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TAXONOMIC NOTES AND DESCRIPTIONS OF NEW TAXA IN THE NEOTROPICAL HESPERIIDAE. PART I. PYRGINAE

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Introduction

In the course of assisting in the curation of Neotropical Hesperiidae at the Allyn Museum of Entomology over the past few years, many new things have come to light. It is time to bring some of these to the attention of other lepidopterists, hence this paper. I have followed Evans' (1952-1955) phylogenetic arrangement, not because I feel that it is entirely correct, but because it is workable. Due to the bulk of the material to be published, this will be done in two parts.

Procedures

In descriptions of wing maculation and morphology, I have followed the vein and cell nomenclature of Miller, "1969" (1970). In genitalic descriptions and discussions I have attempted to use the terminology of Lorković, 1953, Sibatani *et al*, 1954, Klots, 1956 and Dugdale, 1974, although they do not always exactly agree, and exact homologies are often very difficult to ascertain. Forewing length is measured from wing base to end of fringe at apex; width is measured normal to the costa from the fringe end at the tornus. Due to the uncertainty of exactly locating the wing base and to the fact that the wing may be more or less wrinkled or folded, these measurements are accurate, at best, only to about the nearest half millimeter and are so expressed, rather than in decimals. In nudum counts, the only true figure is the total number of segments, the division between club and apiculus is a subjective judgement.

Part I, **PYRGINAE**

Entheus matho Godman & Salvin, 1879

Figures **1,2** (♂); **3,4** (♀); **67** (♂ genitalia); **99** (♀ genitalia)

Entheus matho Godman & Salvin, 1879:154 *(partim)*
Entheus matho matho: Evans, 1952:35 *(partim)*, Pl. 12
Entheus matho ssp. de la Maza R., 1987:144, Pl.66, f.4,5

Evans divided *matho* into four subspecies: *matho; latifascius* Hering & Hopp, 1925; *aequatorius* Mabille & Boullet, [1919] and *dius* Mabille, 1897. He considered *quadratus Bargman*, 1929 a synonym of *latifascius*, apparently based solely on the fact that both are from Colombia, as they are of different sexes, precluding direct comparison. Of the five names, only three, *matho, quadratus* and *aequatorius* are described from males. In the BM(NH) there were 13 males determined as *matho* (1 from Mexico, 1, the holotype, from Guatemala, 3 from Nicaragua, 8 from Costa Rica); one male determined by Evans as *latifascius* probably because it matched the description of *quadratus* and was from Colombia; three male *aequatorius* (2 from Ecuador, 1 from Venezuela) and 21 males determined as *dius* from Panama, Colombia, Br. Guiana, Fr. Guiana, Surinam, Peru and Bolivia.

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The matching of sexes in *Entheus* Hübner, [1819] is difficult due to the great degree

of sexual dimorphism, and to the fact that several species may occur in the same area. The only species known by Evans to occur as far north as Mexico and Guatemala was *matho*. Godman & Salvin (1879-1901:Pl.81, f.30) illustrated a specimen, probably from Nicaragua or Costa Rica, as the female of *matho*; it is smaller (21 1/2 mm) than the male (24 mm) and with a broad white discal area on the upperside hindwing. This has been accepted as *matho* female ever since.

There are eight males in the AME from the Mexican collection of the late Dr. Tarcicio Escalante that had been determined as *matho* and two females marked very much like the males but with white rather than yellow forewing maculation, and the hindwing almost the same as the male hindwing, without the large white discal area figured by Godman & Salvin. The genitalia of these two females are generally similar to other *Entheus* species, but distinctly different *inter se*. It seems logical to place one of them as the true *matho* female and I have chosen the larger more brightly colored. What then is the other? A review of the series was necessary.

