of light-yellow small spots bordered distally by brown; the two small anal spots are yellow bordered above by brown. Mexico.

92. *Hesperitis*-Group.

hesperitis. **Th. hesperitis** Btlr. (= *cabiria* Hew., *perdistincta* Kaye) (157 i) is above black-brown, only on the hindwings beginning from the lower radial vein towards the proximal margin there is a blue sprinkling with a red spot in the anal lobe. Beneath brown, at the proximal margin of the forewing a little lighter; on the forewings an almost straight, darker brown, distally somewhat lighter tinged postdiscal line as far as the lower median vein, before the border an indistinct, darker line. On the hindwings the postdiscal line begins with a small spot being a little distally inclined; this line is black with a distal white tinge and, towards the proximal margin, proximally sometimes strewn with orange; the angle of the W, resting on the lower median vein does not reach so far towards the margin as the anal one; anal spot black, the spot of the tail copper-red with a black triangle in it, between both white dusting on a black ground. — In more southern specimens, = *lugubris* Mschr., the spot of the tail is more brown. Most widely distributed from Mexico to Brazil.

aruma. **Th. aruma** Hew. (157 i) looks very much like the following above, but it differs by the broader black distal margin of the hindwings. Beneath it is marked like the preceding; the red colour at the anal spots is either absent altogether or it is just as extensive as in *hesperitis*. Guiana to Brazil.

camissa. **Th. camissa** Hew. (= *vespasianus* Btlr., *chariclorus* Btlr.) (157 k) is above magnificently ultramarine-blue with a violet lustre, the apex broadly black, on the median projecting pointedly towards the base. Distal margin narrowly black, the costal area of the hindwing broadly black. The under surface olive-yellowish, lustrous; marked as in *hesperitis*, the red spot of the tail reaches as far as or almost as far as the discal side of the W. Guatemala to Peru.

simasca. **Th. simasca** sp. nov. (157 k) differs from the preceding above by the increased blue colour being situated only below the lower median vein, the inner-marginal vein remains broadly black; on the hindwings there are only towards the anal angle some violet scales. Beneath there is no difference. Colombia (Rio Negro).

gedrosia. **Th. gedrosia** Hew. (157 k) is above blackish-brown, both wings towards the base with a deep violet-blue tinge. Beneath dark-brown, marked as *hesperitis*, the black of the postdiscal line more intense, the W more uniform, distinguished by the very large, red anal spots; in the surroundings of the spot of the tail there is on both sides extensive whitish dusting. Amazon.

devia. **Th. devia** Mschr. seems to be very closely allied to the following. On the upper surface the forewings are blackish-blue, the hindwings lighter blue. The ground-colour beneath is grey-brown, the marking as in *xeneta*, the 2 red-yellow anal spots distinct. Length of forewings: 13 mm. Surinam.

xeneta. **Th. xeneta** Hew. (157 k) is above dull greenish indigo-blue, the forewings towards the margin with a bright ultramarine-blue reflection; the under surface is sooty blackish-brown, with the same markings which are distally somewhat lighter tinged and grow somewhat more purely white only with in the scope of the W; in the northern, mostly a little lighter specimens some deep red-brown becomes visible at the anal angle, disappearing entirely in the sooty-black area in more southern specimens. From Guatemala to South Brazil.

partunda. **Th. partunda** Hew. (= *origo* Godm. & Salv.) (157 k) is of a deeper, more intense blackish-brown, on the hindwings the metallic-blue spot extends close to the base. The under surface is lighter, the anal spots with a broad red margin. Panama to the Amazon.

vitruvia. **Th. vitruvia** Hew. (157 c) seems hitherto to be known typically in but one specimen. Forewings black, at the proximal margin broadly ultramarine-blue, hindwings not metallic blue, at the distal margin broadly blackish-brown like at the costal margin. Beneath like the preceding, but the spot of the tail is not red, but dark-brown. The type originates from Para. — **fortuna** Drc. is above and beneath the same, but the spot of the tail is bordered by red. Peru, Amazon. — **torqueor** Drc. is above somewhat lighter blue, this colour on the forewing reduced, beneath like *fortuna*. From Brit. Guiana. — **indigo** Drc. has above on the forewings only a narrow blue stripe at the proximal margin and is beneath coloured as *vitruvia*; this form from Brazil is considerably smaller. — **anfracta** Drc. has above one-coloured greenish-black forewings, for the rest like the type. Described from Peru.

thama. **Th. thama** Hew. (158 a) is smaller and above very lustrous metallic-blue, more greenish than *xeneta*, the costal margin of all the wings very broad, the distal margin narrowly black. Beneath somewhat lighter than the said species, about as *partunda* with bright red spots, also the W is beneath filled up with red and proximally bordered the same. Panama to Colombia.

Th. atrox *Btlr.* is above smoky-brown with a purple reflection, beneath grey-brown with a cell-end-streak and very similarly marked to *thama* (158 a), the W beneath filled up with red, but proximally not bordered by red. Guiana to the Amazon.

Th. capeta *Hew.* (158 a) we include here owing to the under surface being marked the same. Above duller blackish-brown, the hindwings exhibit in the proximal-marginal half towards the margin a large, lilac-blue spot, in the anal lobe a small red spot. Beneath exactly as *hesperitis* (157 i), only of a somewhat more lustrous, olive-yellowish tinge. Nicaragua, Colombia.

Th. netesca *sp. nov.* (158 a) greatly approximates *xeneta* (157 k), but above on both wings it is dull steel-blue, with narrow blackish-brown margins. Beneath slightly lighter blackish-brown, the postdiscal line on the hindwing more irregularly broken, the submarginal lines much nearer to the margin, the small anal spots bordered by deep red-brown. Guiana to South Peru.

Th. vesper *Drc.* (158 a) is above deep metallic blue with rather broad black margins and behind the cell of the forewing a black spot being connected with the costal margin; in some specimens the cell itself is also black. Beneath very similarly marked to *thama*, but the ground-colour is a light ashy grey; on the hindwings the postdiscal line is more angularly broken, not with such pointed angles as there; the anal spots are lighter orange. Peru and Bolivia.

Th. zurkvitzii *Schs.* may yet be appended here. Above quite brown with a red anal spot of the hindwing and a white marginal line analwards. Beneath lighter brown with a blackish marginal line; the postdiscal line on the forewing is reddish-brown, distally black, then white-bordered, beneath the lower median vein displaced inward, on the hindwings proximally brighter and broader red, running as in *hesperitis* (157 i); the submarginal lunae darker brownish, on the hindwings bordered by whitish; the anal spots large, red; also above the spot of the tail some red. Expanse of wings: 25 mm. São Paulo.

93. Centoripa-Group.

Th. centoripa *Hew.* (= *hahneli* *Stgr.*) (158 a) looks above almost like *xeneta* (157 k), but the hindwings are more extensively blue. Beneath similarly blackish-brown, but very peculiarly marked: the postdiscal line on the hindwing placed quite into the centre, beginning at the costal margin with a large black spot and containing the light discal streak in the middle of it; the W at the proximal angle distally bordered by white; the anal spots in the darkened distal margin are black. Colombia, Peru, Amazon.

94. Cecrops-Group (*Calycopis* *Scudd.*).

Th. cecrops *F.* (= *poeas* *Hbn.*, *beon* *Godt.*) (158 b) is the northern representative of a difficultly separable group of small species of which a very great number is described that are surely partly coincident as synonyms. The present species is either above quite dark-brown, or on the forewings towards the base and on the hindwings in the inner-marginal half suffused with blue, in the ♀ more intensely. The hindwings exhibit towards the proximal angle a fine black marginal line being proximally bordered by blue-white, and a small red anal spot. The under surface is light-brown, the costal base of the forewing orange; both wings exhibit fine, double, orange-red discal streaks, on the hindwings more distinct, both with broad, orange-red discal bands on the forewings almost straight as far as the lower median vein, on the hindwings straight as far as the lower radial vein, then broken and forming a W at the proximal angle, distally finely tinged in black, then white. Distally follows the subterminal formed of blackish crescents, between the lower radial and the lower median vein more intensely black, placed nearer to the postdiscal line, distally filled up with 2 orange crescents which exhibit towards the margin high black triangular spots; then follows analwards a black spot densely strewn with blue-white; the anal lobe itself is above bordered first by white, then by orange; a fine black marginal line, proximally tinged in white. Everywhere common in the Southern States, West Virginia, Kentucky and Indiana. — *beon* *Cr.* (= *isobea* *Btlr.*, *baetra* *Hew.*, *caulonia* *Hew.*, *vibulena* *Hew.*, *belleria* *Hew.*, *jeneirica* *Fldr.*) (158 b) is distributed in the whole of Central and South America to South East Brazil and mostly common. This form is above deeper blackish-brown, the hindwings in the ♂ more extensively and more metallic blue in a rather variable extent; in the ♀ the blue is mostly duller and lighter and is to be found also on the basal inner-marginal half of the forewing. The ground-colour beneath is generally darker brown, the postdiscal lines very much narrower red and much deeper, almost scarlet-red, the black filling up of the two red spots of the tail is much more reduced and does not reach as far as the marginal line, the space between them and the anal spot is not so extensive and not so blue, but more strewn with greyish-white.

Th. amplia *Hew.* (158 b) is above very similar, the blue is particularly in the ♀ somewhat more whitish, not so ultramarine-blue; beneath darker brown, on the forewings the proximal orange bordering of the postdiscal line is absent, on the hindwings the orange marginal lunae are proximally bright ochreous yellow or

straw-coloured, the one above the upper median vein is but slightly indicated, its black pupil is absent. Guatemala, Nicaragua, Colombia, Guiana.

- nortia*. **Th. nortia** *Godm. & Salv.* (158 b). Both sexes are above more extensively and more deeply blue than *beon*, in the anal lobe is a small red spot. The under surface is more grey, the postdiscal line only towards the proximal angle of the hindwing proximally bordered by red-yellow, the submarginal lines are on both sides more distinctly bordered by white. From Guatemala.
- guzanta*. **Th. guzanta** *Schs.* is above brown, with a red anal spot of the hindwing; beneath the postdiscal lines are so broadly tinged in red as in *cecrops* (158 b), particularly on the hindwings; the cell-endstreak is only a light streak, not red and double; the moonspotted submarginal line is distally tinged in red which grows more intense between the median veins and is black-pupilled. Expanse of wings: 22 mm. Mexico (Jalapa).
- geminata*. **Th. geminata** *sp. nov.* (158 b) is very much like the preceding and distinguished by very intense, double, red discal streaks beneath; the submarginal line is distally dusted in orange also on the forewings, on the hindwings very broad and forms a continuous red band from the costal angle to the anal lobe. Rio Songo (Bolivia).
- suda*. **Th. suda** *sp. nov.* (158 b) is beneath scarcely different, the tinge is a little more olive, on the forewing there is a red-yellow marginal line, also on the hindwing it is somewhat red-yellow at the ends of the veins and the base of the fringes; above the forewings are black, at the proximal margin a metallic blue stripe; the hindwings are metallic sky-blue, at the distal margin and costal margin narrowly black, before the black marginal line with narrow, black, small spots. Rio Songo (Bolivia).
- lorina*. **Th. lorina** *Hew.* (158 c). Of this pretty species only 2 ♀♀ seem to have become known hitherto. Above dark-brown, both wings towards the base sky-blue. Beneath grey with similar markings as the preceding, but on the forewing the postdiscal line is regularly undulate and running through as far as the proximal margin, making a deep bow inward below the lower median vein; there is no discal streak at all; on the hindwing the submarginal line is red-brown, on both sides bordered by white; the two red spots of the tail and the anal spot are connected by a red bridge. Probably from Venezuela.
- cyanus*. **Th. cyanus** *sp. nov.* (158 c) is above brilliant light-blue with a broad black costal and distal margin, the hindwings are quite narrowly bordered by black, only at the apex a little broader; between the tails, before the border, a black dot; beneath hardly different from *suda*, only of a somewhat lighter and more yellowish tinge. Bolivia.
- talama*. **Th. talama** *Schs.* is quite a little species which may belong here. Forewings black, hindwings of a dark-blue tinge with a white marginal line anawards. Beneath light greyish-brown with dark, distally light-bordered cellular streaks; the postdiscal line dark-brown, distally whitish, on the hindwings proximally dark-red; darker brown submarginal shades are proximally bordered by whitish; the spot of the tail red with a little black pupil close at the border, and some red above the upper median vein. Expanse of wings: 17 mm. Petropolis in South Brazil.
- hosmeri*. **Th. hosmeri** *Weeks* is very incompletely described, but it may belong here. Above black with a slate-coloured reflection. Beneath brownish slate-coloured; the postdiscal lines red, distally white; the anal spot and two spots of the tail red. Expanse of wings: 23 mm. Venezuela (Suapure).

95. Endymion-Group.

- endymion*. **Th. endymion** *Cr.* (= *tyrtacus F.*, *xenophon Don.*, *hugon Godt.*) (158 c) is easily recognizable by the orange-ochreous colouring of the upper surface, only the costal margin of the forewings is broader dark-brown, the distal margin very narrow; the black marginal line of the hindwings is towards the proximal angle proximally bordered by white. Beneath brownish-grey, in the inner-marginal area of the forewing with an orange reflection with similar, but somewhat less broken postdiscal lines than in *beon* (158 b); the submarginal line carried out on both wings is a somewhat undulate brown line turning black anawards on the hindwings and being distally tinged in a broad orange as far as the lower radial vein. Colombia.
- cyphara*. **Th. cyphara** *Hew.* (158 c) is above very similar, but the costal part of the forewings almost as far as down to the lower median vein is brown, not so sharply defined as in *endymion*, but gradually warming into the orange. Beneath, the basal part of the wings as far as the postdiscal lines is somewhat darker brownish-grey than the marginal part; the spot of the tail is higher, broader red, with a thicker black pupil, the anal spot is also thicker black, the space between both not spanned by red. From Mexico to Venezuela, nowhere common.
- denarius*. **Th. denarius** *Btlr.* (= *calena Hew.*) (158 c) is likewise not dissimilar, but the orange colour is confined to the area between the median veins of the forewing; hindwings quite brown with a small orange anal spot. Beneath almost the same as *cyphara*, only darker, the postdiscal band less bordered by orange. Mexico to Panama.
- sethon*. **Th. sethon** *Godm. & Salv.* (158 c) is closely allied to the preceding, but the orange-copper spot is absent altogether, the costal margin of the forewing is rather darkened; the under surface is more red-brown, the postdiscal line more distinctly proximally bordered by red. Mexico to Costa Rica.

Th. plusios *Godm. & Salv.* is a somewhat doubtful species which neither fits entirely to *denarius*, nor *plusios*. to *sethon* (158 c); it differs from the former by its more red-brown wings and not darkened discal area. Mexico to Panama.

Th. perisus *Drc.* (158 c) is above monotonously dull brown with a small orange anal spot of the hindwing, *perisus*. beneath much lighter brown than *denarius*, equally marked, only the postdiscal band of the forewing is parallel to the distal margin, in *denarius* somewhat obliquely placed to it. Venezuela.

Th. joya *Dogn.* (= *callao Drc.*) (158 c) is above dark copper-brown, with a brown costal margin, *joya*. apex and distal margin, on the hindwings towards the proximal margin densely yellowish-haired. Beneath dark brown-grey, in the basal part, especially of the hindwing, darker than outside; the postdiscal lines rusty brown, distally tinged light-grey, the submarginal line composed of light-grey crescents, otherwise like *cyphara*. Peru.

Th. rugatus *Drc.* (158 d) greatly approximates *denarius* and *sethon*. Above dull olive-brown, the *rugatus*. hindwing towards the proximal margin with copper-coloured hair and a small orange anal spot. Beneath uniformly light olive-brown, the postdiscal line almost straight, broad dark-orange, distally bordered by black, then sharply by white; small, submarginal, dark nebulous spots, the spot of the tail large and of a brilliant orange. Abdomen beneath white. The ♀ is above and beneath lighter. Peru.

Th. nubilum *Drc.* is closely allied to *sethon* (158 c). Above blackish-brown with a small orange anal *nubilum*. spot. Beneath greyer, the postdiscal lines narrower, straighter and nearer to the distal margin. Castro (Paraná).

Th. fernanda *Jones* is above just the same, beneath yellowish grey-brown, the postdiscal line on the *fernanda*. forewing straighter, on the hindwing less sharply angled with a distally displaced costal-marginal spot; there are no discal streaks. Expanse of wings: 29 mm. Paraná.

Th. tirrhaea *Mschlr.* is unknown to me; size of *acaciae* (Vol. I, t. 73 b), hindwings rather long-stretched; *tirrhaea*. above plainly dark-brown, beneath lighter brown; the postdiscal line on the forewing straight, dark-brown, on the hindwing more dissolved into spots, towards the proximal margin angularly broken and distally bordered by white; double, darker brown, small submarginal spots; the spot of the tail large, oval, black, proximally edged by red-yellow, distally by white, between it and the black anal spot white dusting. Length of forewings: 13,9 mm. Surinam.

96. Clarina-Group.

Th. clarina *Hew.* (158 d) is above blackish-brown, at the costal margin of the hindwing brilliant *clarina*. blue. Beneath reddish-brown, the postdiscal line is almost straightly carried through as far as the W and on the hindwing on both sides bordered by orange; the anal lobe with a small black spot, the spot of the tail orange, pupilled in black. Mexico to Panama.

Th. tamos *Godm. & Salv.* (158 d) is duller coloured, the blue which is much darker, is situate at the *tamos*. proximal margin, not at the costal margin. The under surface is very characteristic by the very much broadened postdiscal band of the hindwing, the submarginal band consists of white, distally black-bordered crescents and touches the discal side of the W on the lower median vein, it is, between the radial veins, placed nearer to the distal margin. Costa Rica, Panama.

Th. matho *Godm. & Salv.* (158 d) is not different above, beneath the white band of the hindwing is *matho*. only half as broad, the submarginal line uniformly undulate, not moonspotted. Brit. Guiana to Bolivia (Rio Songo).

Th. clarissa *sp. nov.* (158 d) we include here as the nearest ally. Above there are resemblances to *clarissa*. *tarania* (p. 810, t. 160 c, d), dull brown with a broad orange band in the anal part of the hindwing as far as beyond the lower radial vein. Beneath light-brown with white, proximally orange-bordered postdiscal lines, on the hindwings straight as far as the submedian, then in a plain, right-angled curve to the proximal margin; a broad, orange antemarginal band proximally undulately bordered by blackish. 1 ♂ from São Paulo.

97. Calus-Group.

Th. calus *Godt.* (158 d) is the only representative, distributed from Guatemala to the Amazon. Above *calus*. radiantly *Morpho*-blue with a very broad blackish-brown costal margin, apex and distal margin, the costal margin of the hindwing whitish, the distal margin narrowly black, only 1 tail. Beneath it is easily recognized by the triangular, dark-brown costal-marginal spot on the ochreous-brown ground. The ♀ is smaller, much duller, only in the disc of the hindwing light violet-blue, in the basal inner-marginal part of the forewing only somewhat tinged in light greenish bluish-grey.

98. Demonassa-Group.

Th. demonassa *Hew.* (158 d) looks above like *atrius* (158 e), beneath it reminds us of *calatia* (157 f), *demonassa*. but it has only one tail; the broad, red-brown discal bands are distally bordered by black and white lines, proximally only on the hindwing by the short cellular streak. From Mexico to the Amazon.

buphonia. **Th. buphonia** *Hew.* (158 e) is above plainly brown, beneath like the preceding, but behind the brown band of the forewing, in the anal part, there is a broad grey area, in the preceding not. Colombia, Amazon.

99. Atrius-Group.

atrius. **Th. atrius** *H.-Schäff.* (= *clitumnus Btlr.*) (158 e) has black forewings and radiantly ultramarine-blue hindwings with a black proximal margin and a very narrow distal margin increasing somewhat in width analwards. Beneath ochreous-brown with a faint silky lustre, marked about as the *hesperitis*-group (p. 794), but the postdiscal band of the hindwing is placed more towards the base at the costal margin. The ♀ is above dull blackish-brown, in the disc of the hindwing dark blue. From Guatemala to the Amazon, in the southern districts of the range common, to the north rarer.

mimas. **Th. mimas** *Godm. & Salv.* (158 e) is very similar, but the forewings are, from the cell to the proximal margin, likewise radiantly blue as the hindwings. From Panama to the Amazon, rare.

calor. **Th. calor** *Drc.* (158 e) is very closely allied to *atrius*, the forewings are dull greyish-brown, not black, also the hindwings much duller lilac-blue, at the costal margin whitish; nor is the proximal margin blackish-grey, but yellowish-white, like the abdomen. Beneath the same, only the discal bands are proximally broadly bordered by vermilion. Brazil.

petaurister. **Th. petaurister** *Drc.* differs from the preceding like *mimas* does from *atrius*, i. e. the inner-marginal part of the forewing is, as far as up to the cell, of the same dull blue as the hindwings. Brit. Guiana.

cos. **Th. cos** *Drc.* (158 e) has black, somewhat olive-tinged forewings and dark-blue hindwings being here, in contrast with the allies, broadly bordered in black at the costal, distal and proximal margin, and in the anal lobe a small red spot. Beneath like *atrius*. Guiana, Brazil.

100. Acis-Group.

acis. **Th. acis** *Drury* (= *mars F.*) (158 e) is above dark-brown, beneath very characteristic by the broad white bands of the hindwing, which meet between the median veins and are here interrupted by a large orange spot; at the base of the hindwing there are yet two tiny white spots below each other. South Florida, Antilles.

favonius. **Th. favonius** *Sm. & Abb.* (158 e) we include here owing to its external resemblance. The brown upper surface exhibits in the upper cell-end a small, oval, light scent-spot and analwards on the hindwings and between the median veins of the forewings orange spots. Beneath similarly marked as *acis*, but instead of the broad white bands there are narrow moonspot-rows. Almost the whole submarginal space is occupied by orange spots, between the spot of the tail and the anal lobe there is a long spot dusted in blue-white; the small basal spot of the hindwing may turn into a long streak. — The larva lives on oaks. Gulf-States as far as up to South Carolina.

101. Damon-Group (*Mitoura Scudd.*).

damon. **Th. damon** *Cr.* (= *gryneus Hbn.*, *damastus Godt.*, *smilacis Bsd.*, *auburniana Harr.*) (158 f) is above brown with an oval, brown-grey scent-spot in the upper cell-corner, the f. *discoidalis* *Skinner* has an ochreous-yellow to red-yellow disc of all the wings. Beneath green, at the proximal margin of the forewing reddish-brown, with white, on the hindwings very sinuously curved postdiscal lines, proximally broadly tinged in cinnamon-brown, and a short, similar basal transverse line; behind the white marginal line there are brown, small submarginal spots being dusted in greyish-white at the anal angle, between the median veins behind them an orange-yellow small spot being bordered above by black. — The larva lives on *Juniperus virginiana*. In 2 or 3 generations in the eastern United States.

102. Simaethis-Group.

simaethis. **Th. simaethis** *Drury* (= *sarita Skinner*, *lycus Hbn.*) (158 f) is above lustrous violet with a brown costal and distal margin, the anal lobe of the hindwing, being rather much drawn out, is rusty-brown. The ♀ is blackish-brown, towards the base with a bluish-grey tinge. The under surface is light green, in the inner-marginal part of the forewings grey with silvery white, transverse lines being proximally more broadly, distally more narrowly bordered by red-brown. The distal margin of the hindwing is, on the red-brown ground, densely dusted in white and exhibits before the anal angle 2 or 3 silvery spots. Most widely distributed from Texas to South Brazil, also in the Antilles.

moesites. **Th. moesites** *H.-Schäff.* is half as large as *simaethis*, above brighter dark-blue; beneath the red-brown postdiscal stripe is tinged white only on the hindwings in the inner-marginal part, and the whole distal part as far as to it is violetish-grey, towards the base cinnamon-brown, towards the costal margin silvery-blue with 3 black spots in the anal part. Cuba.

telea. **Th. telea** *Hew.* (158 f) is considerably smaller, above very similar, but the ♀ is more extensively and more purely blue. Beneath the silvery-white discal bands are reduced to small indistinct spots, only at the

anal angle distinct as a high W; also the red-brown colour of the distal margin is confined to the anal half, slightly dusted in white and decorated with increased silvery spots. Still farther distributed than the preceding, from Mexico to Paraguay.

Th. crethona Hew. (158 f) is considerably larger than *telea*, above indigo-blue with narrow black margins; *crethona*. the under surface is very similar, at the anal angle of the hindwing more extensively cherry-red, upwards bordered by the distinct, silvery W. Cuba, Jamaica.

103. *Badeta*-Group.

Th. badeta Hew. (158 f) is a species not yet sufficiently known among which there may be 2 or more *badeta*. that are closely allied. The ♂ is above dark violet-blue with a purple reflection, the costal margin and apex broader, the distal margin very narrow greyish-brown, the hindwings in 2 ♂♂ before me from the Coll. SEITZ exhibit 1 small tail. DRUCE is of the opinion that the ♂♂ are untailed and only the ♀♀ tailed; more ♂♂ seem not to be known at present. The ♀♀ are above brown, according to the original description „sometimes“ blue-tinged (= f. *melba* Hew.). 5 specimens before me are above all intensely blue, in the whole inner-marginal *melba*. half of the forewing and in the disc of the hindwing, only a sixth is quite brown, without any blue at all. Beneath bright light-green, the postdiscal blackish, distally white, extending on the forewing as far as the lower median vein, almost straight, on the hindwing angularly broken, at the anal angle forming a flat W. The anal spot black, above white, then orange-bordered, the spot of the tail thick orange-red, black-pupilled, between both another tiny orange spot, sometimes all the 3 spots are broadly connected. The marginal line in the anal half black, proximally white, otherwise together with the fringes reddish-brown. Guiana, Colombia, Brazil.

Th. carla Schs. seems to be closely allied. Above dark violet-blue with a broadly blackish-brown *carla*. apex and costal margin. Beneath brilliant green with red-brown fringes, the forewings without markings; on the hindwings the postdiscal is reddish-brown and the spot of the tail is only a small red dot; the hindwings themselves are uniformly rounded and without a tail. Expanse of wings: 19 mm. Colombia.

Th. gabina Godm. & Salv. (158 f) is above blackish-brown, at the base of the forewings and in the disc of *gabina*. the hindwings dull lilac-blue. Hindwings with short tails. Beneath green, forewings unmarked, at the proximal margin grey. Hindwings with a fine black, distally white postdiscal being more acutely undulated, not acutely angularly broken. Spot of the tail small, red, black-pupilled; anal spot black, between both another small black spot; palpi and forehead green. Mexico to the Amazon.

Th. myron Godm. & Salv. is very similar; the hindwings, being blue in the disc, have no whitish sub-*myron*. marginal line, and beneath, the anal angle is proximally bordered by red Costa Rica and Panama.

Th. oleris Drc. (158 g) differs above by brown, olive-tinged wings. On the under surface, the forewings *oleris*. are unmarked as in *gabina*, at the proximal margin grey; the hindwings exhibit a light discal streak, the postdiscal as in *gabina*, but feebler, the spot of the tail is absent altogether and at the anal angle there is a small black dot being bordered above by yellow. Palpi grey, with black hair, the terminal joint black, at the apex white; forehead brown with a small green dot between the eyes. Paraguay.

Th. lampetia Godm. & Salv. has above in the inner-marginal half of the fore- and hindwing a much *lampetia*. brighter blue. Beneath the transverse lines are blacker, the red submarginal spots proximally broadly bordered by black. Costa Rica.

Th. caespes Drc. (158 g) is allied to the preceding, above almost the same; head, collar, and costal *caespes*. base of the forewing metallic bronze-green, fringes copper-brown. Beneath dull bronze-green, marked as *lampetia*, the proximal margin of the forewing dull copper-coloured. Bolivia.

Th. aguaca sp. nov. (158 f) is above blackish-brown as *oleris*; beneath more bluish greyish-green, *aguaca*. the unmarked forewings at the proximal margin brownish-grey. Hindwings as in *oleris* with a light cell-end-streak and a very acute postdiscal being broad and distinct proximally black, distally white; at the anal angle are 3 purple-red, small spots surrounded and strewn with black, upwards bordered by light bluish; above the upper median vein and between the radial veins are at the margin yet 2 small white spots. Fringes dull bronze-green, at the anal angle white, distally black, in front of them a black, white-tinged marginal line. Forehead and palpi as in *oleris*. Colombia (Rio Aguaca Valley).

Th. crispisulcans sp. nov. (158 g) is very similar, above blackish-brown, towards the base with a *crispisul-* bluish-grey reflection. Beneath somewhat lighter, more yellowish green, the postdiscal similar, but consisting *cans*. of much more curved bows, below the lower median vein and below the lower and above the upper radial veins receding very far towards the base; on the hindwing there is a complete row of bronze-brown, small submarginal spots, running through as far as the costal margin, the spots being on both sides bordered by whitish; the spot of the tail orange, black-pupilled. Sa. Catharina. Type in the Coll. WERNICKE.

nitetis. **Th. nitetis** *Godm. & Salv.* (158 g) we append here yet, although it belongs farther in front, owing to its habitus and scheme of markings. Above brown, in the ♀ towards the base and in the disc of the hindwing dull blue. Beneath peculiarly greyish-green; the postdiscal on the forewing little distinct, but carried out as far as the proximal margin, proximally displaced below the lower median vein and on the submedian fold proximally angularly broken; on the hindwings more strongly broken with a high W at the proximal angle, inside tinged in red-yellow; at the anal angle 3 or 4 red-yellow spots, the one between the tails black-pupilled. Mexico, Colombia, Brazil.