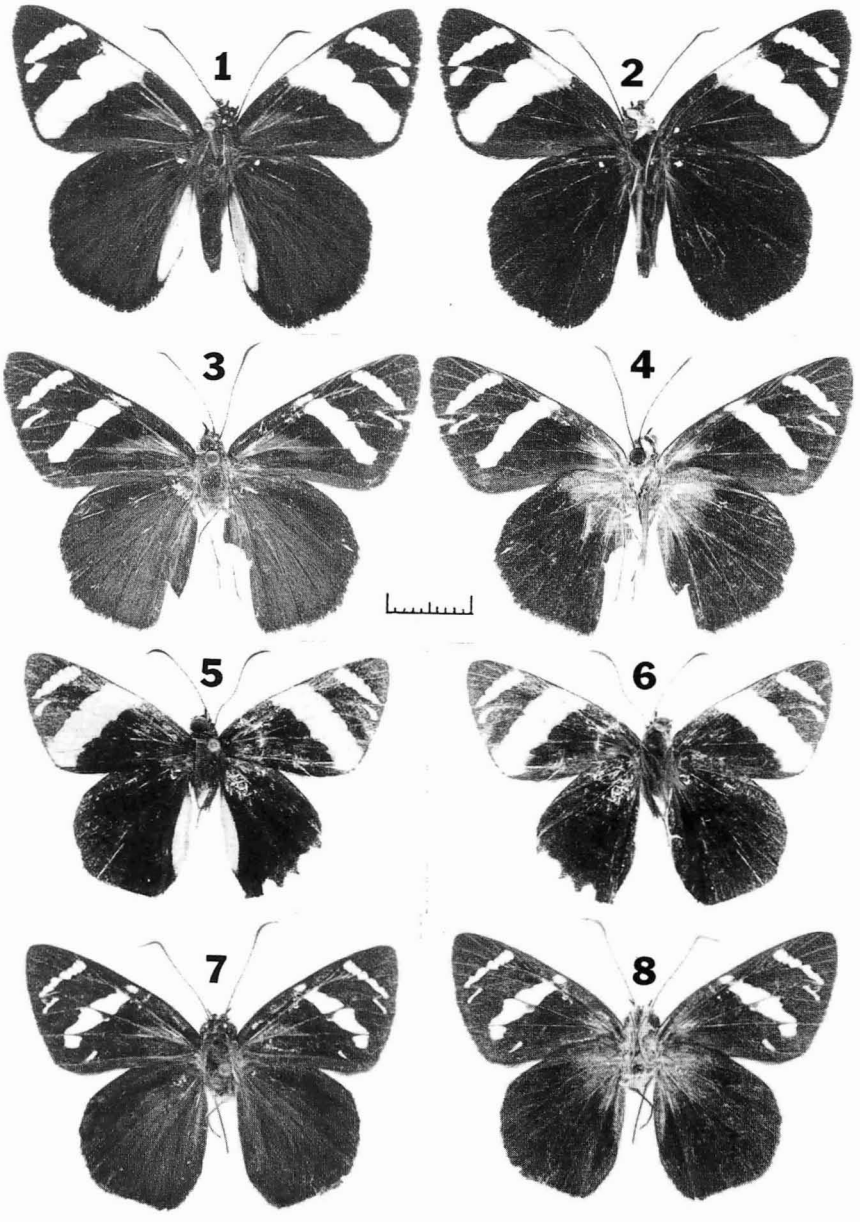
Six of the males, all from Santa Rosa Comitan, Chiapas are brightly fulvous as illustrated by Godman & Salvin. One rather worn male from Pichucalco, Chiapas has reduced rufous scaling, perhaps due to wear and tear, and one from Catemaco, Veracruz, the smallest (23 mm) and darkest has no hindwing rufous scaling and practically none on the forewing. Despite its rather different appearance it had been included in the *matho* series because Evans, in discussing the BM(NH) series of 13 *matho* males mentions that the upper forewing is "sometimes with a reddish basal streak", implying that this streak is sometimes absent. Those with the reddish streak are *matho*, but the others probably are not. Unfortunately he does not mention the male hindwing.

The larger (26 1/2 mm) and brighter female also is from Santa Rosa Comitan, serving to reinforce the determination of it as *matho*, while the smaller (25 mm) and darker is from Catemaco as is the smaller darker male, supporting the idea that these two specimens are conspecific but not *matho*. With only males for comparison, I would have treated this dark one as *matho*, but the strong differences between the females dictate separation. The new species will be described below following the discussion of *matho*. Much work is needed to untangle the snarled taxonomy of *Entheus* but I do not have sufficient material at hand to even attempt it. The female described by Evans and illustrated by Godman & Salvin as *matho* might belong to any of several *Entheus* species, but not *matho*.

MALE: Upperside as illustrated and described by Godman & Salvin (1879-1901:355, Pl.81 f.28) except that the forewing discal band is slightly wider at the costa and the subapical band consists of six conjoined spots from R_2-R_3 to M_2-M_3 instead of the five illustrated, a result of showing one too few radial branches. The oval patch in the hindwing anal cell is somewhat yellower than shown.

Underside: Forewing maculation as above, ground color entirely dark brown, somewhat paler in anal cell and at base of 2A-3A. Hindwing uniformly dark brown.

Genitalia: Very much like the other taxa in the genus except for *eumelus* (Cramer), 1777 and *ninyas* Druce, 1912. The uncus is broadened and downturned at its caudal extremity giving the appearance in dorsal or ventral view of having short horns. The gnathos is undivided and somewhat roughened or shagreened, to borrow a term from Williams (1926:78,81,82, etc.). The tegumen bears a long bifurcate superuncus which extends caudad beyond the uncus. The saccus is broad in ventral view and short; juxta and transtilla not developed, entirely membranous. The penis is somewhat longer than the valva, its forward end, the phallobase, cephalad of the ductus ejaculatorius is slender, about 1/3 the width of the aedeagus which terminates caudally in a slender pointed ventral prong bearing a few fine teeth on the right side. The cornutus is composed of strongly sclerotized slender spines attached to the vesica. The two most cephalad are the longest, about 0.65 mm; one just caudad of them on the ventral side measures 0.54 mm; dorsad of it is a group of 8 to 10 spines measuring between 0.22 and 0.32 mm, and caudad of this group there may be a few very small spines less than 0.05 mm. The valvae are symmetrical and broad, the caudal end of the harpe dentate and twisted. The costa is extended caudad as a long thin pointed process reaching approximately to the poorly defined junction of