104. *Vesulus*-Group.

vesulus. **Th. vesulus** *Cr.* (158 g) is above blackish-brown with lighter fringes being on the hindwing towards the anal angle white. Beneath of a silky lustre yellowish brownish-grey with almost the same marking as in the *cecrops*-group (p. 795); the characteristic difference is noticed in the marginal line of the hindwing being black, proximally white and at the ends of the veins regularly sending forth black small triangles inside, so that the white bordering grows undulate and the red spots assume an oval shape being rounded towards the margin. In the present species the postdiscal begins at the costal margin with an isolated, distally displaced spot; the red spots of the tail are double, black, distally pupilled in brown; the submarginal space above them almost unmarked. Guiana to the Amazon.

malta. **Th. malta** *Schs.* (158 g) is a little larger, above the same, with darker, reddish fringes; beneath browner, not lustrous, the discal streaks more distinct, distally lighter tinged; the postdiscal of the hindwing proximally more broadly bordered by red, at the costal margin rising in a line, the uppermost spot not distally displaced; the submarginal consisting of distinct, darker brown crescents; the red spots of the tail double, but the upper one only half developed, only the one between the median veins black-pupilled. Colombia, Bolivia, Peru.

anthora. **Th. anthora** *Hew.* (158 g). Above likewise brownish-black with a reddish spot in the anal lobe, beneath darker brownish-grey than the preceding, marked the same as *vesulus*, but the costal-marginal spot of the discal of the hindwing scarcely distally displaced; the submarginal of the hindwing less distinct than in *malta* the red spots of the tail double, both black-pupilled. Guiana to the Amazon.

pennatus. **Th. pennatus** *Drc.* is allied to the preceding. On the upper surface the proximal margin of the forewing is quite narrow, also the disc of the hindwing dull-lustrous indigo-blue. Beneath the ground-colour is duller, the postdiscal bands narrower, placed more inward, and on the hindwings proximally not bordered by red; there is only one red spot of the tail between the median veins and the triangular, otherwise red filling of the middle angle of the W is replaced here by black colour. The ♀ is above quite dull brown. Amazon.

cerata. **Th. cerata** *Hew.* (158 g) is easily distinguishable from the others by the dull-lustrous indigo-blue colour of the upper surface, almost without any black margin at all. Beneath the most similar to *vesulus*, still lighter and also lustrous; the submarginal space is not blank as it is there, but feebly marked, close in front of the margin the submarginal crescents are yet filled up by darker small spots. From Guatemala to the Amazon; in the north rarer than in the south. — **palumbes** *Drc.* is apparently based only on aberrative specimens which are beneath without any postdiscal bands at all. From Cayenne.

pisis. **Th. pisis** *Godm. & Salv.* (158 d) differs from *cerata* by much darker, purple-black colour above, and more ochreous-yellow colour beneath. Guatemala, Nicaragua, Panama.

pisidula. **Th. pisidula** *Drc.* (158 h) is above dark indigo-blue with indistinctly defined, narrow, black margins. Beneath darker than *pisis* and of a more olive tinge; on the hindwings there is only between the median veins a dull red spot which is very much smaller; the submarginal line is very distinctly marked on both wings. Brazil (Rio Grande, Sa. Catharina).

tanais. **Th. tanais** *Godm. & Salv.* (158 h) exactly resembles *pisidula*, but beneath there is instead of the red spot of the tail a second, bluish-grey, oval spot, ringed somewhat lighter blue, and the fine, black, marginal small triangles are more prominent. Panama, Colombia (Rio Dagua).

instita. **Th. instita** *Drc.* is above plainly dark-brown, beneath marked exactly like *pisidula*, only somewhat darker. Brazil.

puppis. **Th. puppis** *Godm. & Salv.* is above likewise deep blackish-brown, the wings shorter, the apex more pointed. Beneath marked like *pisis* and *cerata*, but the ground-colour is dirty brown, without a yellow tinge. British Guiana.

meleager. **Th. meleager** *Drc.* is perhaps only a southern local form of *pisis*; above just as purple-black, but beneath dark greenish-grey, the red spots darker and smaller, their black pupils larger and deeper black. Surinam.

cissusa. **Th. cissusa** *Hew.* (158 h) is smaller, above blackish-brown, at the costal and proximal margin of the hindwing blue with a blue-white marginal line and small blackish spots before it. Beneath like *vesulus*. Guiana, Amazon, Bolivia.

Th. trebula Hew. (158 h). Forewings above brown-black, hindwings of a brilliant blue with moderately broad black costal and distal margins. Beneath marked as *vesulus* (158 g) on a purely olive-yellow, lustrous ground. From Mexico to Colombia and the Amazon.

Th. orcilla Hew. (158 h). The ♂ is above brown, the ♀ at the proximal margin of the forewing, and on the hindwing of a brilliant azure colour, in the anal direction with a bluish-white subterminal line and small black spots before it. (HEWITSON mixed up the sexes!) On the underside the colour is lustrous light reddish-brown, marked as *vesulus*, but the postdiscal bands are proximally broader orange-red. Ecuador, Colombia, Bolivia.

Th. gizela Hew. (158 i) is above indigo-black, like *pisidula* (158 h), beneath reddish grey-brown with a brown cell-end streak and markings, as in *orcilla*, likewise with postdiscal bands broadly bordered with red. Bolivia.

Th. panamensis sp. nov. (158 i) is the most similar to *pisidula* (158 h), but it is above of a light greenish steel-blue, with a strong lustre, black margins of the same extent as in *pisidula*; the ♀ is of a duller grey-blue. Beneath more purely grey, with a slight lustre, the linear marking stronger, particularly the white bordering more pronounced, the submarginal lunae more distinct, the red spot of the tail very large, so is the light-blue spot beside it. Panama.

Th. pupilla sp. nov. (158 i) is above black-brown, towards the base with a slight blue-grey tint, on the hindwing with a large red anal spot being bordered at first by black, then by white; beneath brown-grey, the lines like in the preceding, but finer; the submarginal lunae almost extinct, from the upper median vein to the proximal margin distinct as an entirely straight black line being removed far inward and touching the dents of the postdiscal band. The red spot of the tail and the anal spot extremely large, connected by a broad red bridge, the black pupil of the spot of the tail very small, strigiform. Guiana to Colombia and Bolivia.

Th. gentilla Schs. is above dull grey-blue, not metallic, with a fine black distal margin. Beneath light grey-brown, marked like *pisidula*, but with whitish cell-end streaks; the W is filled up with black towards the border, both the anal spots connected by a red bridge, the spot of the tail very large black, containing only a small red crescent, the anal spot quite black. Expanse of wings: 20 mm. Petropolis in South Brazil.

Th. aprica Mschr. may probably belong hereto. The black-brown forewings are of a violet-blue gloss along the proximal margin, the hindwings in the disc; at the anal angle there is a red spot. Beneath dark yellowish-grey, the markings as usually; the postdiscal band of the hindwing proximally black, distally white, without any orange-red; the submarginal band is a whitish dentate line being dark towards the border; between the median veins a large red spot with a black pupil; the grey spot before the anal angle is bordered towards the base by an arcuate red spot, the lower filling of the middle sides of the W being black. Paramaribo.

105. Teuceria-Group.

Th. teuceria Hew. (158 i). Above dark-brown, at the anal angle of the hindwing a white subterminal line and two minute white spots. Beneath grey, towards the border somewhat browner; the postdiscal band composed of white small spots being proximally bordered with brown, like the submarginal bands. At the costal and anal angles of the hindwing broad carmine spots. Amazon.

Th. milto Godm. & Salv. (158 i) is similar, but above tinted blue, the hindwings dusted with blue. Beneath the postdiscal band is placed much nearer to the border, while on the forewing it is more indistinct. Panama.

Th. tegula Hew. (158 i) is more grey-brown than *teuceria* and exhibits a quite uncommonly large, dark brown scent-spot in the cell. Beneath very much like *teuceria*, recognizable by a small white spot in the middle of the costal margin of the hindwing. Amazon.

Th. casmilla Hew. (158 i, k) has the same enormous scent-spot as the preceding, being continued for some distance behind the cell, on the forewing with an indigo-blue tint, and the hindwing in the proximal-marginal half strewn with a dull blue, so that the veins, a cell-end streak and small submarginal spots remain black. Beneath light olive-brown, with very much duller markings, the white having almost disappeared; between the two submarginal bands there is some light blue dusting. Brazil (Rio Grande, Sa. Catharina).

106. Ledaea-Group.

Th. ledaea Hew. (158 l) is above dark-brown, in the proximal half of the forewing and on the hindwing except the costal margin and apex grey-blue; the anal spot being bordered with white and two small spots of the tail black-brown. Beneath yellowish-brown with similarly shaped postdiscal bands as in the *vesulus*-group, at the anal angle extensively orange-yellow, the anal spot and the spot on the tail black, the space between brown, dusted with white. Amazon.

caesaries. **Th. caesaries** *Drc.* (158 l) is smaller, above indigo-blue with a broad black apex; beneath more steel-grey, the yellow anal area more extensive, the postdiscal bands removed more inward, proximally and in the angle of the W also distally bordered with orange-reddish; a double cell-streak. This species is undoubtedly only a modification of the *vesulus*-group. British Guiana, Colombia.

107. Mantica-Group.

mantica. **Th. mantica** *Drc.* (158 l) is an isolated species. Above dark brown, at the proximal margin, and in the disc of the hindwing dull grey-blue with a large oval, dull black scent-spot in the cell, bordered with a silky grey; anal lobe spotted orange-red. The ♀ is above much less blue. Beneath light brown, the postdiscal band composed of small separate black spots being distally white, the second of the topmost spots of the hindwing removed far inward; a submarginal broad red band. Brazil (Chapada Campo).

108. Celmus-Group.

celmus. **Th. celmus** *Cr.* (= *echion* var. *Godt.*, *pereza* *Bltr.*) (158 l) is a small delicate species, above with a violet lustrous light blue, with a broad brownish-grey costal margin, apex and distal margin, on the hindwings only very narrowly bordered with white fringes and a white marginal line at the anal angle. Beneath white, the postdiscal band orange brownish, distally bordered with brown, on the forewing coherent, on the hindwing broken up into 5 spots; at the base of the costal margin another 6th spot. The submarginal band is composed of brown crescentiform streaks, being on the forewing more coherent than on the hindwing, here at the anal angle with a small yellow spot, between the median veins a somewhat larger black-pupilled spot. The ♀ is above of a plain brown colour. Distributed from Mexico as far as South Brazil.

lollia. **Th. lollia** *Godm. & Salv.* (158 l) is above deep violetish blue, with a somewhat more narrowly black apex and costal margin, beneath more grey-white, whereby the submarginal band is proximally bordered with a brighter white, the markings otherwise very similar except the absence of the basal spot on the hindwing. Mexico to Costa Rica.

seudiga. **Th.seudiga** *Hew.* (158 l) differs by a still narrower black apex and distal margin, of the costal margin only the base is black, the other part of it like the wing deep ultramarine. The under surface is of a still darker ashy grey, at the cell-end a black fine streak-spot, otherwise marked as *lollia*, the discal bands and spots, however, of a deeper copper-red. Brazil, Bolivia.

jambe. **Th. jambe** *Godm. & Salv.* (158 l) has above a much broader black-brown apex and costal margin than the preceding, something like in *celmus*, so that the cell grows dark, too. Beneath marked and coloured like *seudiga*; the dark submarginal area grows broader, so that two undulate white lunular lines become more prominent on each side of it.

lucagus. **Th. lucagus** *Godm. & Salv.* (158 l) is likewise similar, above more extensively blue as far as the costal margin. Beneath the ground-colour is somewhat more brownish, the dark submarginal band is situate nearer to the border, the red anal spots greatly reduced. Mexico.

asa. **Th. asa** *Hew.* (158 k) is above of the same blue as *celmus* (158 k), but in the whole distal half of the forewing black-brown, in the centre of a darker lustre and with a dark brown scent-spot in the middle of the cell; beneath like *jambe*, the proximal white submarginal series of lunae on the hindwing above the upper and beneath the lower radial vein protruding far inward. Amazon, Colombia.

carnica. **Th. carnica** *Hew.* (158 k) is beneath coloured and marked like *asa*, the proximal submarginal band, however, runs much more regularly. Above deep violet-blue with very narrow black margins. The diminutive animal is smaller on the whole, only northern specimens are somewhat larger and have broader wings. Mexico to the Amazon.

emendatus. **Th. emendatus** *Drc.* (158 k) is allied to the preceding, above lighter and more brilliant blue, the apex of the forewing broader and more uniformly black, the costal margin and apex of the hindwing, however, narrower than in *carnica*. Beneath like *carnica*, but the white submarginal lunae are more prominent. Bolivia.

calchinia. **Th. calchinia** *Hew.* (158 k). Above blue with a broad black-brown apex and costal margin of the forewing. Beneath whitish, similarly marked as the preceding, with fine cell-end streaks and on the hindwing a somewhat more coherent postdiscal band; the submarginal bands are composed of dull grey-brown lunular lines; at the anal angle 2 minute orange-yellow spots. Amazon.

hyccara. **Th. hyccara** *Hew.* (158 k) is above very similar, at the anal angle of the hindwing the minute black spots of *calchinia* are absent. Beneath light grey-brownish; on the forewings the postdiscal band which runs straight and equally broad to the proximal margin, is distally bordered with white, while in *calchinia* it is bent somewhat outward and behind the cell broader than at the costal margin. The ♀ is above brown. Amazon.

uzza. **Th. uzza** *Hew.* (158 k) is above lighter blue, beneath distinguishable by 2 or 3 small basal brown punctiform spots on the hindwings, and extensive red-brownish, small submarginal spots being distally bordered with white. Brazil.

Th. dicaea Hew. (= *farmina* Schs.) (159 b) is above more extensively blue than the preceding, the *dicaea*. costal margin remains blue. Beneath darker grey without the cell-end streaks; the postdiscal bands dark red, distally bordered with black, then with black, on the hindwings broken up into spots, between the radial veins removed outward. Brazil (Paraná).

Th. dicina sp. nov. (159 b) differs above by the deep violet colour and a square black scent-spot in *dicina*. the cell-end, the apex and distal margin narrowly black-brown. Beneath like *dicaea*, but with a much darker, almost blackish-grey ground-colour; both wings exhibit white cell-streaks being on both sides bordered with black. Colombia.

109. Celida-Group.

Th. celida Luc. (159 b) is above opalescent sky-blue, the broad apex and a fine marginal line on the *celida*. hindwing black-brown, a rather large scent-spot behind the cell black. Beneath brownish-grey with fine irregularly undulate transverse lines behind the middle, on the hindwings also before the middle, and with fine discal streaks; before the border a fine lunular line, between the tails an orange spot, the anal-angular spot black, strewn with blue. Cuba.

Th. tera Hew. (159 b) is closely allied, with broader wings, above more violet; the under surface is *tera*. white, the lines similar, but the basal one is absent on the hindwing, the postdiscal band is proximally bordered with reddish-yellow, the discal streaks are double, at the anal angle there is another small orange spot. Panama, Colombia, Peru.

Th. celona Hew. (159 b) is much smaller, of a more radiant blue and more narrowly bordered with *celona*. black, so that the black scent-spot stands out isolated in the blue area. Beneath very much like *tera*, the post-discal band more coherent. Brazil.

Th. chilica Schs., being unknown to me, is described as follows: forewing blackish, cell and inner-*chilica*. marginal area metallic blue with a large black round scent-spot behind the cell; hindwing metallic blue, costal margin and proximal margin grey, analwards a white marginal line. Beneath whitish with dark cell-streaks, the postdiscal band undulate, red-brown, on the hindwing broken up into spots, distally bordered with black, and with a distinct W towards the proximal margin; small subterminal brown lunae are interrupted between the tails by an ochreous-yellow spot pupilled in black. Expanse of wings: 19 mm. Castro (Paraná).

110. Aida-Group.

Th. alda Hew. (159 b). Upper surface violettish-blue, with a small round dark brown scent-spot *alda*. behind the cell and a broad black-brown costal and distal margin. Beneath light reddish-brown with fine cell-end streaks; the postdiscal band similar as in the *celmus*-group, but coherent also on the hindwings, here also with some small basal spots, the one at the costal margin being the largest; the ♀ is above brown. Amazon.

Th. hesychia Godm. & Salv. (159 c) is allied, above of a purer violet, beneath without the basal spots *hesychia*. of the hindwing. Costa Rica.

Th. hicetas Godm. & Salv. (159 c) is above much darker purple violet, the scent-spot deep velvety *hicetas*. black. Beneath dark brown-grey, on the forewing in the middle of the cell with a dark brown transverse streak, at the cell-end a double streak filled up with whitish; the hindwing exhibits 3 dark basal spots; distal margin with whitish and dark clouds. Mexico.

Th. pactus Godm. & Salv. (159 c) greatly resembles *hicetas*, the wings are more purple, beneath the *pactus*. discal lines much broader, scarcely bordered with brown; towards the border there are more intense whitish and dark clouds.

111. Phrutus-Group.

Th. phrutus Hbn. (= *fidentia* Hew.) (159 c). Forewing brown with a large darker scent-spot; in the *phrutus*. ♂ in the larger, proximal half of the hindwing blue, metallic, in the ♀ the whole hindwing and an inner-marginal stripe of the forewing is duller and more whitish lilac-blue with 2 small black spots at the anal angle; beneath variable, brown, in the distal third whitish, particularly on the hindwing strewn over with carmine, with 2 dentate red lines and a similar cell-streak. Guiana, Amazon, South Peru.

Th. inoa G. & S. (159 c) is similar, but above almost white, and beneath the red clouding of *ino*. the border is absent. Mexico.

Th. zilda Hew. (159 c) is above like *phrutus*, the blue lighter and more reduced. Beneath the hind-*zilda*. wings are more extensively whitish and the 2 red dentate lines combined into a middle line; the red strewing of the marginal area is absent. Panama, Costa Rica, Colombia, Brazil.

Th. cruenta Gosse is larger than *phrutus*, above very similar, the hindwings more violet in the *cruenta*. disc; fringes brown; the underside is much lighter brown, the red strewing of the margin not so intense, the marking otherwise almost the same. Brazil.

vena. **Th. vena** *Drc.* (159 d) differs from the preceding by orange-red fringes, beneath by a straighter post-discal band of the forewing. North West Peru.

sanguinalis. **Th. sanguinalis** *Burm.* is above quite grey-brown, similar to the following, without any tails with a slightly extended anal angle of the hindwing and whitish-dotted fringes; the under surface is whitish, with brown clouds and with small spots and bands of carmine. Argentina, Paraguay.

gamma. **Th. gamma** *Druce* (159 d) is similarly dull grey-brown, at the proximal margin of the forewing and in the larger proximal half of the hindwing dull grey-blue with orange-red fringes. Beneath brown, in the marginal area of the forewing whitish, strewn with carmine, with a white discal streak; the hindwings exhibit a white median band and at the costal base a small spot bordered with red, in the shape of a γ ; marginal half likewise strewn with red. Argentina.

megacles. **Th. megacles** *Cr.* (= *adria Hew.*) (159 d). Above black-brown with a small darker scent-spot; the proximal margin of the hindwing is white, so is a marginal line before the anal region. In the ♀ the proximal margin of the forewing and the whole hindwing are of a pure white, the marking beneath showing slightly through. Beneath white, the forewing in the middle clouded brown-grey, with carmine markings like in *zilda* (159 c), but besides with 4 red, small basal spots on the hindwing. Venezuela, Surinam, Amazon.

coronta. **Th. coronta** *Hew.* (159 d) is a very much larger species. Above black-brown with a large black scent-spot in the cell, white at the proximal margin of the forewing and in the disc of the hindwing there is a dull blue. Beneath brownish-grey, at the basal half darker, at the costal angle of the hindwing whitish. Both wings exhibit red discal streaks, behind them a band of interrupted, small red spots, distally bordered with white, on the hindwing besides with 5 or 6 small red basal spots; small brown submarginal spots are on both sides bordered with white; anal spots orange. Mexico to Guiana.

maevia. **Th. maevia** *Godm. & Salv.* (159 c) is very similar, much smaller, of a duller bluish-grey, the abdomen above reddish-yellow. Beneath dark grey, uniformly strewn with a light grey, otherwise almost the same markings. Mexico to Costa Rica.

112. Una-Group.

una. **Th. una** *Hew.* (= *lenis Capr.*) (159 d). Above grey-brown, in the ♂ with a narrow bluish inner-marginal stripe of the forewing and a white inner-marginal half of the hindwing, with a white marginal line and a black spot at the anal angle, the forewings exhibit an indistinctly darker cell-spot, the ♀ is on the forewing more extensively bluish as far as up to the cell or even into it; hindwing all white with a brownish-grey costal margin and small black spots in front of the anal margin. Beneath white, the scheme of markings similar to *hictas* (159 c), but the small spots are composed of brown double streaks which are mostly filled up with some brownish. Brazil, Colombia, Venezuela.

furcifer. **Th. furcifer** *Drc.* is closely allied and above just the same, on the hindwings only coloured somewhat more greyish-blue. Beneath light grey, with bands and spots bordered with white and arranged like in *una*, which, however, are but slightly darker than the ground. The small, red-yellow anal spots are absent altogether. Espiritu Santo.

scopas. **Th. scopas** *Godm. & Salv.* (159 d). Above coloured like *una*, beneath chalky-white with irregular, light orange macular bands, being doubly bordered with black like in *una*. The distal margin and submarginal lunae darker brownish-grey, the two anal spots rather large, red-yellow, with black pupils. Mexico, Nicaragua.

113. Cleon-Group.

cleon. **Th. cleon** *F.* (= *cebatana Hew.*) (159 d). Forewing above dark brown, in the basal half of the proximal margin light violet-blue like the hindwing, with white hair on the proximal margin. Beneath light brown, in the basal area mostly intensely darkened and clouded in grey; both wings exhibit dark cell-end streaks distally bordered by a light tinge. Postdiscal bands broad, dark red-brown, on both sides bordered with blackish, behind it bordered with whitish, projecting below the costal margin on the hindwing, receding in the angle of the lower radial vein and distally mostly with intensely brown-grey clouds. The orange-red anal spots distinct, between them a spot strewn with white. The underside is rather variable in the colour and width of the postdiscal bands. Trinidad, Amazon, Brazil.

picentia. **Th. picentia** *Hew.* (= *rufifer Drc.*) (159 c) is above unicolorously brown with a reddish spot in the anal lobe. Beneath very much like *cleon*, the ♂ likewise darkened in the basal part, particularly on the hindwing. The postdiscal band of the hindwing is particularly in the ♀ very broad, in the ♂ narrower and distally clouded much more intensely, almost in a blackish brown; the submarginal markings are the same. In the ♂ the hindhead and forehead, as well as the extreme costal base of the forewing are red. The type came from Tapajos, the ♂ having been denoted as *rufifer* in case of specific difference originates from Bogotá, before me there is a couple from the Museu Paulista.

socia. **Th. socia** *Hew.* (159 c) is larger than *cleon*, above coloured the same, but besides with a small grey scent-spot at the cell-end. Beneath similarly marked as in the preceding, the postdiscal band of the hindwing projecting almost quadrangularly between the upper radial veins; the marginal area is profusely strewn with whitish, at the costal angle there is a small red spot. Brazil.

madie. **Th. madie** *Weeks* is said to resemble *cleon* (159 d); above the same, only more mouse-coloured, instead of dark brown. Beneath light mouse-coloured, likewise with a lighter marginal area and similar post-

discal bands, running rectilinearly on the hindwing from the costal margin to the lower median vein. Expanse of wings: 27 mm. Described from Venezuela (Suapure).

Th. mathewi Hew. (159 e) does not differ above from *cleon*, while the ground-colour beneath is lighter, *mathewi*. less clouded towards the margin, the postdiscal bands being much finer and more regular. Mexico to Panama.

Th. verbenaca Drc. (159 e) is above darker and more extensively blue, inclusive of the cell of *verbenaca*. the forewing, with a black spot behind it; anal lobe orange. Beneath dull lustrous greenish-grey, the postdiscal band on the forewing only little visible and on the hindwing very fine and narrow, only analwards proximally with some reddish scales, beginning at the costal margin with a distally removed spot; the red anal spots very large. Brazil.

Th. sesara Godm. & Salv. is allied to *mathewi* (159 e) and has the same markings beneath, but above it *sesara*. is entirely brownish-black, not blue, the hindwing with 3 dark submarginal spots at the anal angle. Colombia.

Th. normahal Schs. (159 e) likewise differs little from *mathewi*; above the forewings are quite *normahal*. brown, only at the proximal margin with some lilac-white hairs, the hindwings being haired lilac-white only in the proximal halves; in front of the black marginal line there is a lilac-white line. On the under surface the postdiscal band on the forewing extends only to the lower median vein and is not distally bordered by white. Expanse of wings: 21 mm. Peru.

Th. chonida Hew. (159 e) differs above by its dull grey-brown colour being more blue-grey in the inner *chonida*. space, and a very large black discal spot, the hindwing being white in the anal half, with small, black ante-marginal spots, the spot between the tails and the anal lobe being bordered with orange. Beneath lighter than *mathewi*, the postdiscal band on the hindwing straighter and not so much curved to the proximal margin. Mexico.

Th. leda Edw. is above black-brown, the forewing in the basal half of the proximal margin and the *leda*. hindwing at the apex blue-grey; at the anal angle two black-brown spots, and in the middle of the forewing a black discal spot; beneath grey, similarly marked as *mathewi*, the postdiscal bands proximally bordered with red-yellow, distally with white, on the hindwings more strongly undulate; the submarginal band dark, on both sides bordered with white, with two red-yellow, black-pupilled anal spots. Arizona, Mexico.

Th. clytie Edw. (159 e) is above whitish lilac-blue with a broad black apex and small black anal spots *clytie*. of the hindwing; beneath white, marked very much like *leda*, but the lines much finer and feebler, without any orange. Texas, Arizona.

Th. ines Edw. (159 e) greatly resembles *clytie*, but it is smaller, the forewing somewhat more *ines*. extensively blue, the hindwing with a blackish costal region, beneath slate-coloured with more numerous transverse lines and small orange anal spots, and a darker median shade of the hindwing. Arizona.

Th. avalona Wright (159 f) seems to be allied to *ines*; above brown-grey, towards the base a little *avalona*. more bluish, small dark marginal spots on the hindwing are proximally bordered with a lighter tinge. Beneath more of the colour of a grey horse with a very indistinct marking. California.

Th. cinniana Hew. (159 f). Forewing black-brown, hindwing dull blue, in the ♂ with a dark costal *cinniana*. area; at the anal angle two small black spots. Beneath light brownish-grey, the postdiscal bands proximally broadly bordered with red, the spots of the tails double like in the *vesulus*-group (p. 800), connected with the red anal spot by a red bridge proximally to the white-dusted spot. Amazon.

Th. plumans Drc. may be only a local race of the preceding, the blue having almost disappeared *plumans*. above and being noticeable only at the anal margin of the hindwing. Brazil (Chapada Campo).

114. Azia-Group.

Th. azia Hew. (= *nipona* Hew.) (159 f) and its allies are characterized by having only 1 little tail *azia*. at the lower median vein and by a dark seent-spot in the cell of the forewing. Above brown, at the proximal margin of the hindwing in the ♀ narrowly bluish-white with dark, small marginal spots in the anal part. Beneath light grey, marked very much like *dicaea* (159 b) the fine orange-red postdiscal band of the hindwing projecting distally at the costal margin and between the radial veins. The 2 red anal spots are large. Mexico to Brazil and Paraguay.

Th. centuncula sp. nov. (159 f) is somewhat smaller, above the same; beneath the ground-colour *centuncula*. is of a carmine or lilac tinge, the postdiscal band is much finer, carmine, on the hindwing broken up into spots and much more strongly interrupted, projecting the farthest towards the base between the median veins and below the subcostal vein, the farthest towards the margin between the lower radials; the sharply defined, brown-grey submarginal lunae almost form right angles and are on both sides bordered by lilac-white; the marginal line is scarlet on both wings, the fringes white, on the forewings somewhat brownish. The small anal spots are reduced, the spot of the tail is only a minute red dot. Forehead, hindhead, and costal base of the forewing brownish-red. 1 ♀ from São Paulo.

Th. volumen Drc. is above uniformly dull brown with a small red spot in the anal lobe, beneath *volumen*. coloured and marked as *picentia* (159 e), but it has only one small tail. Brazil (Rio; Chapada Campo). Expanse of wings: 18 mm.

vidulus. **Th. vidulus** *Drc.* The forewings are above dull black, the hindwings light blue, warming towards the base into black like at the costal margin and apex. Beneath like *cinniana* (159 f), but the ground-colour is darker and the red band of the hindwing much broader, in front of it two parallel red discal streaks. Expanse of wings: 34 mm, thus very large. Ecuador.

rufofusca. **Th. rufofusca** *Hew.* (= *lucaris* *Weeks*) (159 f) is above brown, in the ♂ with an indistinct, large, dark discal spot; before the anal margin of the hindwing a black line being proximally white, before it 3 or 4 small black spots, 2 or 3 of which are inwardly spotted orange. Beneath light grey, marked very much like *azia*, but the postdiscal band has regular orange demi-arcs; the anal spots are minute, orange. Mexico to Brazil, also in the West Indies.

115. Badaca-Group.

badaca. **Th. badaca** *Hew.* (= *collucia* *Hew.*) (159 f) is above black-brown, in the ♀ towards the base tinted grey-blue. Beneath reddish brown-grey, the postdiscal bands brown, particularly on the hindwings bordered proximally with red, distally with white; the dark, undulate submarginal band is on both sides bordered with a light colour, between it and the postdiscal band on the hindwing dark clouds; the two red anal spots are large. Panama, Brazil, Colombia.

ceromia. **Th. ceromia** *Hew.* (= *suada* *Hew.*) (159 g) is above the same, beneath more red-brown, the postdiscal bands are proximally not bordered with red or orange, the dark clouds beyond them are absent on the hindwing. Amazon, Bolivia.

opacitas. **Th. opacitas** *Drc.* is closely allied to *ceromia*, above in the disc with a slight copper lustre; beneath the same, but the black anal spots are more prominent, and the postdiscal band is proximally somewhat orange. Forehead, collar, and costal base of the forewing copper-red. Mexico.

canus. **Th. canus** *Drc.* (159 g) has above in the disc a still more pronounced copper lustre; beneath lighter, with a more olive tinge, the postdiscal band of the hindwing broader light orange, the red spot of the tail smaller and crescentiform; easily distinguishable from the preceding species with black palpi by the palpi being almost entirely white. Mexico to the Amazon.

nubes. **Th. nubes** *Drc.* is smaller, the shape of the hindwing not so long-stretched, shorter and rounder; the ground-colour is above blacker, in the disc with a coppery lustre, beneath more olive, the postdiscal bands placed nearer to the margin. Trinidad.

sangala. **Th. sangala** *Hew.* (= *autoclea* *Hew.*) (159 g). Above like *ceromia*, in both sexes brown, beneath brown, the postdiscal bands of a bright orange-red, distally bordered sharply with white, particularly broad in the ♀, at the costal margin of the forewing with a spot being distally removed and bordered also proximally with brown and then somewhat with whitish; the anal spots are large, of a bright red, the submarginal spots rusty-brownish, towards the costal angle sometimes orange, distinctly bordered with grey-white on both sides. Nicaragua, Venezuela to Bolivia.

politus. **Th. politus** *Drc.* (159 g) is above coloured like *sangala*, but the ♀ dull lavender-blue on the hindwings and narrowly also at the proximal margin of the forewing. Beneath like *sangala*, but the red spot of the tail is removed nearer to the distal margin. Widely distributed in Guatemala, Guiana, Colombia, Amazon, Trinidad.

syllis. **Th. syllis** *G. & S.* (159 g) is closely allied to *ceromia*, but the hindwings are above scaled in blue, and beneath the postdiscal band is broadly bordered with red; the red spot of the tail is proximally bordered with an ochreous yellow, extended as far as the anal angle. Mexico, Guatemala, Nicaragua, Colombia, Amazon.

amphrade. **Th. amphrade** *Schs.* (159 g) of which only the ♀ is known hitherto looks above like *politus*, only darker slate-blue, on the forewing as far as up to the cell; beneath the postdiscal band is proximally dark brown, not orange, on the forewing very indistinct, on the hindwing it runs from the costal margin straight to the lower radial; the spot on the tail and the anal spot are very indistinct reddish. Costa Rica.

116. Melinus-Group. (*Uranotes* *Scudd.*)

melinus. **Th. melinus** *Hbn.* (= *hyperici* *Bsd.*, *favonius* *Bsd.*, *humuli* *Harris*, *pan* *Harris*, *silenus* *Dbl.*, *pu dica* *Edw.*) (159 g). Above brown, the hindwing at the anal angle with a double, blue-white marginal line, between, beginning from the median veins, with small black veins, the uppermost proximally orange-red, like the anal lobe. Beneath light grey, the postdiscal band shaped very much like in *malhewi* (159 e), but finer and at the anal angle with two large orange spots. North America to Venezuela. — *sabinus* *Fldr.* is probably only the southern form of the preceding, with more extensive and more intensely red anal spots beneath, touching the postdiscal band; the species, however, is on the whole very variable. From Colombia and Brazil.

valentina. **Th. valentina** *Berg* differs from *melinus* by more irregular rusty-brown postdiscal bands being on the hindwing interrupted in some places, beginning much farther distally at the costal margin, and by a red-brown, not black marginal line; on the hindwing there are two very distinct rows of white submarginal lunae. From Argentina.

Th. promissa *Mschlr.* seems to me to belong here. Above brown, at the proximal margin of the forewing and on the hindwing, except the costal part, whitish grey, between the median veins and at the anal angle with orange spots; beneath marked like *valentina*, the ground-colour is described to be yellowish white-grey, the postdiscal band is proximally not bordered with orange. Paramaribo.

117. Bebrycia-Group.

Th. bebrycia *Hew.* (159 h) is above blackish-brown, with a large black cell-spot, on the hindwing with a black spot of the tail, being bordered with orange. Beneath grey-brown, on the hindwing with a lilac shine, the postdiscal band black-brown, proximally bordered with red, distally with a pure white; on the hindwing the costal-marginal spot and the spots between the radial veins are projecting farther towards the margin. Mexico, Guatemala.

Th. serapio *Godm. & Salv.* (159 g, h) differs by the violet-blue colour along the proximal margin of the forewing and in the inner-marginal half and along the distal margin of the hindwing; beneath the postdiscal band is in the middle jet-black, proximally red-brown, distally white. Mexico, Panama.

Th. azuba *Hew.* (159 h). Above grey-brown, on the forewing with a large black discal spot, the hindwing in the larger proximal half dull violet-blue with a black spot between the median veins. Beneath like *serapio*, but the postdiscal band on the hindwing is more broken up into spots and of a lighter orange. Brazil (Rio Grande, São Paulo).

Th. tella *Schs.* probably belongs here; above black-brown, the hindwing below the lower median vein dusted with blue. Beneath brown-grey, the postdiscal band reddish brown, distally white, on the forewing as far as the lower median vein, then removed more inward, on the hindwing irregularly broken; before the border there are large submarginal brown spots, being partly surrounded by black; at the anal angle a small black spot. Novo Friburgo.

Th. lemnos *Drc.* is closely allied to *serapio* (159 g, h); on the hindwing the blue is more extensive, so that the whole cell is blue; beneath the postmedian bands are more irregular and finer, more like lines. Inner Colombia.

Th. echinita *Schs.* is above dull blue-grey, the apex of the forewing and the distal margin blackish, on the hindwing towards the anal region a white line, in front of which there are triangular black spots. Beneath grey, the postdiscal band red-brown, distally white, below the lower median vein proximally angled, on the hindwing irregular; small submarginal lunular spots, distally dusted with a reddish brown, the most densely between the median veins and here pupilled black. Mexico.

Th. thenca *Mschlr.* (160 d) may yet be placed here. Above brown with a greyish tinge, the marginal line dark brown, on the hindwing analwards bordered with white. Beneath light grey-brownish; the postdiscal band is dark brown, distally white, on the forewing undulate, removed somewhat more towards the margin from the costal margin to the lower radial, on the hindwing always projecting in one cell, receding somewhat in the next; the submarginal band is grey-brown, curved, towards the base obsoletely whitish; between the median veins and at the anal angle an orange spot with a triangular black pupil. Length of forewings: 13 mm. Surinam.

118. Oreala-Group.

Th. oreala *Hew.* (159 h) is a very variable insect, particularly as to its size. The ♂ is above blue, the apex of the forewing and costal margin of the hindwing black-brown with a large black scent-spot in and behind the cell, in the basal part of the cell there are before it brown scales. Beneath brown-grey, towards the apex on the forewing and hindwing more extensively dusted white, with series of orange-brownish spots being at first encircled by black then by white, also in the basal part of the hindwing; submarginal brownish lunar streaks and the usual orange anal spots. The ♀ is of a duller and more reduced blue, with black small marginal spots on the upperside of the hindwing. From Brazil.

Th. lucena *Hew.* (159 h) is somewhat smaller, the blue on the hindwing confined to a narrow inner-marginal stripe; the hindwing exhibits also in the ♂ black marginal spots. Beneath scarcely different. Venezuela.

Th. canitus *Drc.* (159 i) is much smaller, above black-brown, the hindwing in the larger proximal half dull violet with two small black marginal spots; the under surface is marked almost like in *oreala*. Paraguay.

119. Basalides-Group.

Th. basalides *Hbn.* (= *ziba* *Hew.*) (159 i) is above black-brown, with a large black discal spot, and uncommonly variable with respect to the extension of the blue colour: mostly two very narrow stripes along the median and submedian on the forewing and in the disc of the hindwing, so that the cell is yet blue, whereas the space between the radial veins is black; all the blue colour, however, may also be absent altogether; before the distal margin of the hindwing there are black spots, the largest of which is between the median veins; if the blue is absent, mostly 1 or 2 of them are above bordered with orange. Beneath very much like *serapio* (159 h),

but besides with 2 or 3 small red basal spots on the hindwing; the postdiscal band is here broken up into small spots. The ♀ is all brown, on the hindwing with bluish-white, small submarginal lunae, being partly double behind the orange spot. Most widely distributed and mostly common, from Mexico to South East Brazil.

arola. **Th. *arola* Hew.** (159 i) is above blackish-brown, in the basal half of the proximal margin of the forewing and on the hindwing dull lilac-blue with two small black spots before the anal margin. Beneath similar, distinguished by cell-end-streaks, the postdiscal band being placed more proximally, the two uppermost small spots of which are placed still farther towards the base in the hindwing, and by 4 larger basal spots. Brazil.

cardus. **Th. *cardus* Hew.** (159 i, k) is above of a duller colouring and smaller than *arola*, while it differs beneath by its white ground-colour; the macular markings being arranged similarly as in *arola* are light brownish, distally bordered at first by brown then by white; the ♀ is more brownish beneath, and above plainly brown, only faintly tinged blue with 3 small white spots at the distal margin of the hindwing. Brazil.

tigonia. **Th. *tigonia* Schs.** resembles *basalides* (159 i). Above brown, on the forewings with two narrow, parallel blue stripes at the proximal margin, and in the proximal half of the hindwing dull blue with black marginal spots, the one between the median veins being above bordered with red. Underneath it differs by plain whitish submarginal small lunae without a darker filling. Peru.

120. Albata-Group.

albata. **Th. *albata* Fldr.** (159 k) is above grey-brown, with a pale blue tinge at the base of the forewing, the hindwing white, somewhat grey towards the base with minute black antemarginal spots. Beneath white, in the basal half pale grey, on the forewing the bordering between the median veins projects towards the margin while on the hindwing it is irregular. Indistinct double antemarginal rows of lunae. Panama, Colombia, Venezuela.

sedecia. **Th. *sedecia* Hew.** (159 k) is very similar, without any blue at the base of the forewing, with a black distal margin of the hindwing. Beneath the bordering of the grey basal part runs straighter, and at the cell-end there is a white streak; the anal spots are more broadly bordered with red. Mexico, Guatemala.

121. Yojoa-Group.

yojoa. **Th. *yojoa* Reak.** (= *daraba* Hew., *beroea* Hew.) (159 k). ♂ above brown with a large black scent-spot in the cell and 3 small black spots before the anal margin of the hindwing, fringes whitish. The ♀ has broader wings and a duller colouring, the hindwings are whitish towards the distal margin. Beneath light brownish grey with white cell-streaks and a reddish, distally white postdiscal band being on the hindwing distally removed between the radial veins, proximally below the lower median vein; in the whitish marginal part there are double rows of brownish spots, which are bordered with orange between the median veins and at the anal angle; the hindwing exhibits in the basal part besides a whitish diffuse spot. Widely distributed from Mexico to the Amazon.

alea. **Th. *alea* Godm. & Salv.** (159 k) is similar, but the hindwings are blue at the distal margin with black submarginal spots. On the under surface the white cell-streaks are absent, the spot of the tail is proximally bordered with reddish-brown. Mexico.

mulucha. **Tn. *mulucha* Hew.** (159 l) is very similar, above like *yojoa*, beneath browner, at the apex of the forewing, in the discal area and at the border of the hindwing white, the postdiscal bands much more strongly broken and composed of small lunar spots, very variable in the intensity of the markings. Guatemala to the Amazon.

thordesa. **Th. *thordesa* Hew.** (159 l) is considerably larger, beneath almost the same, but above the ♂ is of a lustrous blue with brown margins and an oval red-brown discal spot. The proximal margin of the forewing beneath is faintly tinged blue, the anal spots above bordered with red. Venezuela.

faunalia. **Th. *faunalia* Hew.** (= *deborrei* Capr.) (159 l). Upper surface brown, in the ♂ with a dark cell-spot, on the hindwing with an analwards white marginal line and 2 or 3 minute black spots before it. Beneath the forewings are light reddish-brown, at the apex whitish with a double row of submarginal spots, in front of which there are 6 dark brown small spots bordered distally by white, proximally somewhat by reddish. Hindwings marked not unlike *mulucha*, but much more irregular and more spotted, with a small black spot on the tail.

dion. Amazon. Bolivia. — **dion** Schaller is a species not to be identified, perhaps allied to *faunalia*.

hygela. **Th. *hygela* Hew.** (159 l) is above deep purple violet with black-brown margins and an almost square black scent-spot at the cell-end; the ♀ is dull brown with a white marginal line in the anal part of the hindwing. Beneath the hindwings resemble those of *faunalia*, though they are still more irregular and more spotted, the forewings are whitish, irregularly clouded brown with large dark brown spots in the middle of the cell and behind it. Brazil, Colombia, Bolivia.

Th. crossaea Hew. (1591) likewise approximates *faunalia*. Above brown, hindwing towards the *crossaea*. base strewn with blue, before the anal margin with small black spots. Beneath marked similarly to the said species: forewings reddish-brown, at the apex white, clouded brown with 6 dark, distally white spots in front of it. Hindwings whitish, clouded brown, with 4 large dark brown basal spots, cell-streak and interrupted postdiscal macular band like there. Patria not stated.

Th. legota Hew. (1591) is above brown, at the proximal margin of the forewing and in the larger *legota*. proximal part of the hindwing dull violet-blue. Beneath marked almost like *crossaea*, the forewing with a red-brown cell-end streak and a postdiscal band composed of black double streaks, inside filled up with reddish-brown and outside bordered with white; at the base of the hindwing only 2 spots. Bolivia.

Th. veterator Drc. (1591) is above dull black-brown, in the basal inner-marginal half of the forewing, *veterator*. and on the hindwing light lilac-blue; scent-spot large, dull, in the distal half of the cell. Beneath marked similarly to *yojoa*, but the ground-colour is much duller brownish without the white admixture, the white cell-streaks and the white shade in the basal area are absent. Paraguay.

122. Bubastus-Group.

Th. bubastus Cr. (= *salona* Hew.) (145 h) is above brown with an indistinct dark brown discal spot *bubastus*. and dark spot at the anal angle of the tailless hindwing. Beneath light reddish-brown, on the hindwing towards the base grey; on both wings with large conical, distally white spots at the border; the postdiscal bands are composed of black-brown small spots being distally bordered with white, and are on the forewing placed very near to the distal margin; in the basal area of the hindwing two spots, the spot of the tail above bordered with red. This tailless form flies in Guiana, Venezuela, Amazon, Brazil, Paraguay, St. Vincent, Dominica, Grenada. — For the tailed form: **eurytulus** Hbn. (= *eybira* Hew., *modesta* Mayn., *ocellifera* Grt., *istapa* Reak., *columella* *eurytulus*. F.) (145 h), occurring in the southern states of North America, in Mexico, Guatemala, Costa Rica, Panama, and in Hayti, Cuba, Jamaica and the Bahamas, a special genus was established: *Callicista Grote*.

Th. sapota Hew. (145 h) entirely resembles above the tailless *bubastus*, beneath it is likewise similar, *sapota*. the ground-colour somewhat darker, the spots being all smaller, more in the shape of streaks, and on the hindwings the basal spots are absent. Peru.

Th. arcula Drc. (145 h) somewhat resembles *sapota* and is tailless, too, but it has quite a different, *arcula*. large, dark scent-spot almost filling up the cell; the hindwing is in the anal half dark violet-blue, which colour extends along the distal margin up to the costal angle. The underside is similar to that of *sapota*, but it is darker purple-brown with white cell-end streaks and a straighter, more coherent postdiscal line and two larger orange anal spots. Paraguay and Argentina.

Th. argona Hew. (= *rana* Schs.) (145 h). Above like *eurytulus* with a smaller scent-spot in the cell; *argona*. at the anal angle of the hindwing there are three larger black-brown spots which are surrounded with grey-blue in the ♂ only traceably in the ♀ much more extensively. Beneath somewhat lighter and browner, the spots rounder, distally bordered with white, on the hindwings proximally with orange; the broad, white submarginal dusting is absent, the anal spots are more orange-red. Brazil, Argentina, Paraguay.

Th. ligia Hew. (145 h) resembles the preceding above in the ♂, but it has some light violetish blue *ligia*. at the proximal margin of the hindwing; the ♀ has more extensively light blue hindwings, and also in the basal half of the proximal margin on the forewing blue dusting. Beneath brownish-grey with cell-end streaks, beneath similar to *eurytulus*, the wings in the distal parts very much clouded brown and dusted white with an orange spot on the tail and a black anal spot. Colombia.

Th. limenia Hew. (145 i). Above similar to the preceding, beneath easily discernible by the postdiscal *limenia*. band of the hindwing losing itself into a line in the anal half and forming a V; the red anal spots, particularly the spot on the tail very large, orange-red and connected by a red bridge above the blue-dusted interspace. Cuba, Jamaica, San Domingo.

Th. angelia Hew. (145 i) is very closely allied to *limenia* and differs above by the red-brown disc in *angelia*. the ♂, beneath by the absence of the basal spots on the hindwing. Cuba, Jamaica.

Th. dominicana Lathy is probably only a modified insular form of the preceding; above the coppery *dominicana*. spot is confined to the basal half of the proximal margin of the forewing, and to traces on the disc of the hindwing; beneath there is a complete postdiscal transverse line which is bordered on the hindwing proximally with red from the upper median vein to the costal margin. Expanse of wings: 23—31 mm. Dominica.

123. *Thius*-Group.

cestri. **Th. cestri** *Reak.* (145 i) is characterized by the forewing being somewhat angular on the lower radial vein, the hindwing tailless, with a somewhat protracted anal angle. Above brown with a large black discal spot at the cell-end of the forewing; the hindwing towards the base with blue-grey hair, and between the median veins a small black marginal spot. Fringes white, on the forewing speckled darker. On the under surface the forewing is brown with a whitish apex, the hindwing in the discal area and at the margin whitish with irregular macular stripes and a black small spot between the median veins before the border. In the ♀ the hindwings are above extensively blue. Mexico to Costa Rica.

cydia. **Th. cydia** *Hew.* (145 i) is smaller, the ♂ above also blue like the ♀, the latter exhibiting above in the costal part of the hindwing at the apex a large square brown-grey spot. Beneath there is little difference. Brazil, Colombia, Paraguay.

davara. **Th. davara** *Hew.* (145 i) does not differ above from *cydia*, it therefore has blue on the hindwings also in the ♂, beneath the hindwings are more whitish, the spots at the base of the hindwing are partly confluent with those of the postdiscal band, on the rusty-yellow forewing the postdiscal band is more coherent. Brazil (São Paulo).

thius. **Th. thius** *Hbn.* (= *agra Hew.*, *bazochii Godt.*, *infrequens Weeks*) (145 i, k). Forewings like in the preceding, but less angled, the hindwing except the costal-marginal part quite light lilac-blue, the black marginal spots extremely small. Beneath also marked like the preceding species, the marking, however, is partly covered by brown colour, consisting of a large triangular spot at the costal angle of the hindwing, a similar one in the basal part of the proximal margin, and a small one at the base of the costal margin above it; from the base a light stripe runs along the lower radial vein through the cell to the margin. Brazil, Colombia.

124. *Americensis*-Group.

americensis. **Th. americensis** *Blch.* (145 i) is above plainly brown, with whitish grey fringes, without a tail. Beneath light brown, on the forewing with 5 small black postdiscal spots, the hindwing with 2 basal spots and a postdiscal, irregularly curved row of spots, which is analwards proximally somewhat orange; small submarginal brownish spots, at the anal angle and between the median veins spotted orange. Chile.

tucumana. **Th. tucumana** *Drc.* (145 k) greatly approximates the preceding, above with some lilac-blue on the hindwing and 3 small black anal spots, beneath just like *americensis*, but at the costal margin of the forewing and across the whole hindwing thickly strewn with grey and brown, so that the markings grow indistinct. Argentina.

bicolor. **Th. bicolor** *Phil.* (= *quadrinaculata Hew.*) (145 k) is easily discernible above from *americensis* by the large orange discal spots on both wings. Beneath the ground-colour is greyer, in the disc of the forewing likewise orange, otherwise marked like *americensis*. Chile.

heodes. **Th. heodes** *Drc.* (145 k) differs from the preceding species by the basal area being dusted with a peculiarly lustrous grey-white on the upper surface of both wings and also at the proximal margin of the forewing; the orange spot of the hindwing is reduced in the ♂, while in the ♀ it is absent altogether. Beneath light brown, strewn with white, marked like *bicolor*, but the postdiscal bands placed nearer to the margin. The ♀ is lighter and almost without any marking. The ♂ is without the dark discal spot exhibited by the preceding species above. Described from North Peru.

tegaea. **Th. tegaea** *Hew.* (145 k) we append yet here. Above brown with an orange spot at the anal angle of the forewing and at the border of the hindwing, which is narrower in the ♀; the ♂ exhibits an oval, dark brown scent-spot bordered with a still darker colour. Beneath grey-brown, with dark cell-end streaks and with postdiscal bands composed of black, white-ringed spots, running parallel to the margin; beyond them similar submarginal rows of spots, on both wings analwards distally bordered with orange. From British Guiana and Brazil.

atrana. **Th. atrana** *Schs.* (145 k) being allied to the following species may be placed here as a transition. Above brown with a broad red-yellow marginal band of the hindwing. Beneath light grey-brown, on the forewing with three small brown, distally white postdiscal spots; hindwing with a postdiscal row of black lunular spots, being proximally bordered with vermilion, distally with white; black submarginal lunae bordered proximally with white border on a broad vermilion marginal band which projects towards the margin on the ends of the veins and extends from the anal angle to the middle radial; behind there are yet brown marginal lunae and a black marginal line. Expanse of wings; 21 mm. Brazil (Paraná).

tarania. **Th. tarania** *Hew.* (145 k, l), a well-known common species, differs in the ♂ at once by the black-brown scent-spot in the cell of the forewing; the orange colour on the hindwing is confined to three small coherent spots at the anal angle, in the cell-spaces between proximally dusted whitish, distally spotted black; the red marginal band of the hindwing beneath, however, extends farther than to the middle radial, mostly even beyond the upper radial. Brazil.

Th. titus *F.* (= *mopsus* *Hbn.*) (145 l) for which the subgenus *Strymon* *Hbn.* could be used is *titus*, above plainly grey-brown, in the ♀ occasionally with traces of red anal spots of the hindwing. Beneath likewise dark brown with a broad red marginal band of the hindwing and smaller, separated spots on the forewings. The larva lives on cherries and plums. In North America widely distributed from Maine to Georgia.

125. *Dumenilii*-Group. (*Polyniphes* *Kaye.*)

Th. dumenilii *Godt.* (= *argiva* *Hew.*) (145 l) is above white, the apex and costal margin broadly sepia-coloured, in the ♂ with a black scent-spot in the cell-end. The ♀ is dusted grey-brownish towards the base, on the hindwing with a fine black marginal line and small black spots before it. Beneath white with reddish-brown transverse lines, a small black, white-ringed costal eye-spot on the hindwing and high submarginal lunae which are pupilled in brownish, between the median veins in black. The ♂ is beneath sometimes without any marking. — In f. *obscura* *Stgr.* the ♀♀ are above monotonously dark brown-grey, whereas the darker ♂ is bluish on the light inner-marginal area of the forewing. Beneath grey-brown with very distinct markings, particularly the distal-marginal eye-spots almost black. Venezuela, Colombia.

Th. tadita *Hew.* (145 l) has a more pointed shape of wings and the white parts above are dull sky-blue; *tadita*, beneath brown-grey, otherwise marked like the preceding. Brazil.

Th. datitia *Jones* (145 l) is very near to the preceding, but it has two tails, and a narrow black border of the hindwings above. Beneath the hindwing exhibits a marginal row of black-pupilled, brown lunae. Paraná.

Th. euptychia *spec. nov.* (145 l) has the shape of *tadita*, but it is all brown with a black scent-spot, on the hindwing analwards a white border-line and between the median veins a small black spot bordered proximally with a light colour. Beneath the disc of the forewing is rusty yellow, distally brown-grey, the hindwing brown-grey, with the same marking as in the preceding, the costal-marginal eye-spot very large, jet-black, white-ringed, also the spot between the median veins and one above it jet-black, upwards with a golden yellow ring. Described according to a ♂ from the Museu Paulista from South Brazil.

5. Genus: **Theclopsis** *G. & S.*

Differs from the preceding genus by the quinquepartite and unmerged tarsus with claws. The two subcostal veins rise widely separated the 2nd somewhat before the cell-end; the cell itself is uncommonly long with a large scent-spot.

Th. eryx *Cr.* (= *lydus* *Hbn.*, *ingae* *Sepp.*, *lebena* *Hew.*) (145 g) is above metallic ultramarine blue with a black-brown apical half, and a large black discal spot. Beneath lustrous grey-green with brown, distally white postdiscal rows of spots, arranged like in the *vesulus*-group, and with indistinct, small, brown submarginal spots; anal spots red, between them whitish dusting; at the proximal margin of the forewing there is a large black velvety spot partly covered by the costal margin of the hindwing. The ♀ is above dark brown with a dull green-blue disc of the hindwing; beneath more grey-brown with more distinct and brighter markings. Southern specimens have above a more extensive blue and beneath broader red spots. Guiana, Brazil, Ecuador, Peru, and Bolivia.

Th. curtira *Schs.* (145 g) differs little from the preceding. On the upper surface the apex and distal margin, particularly of the hindwing, are broader black, the scent-spot somewhat smaller, more red-brown. Beneath the ground-colour is of a purer grey, only with a slight green lustre, the small submarginal spots form more distinct triangles, proximally bordered with white, the anal spots more orange. Described from Venezuela.

Th. demeia *Hew.* (145 g) is easily separated by the absence of the scent-spot and by the black distal margin being only very narrow; beneath darker, more blackish, with the same markings, but without the black inner-marginal spot of the forewing. Nicaragua, Colombia.

Th. caeus *G. & S.* (145 g) greatly resembles *demeia*, but it has a small crescentiform, brown scent-spot, and beneath the inner-marginal area of the forewing exhibits an intense green lustre; the latter may, according to DRUCE, also be absent in specimens from Colombia and Venezuela; described from Panama.

6. Genus: **Lamprospilus** *Hbn.*

Closely allied to the genus *Thecla* and separated only by few exterior marks, the head and thorax being comparatively very stout, the one species exhibiting small hyaline spots, the other species whitish, thinly scaled, band-like spots on both the wings. The generic separation is scarcely justified.

genius. **L. genius** *Hbn.* (145 f, g) is above brown-black, in the disc with a bluish-grey lustre, on the forewing between and above the median veins with 2 small hyaline spots of a blue opalescence on being exposed to the light laterally; the hindwing exhibits a large opalescent hyaline spot in the cell, below and behind it 2 very small ones. The under surface is bone-coloured, the hyaline spots are of a more intensely blue lustre than above; the basal areas on both wings and a triangular costal-marginal spot on the forewing are dark brown; the post-discal band with a sharp W at the proximal margin; the anal spots and those on the tails reddish-yellow, pupilled black. Surinam to Brazil.

nicetus. **L. nicetus** *Fldr.* (145 g) is more slender, the spots of a dull white, only little transparent, more band-like. Beneath dark brown with white transverse lines, the one on the hindwing very broad, similar as in *Th. teatae*, the orange anal markings very extensive. From Colombia.

II. Group: Chrysophanini.

7. Genus: **Chrysophanus** *Dbl.*

The nearctic flame-coloured lepidoptera do not differ essentially from the palearctic forms: we also find here nearly uniformly large, above golden-red or purple-violet species. The undersides likewise exhibit designs of markings and colourings entirely analogous to the well-known species of the eastern fauna. The biological conditions are also conforming to it, the habits of the larva living on *Rumex* etc. A characteristic mark for the separation of the group from the *Theclini* is the 3-branched subcostal, which they share with the *Lycaenini*.

Otherwise the venation exhibits few differences; on the forewing the discocellular is almost quite absent. On the hindwing the anal angle is mostly somewhat pointedly protracted, and the hindwing is often extended at the lower median vein into a small short tail. As to the habits compare what has been said in the Palearctic Part Vol. I., p. 281.

This genus has likewise been divided by SCUDDER into a number of other genera which, however, are only to be regarded as subdivisions, their names being, therefore, only shortly mentioned.

1. Subgenus: **Tharsalea** *Scudd.*

arota. **Ch. arota** *Bsd.* (145 a). The ♂ is above purple with a violet lustre and small diaphanous spots beneath, the ♀ yellow-red, spotted black with darkened basal halves and margins. The underside is light grey, in the ♀ on the disc of the forewing yellow-reddish; the hindwing exhibits beside the spots a fine black, postdiscal, dentate line, behind it a broad, whitish submarginal band. California. — The larva divergently lives on *Ribes*.

virginiensis. **Ch. virginiensis** *Edw.* (145 a) is on an average somewhat larger, above almost the same, beneath darker grey, more coarsely spotted, and with distinct white submarginal lunae. California, Nevada and Colorado.

hermes. **Ch. hermes** *Edw.* Here also the ♂ is above light red-yellow, at the costal margin and border and at the base brown with the same spots as the preceding, the hindwing much darker, with a long pointed tail; the ♀ has somewhat more distinct markings. Beneath the ground-colour of the forewings is more tawny, at the border grey, the hindwings also in the basal area grey, similarly spotted as the preceding. Expanse of wings: 22 to 27 mm. California, Nevada.

del Sud. **Ch. del Sud** *Wright* (145 b) seems to me to be the best founded upon an aberrative specimen which may well be numbered among this subgenus. The animal resembles the ♀ of *arota*, but the forewings are without the spots in the distal half of the submedian area, and the apex is broadly darkened. Beneath the hindwings are monotonously yellow, almost without spots. California.

2. Subgenus: **Gaeides** *Scudd.*

xanthoides. **Ch. xanthoides** *Bsd.* (145 a) is one of the largest species, above likewise purple-brown, in the ♀ more or less light yellow-red, in both sexes with an orange distal margin of the hindwing, in which there are black spots. The under surface is very pale yellowish-grey, distally white, with the usual black spots being white-ringed on the hindwings; those at the border are analwards proximally bordered by orange lunar lines. The species only flies in California.

dione. **Ch. dione** *Scudd.* (145 b) looks very much like *thoë* (145 c). Above more purely grey-brown with a faint violet lustre, the forewing with 2 black spots in the cell, the hindwing with an orange marginal band. Also the underside is very similarly coloured and marked, but the spots of the hindwings are differently arranged and the forewings likewise grey. The size is larger than in *thoë*. Iowa.

Ch. editha *Mead* (145 b) is smaller than *xanthoides* with somewhat less pointed wings, otherwise above *editha*. very much alike. The under surface is grey with an ochreous-yellow tint increasing towards the margin; the spots are black only on the forewings, on the hindwings ochreous-grey, finely ringed black. Nevada.

Ch. gorgon *Bsd.* (145 b, c). Upper surface lighter purple red with an intense blue-violet lustre, in *gorgon*. the ♀ much more extensively yellow-red. The under surface is yellow white, between the two submarginal rows of spots there is a complete row of orange lunae on the hindwings. The species is so far known only from California and Nevada.

3. Subgenus: *Chrysophanus Hbn.*

Ch. thoë *Bsd.* (145 c) has purple-brown forewings with a violet reflection and brown hindwings *thoë*. with an orange marginal band; the ♀ entirely resembles our *virgaureae*. Beneath the forewings are red-yellow in the disc, grey at the apex, the hindwings blue-grey with a red marginal band with the usual small black spots. Distributed and common in the Atlantic States and Colorado. The larva lives on *Rumex*.

4. Subgenus: *Epidemia Scudd.*

Ch. mariposa *Reak.* (= *nivalis Bsd.*) (145 c). The ♂ is above purple-brown with a violet reflection, *mariposa*. the ♀ extensively yellow-red with the usual small spots. Beneath the forewings are dull yellow-red, the hindwings ashy-grey. This little species is known from California and the Rocky Mountains.

Ch. zeroë *Bsd.* (= *ianthe Edw.*) (145 d) greatly resembles the preceding, but it is larger, more *zeroë*. slender, and the wings are more pointed, the ♂ exhibits a more distinct red-yellow marginal band on the hindwing, the black spots, particularly in the ♀, are clearer and more distinct. The under surface is of a duller colouring, the hindwing almost unspotted. California, Colorado.

Ch. helloides *Bsd.* (= *castro Reak.*) (145 d) likewise resembles the two preceding species, it is above *helloides*. more brightly coloured and more intensely spotted, and in the ♀ in the basal parts of both wings, particularly of the hindwings, darkened by brown. The under surface is like in *mariposa*, the hindwings of a more reddish tinge. California, Rocky Mountains.

Ch. dorcas *Ky.* (145 d) is smaller than the preceding, the ♂ above deeper violetish-purple, the *dorcas*. ♀ almost entirely darkened by brown. The under surface is almost monotonously yellow-red-brown. Distributed in Arctic America. — The form: **florus** *Edw.*, described from the Red Deer River, is larger with a much broader black marginal band almost reaching the discal, zig-zag shaped macular series; the under surface is more light brown.

Ch. epixanthe *Bsd.* (145 e) is the smallest species, above darker, with a faint violet lustre and but *epixanthe*. few small orange spots, at the anal angle of the hindwing; the ♀ is above dull grey-brown. Beneath the wings are of a lighter grey, towards the base more blue-grey with the usual spots. From the northern Atlantic States.

5. Subgenus: *Heodes Dalm.*

Ch. hypophlaeas *Bsd.* (= *phlaeas Bsd. & Lec.*, *americana d'Urb.*, *fasciata Streck.*, *fulliolus Hulst*) *hypo-*
phlaeas. (145 c) is the North American representative of our common *phlaeas* from which it differs above by the more fiery golden red colour, and by the greyer under surface of the hindwings and more prominent black spots. Everywhere common in North America, only in the Gulf States it is absent. The larva lives on *Rumex* as with us.

Ch. arethusa *Dod.* is closely allied to the preceding; forewings in the ♂ more pointed, the yellow-red *arethusa*. colour above more reduced; on the dark brownish hindwings 2 postmedian rows of spots and the black discal spot are more prominent. Beneath the forewings are of a purer yellow, the spots distinctly light-ringed; the grey hindwings exhibit beside the rows of small black dots an orange-red submarginal line. Expanse of wings: ♂ 30 to 35 mm, ♀ 29 to 33 mm. Rocky Mountains (Calgary).

6. Subgenus: *Chalceria Scudd.*

Ch. cupreus *Edw.* (145 e) is above red-golden with a narrow black margin, and in the ♂ with spots *cupreus*. beneath shining through, which in the ♀ appear also above distinctly black. The under surface is light grey-yellow, in the disc of the forewing red-yellow, of the same colour is a marginal band of the hindwing. California, Oregon.

Ch. snowi *Edw.* (145 e) is somewhat larger, above with somewhat broader black margins and also *snowi*. in the ♂ with more distinct, small black spots. The hindwings are beneath more dirty grey. Rocky Mountains.

Ch. rubidus *Edw.* (145 f) entirely resembles *cupreus* above, but it is considerably larger, the ♀ is duller *rubidus*. and more yellow. The under surface is light grey, almost white, the hindwings almost without any spots, while in the form **sirius** *Edw.* (144 n) they exhibit the usual spots like in the other species. Occurring in the Rocky *sirius*. Mountains and Oregon.

7. Subgenus: *Iophanus* nov.*pyrrhias.*

Ch. pyrrhias G. & S. (145 f) is an entirely deviating animal which ought to form a special genus but in the structure it entirely corresponds with *virginiensis*. Above purple with black veins, the hindwings with red submarginal lunae and a violet antemarginal line. Beneath rosy-brown, with an ochreous disc of the forewing and three transverse lines and cell-end streaks. Hitherto only found in Guatemala at altitudes of 6 to 7000 feet, flying close to the soil and fond of resting on pig's droppings.

8. Genus: **Feniseca** Grt.

The only genus being quite uncommon to the American fauna, by reason of its structure and biological behaviour, shows unmistakable alliances to the Indo-Australian *Gerydinae*. The body is relatively stout, the wings longer and narrower than usually; the antennae are short and stout with a non-deposited club. Palpi comparatively long, with a long pointed terminal joint. On the forewing the lowest subcostal vein is short-petioled with the upper radial, otherwise there are no differences from the preceding genus. The life-history of this peculiar animal is well known.

The egg is hemispherical, more flat than high, covered with numerous fine longitudinal and transverse ribs enclosing polygonal cell-spaces. The larva looks like a short slug and is covered with many bristly hairs to which the crusts and exudations of the aphid forming the food of the larva adhere. The brown pupa on its dorsal side shows an exact imitation of the shape of a monkey's face with the eyes, nose and mouth as elevations and cavities.

tarquinius.

P. tarquinius F. (= *crataegi* Bsd., *porsenna* Scudd.) (145 f) is above lustreless yellow-brown with a black-brown costal margin and distal margin and some small spots which vary greatly in extent or may be absent altogether. Beneath the colouring is lighter, at the costal margin and on the hindwings more cinnamon-brown, strewn with lilac-white and marked with numerous darker, whitish-ringed spots. Common in the Atlantic States from Nova Scotia to Carolina.

III. Group: **Lycaenini**.9. Genus: **Lycaena** F.

Characteristic is the course of the uppermost subcostal vein which is separated from the costal vein; the lowest subcostal vein is one-partite. Palpi scaled, the two first joints covered with short, dense, bristly hairs. Comp. for further particulars Vol. I, p. 298.

1. Subgenus: *Satyrium* Scudd.*fuliginosa.*

L. fuliginosa Edw. (= *suasa* Bsd.) (144 a) is above monotonously dark grey-brown in both sexes. Beneath it resembles the European *semiargus* (Vol. I, p. 119, t. 82 e), lighter brown-grey than above, towards the base, preponderantly on the hindwings, with a bluish tint and a curved row of black, white-ringed post-discal eye-spots, similar discal spots and more indistinct submarginal lunae. California, Utah, Nevada.

2. Subgenus: *Cupido* Schrank.*heteronea.*

L. heteronea Bsd. (144 a) is in the ♂ above light blue with lighter veins and a fine black border, the ♀ is brown with diaphanous spots on the under surface. The latter is almost white with large, jet-black post-discal spots on the forewings; on the hindwings they are quite light brownish; on both wings they recede towards the base between the median veins. Colorado to California.

clara.

L. clara Edw. (144 a) greatly approximates the preceding, and is smaller on an average, the ♀ above extensively dusted light blue, with distinctly diaphanous spots on the under surface which is somewhat duller, more brownish, with several spots in the basal area also of the forewing. Sonora, California.

lycea.

L. lycea Edw. (= *rapahoe* Reak.) (144 a). Likewise very similar to *heteronea*, the ♂ with a more broadly smoky border of the wings; beneath somewhat darker, the forewings without any basal eye-spots, the series of eye-spots on the hindwings clearer, fine black, white-ringed. Distributed in the Rocky Mountains.

fulla.

L. fulla Edw. (= *fuliginosa* Streck. nec Edw.) (144 a, b) is smaller than the preceding, the ♂ above of a purer blue; the under surface is light grey with rows of very similar, white-ringed eye-spots, like *lycea*, but the post-discal row is less curved; at the cell-end of the hindwing there is a white spot. Pacific States.

L. icarioides *Bsd.* (= *pardalis* *Behr.*, *erymus* *Bsd.*, *mintha* *Edw.*) (144 b) extremely resembles *fulla*, *icarioides*. above blue, towards the border somewhat darker; the under surface is more grey-brown, in the ♀ still darker; in the basal area slightly dusted with blue, with a large, reniform discal spot which is obsolete on the hindwing; the postdiscal row of eye-spots of the forewing is a straight line between the proximal margin and the upper median vein, by which it differs from most of the other species; submarginally only one row of brownish punctiform spots, the fine black marginal line, being present otherwise, is absent here altogether. Rather rare in South California. — f. *maricopa* *Reak.* is above brown with a violet lustre and obsolete roundish spots at the border of the hindwing, beneath dark ashy-brown towards the base. *maricopa*.

L. daedalus *Behr* (144 b) is smaller, of a deeper and purer blue with broader black margins, the ♀ *daedalus*. is brown with red-yellow marginal bands which may attain a very considerable width. Beneath darker brown-grey with the usual rows of eye-spots which are just as well developed on the hindwings as on the forewings; the submarginal rows are double, on the hindwings in the middle more or less spotted orange. Common in South California.

L. hilda *Grinnell* is very near to *daedalus*, above lustrous deep blue with a broader black border *hilda*. and a black reniform discal spot; at the anal angle of the hindwing some black spots; fringes snow-white. Under surface on an ashy-grey ground marked thickly and sharply prominent, the postdiscal band forming an angular semi-circle; at the anal angle of the hindwing there are only 3 small orange spots. The ♀ is above brown with narrower orange marginal bands. Expanse of wings: 25 to 32 mm. From San Bernardino (California).

L. saepiolus *Bsd.* (= *aeahaja* *Behr.*, *rufescens* *Bsd.*) (144 b). The ♂ has above a green lustre, a lighter *saepiolus*. blue and a more broadly smoky border and apex, the ♀ is tinged green-blue towards the base with orange marginal lunae on the hindwing. The under surface is lighter, more brownish, marked like *daedalus*, but on an average with smaller spots, at the border the orange colour is mostly absent. Pacific States, Rocky Mountains.

L. amica *Edw.* (= *orbitulus* *Scudd.* nec *Prun.*) (144 b) is above more silvery blue, at the margin *amica*. brownish with a narrow straight discal streak of the forewing and white fringes. The under surface is lustrous grey-white with rows of small spots; on the hindwing the postdiscal band runs almost straight, the small brownish submarginal lunae are sometimes obsolete. From the Mackenzie River. Expanse of wings: 27 mm.

L. pambina *Edw.* is closely allied to *pheres* (144 c), of a darker violet-blue, with the discal streak *pambina*. of the preceding, the ♀ brown, towards the base bluish. The under surface is light brown-grey, towards the base dusted blackish with the same arrangement of spots as in the following species, but on the hindwing with more distinct submarginal dark dots ending in the anal angle with a dark diffuse spot; also in the costal-marginal area there are two black, white-ringed, small spots. British North America (Lake Winnipeg).

L. pheres *Bsd.* (144 c) is larger, lighter blue than *pambina*, without the discal streak. The under *pheres*. surface is characterized by the white diffuse spots on the light brownish-grey surface of the hindwing; — the f. *evius* *Bsd.* is an alpine form from the Rocky Mountains. — Pacific States. *evius*.

L. phileros *Bsd.* (= *helios* *Edw.*) is in its exterior very much like *icarioides* (144 b); it is smaller, *phileros*. above more violet-blue, beneath of a purer ashy-grey; the white discal spot of the hindwing has the shape of a heart like in the European *icarus*. The ♀ is brown, with a blue-violet tinge towards the base and with small, obsolete, red-yellow marginal spots of the hindwing. California, Arizona.

L. ardea *Edw.* The ♂ is above violet-blue to grey-blue with a very narrow dark marginal band in *ardea*. the forewing and a dark marginal line in the hindwing, as well as white fringes. Under surface fawn-coloured the base of the hindwing bluish. The forewing exhibits a large, reniform, black, white-bordered discal spot, an incomplete postdiscal row of 4 spots and traces of a submarginal row of small brown lunae; on the transverse vein of the hindwing a large white diffuse spot, the postdiscal spots are absent altogether. Expanse of wing : 24 mm. Nevada.

L. kodiak *Edw.* (144 c) is a smaller species, the ♂ above dark blue, with a very narrow black *kodiak*. border, the ♀ of a plain dark brown. Beneath the forewings are grey-brown with the usual though small eye-spots; the hindwings are extensively tinged greenish, likewise with minute eye-spots; the proximal submarginal row consists of small angular spots in the openings of which the distal punctiform spots are placed. Known only from Alaska.

L. mela *Streck.* is another species having been inserted in this subgenus. It has not become known *mela*. to us, and its diagnose in the supplement of a North American special work is not available for us at present. It is said to occur in Colorado and British Columbia.

3. Subgenus: *Nomiades* *Hbn.*

L. xerxes *Bsd.* (144 c). The ♂ is above dusted with dark blue; also the ♀, but less, on the under surface *xerxes*. very easily recognizable by the large white spots which may occasionally be very finely pupilled black. From California.

antiacis. **L. antiacis** *Bsd.* (= *polyphemus* *Bsd.*, *orcus* *Edw.*) (144 e) is in the ♂ quite light violet-blue with a narrow black border, the ♀ dull brown-grey, with a blue tinge towards the base, beneath light grey, on the hindwings somewhat more brownish; the spots show the same arrangement as in *xerxes*, but they are thickly pupilled black, particularly on the forewings; there are no submarginal spots at all. California, Nevada, and

mertila. Arizona. — The form: **mertila** *Edw.* (144 d) has less thickly black-pupilled spots and more intensely greenish

behrii. bases of the hindwings, whereby it comes nearer to *xerxes*. — f. **behrii** *Edw.* (144 c) is distinguished by its much darker grey-brown under surface.

couperii. **L. couperii** *Grt.* (= *pembina* *Streck.* nec *Edw.*, *afra* *Edw.*) (144 d) is perhaps only a northern form of the preceding from New Foundland and Labrador; above almost the same, beneath dark brown-grey, the spots arranged the same, but nearly all white, only slightly black-pupilled, particularly on the hindwing. Fringes grey-brown, in *antiacis* white.

lygdamas. **L. lygdamas** *Dbl.* (144 d) is considerably smaller, above much lighter silvery blue, in the ♀ darker, towards the margin smoky, with a dark cell-spot. The under surface is light brown with thick, black, white-ringed spots arranged like in the preceding species and a pair of small spots in the middle of the cell on the

oro. forewing. Sonora, Atlantic States. — The form: **oro** *Scudd.* (144 d) is larger, beneath quite light grey, without a brown tint, towards the base somewhat bluish. It flies in Colorado, California and New Mexico.

4. Subgenus: **Phaedrotes** *Scudd.*

sagittigera. **L. sagittigera** *Fldr.* (= *catalina* *Reak.*, *lorquini* *Behr.*, *rhaea* *Bsd.*, *viaca* *Edw.*, *daunia* *Edw.*) (144 d) is a most variable species, mostly rather light blue, towards the margin more or less dark smoky with white-speckled fringes. Beneath grey-brown, dusted with a chalky white alternating more or less conspicuously particularly on the hindwing in the cell and before the submarginal spots. In the Rocky Mountains and California.

speciosa. **L. speciosa** *Edw.* (144 d) is a very small species, of a delicate light blue, in the ♀ broadly bordered with a brownish grey. Beneath so very much strewn with white that almost only the inner-marginal half of the forewing remains brown; the spots of the hindwing are very small, the submarginal spots are almost entirely absent. From South California.

5. Subgenus: **Philotes** *Scudd.*

sonorensis. **L. sonorensis** *Fldr.* (= *regia* *Bsd.*) (144 e) is unmistakable by the red-spotted, silvery blue forewings. Distributed from California to North Mexico.

6. Subgenus: **Agriades** *Hbn.*

podarce. **L. podarce** *Fldr.* (= *tehama* *Reak.*, *cilla* *Behr.*, *nestos* *Bsd.*, *orbitulus* *Streck.*) (144 e). The ♂ is above grey-blue, towards the margin darkened, and in the disc lighter, here with dark cell-streaks, before the border of the hindwing with darker, small lunae. The under surface is dull grey-brown with the usual small eye-spots and a large white cell-spot of the hindwing. In the darker ♀ the cell-spot of the forewing is above surrounded by reddish-yellow. At loftier altitudes of California, Nevada and Colorado.

aquilo. **L. aquilo** *Bsd.* (= *franklinii* *Curtis*) (144 e) replaces the eastern *orbitulus* in Arctic America, like the following does in less northern latitudes. Very small and dark blue-grey, particularly also the under surface very dark brown with large white, only feebly and finely black-pupilled spots.

rustica. **L. rustica** *Edw.* (144 f) is almost the same species as the preceding, and according to COURVOISIER, the name has to replace the palearctic denomination of *orbitulus* *Prun.*; by one third larger, and lighter blue than *aquilo*, beneath light grey with purely white spots. From Colorado and British America.

7. Subgenus: **Rusticus** *Hbn.*

enoptes. **L. enoptes** *Bsd.* (144 e). Above blue, the ♀ brown, more or less suffused with blue, with or without an orange marginal band of the hindwing. The fringes white-speckled. The under surface is light blue-grey with the usual spots, between the submarginal spots of the hindwing small orange spots. Pacific States.

glaucou. **L. glaucou** *Edw.* (144 f) has a somewhat broader black border of the wings than *enoptes*, and on the hindwings there appear above dark marginal lunae. The under surface resembles that of the preceding, and is perhaps on an average more strongly spotted black. Colorado, California.

battoides. **L. battoides** *Behr* (144 f) is of a more delicate and lighter blue than the preceding, with a distinctly diaphanous orange marginal band of the hindwing and before it small dark crescentiform spots. Beneath brown-grey with much larger, more square spots arranged in the same way as in *enoptes*. California, Arizona, Colorado.

L. shasta *Edw.* (= *zelmira* *Fldr.*, *calchas* *Behr.*, *nivium* *Bsd.*, *lupini* *Behr.*, *minchaha* *Scudd.*) (144 f). *shasta*. Above violet-blue, in the ♀ extensively brown, with dark submarginal lunae, very distinct black cell-streaks, and in the ♀ with small orange marginal spots behind them. Beneath dirty grey with the usual rows of spots and small orange marginal spots; the distal submarginal row of spots is proximally silvery blue-green. Pacific States and Rocky Mountains.

L. melissa *Edw.* (144 f) is on an average larger than the preceding, in the brown ♀ above with broad orange marginal bands, behind which there are black marginal spots. Beneath light brownish grey with oblong orange marginal spots on both wings. From the Rocky Mountains. *melissa*.

L. scudderi *Edw.* (144 f). The ♂ does not differ above from *melissa*, the ♀ is darker, the orange marginal bands reduced to narrow, small crescentiform spots on the hindwings, the under surface is whiter, the eye-spots, orange marginal spots and small metallic spots all very much smaller. The larva lives on Lupini and other Papilionaceae. Atlantic States, common. *scudderi*.

L. lotis *Lintn.* (144 f) is larger, the ♂ violet-blue with a very narrow black border, the ♀ above unicolorously brown, beneath as light as the preceding, perhaps a shade more brownish, with particularly reduced submarginal spots without any orange between. From California. *lotis*.

L. acmon *Dbl. & Hew.* (= *antaegon* *Bsd.*) (144 g). Very easily recognizable by the broad orange marginal band of the hindwing in which there are black submarginal spots, both in the brown ♀ being dusted blue towards the base, and in the lilac-blue ♂. Beneath marked like *melissa*, only of a somewhat lighter tinge and with a coherent orange band between the submarginal rows of spots. Pacific States and Rocky Mountains, to the south as far as Mexico, where it flies in the surroundings of the capital. — In the form *emigdionis* *Grinnell* (= *melimona* *Wright*) (144 g) the orange bands of the hindwings are above still broader and proximally faded. *acmon*.
— subsp. **monticola** *Clem.* is above more silvery blue, beneath marked with thicker spots on an ashy-grey ground strewn with bluish. The ♀ is above strewn with a much brighter blue as far as almost to the border, the red band of the hindwing occupies almost one third of the hindwing; the under surface is more brownish. From Pasadena (California). — f. **neurona** *Skinner*, described only according to female specimens, resembles typical *acmon* from which it differs above by orange ribs terminating broader into the margin, also the costal margin is sometimes orange. From San Bernardino (California). — f. **chlorina** *Skinner* (144 g) I can likewise only take to be an aberrative ♀ of *acmon*, with a much broader orange border of the hindwing, which, however, does not appear proximally faded as in *emigdionis*, but distinct. California. *emigdionis*.
monticola.
neurona.
chlorina.

L. aster *Edw.* (144 g, h) is smaller than the preceding, above light blue like *enoptes*, the ♀ dull blue-grey, instead of the orange marginal band there are faint blue small lunae bordering on the black marginal spots. Beneath very light, the spots small, the submarginal spots more or less obsolete without any orange between. Known only from New Foundland. *aster*.

L. yukona *Holl.* has remained unknown to me, it may belong near here. The wings are above in the ♂ dark violet-blue, with a fine brown marginal line and white fringes, in the ♀ black-brown, towards the base with a blue tinge. Beneath dark ashy-grey, towards the base dusted blue-grey, marked like the others; a characteristic mark is the 6th spot of the postdiscal row, counted from the costal margin, being double on both wings, only on the hindwing removed very far inward; between the 2 rows of marginal spots there is no orange except the space between the median veins of the hindwing; the subterminal row consists of small sagittate spots the points of which show towards the base. Expanse of wings: 22 to 24 mm. From North East Alasca, captured between the 20th and 24th of July. *yukona*.

L. annetta *Mead.* (144 g). Above light blue, the ♀ still much lighter, towards the margin almost whitish, on the hindwings with small black marginal spots. Beneath coloured and marked like *scudderi* (144 f). Utah. *annetta*.

L. anna *Edw.* (= *cajona* *Reak.*, *argyrotoxis* *Behr.*, *philemon* *Bsd.*) (144 h) resembles *melissa* (144 f) above, but it is considerably larger; also the under surface is extremely similar to that of *melissa*, but all the spots somewhat smaller and finer, also the small orange marginal spots smaller. Pacific States, Colorado. *anna*.

L. cogina *Schaus.* I am unable to judge whether this species and the 2 following, having remained unknown to me in nature, belong to the real *Lycaena* or to one of the following genera. The description runs as follows: In the ♂ the forewings are lilac-white, towards the base strewn with black; the costal margin, apex and distal margin are broadly grey-black; hindwings lilac-white, at the base strewn with black scales; costal margin broadly dark grey; a black marginal line, dark marginal spots between the veins, and before them dark triangular shades. Under surface grey-white with a dark marginal line and dark triangular marginal spots. The forewings exhibit a dark spot at the cell-end, a postdiscal row of dark grey spots bordered with white, and behind them dark diffuse spots between the veins, before the border a series of dark lunae. On the hindwings the spots are bordered with a pure white; two dark costal-marginal spots, in the basal area 3 spots; one in the *cogina*.

cell, one below it, and one at the proximal margin; at the cell-end a streak-like spot, behind it a very indistinct macular series, followed by irregular grey shades; before the border dark angular streaks. Expanse of wings: 22 mm. Castro (Paraná).

griqua. **L. griqua** Schs. has olive-grey wings, dark discal streaks and a dark distal margin, in front of which the markings beneath show indistinctly through; fringes white, speckled grey. The under surface reddish-yellow with an olive tinge, the spots black, bordered with an isabel-colour; a dark marginal line, small dark grey marginal spots, the latter more distinct on the forewings; here there is a black spot at the cell-end, behind it a series of larger black spots; on the hindwing 2 small basal spots at the proximal margin, then a row of 4 black spots, a light spot at the cell-end, behind them a row of 7 black spots, the third from the costal margin being placed the farthest towards the distal margin. Expanse of wings: 20 mm. Castro (Paraná).

ruberrothoi. **L. ruberrothoi** Weeks. Body above black, beneath white. Forewing above light brown-black, in the basal area black, marginal line and veins darker; hindwing above like the forewing, at the border a series of black spots margined with a light brown, the one above the lower submedian vein being the most prominent. Forewing beneath light brown, in the basal half strewn with white scales; at the border there are lighter moon-spots indicated; in the hindwing beneath the white scaling is extended over the whole surface of the wing. Expanse of wings: 18 to 19 mm. — Bolivia (Sicasica). Perhaps better to be placed to *Itylos* beside *moza* and *inconspicua*.

10. Genus: **Cyaniris** Dalm.

The species of this genus are distinguished by much more delicate, comparatively somewhat broader wings and longer, more pointed palpi projecting far beyond the frons; their hairing is longer, too, and not so dense.

ladon. **C. ladon** Cr. (= *pseudargiolus* Bsd. and Lec., *argiolus* Smith and Abb., *intermedia* Streck.) (144 h) is an extremely variable species being most widely distributed from Alaska and Anticosti to Panama. Above delicately milky blue with a slight violet tinge, on the hindwings almost whitish, in the ♀ above very broadly margined with black, often also on the forewings brightened up by whitish towards the margin. This is the typical summer-form, the under surface of which is white with small fine, black-grey punctiform spots. — In early spring several forms fly together, which are generally somewhat smaller and exhibit beneath more diffuse and confluent macular markings, such as: **lucia** Ky. (144 h) with a brown spot in the disc of the hindwing beneath; **marginata** Edw. (144 h) with broad, brown-grey margins beneath. — In contrast with it: f. **violacea** Edw. (144 h) has a clear and not confluent marking beneath. — In West Virginia and Colorado there flies a form that is quite black above: **nigra** Edw. (144 i). — f. **cinerea** Edw. may be a transition to it. — f. **arizonensis** Edw. has in the ♀ considerably broader margins of the wings, the colouring being paler. — f. **neglecta** Edw. is another form flying in summer with a much more prominent and clearer marking beneath and of a smaller size. — In South Arizona f. **piasus** Bsd. flies with a much darker violet-blue, unmarked colouring above; beneath the spots are more indistinct. — f. **echo** Edw. is a large, quite pale, almost grey-white form from South California. — f. **gozora** Bsd. (144 i) is the southernmost form from Mexico and Central America to Panama; it is above of a deeper, more lilac colour with white discal spots between the median veins of the forewings, and a broad white, grey-veined distal half of the costal area of the hindwing. — The larva is very polyphagous.

11. Genus: **Everes** Hbn.

Distinguished by anastomosis of the uppermost subcostal vein with the costal vein. The wings are narrower, the palpi slender and pointed, the two first joints covered with dense, soft, porrect hair.

amyntula. **E. amyntula** Bsd. (144 i). This and the following species are both extremely alike and have, therefore, led to disagreements of opinion. We here state their general differences, according to the excellent examinations of BETHUNE-BAKER, by which they are easily discernible, as there are no absolutely sure marks to be stated. *Amyntula* is generally much larger, with decidedly broader wings, with a sharper apex and a straighter margin. Above the marginal line is fine, black. The under surface is whitish, the spots of the forewings short diffuse spots, scarcely encircled by white, the submarginal spots obsolete, also on the hindwings all the spots are generally more obsolete. — In f. **herrii** Grinnell which, however, coincides with BOISDUVAL's type according to BAKER, the black border of the wings is broader, the marking beneath much more intense, and on the hindwing there are only two small orange spots at the margin instead of the usual 5. Pacific States. Of this species only one generation is known. The larva lives on *Astragalus*.

comyntas. **E. comyntas** Godt. (144 i) is generally smaller, with narrower, rounder wings, with a bent distal margin. Above the marginal line is broader, more brown-black. The under surface is decidedly greyer, the

spots appear as more clearly prominent, white-ringed eye-spots, the submarginal spots and all the spots of the hindwing are always distinct. In southern specimens the blue colour increases at the bases of the wings, in the ♀ above. The species is widely distributed from Canada to the south through Mexico, Guatemala, Honduras, Nicaragua as far as Costa Rica, in 3 or 4 generations. — The larva is brown or green, very variable, and lives on the most different Papilionaceae.

E. tulliola *G. & S.* (144 i) is a very much deviating, small delicate species. Above light blue with *tulliola*. a broad, brown-grey distal margin of the forewing and a narrower one of the hindwing. Beneath light grey with the usual postdiscal series of blackish, white-ringed eye-spots and cell-spot; in the middle of the cell there is besides a double, black spot which is only single or may be entirely absent in specimens from more southern habitats, and at the costal margin above the said spots and the discal streak there is one black, white-ringed punctiform spot each; before the brownish-grey marginal triangles in the white ground a series of angular spots appearing as a notched line. The hindwings are marked in the same way. Occurring from Mexico through Guatemala, Venezuela, Colombia as far as East and South Brazil.

In addition we wish to state that two species, hitherto inserted in *Evers* and reported to originate from California: *monica* *Reak.* and *tejuca* *Reak.* have been identified by Dr. SKINNER, on comparing the types, as the Chinese *Euchrysopterus* resp. *Catochrysopterus strabo*.

12. Genus: **Hemiargus** *Hbn.*

Scarcely different from the real *Lycaena*; the scaling is more delicate and thinner, the colouring mostly a more lustreless violet-blue; beneath the hindwings exhibit at the anal angle 2 or 3 black, small eye-spots being pupilled and encircled green silvery.

H. isola *Reak.* (= *alce* *Edw.*) (144 i, k). The ♂ is above violet-blue, the ♀ brown, towards the base *isola*. more or less tinged blue, on the hindwings in the anal area with 1 or 2 black marginal spots. The under surface is ashy-grey, the hindwings mostly more brownish, on the forewing, with a postdiscal row of large black, white-ringed spots, all the other spots except 2 black costal-marginal spots on the hindwing are small and brownish; on the hindwing there are behind a whitish submarginal band 2 black anal spots with green-silvery pupils and encircled by somewhat reddish-yellow, the proximal one being mostly divided into two very small ones. From Texas to Mexico. — **nyagora** *Bsd.* I can only take to be an insignificant form, in which the white submarginal *nyagora*. band is absent on the darker under surface of the hindwing.

H. gyas *Edw.* is very much alike, above lighter violet-blue, otherwise the same. Beneath light *gyas*. brown with a whitish hue, with the same markings, but without the whitish submarginal band, and the two anal spots are plainly blackish. Arizona. Expanse of wings: 23 mm.

H. cyna *Edw.*, based upon a ♀, has above on a purple blue ground a broadly darkened brown margin *cyna*. and apex, and a fine discal streak; on the hindwing the anal spot is absent. The under surface is tawny, dusted whitish, the large black spots on the forewings in the preceding are here brown, the two upper ones smaller and placed inwards. Texas. Expanse of wings: 22 mm.

H. zachaeina *Btlr.* (144 k) differs from *isola* by its deeper purple-blue above and like in *cyna* a plain *zachaeina*. brown macular band on the lighter under surface of the forewing, the spots being smaller and narrower; only 2 costal-marginal spots and one basal spot of the hindwing are jet-black. Florida, Antilles, Cuba, Jamaica, Dominica, Central America, Colombia as far as South Brazil.

H. hanno *Stoll.* (= *antibubastus* *Hbn.*, *hamo* *Luc.*, *pseudoptilete* *Bsd. & Lec.*, *astenidia* *Bsd.*, *filenus* *hanno*. *Poeey.*) (144 k) forms about the middle between *isola* and *zachaeina*, above not different from *isola*, the blue colour perhaps somewhat duller. The under surface is brown-grey, marked like *isola*, but the postdiscal row of spots is not jet-black, but brown like in *zachaeina*, the spots smaller, the uppermost placed far inwards. On the hindwing the whitish marginal band is absent, and there is only one small black anal spot with a silvery green pupil and encircled by a faintly rusty-yellow ring; beside this spot there are in the basal area 3 and at the costal margin 1 prominent, jet-black, small eye-spots. Mexico to Colombia (Bogotá). Specimens from the latter habitat are beneath much darker and more monotonously brown: **bogotana** *f. nov.* *bogotana*.

H. ramon *Dogn.* resembles above small specimens of *hanno*. The colour beneath is lighter ashy-grey, *ramon*. towards the margin strewn with blue atoms, the marking like in *hanno*; on the hindwing only in the basal area the 4 jet-black, small eye-spots are prominent, all the others are brown-grey; at the border there are here 4 black small spots pupilled metallic green. Described from Ecuador (Loja). Expanse of wings: 22 to 25 mm.

H. martha *Dogn.* is still smaller, above with a somewhat broader black border and a series of black *martha*. marginal dots on the hindwing. Beneath like *ramon*; but on the hindwing in the middle with a large white transverse spot bordered with brown beneath; the 4 marginal eye-spots are in a brown ground. Expanse of the wings: 19 to 22 mm. Ecuador (Loja).

ammon.

H. ammon *Luc.* (144 k) is likewise similar, but easily discernible by two black anal spots above, the proximal one of which mostly exhibits towards the base an orange-red spot. Beneath more purely white and black-grey, the hindwings all white with grey spots, the two anal spots jet-black, bordered with a bright silvery blue, and those between the median veins proximally spotted broadly orange-red. Florida, Cuba, South America. — f. **dominica** *Möschl.* seems to be only an insignificant form in which, on the under surface of the hindwing, the 3 small spots in the basal area are not prominently jet-black. Dominica.

13. Genus: **Brephidium** *Scudd.*

The costal vein is entirely coalescent with the uppermost subcostal. Very small, delicate insects with comparatively narrow wings with rounded apices. Beneath the hindwings exhibit up to 7 metallic-pupilled marginal eye-spots, of which mostly only 4 are fully developed.

isophthalma.

B. isophthalma *H.-Schäff.* (= *pseudofea* *Morris.*) (144 k). Above brown with a brass or copper reflection, on the hindwing with a marginal row of blackish spots being pupilled thickly black and outside silvery on the red-brown under surface. Fringes one-coloured grey-brown. Gulf States, Antilles.

exilis.

B. exilis *Bsd.* (= *fea* *Edw.*) (144 k) is the same, but smaller, above mostly with a more intense brass lustre, and broad white fringes at the proximal angle and in the apical half of the forewing; on the under surface, before the black, marginal, macular series, the ground is more distinctly white. From the Gulf States through Mexico and Central America as far as Venezuela.

14. Genus: **Leptotes** *Scudd.*

Very near to *Hemiargus*, but still more delicately built; the costal and uppermost subcostal veins run rather closely beside each other without coalescing. The hindwings beneath exhibit at the anal angle 2 small black eye-spots with metallic blue pupils.

cassius.

L. cassius *Cr.* (144 k, l). An extremely common species widely distributed in the south; the ♂ above violet with diaphanous spots beneath, the hindwings are white, and at the costal margin and border lilac variable in extent. Beneath white with numerous brown macular bands, 2 before the border close together, the distal one consisting of punctiform spots, the proximal one of crescents, the 2 spots being placed the nearest to the anal angle jet-black, bordered with silvery blue. The ♀ is white also above, towards the base of a silvery blue opalescence with black-brown spots, costal and distal margins. From Mexico through the whole of Central America as far as Colombia, South Brazil, also in Cuba, Jamaica, Hayti, and Dominica; flies up to 5000 ft.

theonus.

L. theonus *Luc.* (= *cassius* *Morr.* nec *Cr.*) (144 l) is probably only a smaller northern and insular form of *cassius*. The ♂ is lavender-blue with somewhat broader dark margins, the ♀ white, on the forewings somewhat more extensively suffused with blue, without the intense black spotting of *cassius*. Beneath the white is more reduced, the macular bands much darker; the anal spots of the hindwings are above and beneath very thickly black.

marina.

L. marina *Reak.* (= *cassioides* *Bsd.*, *pirithous* *Godt.*, *floridensis* *Morr.*) (144 l) is above of a duller and darker lilac-blue colour than the preceding, with a black border narrowing to a line and very diaphanous marking beneath; the ♀ is intensely smoky brown-grey on the white ground, towards the base with a blue lustre, somewhat more strongly spotted than the ♂. The under surface is much darker by the white being very much confined as far as the proximal margin; the anal spots are distinctly encircled by a rusty yellow. Distributed from Texas, Arizona, California through Mexico as far as Guatemala. — The slightly differing f. **cassidula** *Bsd.* has purely white fringes, and in the anal area of the hindwing beneath the eye-spots are not alike, the proximal one very small or entirely absent. Described from Honduras.

*cassidula.**striata.*

L. striata *Edw.* was described from San Antonio in an American forestry magazine of 1877 not available to me.

andicola.

L. andicola *G. & S.* is almost twice as large as *marina*, with a sharp apex of the wings, above violet-blue with dirty silky-white fringes, beneath grey-brown with small, darker spots edged with white; before the margin of the hindwing with a white band and 3 reddish-yellow, small anal spots with black pupils and strewn silvery. Expanse of wings: 40 mm. Discovered by EDW. WHYMPER in the Andes between 7500 and 12 000 feet.

callanga.

L. callanga *Dyar* (144 l) is somewhat larger than *marina*, above reddish violet-blue with a silky gloss and a very fine brownish border. The fringes of the forewing are grey-white, at the ends of the veins speckled somewhat darker, those of the hindwings purely white. On the under surface the forewings are light red-brownish with somewhat darker spots encircled by a whitish colour; before the discal spot there is another spot in the middle of the cell; the spot of the postdiscal row situate between the lower radial veins has a very oblique position and projects far towards the margin, which in its whitish ground contains marginal and subterminal rows of purely grey spots. Hindwings more grey-brownish, likewise only dull-spotted, with a purely white band between the postdiscal and subterminal rows of spots, at the anal angle 2 very small black dots encircled by silvery green. Peru (Cuzco). In my opinion the species may be identical with the following.

I. ochsenheimeri *Godt.* Whether this species unknown to me is to be placed here, I cannot decide; it at any rate seems to me to be allied to *callanga*. Above blue-violet with a brown margin and white-speckled fringes. Beneath the disc of the forewing is red-yellow with some small light yellow ring-spots, a white undulate line before the apex and black marginal dots. The hindwings are beneath of a dirty brownish; in the basal area there are grey rings, behind the middle an undulate snow-white band and 5 small black marginal spots, at the anal angle 3 small spots strewn with a golden green. Expanse a little more than an inch. Described from the Antilles, though doubtful. *ochsenheimeri.*

15. Genus: **Itylus** *gen. nov.*

Anatomically hardly separable from *Lycaena*, but the total impression of these small insects flying only in Tropical America, mostly at great altitudes, is so characteristic that the separation is justified. The hairing of the body is stronger, particularly the palpi show a much longer, somewhat correct, beard-like hairing on the underside, whereas laterally they are covered with broad scales. Costal and subcostal vein of the forewing run separately. The fringes are uncommonly long, mostly speckled very conspicuously; the colour above is a metallic blue of a very intense mother-of-pearl gloss, in other species silvery or coppery bronze are predominant; the under surface of the hindwings mostly shows conspicuous silvery-white macular marking or peculiarly brown serpentine lines. As to the synonymy this group offers great difficulties, because there are a lot of obvious manuscript names, but no descriptions.

I. pelorias *Weym.* (144 m) I only know from the description and figure, it must be extremely allied to the following; the brown upper surface exhibits a silvery grey-blue lustre only in the basal area, the fringes are sharply speckled brown and white. Beneath like *pacis*, but the brown transverse markings of the hindwings, having moreover the same course, seem to be darker black-brown and more distinct; in the marginal area there are no markings whatever. Described according to a ♂ from Bolivia (Sajama) between 3600 and 4600 m. Length of forewings: 10 mm. The specimen denoted as ♂, however, may anyhow be the ♀ of the following form, which would then become synonymous. *pelorias.*

I. pacis *Stgr. i. l.* (1441, m) is above extensively violet-blue with a purple lustre, towards the margin brown with distinctly white-speckled fringes, in the ♀ only in the basal half silvery blue-violet, at the border much broader reddish-brown. Beneath reddish-brown, on the forewing with a discal spot and a series of post-discal spots, in the marginal area indistinct, double, darker, small lunular spots in a ground dusted whitish; the hindwings, on a ground being more intensely dusted whitish, show irregularly torn, dark brown spots in the basal area and a more distinct transverse band from the costal angle to the middle of the proximal angle, projecting far towards the margin between the lower radial veins, and below it with a large silvery white spot; another white patch is situate at the costal margin between a basal spot and the beginning of the transverse band. Marginal markings indicated like on the forewings, between the median veins more distinct. Peru (Cuzco). *pacis.*

I. koá *Drc.* (144 m) is above duller and darker, beneath somewhat lighter; on the forewings the spots are not darker than the ground, their white edges appear as white, coherent undulate lines; on the hindwing there is a complete white longitudinal ray in the costal-marginal area, traversing the dark transverse band, the white spot in the anal area is also larger and bifurcates towards the distal margin. Peru, Bolivia, apparently rare. *koá.*

I. vapa *Stgr.* (144 m) approximates the preceding; it is above monotonously brown with broadly white-speckled fringes. The under surface is very much like that of *koá*, but much lighter; the silvery white costal-marginal stripe extends to the costal margin itself and in it there are about in the middle 3 small round spots of the pale brownish ground-colour; the white spot below the discocellular is much more extensive and almost reaches to the base. In Peru and the Bolivian Andes between 3 and 4000 m (Cuzco, La Paz, Huallatani, Cocapata). *vapa.*

I. ludicra *Weym.* (144 m). This species described according to but one specimen must likewise be closely allied to *koá* and *vapa*, the upper surface, however, is described to be light silvery blue as in our *Lyc. eros*, though with a much stronger lustre; the narrow brown distal margin gradually warms into the blue colour and is somewhat broader at the apex; at the cell-end there is a brown streak; the fringes are speckled brown and white. The under surface is light yellowish-brown, the macular bands recognizable only by their white bordering. The fringes are all white in the basal half, and speckled only in the distal half. On the hindwing the silvery-white costal-marginal stripe is distally broader, sending forth an off-branch on the subcostal vein. As the remainder of the brown transverse band of the preceding species there are a series of dark-brown crescentiform streaks bordered distally by white, from below the lower radial vein in the shape of a broad white band; at the proximal angle several small white spots, the one between the median veins with a black pupil. Length of forewings: 10 mm. Bolivia (Tacora), 3600 to 4600 m. *ludicra.*

I. moza *Stgr.* is a somewhat larger species, above lustrous smoky-brown with an intense metallic lustre, distinguished by the unspeckled fringes being in the distal half dirty white, in the proximal half darker *moza.*

brown than the surface of the wings; before the distal margin of the hindwing there are 3 to 5 blackish, small eye-spots with a light enclosure. The under surface is very similar to that of the following species, but below the discocellular of the hindwing a silvery white patch is more prominent. Bolivian Andes near Cocapata and Huallatani (3 to 5000 m).

inconspicua. **I. inconspicua** *sp. nov.* (144 m) is smaller than the preceding, dull smoky brown with broadly white-speckled fringes, without any lustre; the hindwings above without any small marginal spots. Beneath dull yellowish-brown, the postdiscal row composed of minute, round, separate spots surrounded by white; a double submarginal row of spots in a whitish ground is very distinct. The hindwings are very much strewn with white, in the basal and inner-marginal areas with a silvery blue-grey lustre, as well as in the basal area of the forewing. Before the middle 3, behind it 7 or 8 small round spots of the ground-colour, margined by a somewhat darker colour and encircled by white, form an irregularly curved row; before the dull grey-brownish marginal triangles there is a regular series of high, pointed arches bordered by white on both sides. Cuzco (Peru) at an altitude of 3600 m.

titicaca. **I. titicaca** *Weym.* (144 m), presumably the smallest species, and the following belong into a somewhat deviating group. The shape of the wings is much longer and more pointed. Above lustrous violet-blue, like *Lycaena icarus*, with a narrow brown distal margin and long dirty white fringes. Beneath lustrous light yellowish-brown, the hindwings white-grey, towards the costal margin with a dark brown longitudinal line, below it 2 brown transverse lines from the costal margin to the proximal margin, being inwardly curved in the middle; near the distal margin several brown sagittate spots. Based upon 3 specimens from Lake Titicaca and Sajama (Bolivia), from an altitude of 3600 to 4600 m. Length of forewings: 7 mm.

speciosa. **I. speciosa** *Stgr.* (144 n). In the ♂ the upper surface is blue-violet, the margins brown, all with an extremely intense bronze lustre, suffused as if polished; the ♀ is more extensively brown, only at the bases of the wings with a slight silvery grey-blue tinge. The fringes are speckled white. The forewings are beneath dull brownish, with a white-grey tinge towards the margin, the hindwings all white-grey with 2 sinuate dark brown transverse lines the proximal one of which turns round towards the base below the costal margin and sends a pointed continuation towards the base on the median. Moreover these lines seem to vary very much. Peru and Bolivia at an altitude of 4 to 5000 m. (Cuzco, Huallatani).

16. Genus: **Scolitantides** *Hbn.*

This name of the genus having been established by HÜBNER for *Lycaena hylas* *Schiff* (*nec Esp.*) = *baton* *Bergstr.* has been improperly used since, for a small group of *Lycaena* from the southernmost corner of America, where we may leave it for the present, as the group in itself is very homogeneous, although a separation from *Lycaena* is scarcely a point at issue. In its exterior it partly differs by an orange-red colouring above, which is repeated in all the species in the disc of the forewing beneath. In the colour and scheme of markings the small animals also show some resemblance to the *Chrysophanini*, but on account of the shape of the hindwings, which are the longest between the radial veins, they must better be placed here. About half a dozen species, mostly from Chile, have become known hitherto.

chilensis. **S. chilensis** *Blch.* (= *atahualpa* *Wallengr.*) (144 n) is above black-brown with an orange-red disc of the forewing and pale, on the forewings almost white, small submarginal lunae; the one between the median veins of the hindwings is larger, orange, distally black-pupilled. Under surface pale yellowish-grey, in the disc of the forewing orange with a strongly curved postdiscal row of small black spots, behind it a row of more grey spots. Hindwing densely dusted grey with a cordiform white discal spot and behind it a strongly curved row of ocelli, also in the basal area yet 3 eye-spots. Chile.

plumbea. **S. plumbea** *Btlr.* differs above from the following species by its lustrous blue-grey colour with a broad dark distal margin and veins. Fringes broadly white, spotted black. Beneath likewise similar to *collina*, but deviating by its lighter colouring, the fringes being speckled black and white, the basal half of the hindwing being very much intermixed with white and the distal half almost entirely white. Chile.

collina. **S. collina** *Phil.* (= *lynessa* *Hew.*) is above lustrous blue with a black margin and white-speckled fringes. Beneath the disc of the forewing is orange with a curved postdiscal row of black spots, the border grey with dark marginal spots bordered by white. The hindwings are grey marbled with a transverse band and one black longitudinal spot each at the costal margin and proximal margin. Santiago de Chile.

endymion. **S. endymion** *Blch.* (= *sybilla* *Ky.*) deviates from *collina* by small antemarginal black spots above. Beneath the disc of the forewing is yellow-grey, towards the margin lighter, with a black cell-end streak, behind it 6 large black spots and an antemarginal double row of small diffuse spots, all of which have white rings. The hindwings are grey, marked as in *chilensis*, the antemarginal line composed of angular streaks. Chile (Coquimbo).

faga. **S. faga** *Dogn.* (144 n). This small species was described as *Thecla*, later on placed to *Scolitantides* by DRUCE, with which, however, it does not harmonise either. The shape of the wings is greatly distinguished

by the distal margin contiguous to the proximal margin in an almost rectangular line; the costal margin of the hindwing is somewhat concavely indented, the hindwings exhibit two very short small tails. Above brown with a slight purple lustre, at the anal angle of the hindwing with 2 minute black dots. The ♀ is somewhat larger, with a more intense copper lustre. Beneath the forewings are orange in the disc, towards the margin with two grey-brownish macular stripes; the hindwings are dusty grey with numerous blurred, whitish, small spots and a distinct white transverse band running straight from the costal angle to the anal angle. Ecuador, Peru.

S. sylphis *sp. nov.* (144 n) I can only describe according to the only ♀ before me from the Collection *sylphis*. F_{ASSL}: the shape is the same as in the preceding species, but the colour greatly deviates above from the copper-brown ♀ of *faga*: suffused with a bright blue violet, with orange-red antemarginal macular bands on both wings. Beneath in the disc likewise red-yellow, the 2 marginal bands consist of distinct black small spots with white rings, on the hindwing the straight whitish transverse band is absent. Cuzco (Peru).

S. excisicosta *Dyar* differs from *faga* above by white-speckled fringes, the costal margin of the hindwing *excisicosta*. being flatly concave like in *faga*, the apex projecting roundish, on the hindwing analwards 3 minute black spots, proximally feeble, whitish, small lunae. Beneath the forewings are likewise orange, at the costal margin and distally grey with 2 rows of dull small submarginal spots surrounded by whitish; hindwings almost grey with a whitish submarginal band and very small, dull basal and discal spots; the 3 small anal spots have golden pupils. Peru (Cotahuasi, Chuquibamba) in October.

Corrections and Additions.

P. 757, line 3 from below, after *catadupa* insert:

Th. gauna *Bsd.* shaped like the preceding, above azure with a black apex of the forewing and a jet- *gauna*. black stigma. Beneath ashy-grey with 2 obsolete undulate transverse bands and an interrupted submarginal line. Costa Rica.

P. 760, line 20 from above, after *bolima* insert:

Th. muela *Dyar* has the same shape of wings, only on the hindwing it has a more projecting *muela*. anal angle and a less projecting small tail on the lower median vein. Above grey-brown, the basal areas of both wings towards the proximal margins with a light blue tinge. Beneath very much like the preceding, the basal area of the forewing darker than the marginal area, the apex more olive-yellowish; on the hindwing the two colours are sharply separated by a line being interrupted in the cell; the olive-yellowish distal area is traversed by a faintly darker macular line. Peru.

P. 760, line 29 from above: for *anosma* place: **oribata** *Weymer*.

oribata.

P. 766, ,, 9 ,, ,, : after *janthina* insert:

Th. janthodonia *Dyar*. Forewings black, below the cell for two thirds dark metallic blue, like the *janthodonia*. whole hindwings. Beneath dark slate-grey, marked bluish-white like the preceding; the area between the anal spots is not green, but blue, the spot of the tail with a red pupil. Expanse of wings: 25 mm. Vera Cruz.

P. 766, line 9 from below: cancel *bianca* *Mschlr.*

P. 767, ,, 17 ,, above: to *arindela* add: f. **rinde** *Dyar* is beneath brownish ashy-grey, on the *rinde*. forewing with but one postmedian band from the costal margin to the lower median vein; the subterminal band of the hindwing dusted silvery. West Mexico (Sierra de Guerrero).

P. 769, line 10 from below, to *cambes* add: (= *syvix* *Dyar*).

P. 771, ,, 27 ,, above, cancel *primnoxa* *Dyar* and add the name as synonymous to *elsa* *Hew.* (line 16 from above).

P. 771, line 10 from below, cancel *zenaida* *Dyar*.

P. 779, ,, 16 ,, above, for *deserta* insert: **sierrae** *Dyar*.

sierrae.

P. 780, ,, 9 ,, below, to *uterkudante* add: (= *elimes* *Dyar*).

P. 780, ,, 6 ,, ,, , for *ostrinus* *Drce.* place: *bianca* *Mschlr.*

P. 783, ,, 22 ,, above, for *castrena* *Jones* place: *tella* *Schs.*

P. 783, ,, 18 ,, below, after *facuna* insert:

Th. muridosca *Dyar* is only as large as *nana*, above black, in the disc of the forewing and hindwing *muridosca*. violet-blue with the same scent-spot in the cell of the hindwing; anal angle hairy, without a tail. Beneath light blue-green, on the hindwing irregularly strewn with black scales, which are accumulated to small black spots between the veins in the distal area, the largest being situate between the median veins; the white, proximally black lunar line like in *nana* obsolete above the radial veins. Expanse of wings: 20 mm. Mexico (Jalapa).

P. 784, line 5 from above, after *semones* insert:

venae. **Th. venae** Dyar is above black with a dark blue lustre; beneath lustrous dark green with traces of an interrupted white line proximally bordered with black, on the hindwing; a black marginal line, fringes grey. Expanse of wings: 21 mm. Mexico (Misantla, Vera Cruz).

P. 784, line 19 from above: *Schausi*-group: the species mentioned here are genuine *Lycaenidae*, although they were placed to the *Erycinidae* by Dyar. For the group the name of the subgenus: **Ipidecla** Dyar is to be placed. Two new species are to be added:

miadora. **I. miadora** Dyar. Above unicolorously grey-black, towards the base on the forewing and almost on the whole hindwing spread over with a blue grey. Beneath blue-grey, with jet-black veins, with one orange-red basal spot each at the costal margins of the fore- and hindwings. Expanse of wings: 22 mm. West Mexico (Guerrero).

monenopteron. **I. monenopteron** Dyar (144 n) is similar, smaller, above dark grey, the forewing in the basal half metallic blue. Under surface lighter grey, on the forewing at the cell-end towards the costal margin with black shades, hindwing with black veins. Sierra de Guerrero.

P. 784, line 9 from below, after *sesara* insert:

brocela. **Th. brocela** Dyar I place here owing to its exterior resemblance. Above grey-brown, the costal margin of the forewing narrow light red, at the base broader; a black discal spot. Hindwings spread over with a bright blue with a small red anal-angular spot; on the lower median vein only one long, at the end white tail. Beneath light ash-grey, both wings traversed by a brick-red median band which appears on the hindwing more in the shape of a spot and is distally bordered narrowly with white; before the distal margin a double whitish macular line; the spots on the tails small, red, the anal-angular spot with a black pupil. Captured in Peru (Cotahuasi) in October, at an altitude of 9000 ft.

P. 786, line 3 from above, after *lemuria* insert:

bennetti. **Th. bennetti** Dyar. Above bright metallic blue, on the forewing with a duller and darker discal spot; apex broad black, also on the hindwing. Under surface blackish-grey with an ochreous tint, on the forewing the straight postmedian is white, proximally bordered with black, the fine submarginal band is defined on the veins. The postmedian band of the hindwing is coloured like on the forewing, though irregular, extended outwards above and below the lower median vein. Spots of the tails small, red, with black pupils, proximally bordered with black. Peru, Pampaconas River, taken in August.

P. 788, line 12 from above, to *proba* add: (= *climicles* Dyar).

P. 788, ,, 22 ,, below, after *purissima* insert:

nippia. **Th. nippia** Dyar. Above blackish, on the forewing the basal third below the cell and the cell as far as the end light blue, hindwing up to the upper radial vein likewise blue. Under surface white, forewing with a faint white distal line, defined on the veins; on the hindwing the postdiscal band is thin, black, distally white with a flat W towards the anal margin; the small red spots on the tails are both pupilled in black; a feeble submarginal line. Expanse of wings: 25 mm. Mexico (Sierra de Guerrero).

P. 794, line 24 from below: add *devia* Mschl. as the synonym to the following species: *xeneta* Hew.

P. 795, ,, 1 ,, above: to *atrox* add *gentilla* Schs. as synonymous.

P. 797, ,, 22 ,, ,, : for *tirhaea* which becomes synonymous place: **pan** Drury.

P. 799, ,, 23 ,, ,, : after *carla* insert:

minniles. **Th. minniles** Dyar. Above black, hindwing and proximal part of the forewing dull dark blue; without any tail. Beneath bright green, the proximal margin of the forewing grey. The postdiscal band of the hindwing broken up into lunar streaks, proximally black, distally white, between the lower radial and upper median vein and at the proximal margin receding considerably; a feeble cell-end streak; both the small spots on the tails red, towards the base black, the one at the anal angle besides white. Expanse of wings: 20 mm. Mexico (Guerrero).

P. 801, line 22 from above, *gentilla* Schs. is to be cancelled.

P. 802, ,, 29 ,, below, after *seudiga* insert:

viggia. **Th. viggia** Dyar. Forewing above black with a dark blue diffuse spot below the cell for $\frac{1}{4}$ of the length of the wing; hindwing almost quite blue. Beneath white-grey, forewing at the cell-end with a feeble dark ellipse, close behind it with a curved grey, proximally red-yellow band; an antimarginal blackish, proximally white line, somewhat angular on the middle radial vein; the discal area is of a purer white. Hindwing marked the same, the postdiscal band more intensely red, angled on the veins, a light grey submarginal lunar line, distally removed between the radial veins; at the border small roundish nebulous spots, the spot on the tail with a red ring. Expanse of wings: 19 mm. Mexico (Santa Rosa, Vera Cruz).

P. 802, line 4 from below, after *hyccara* insert:

heraldica. **Th. heraldica** Dyar. Above black, forewing towards the base somewhat blue, hindwing except the broad black costal margin and proximal margin quite blue. Beneath grey, towards the margin lighter, the postdiscal band white, proximally red-grey, on the hindwing defined on the lower radial vein with a flat W at the proximal margin. Both the spots of the tails red, the upper one with a black pupil. Expanse of wings: 20 mm. Panama (Porto Bello).

P. 804, line 10 from above, after *gamma* insert:

Th. ulia Dyar. Shape of the wings like in the preceding; above grey, spread over with a light blue, *ulia*, particularly in the proximal half of the hindwing; fringes and base of the costal margin light red-brown. Beneath ochreous-brown, the proximal part of the forewing lighter, both the wings with two broad, irregular, brown transverse bands through the cell, on the hindwing feebler; an antemarginal row of small, indistinct, dark spots, on the hindwing the space behind them is lighter. Peru (Cantas).

P. 806, line 21 from above, add to *canus* the synonym: (= *bunnirae* Dyar).

P. 806, ,, 25 ,, below, add to *sangala* the synonym: (= *callides* Dyar).

P. 806, ,, 14 ,, ,, , add to *amphrade* the synonym: (= *posetta* Dyar).

P. 807, ,, 1 ,, above, cancel *promissa* Mschlr. and place it as the synonym to *sabinus* Fldr.

p. 806, line 6 from below.

P. 807, line 9 from above, add to *serapio* the synonym: (= *mesca* Dyar).

P. 807, ,, 16 ,, ,, , add to *tella* the synonym: (= *castrena* Jones) and place the species on

p. 783, line 20 from above!

P. 808, line 20 from below, after *yojoa* insert:

Th. tyleri Dyar differs from *yojoa* (159 k) by its greyer, less reddish under surface, the postdiscal *tyleri*. lines being straighter, not broken or angular, without a red border; the spot of the tail small, without any red colour which is also absent at the anal angle. Peru (Coropuna), taken in October at an altitude of 14 500 ft.

P. 808, line 13 from below, to *thordesæ* add the synonym: (= *zenaida* Dyar).

P. 809, ,, 27 ,, ,, after *bubastus* insert:

Th. laceyi Barn. & McD. differs from *eurytulus* (145 h) by the orange anal angle of the hindwing *laceyi*. above and three more small, black antemarginal spots being white towards the base. There is a little tail. Under surface mouse-grey, the postdiscal spots orange instead of brown; in the basal area of the hindwing only one spot; the W distinctly prominent. Texas, described according to a ♀.

P. 810, line 1 from below, after *tarania* insert:

Th. otoheba Dyar is above black-brown, the anal angle of the hindwing spotted orange. Beneath *otoheba*. brown-grey with a somewhat oblique postdiscal band of the forewing as far as the lower median vein, and an irregular submarginal band. Hindwing with a broad carmine median band, which is defined on the lower radial and distally bordered by silvery-white arcs between the veins; the blackish subterminal line is dentate and distally red as far as up to the lower radial, forming a large red spot below it; between the spots of the tail a blue-dusted area. Expanse of wings: 21 mm. Dominica, in June and July.

P. 811, line 14 from below, after *eryx* insert:

Th. burica Dyar is above bright blue with a large black stigma and a broad black apex of the forewing. *burica*. Beneath bronze-grey, the cell of the forewing dark diaphanous, otherwise marked like *eryx*, but without any red at the spots of the tail, between which there is black and white dusting. Expanse of wings: 25 mm. Panama (Trinidad River).

Beside the species stated quite a number of American *Lycaenidae* have been described by old authors, such as FABRICIUS (*agrippa*, *anacreon*, *chiton*, *dindus*, *moncus*), GODART (*bazochii*, *cithonius*, *ergeus*, *gabelus*, *megarus*, *nebis*, *sinnis*, *strophius*) and others, which it has hitherto been impossible to throw light upon; probably the greater part will represent synonyms with other species; for this reason we have left out these mostly insufficient descriptions.

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with reference to the original descriptions of the forms of the American *Lycaenidae*.

* signifies that the form is also figured at the place cited.

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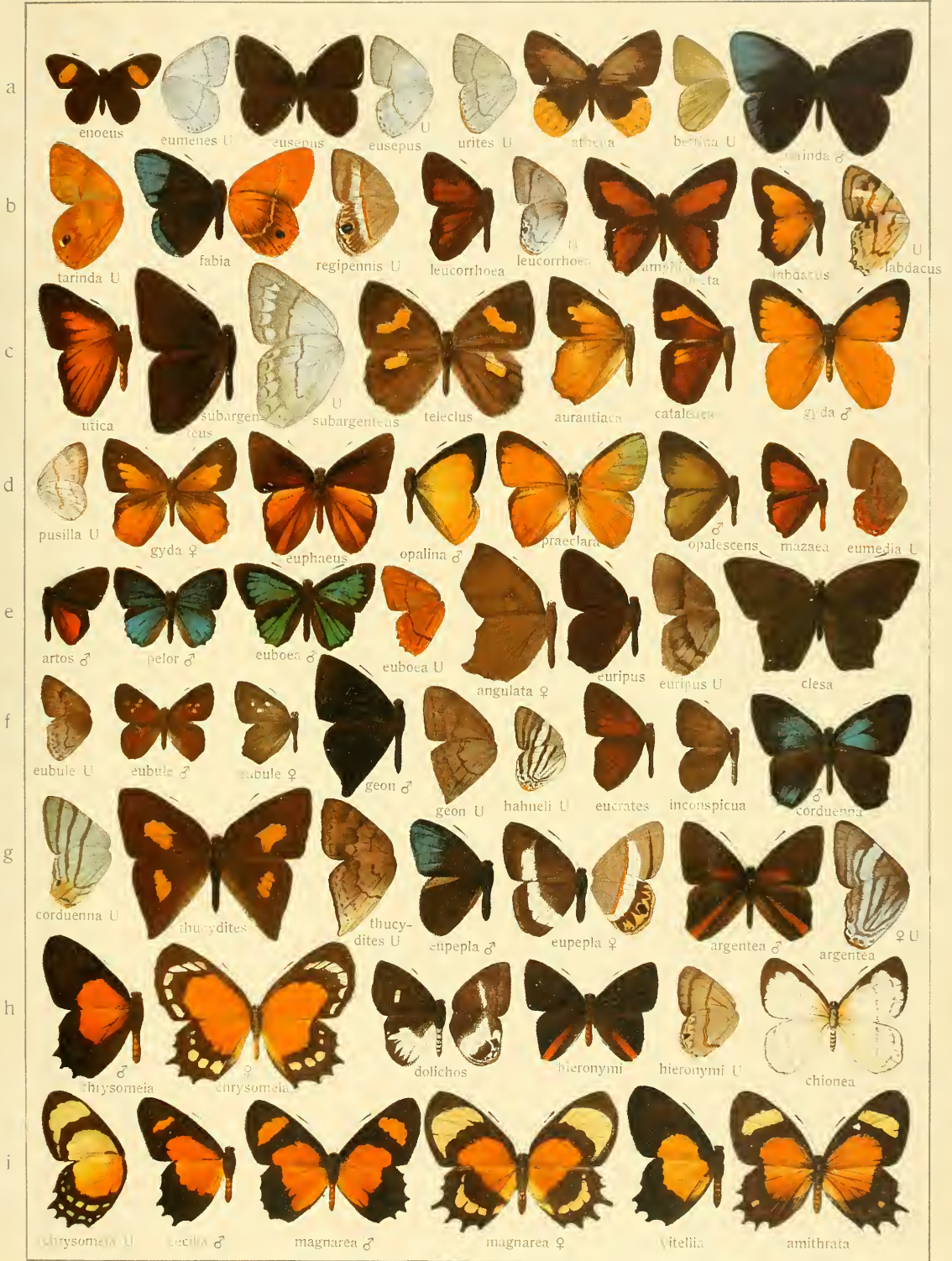
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EUSELASIA



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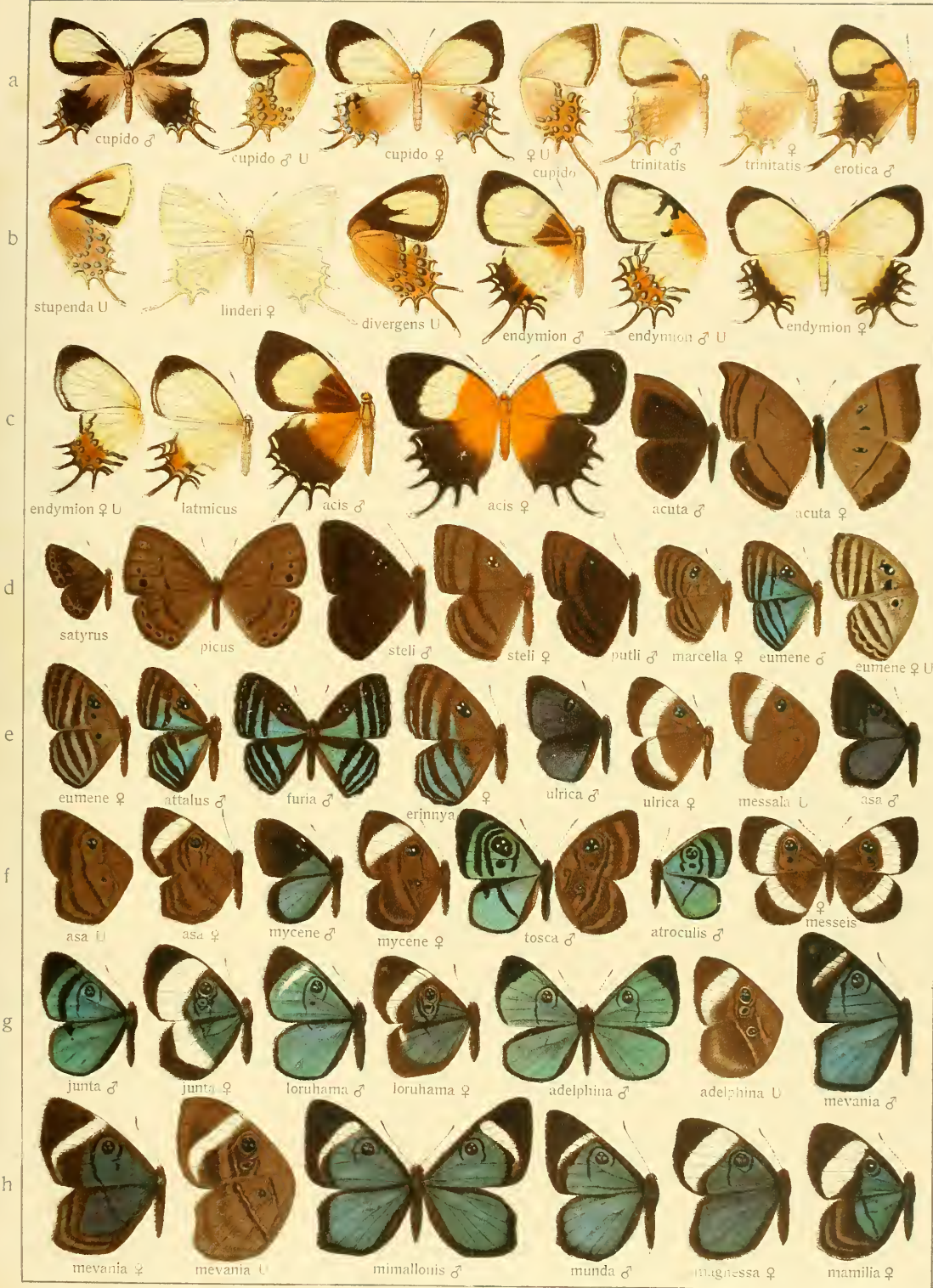
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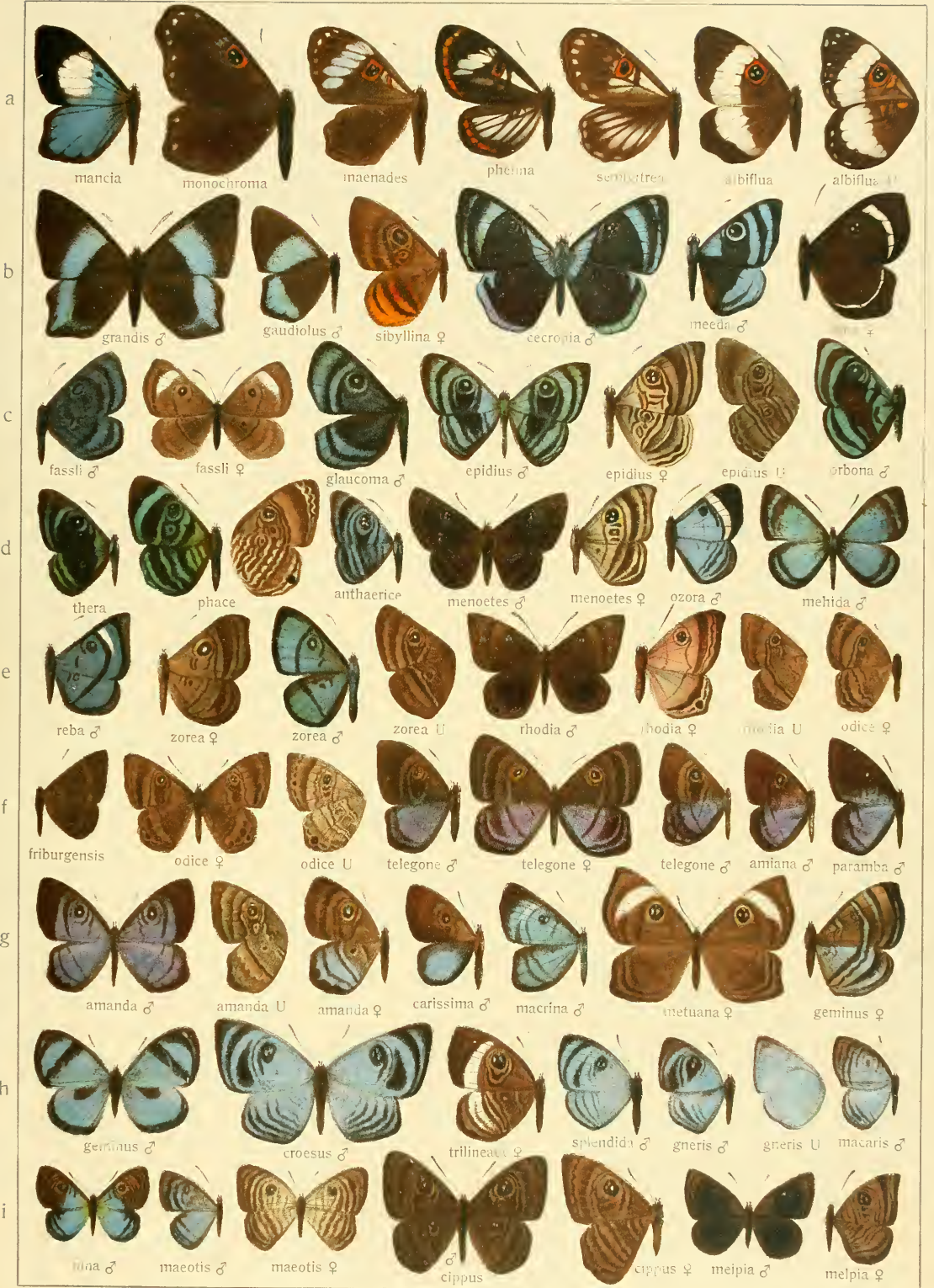
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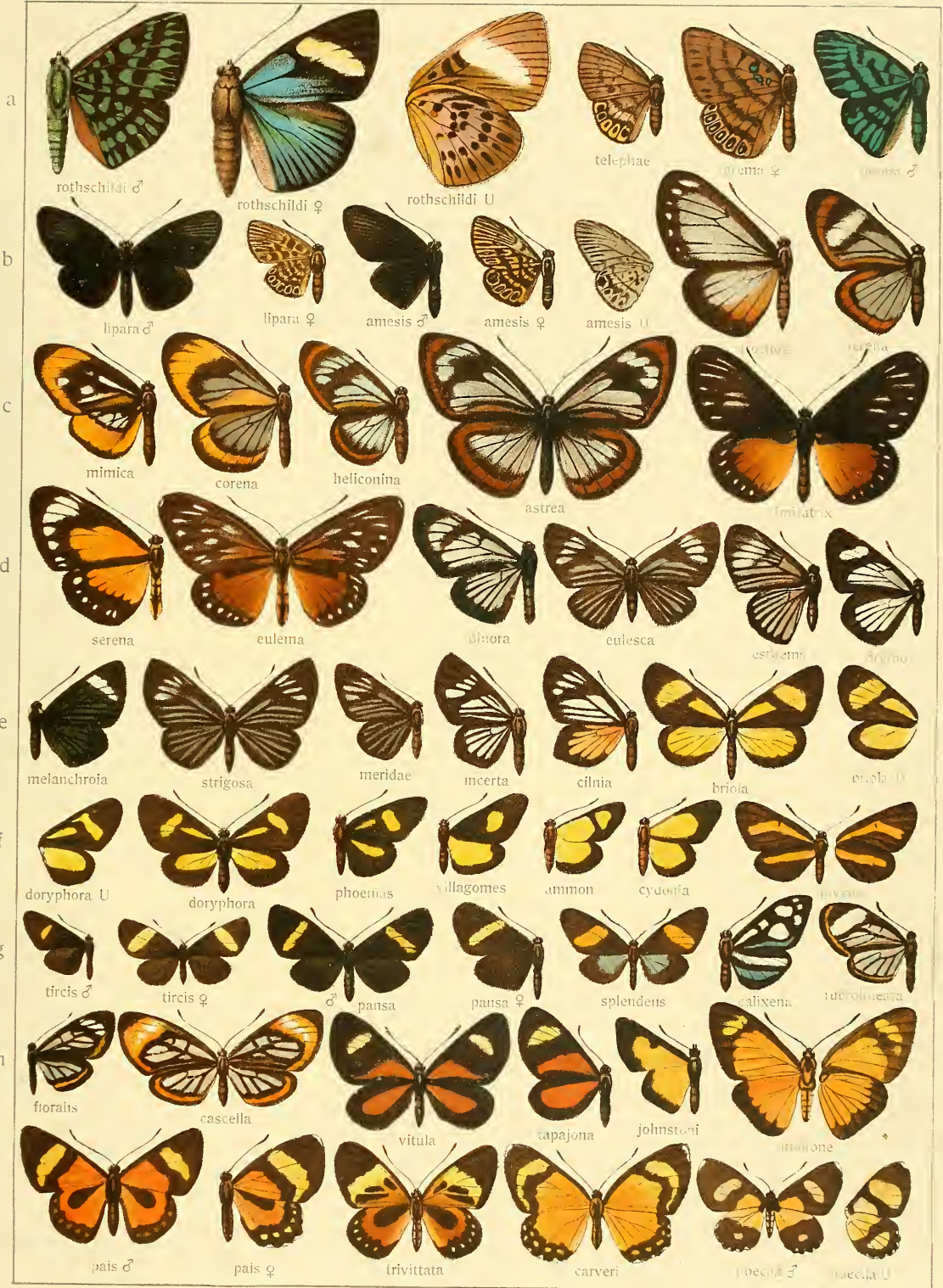




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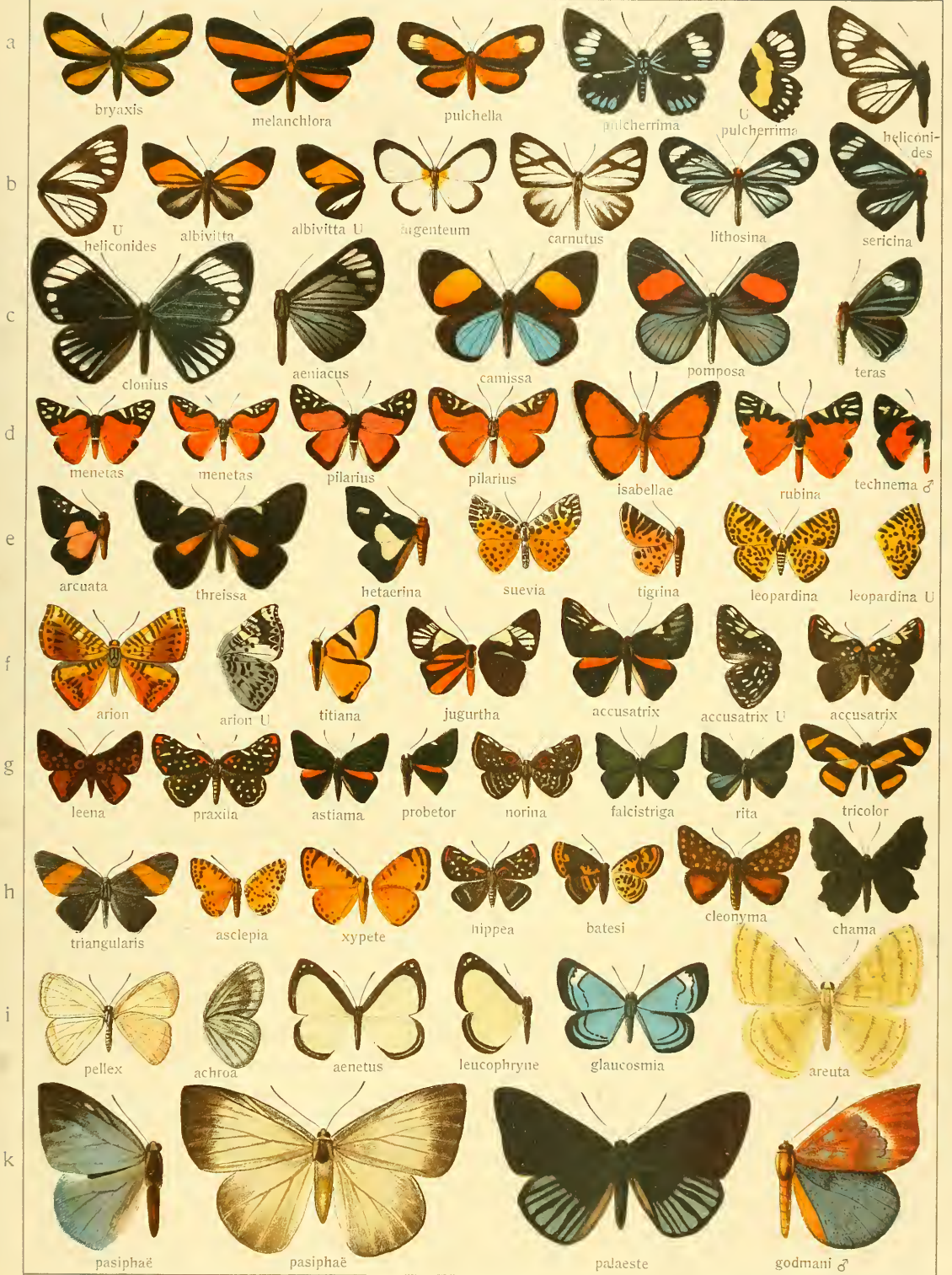


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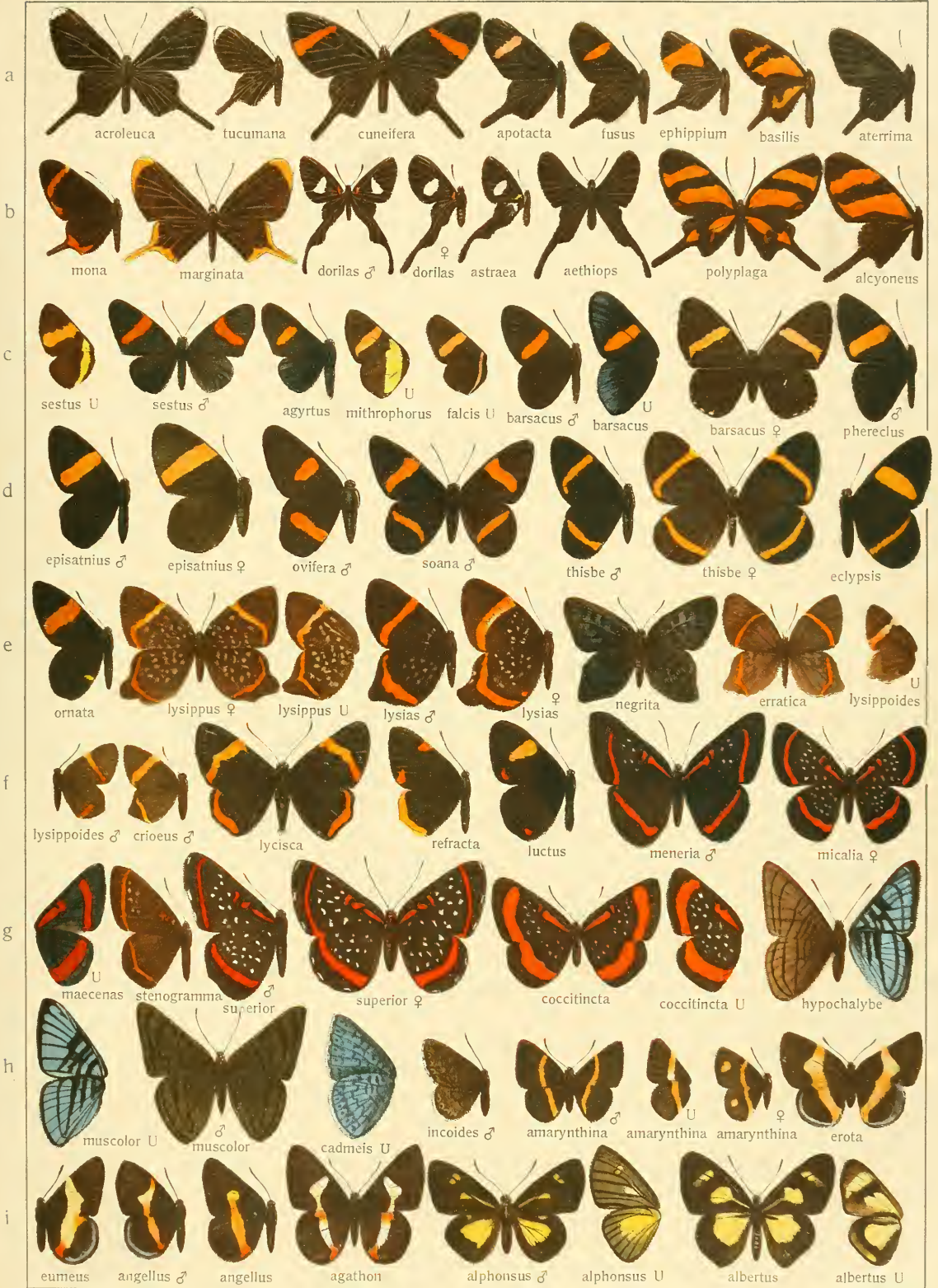
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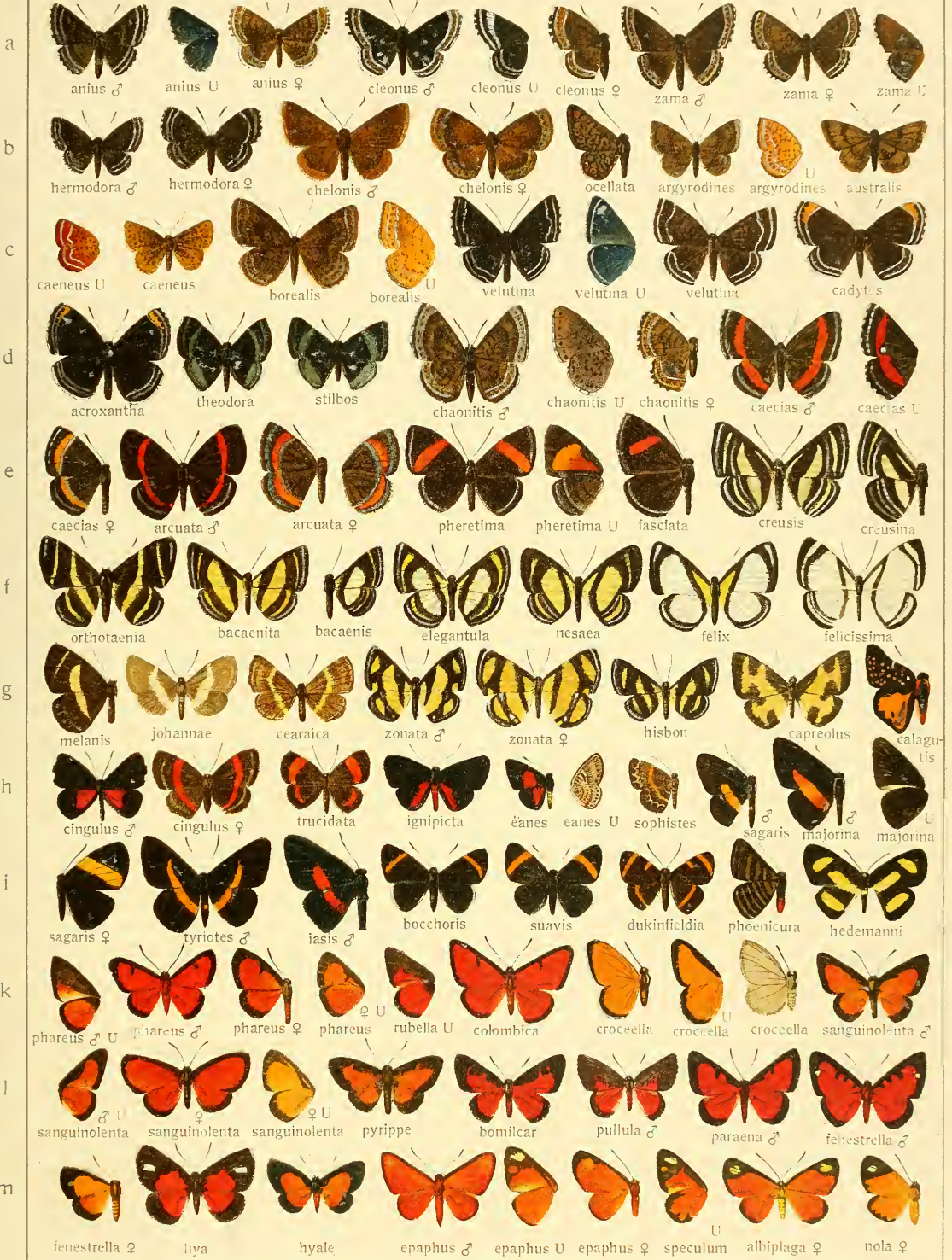


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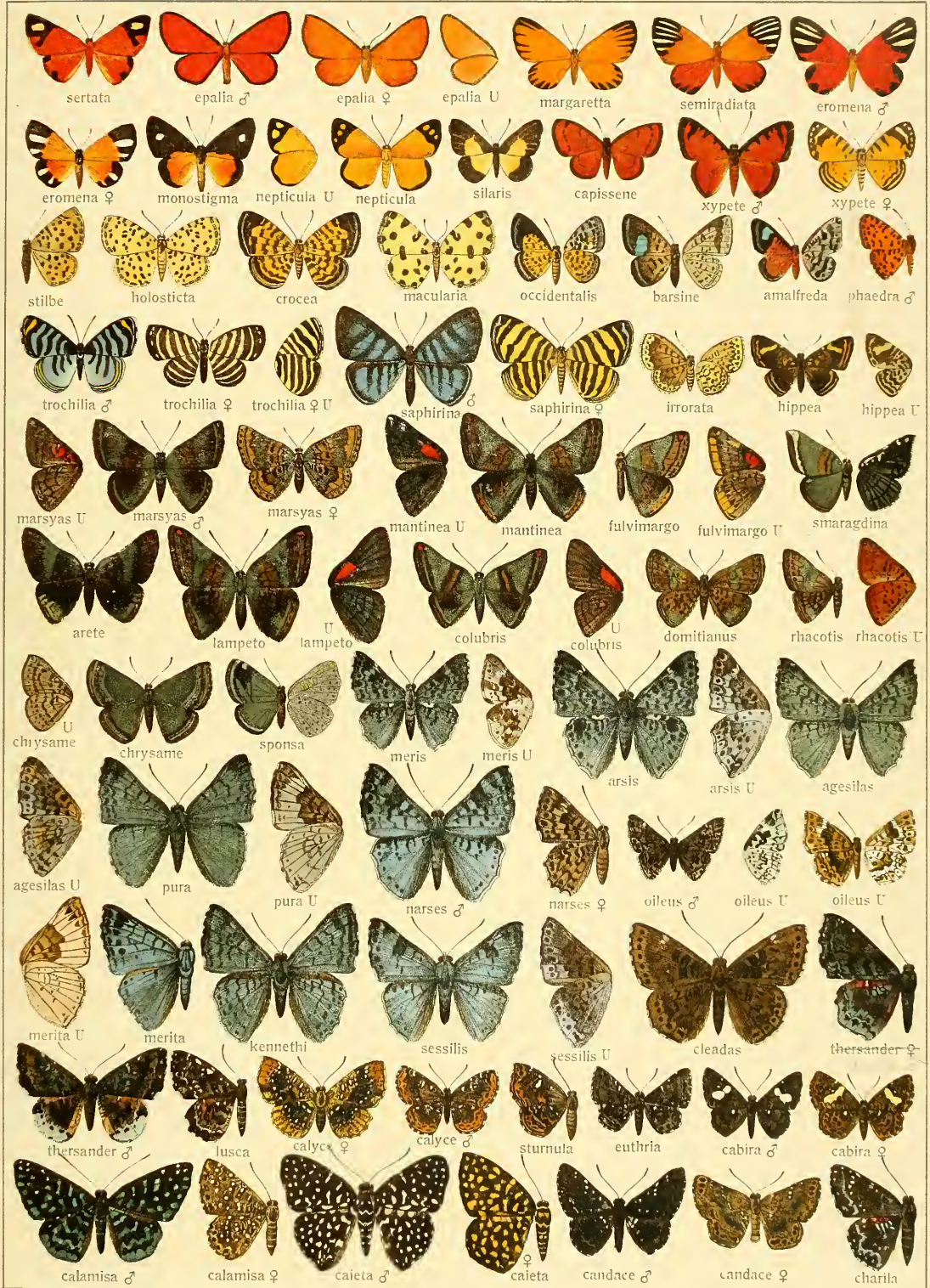


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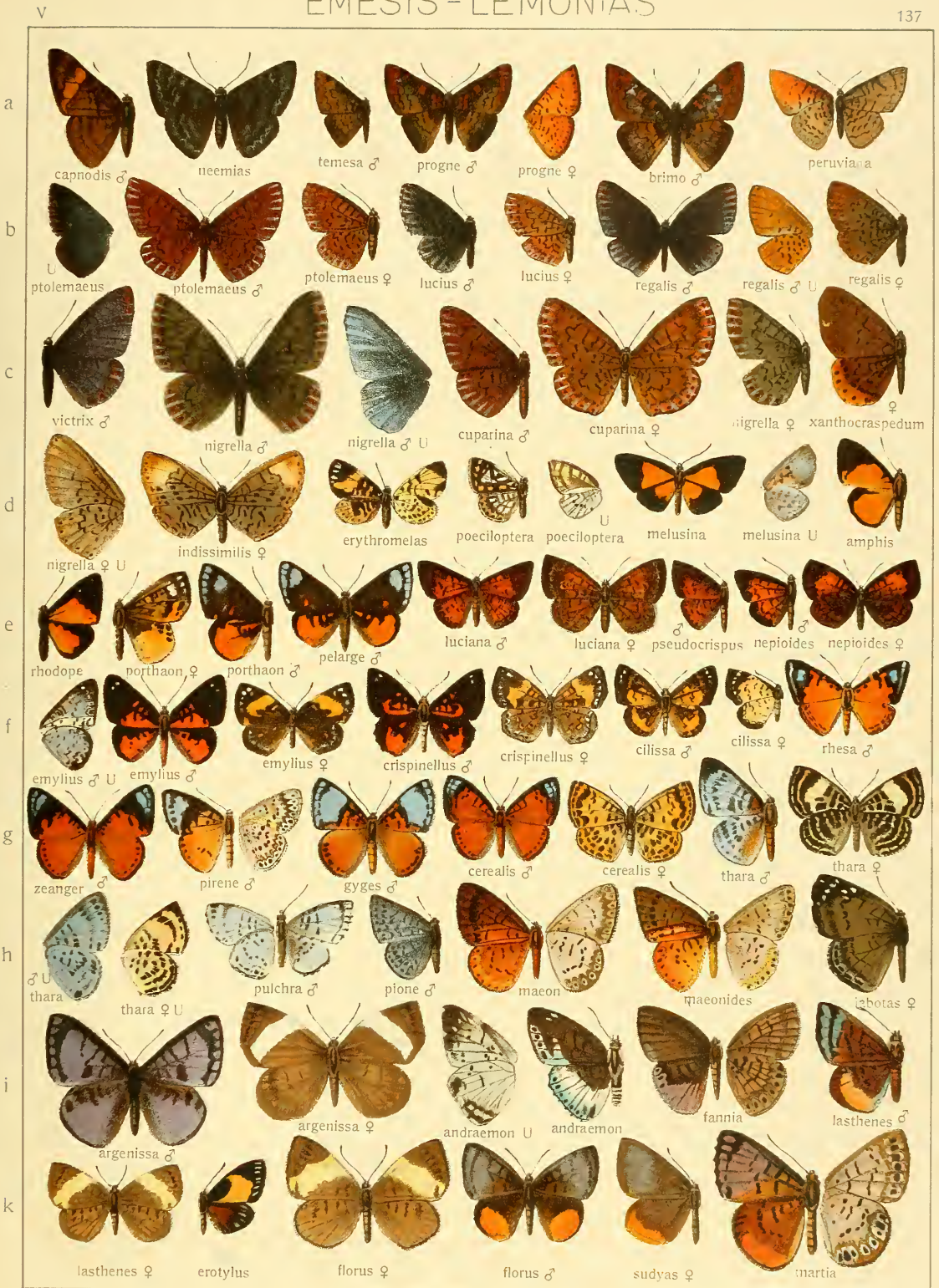
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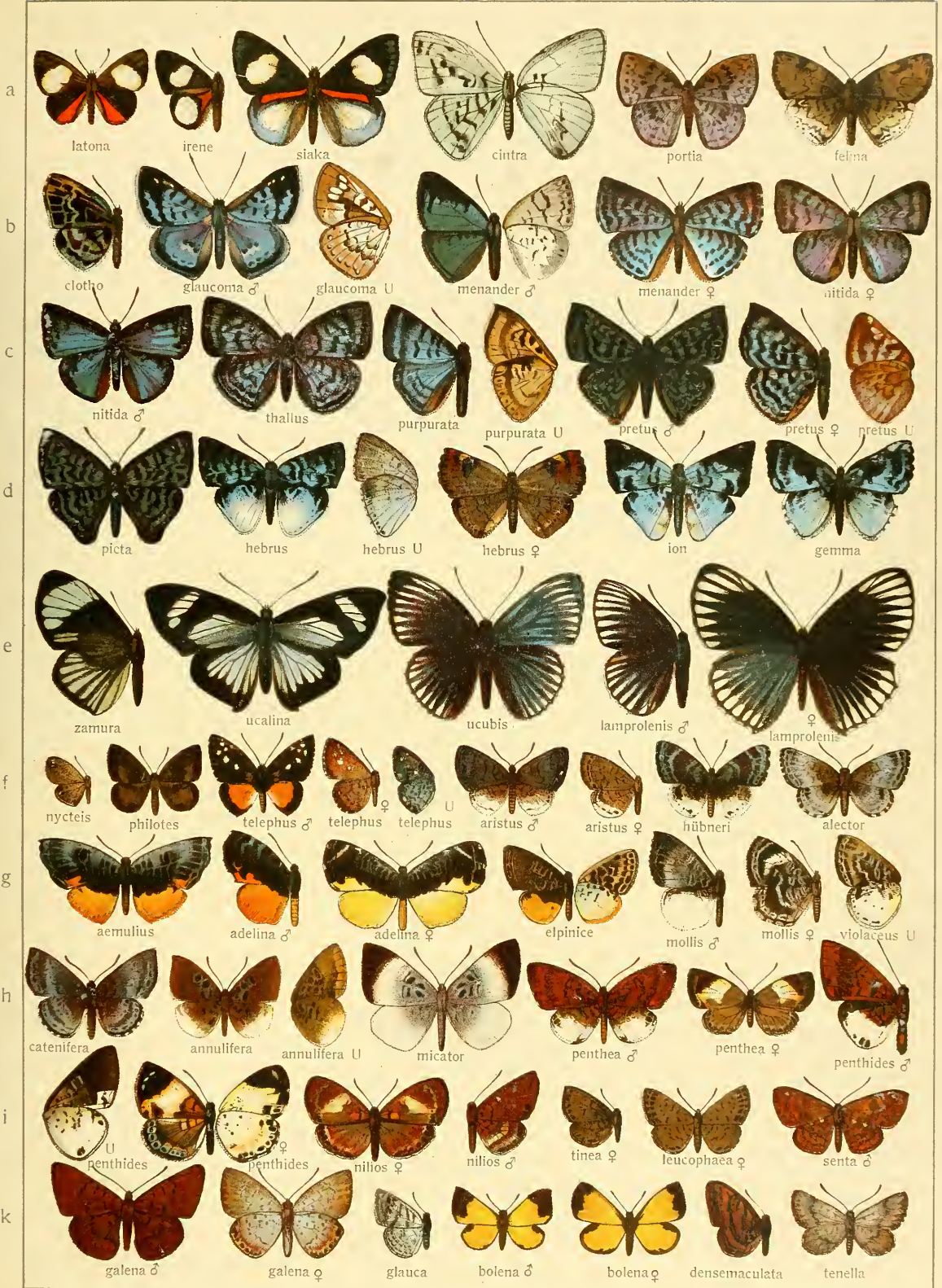


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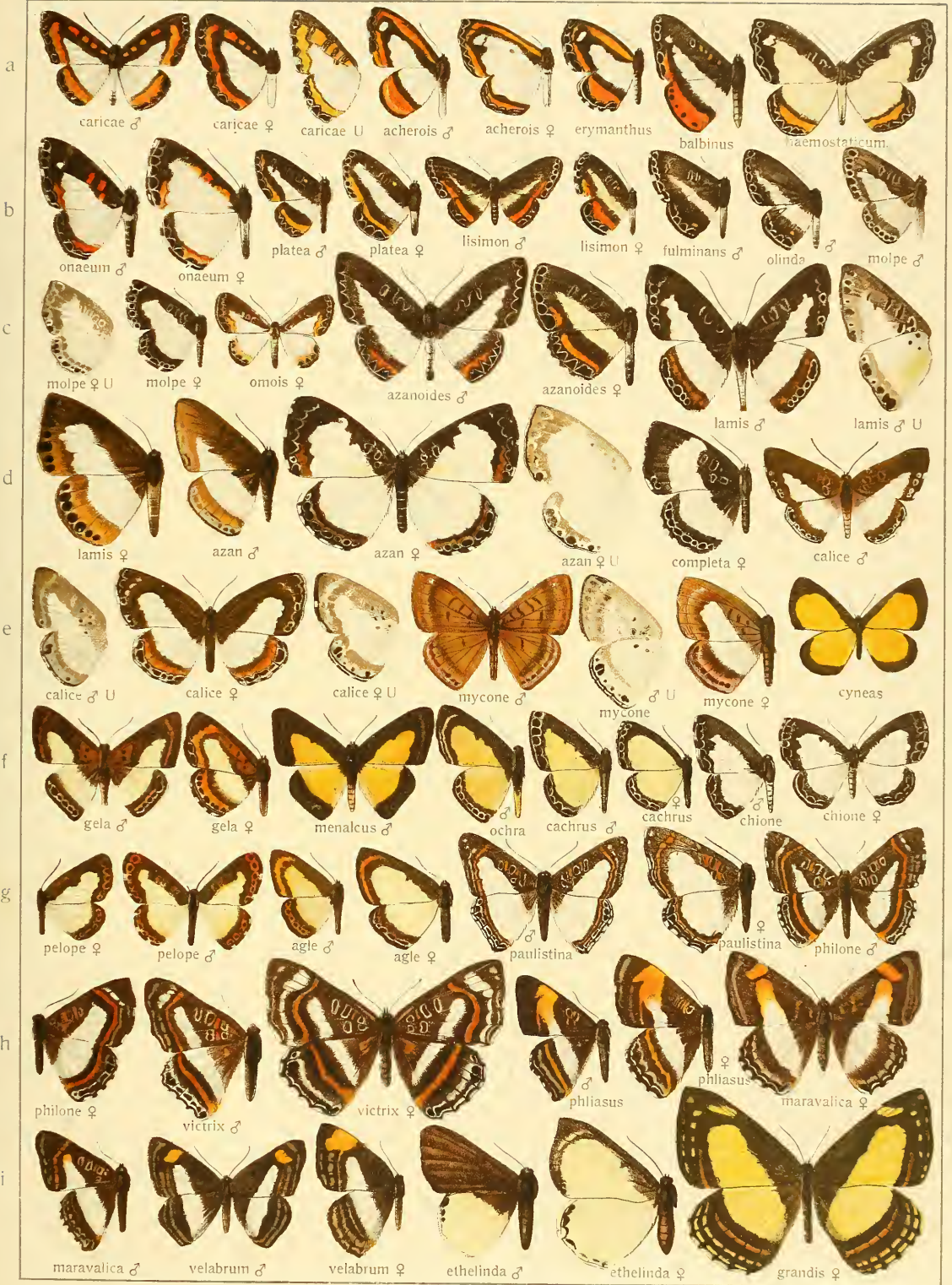


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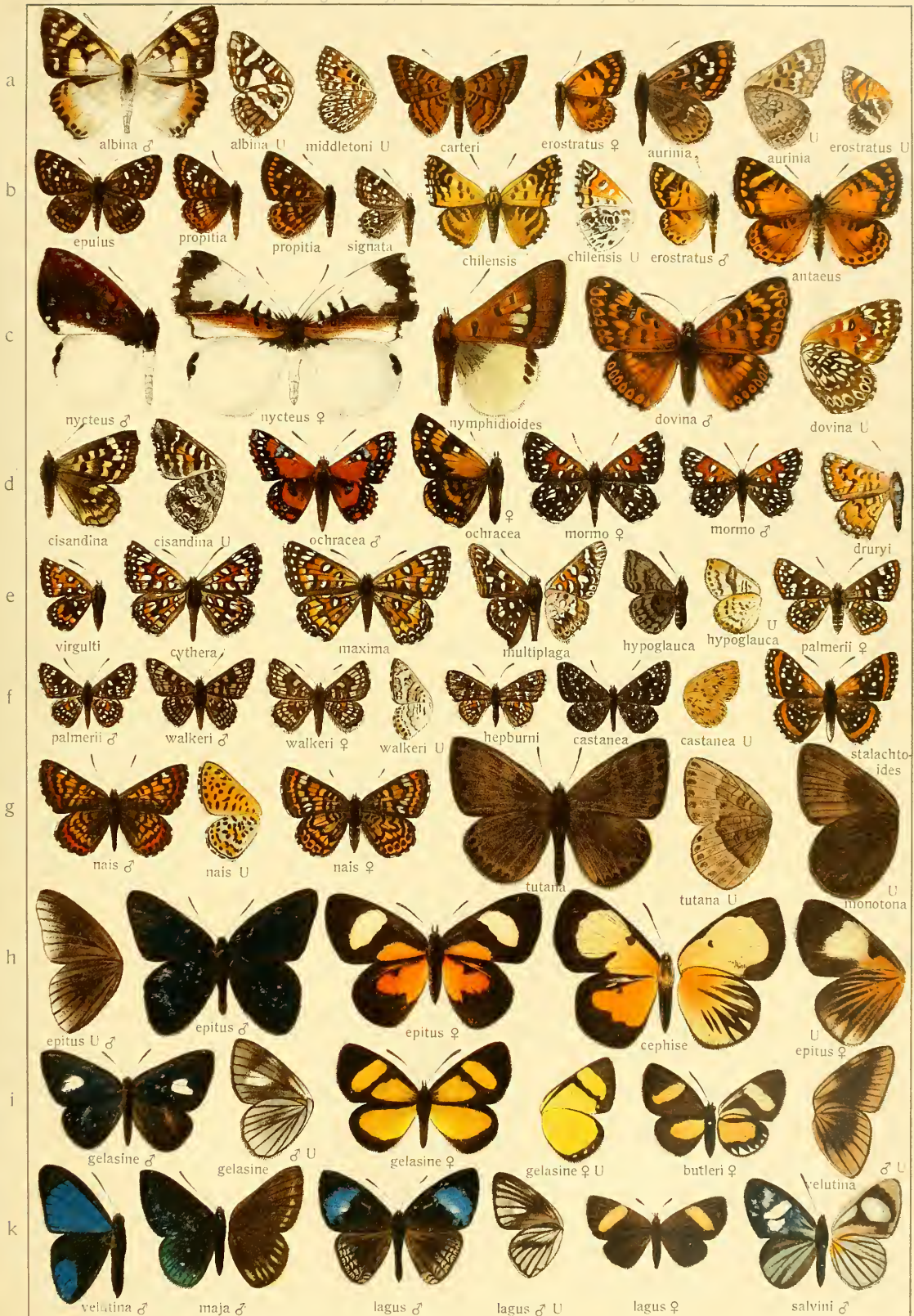
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NYMPHIDIUM

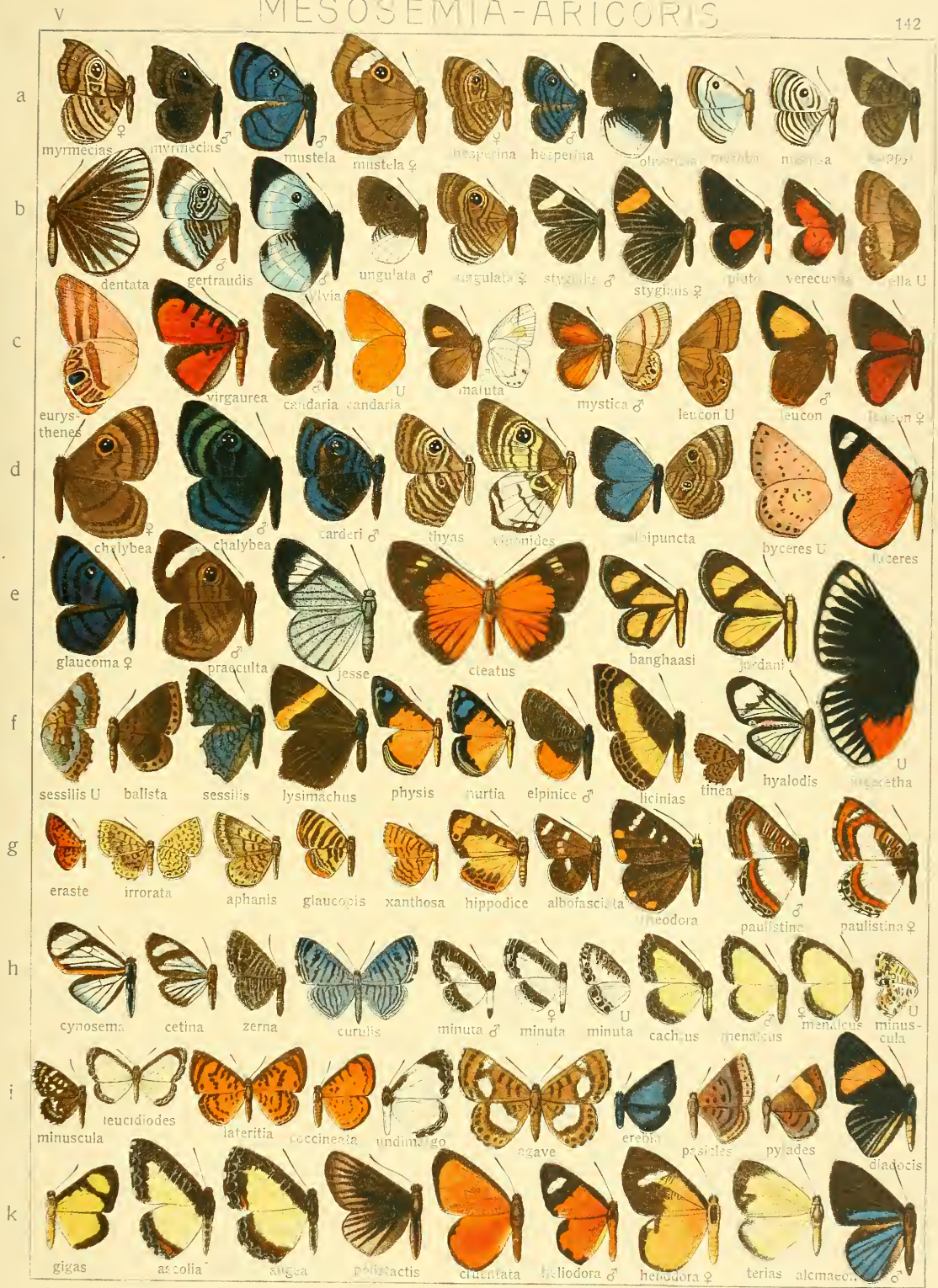


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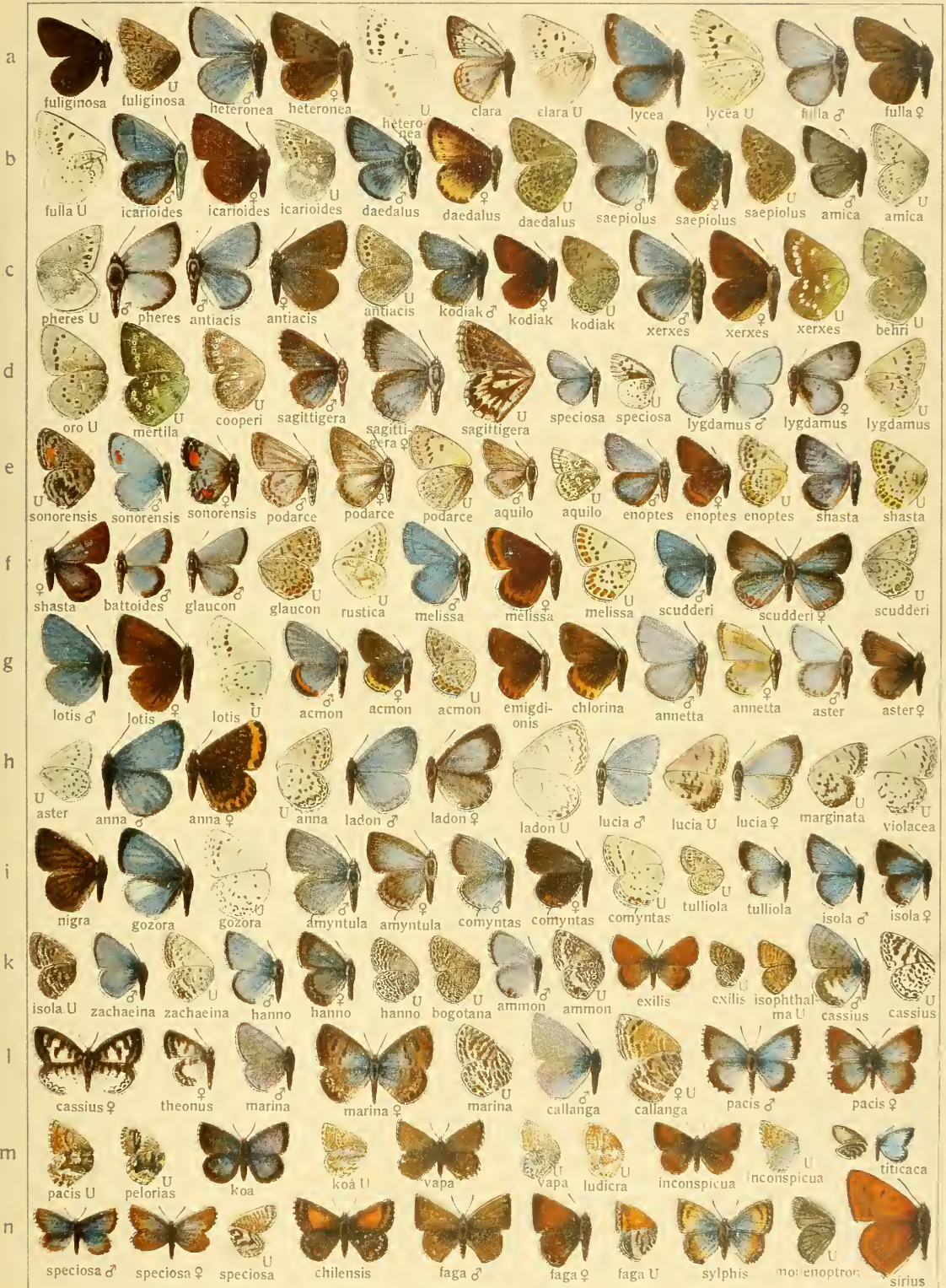


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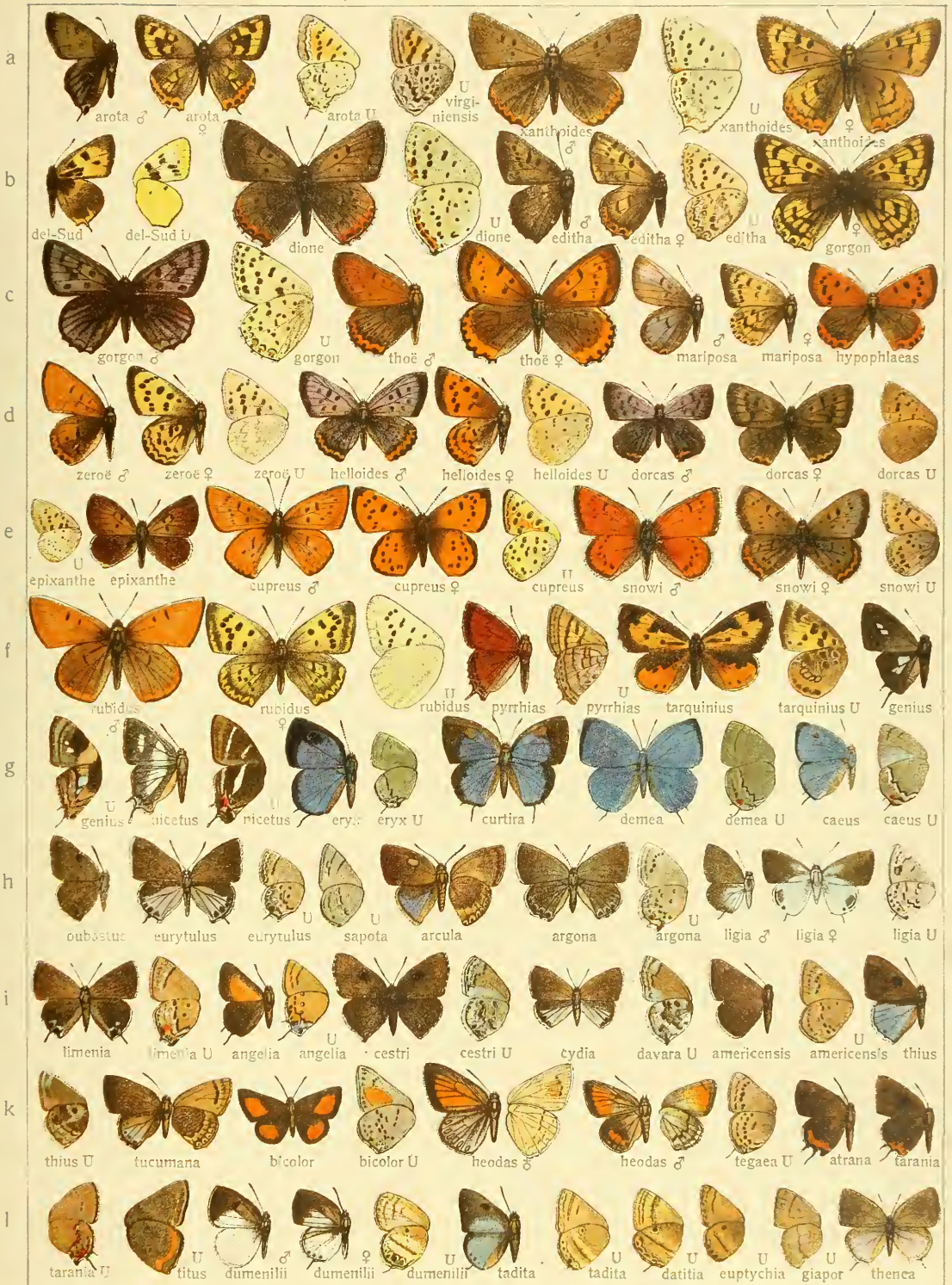
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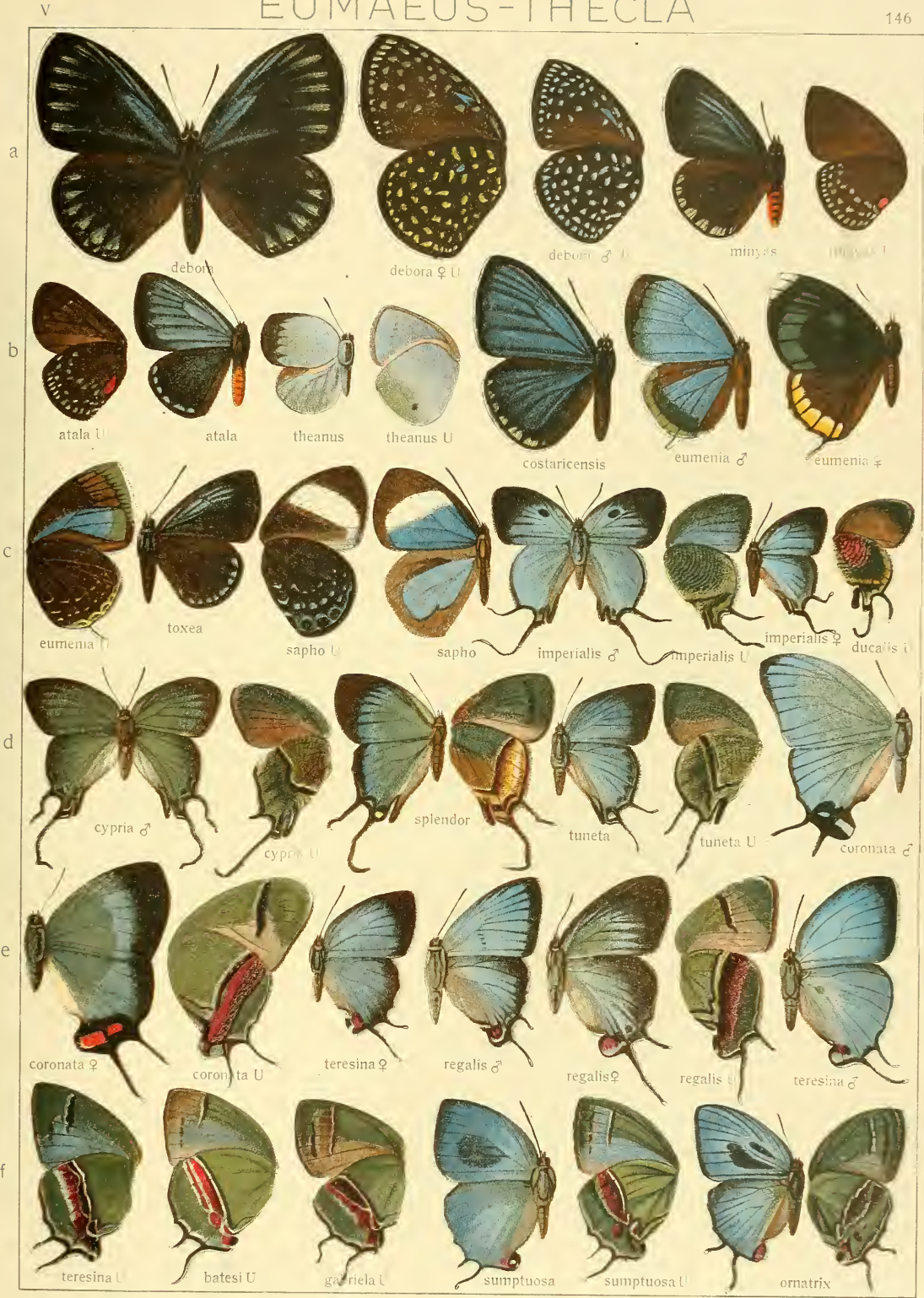
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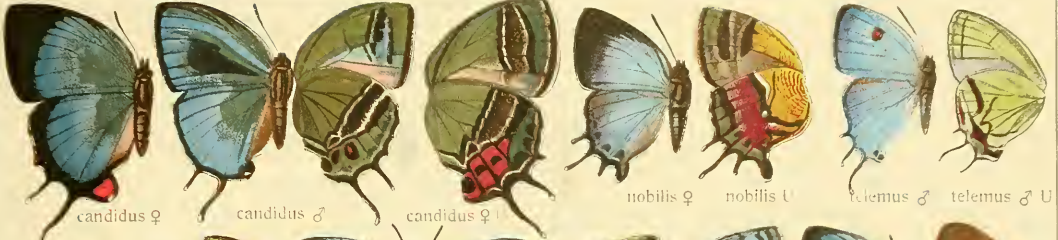
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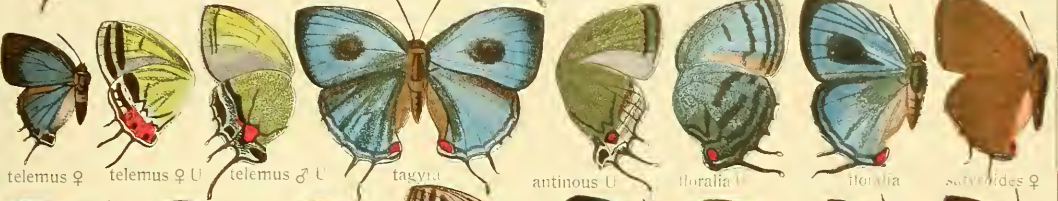
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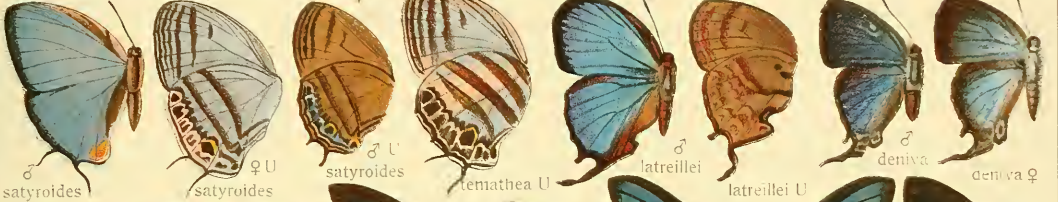
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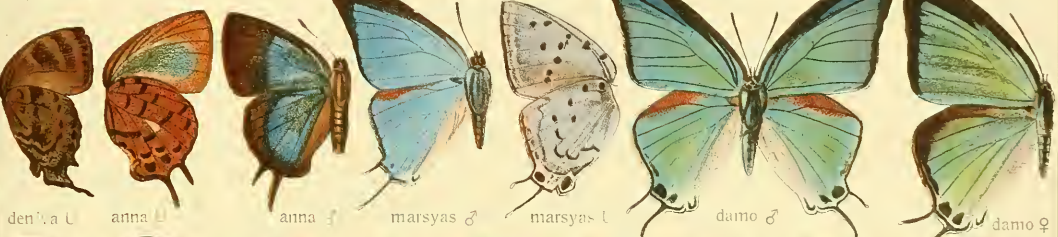
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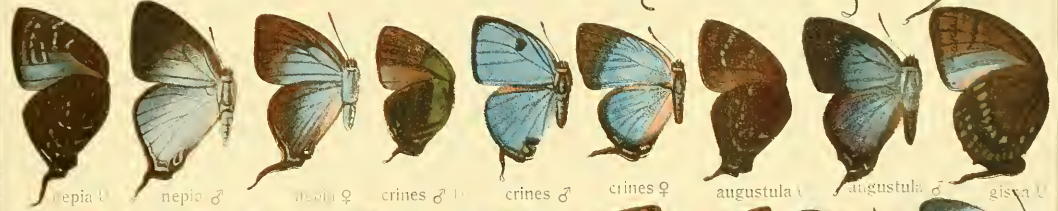
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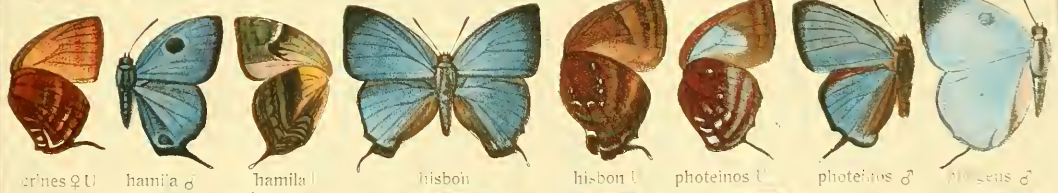
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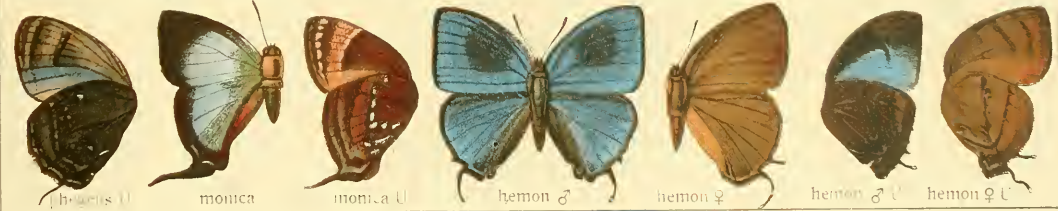
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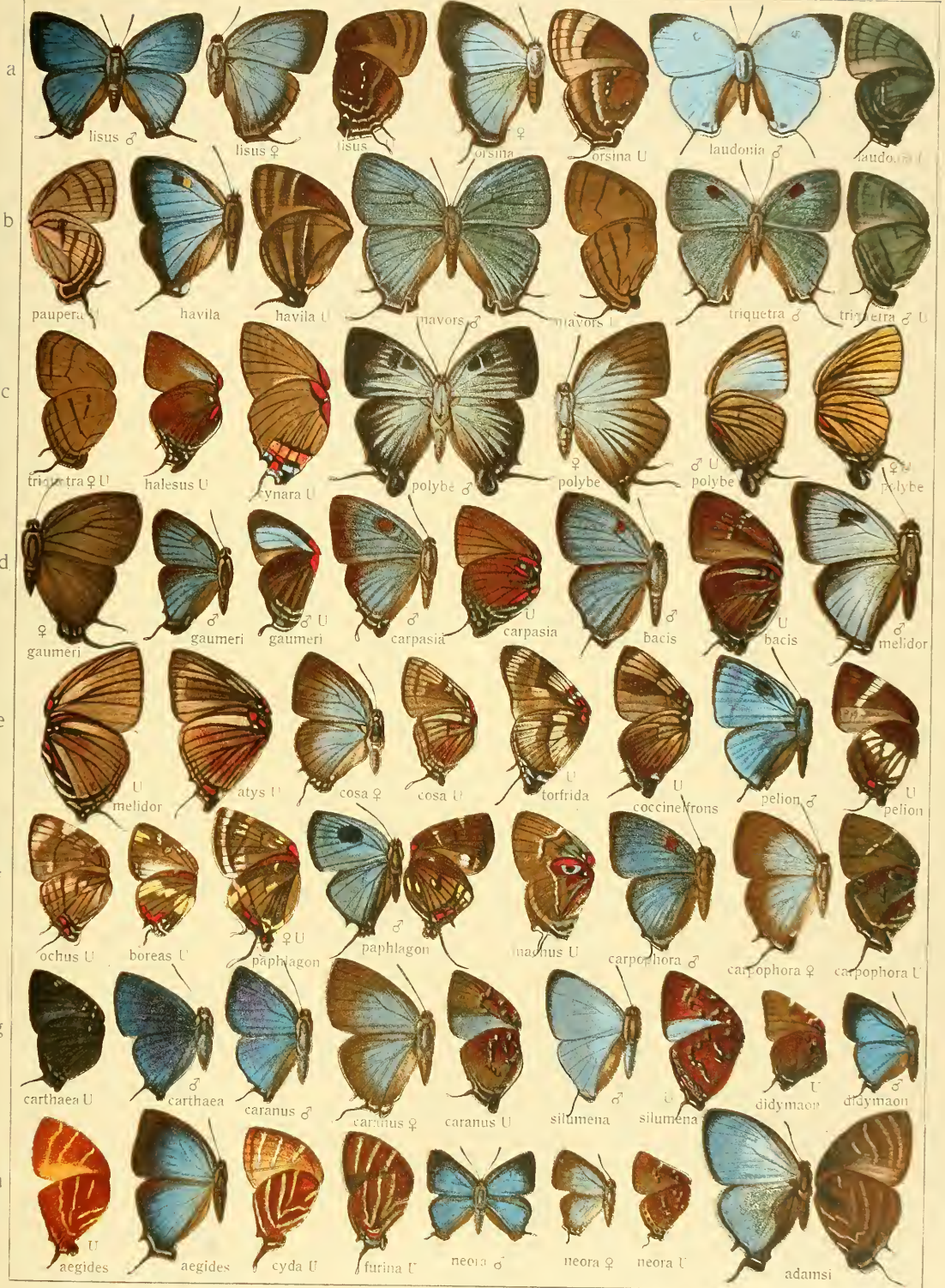
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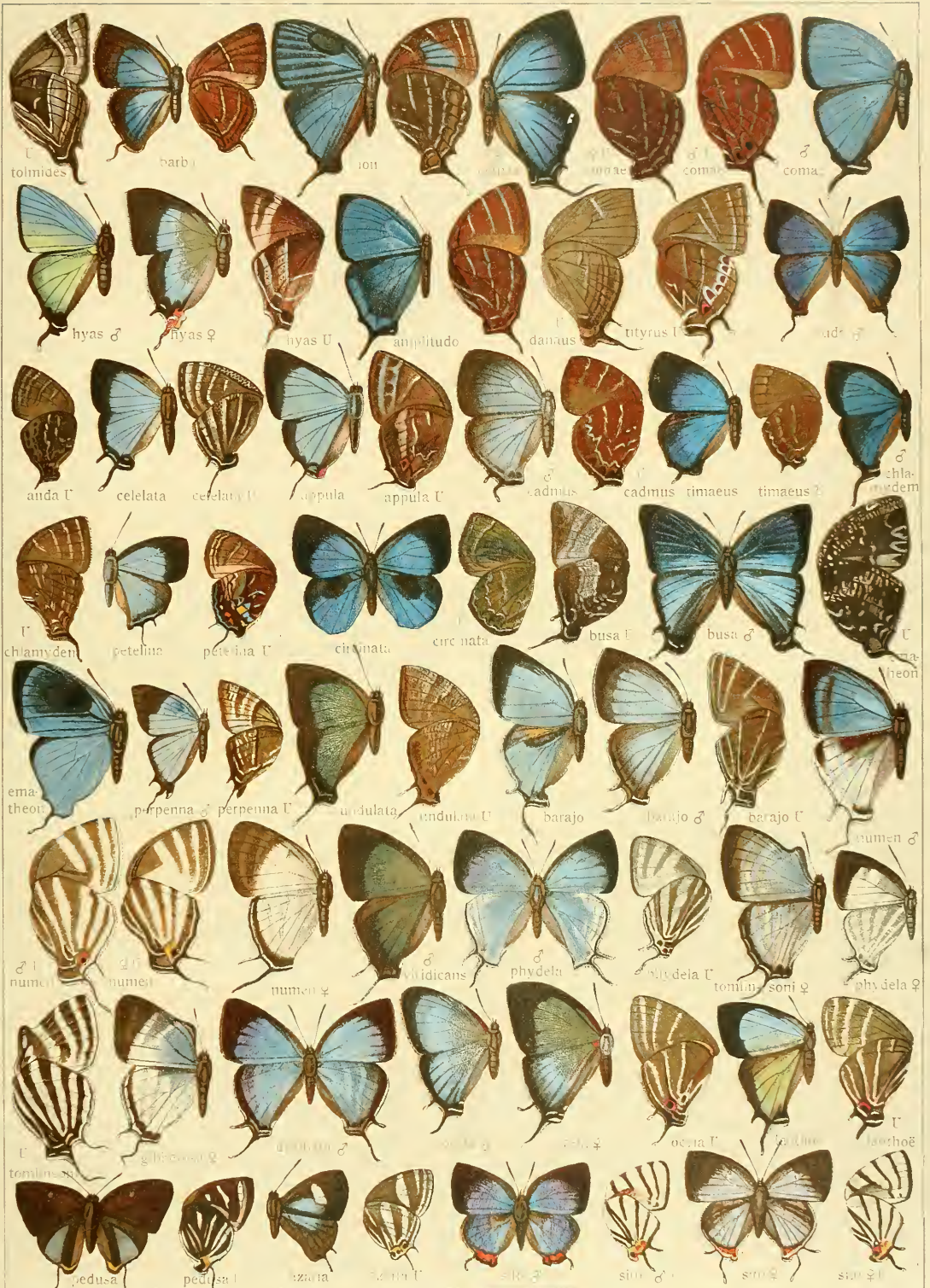
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Pars II. Fauna americana :

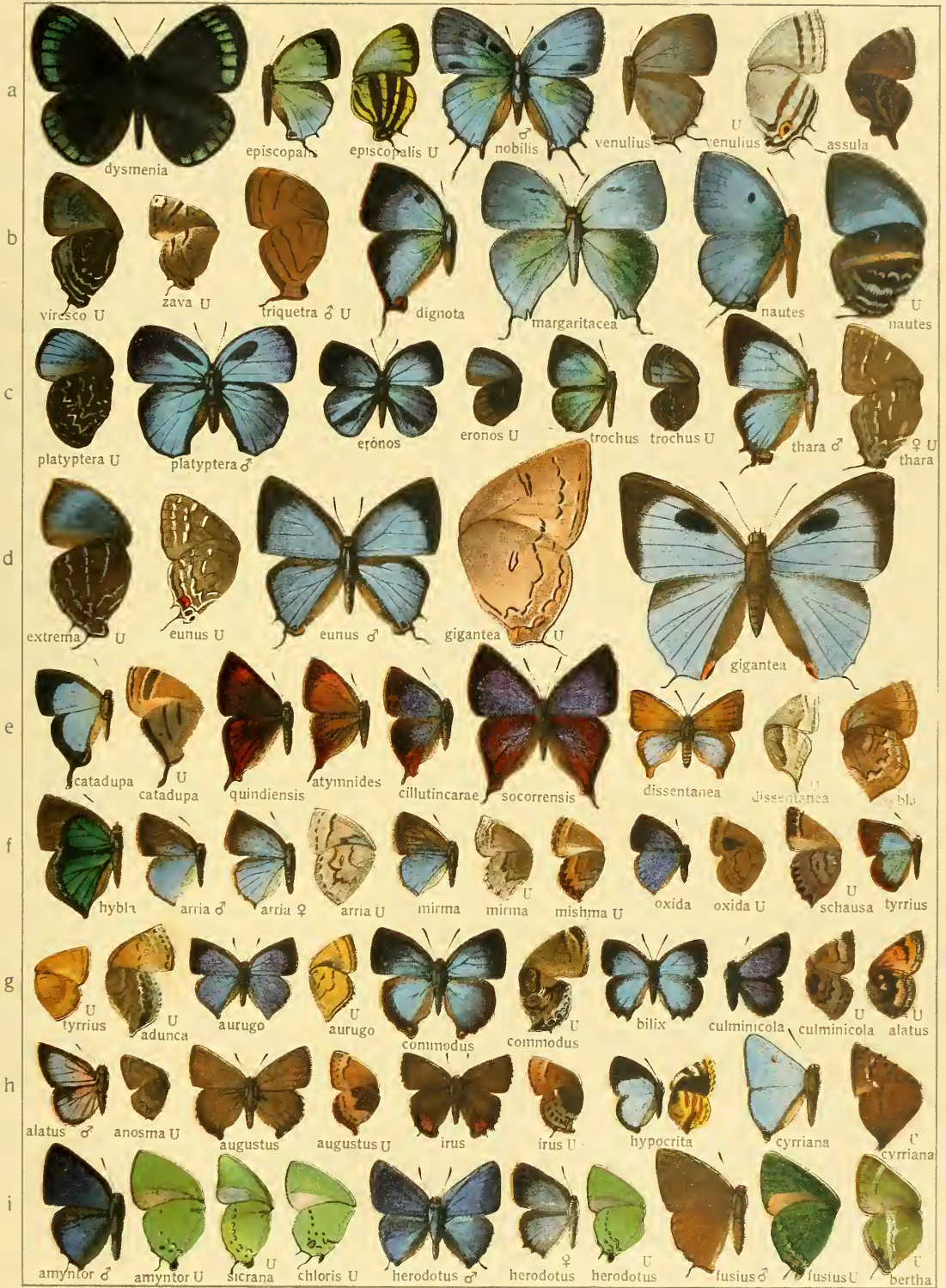
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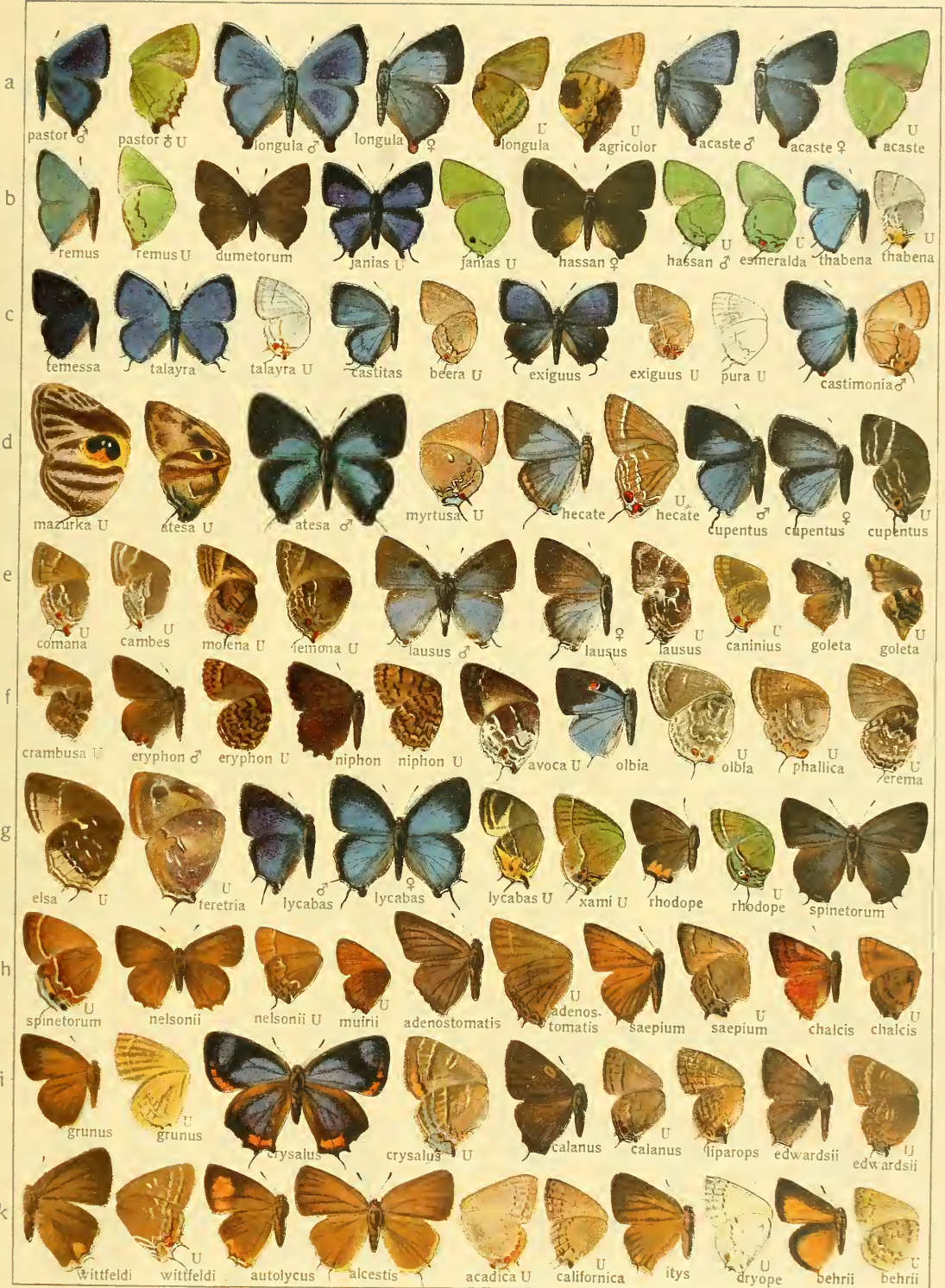


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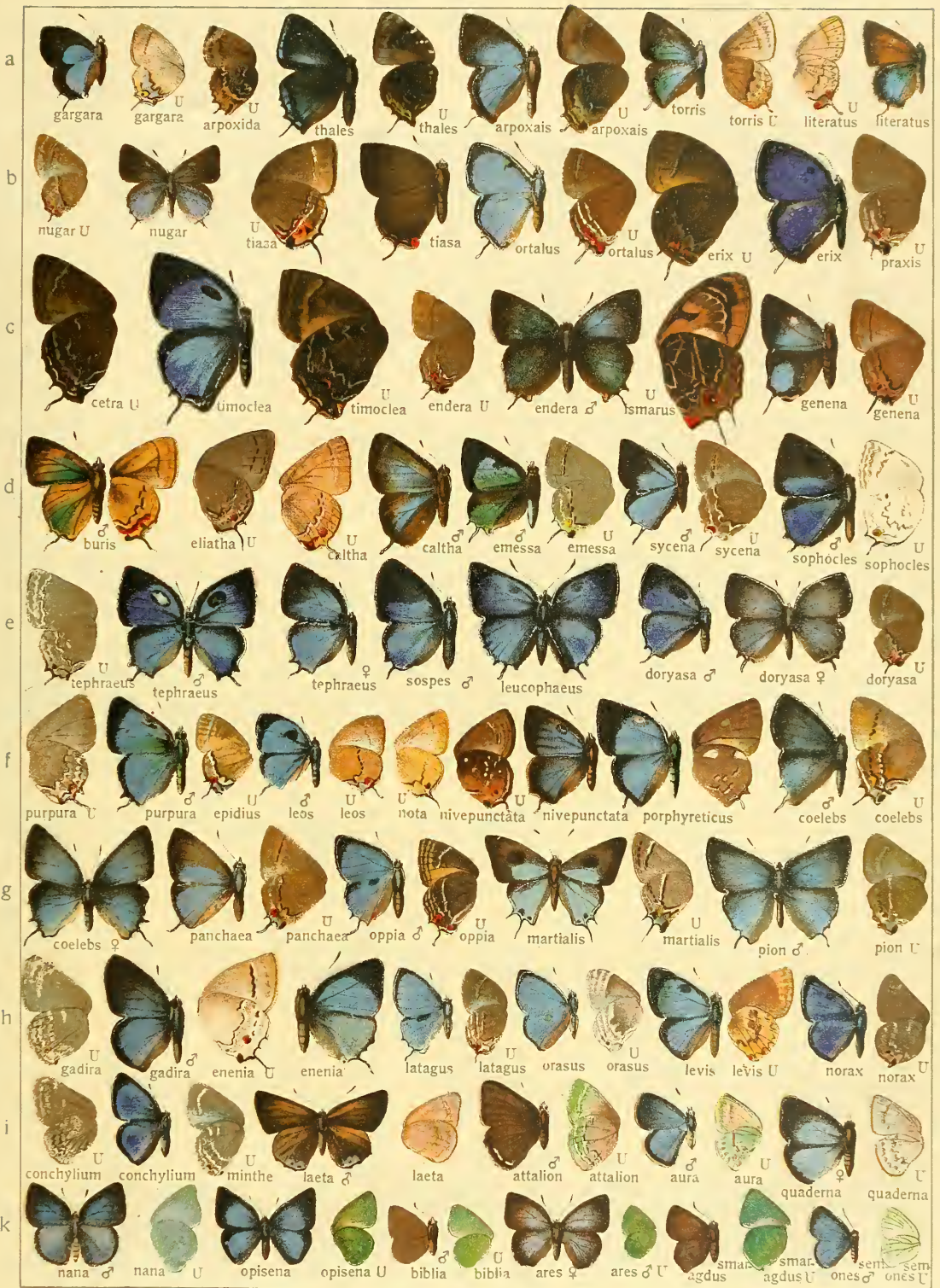
Pars II. Fauna americana 1.





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