Figures 1-8. (Scale line = 1 cm) *Entheus* spp. 1-4 *E. matho* Godman & Salvin, 1893 ♂ upperside (1), underside (2), ♀ upperside (3), underside (4) (Photo Nos. 880729A/3,4,5,6) Mexico: Chiapas; Sta. Rosa Comitan. 5-8 *E. crux*, new species, ♂ Paratype upperside (5), underside (6), ♀ Holotype upperside (7), underside (8) (Photo Nos. 880729A/7,8,9,10) Mexico: Veracruz; Catemaco.

harpe and ampulla and slightly upturned at the tip. Why Godman & Salvin failed to illustrate this process is unknown; it is interesting to note that Evans, in all the applicable taxa, shows it arising from the vinculum. I have illustrated only the valva, the rest being the same as shown for the new species described below.

FEMALE: Upperside: Forewing dark blackish brown traversed by two hyaline white bands, the inner discal band of conjoined spots separated only by the dark veins and extending from near the tornus in Cu_2-1A through Cu_1-Cu_2 and the discal cell to the radius. This is followed on the costa by a smaller detached spot in the costal cell. The band is of rather even width (2.66 mm) and quite regular on its inner edge which is very slightly concave; the outer edges of the cell spot and that in Cu_1-Cu_2 are slightly excavate; the spot in Cu_2-1A is rhomboid, its outer edge parallel to the termen and at an obtuse angle to the outer edge of the spot in Cu_1-Cu_2. The outer subapical band consists of six contiguous hyaline white spots separated only by the dark veins and extending from R_2-R_3 to M_2-M_3, the spots somewhat stepped or offset. The band averages 1.47 mm in width. There is an additional narrow, oblique hyaline white spot in M_3-Cu_1 parallel to the subapical band, 0.40 mm wide by 3.9 mm long, separated from the subapical band by the width of that band. There is a rufous streak from the extreme base of the costal cell through the base of the discal cell and of Cu_1-Cu_2, where it nearly reaches the hyaline discal band on Cu_2; it extends hook-like below the outer portion of the streak in Cu_1-Cu_2. Along the inner margin below 2A dense rufous overscaling produces a second, poorly defined streak from the base nearly to the tornus. The dark area between these streaks is more or less weakly overscaled rufous. The fringes are dark brown interspersed with rufous along the inner margin.

Hindwing dark brown, the area below the radial sector from the base nearly to the termen densely covered with rufous hairs darker than the forewing rufous streak. The dark veins are more or less visible through this rufous overscaling probably due to wearing away of the rufous hairs. The outer edge of this central rufous area is poorly defined, leaving an indefinite dark border. The rufous hairs are less dense in the abdominal fold. Fringe dark brown.

Underside: Forewing dark brown as above, hyaline bands as above, detached costal spot of upperside connected to discal cell spot by opaque white scaling in Sc-R_1. Base of costal and discal cells overscaled greyish white nearly to origin of Cu_2. Extreme base of Cu_2-2A and entire inner margin below 2A paler than ground.

Hindwing dark brown, basal 1/4 to 1/3 heavily overscaled greyish white, this white area poorly defined outwardly.

Palpi, third segment black, long, cylindrical, porrect, placed on outer edge of second which is centrally white with black inner and outer edges. Head black with white spots in center of frons, behind eyes and at base of antennae. Antennae less than half costa, shaft plain dark brown, whitish beneath club and apiculus, nudum 21. Thorax with rufous hairs similar to hindwing. Abdominal color not noted prior to dissection. Legs black, heavily overscaled white, tibiae smooth, mid tibiae single pair spurs, hind tibiae with two, but upper pair reduced to single spur on outside.

Genitalia: Lamella postvaginalis only slightly wider than long, with deep U-shaped central caudal indentation and fused to a strongly sclerotized, sculptured trough which tapers cephalad and leads directly to ostium bursae at caudal end of broad antrum. Lamella antevaginalis consists of two separate lateral sclerotized plates, tapered caudally and not overlapping lamella postvaginalis. These plates heavily dentate along inner edge with longer teeth caudally, and densely covered with rather long microtrichia in cephalad portion. Ductus seminalis connected laterally (left side) to ductus bursae at cephalad end of antrum. Ductus bursae very broad and with irregular internal sclerotization. Corpus bursae more or less cylindrical, internal spiculation extremely fine.

Wing measurements: In the Godman & Salvin figure of the male holotype, the forewing measures 24 mm; the 7 males from Chiapas at the AME range from 24 to 27 mm, averaging 25.6 mm. The female, also from Chiapas has a forewing length of 26 1/2 mm.

Both sexes of *matho* are beautifully illustrated in color (uppersides only) as *Entheus*

matho ssp. by de la Maza R. (1987:Pl.66, f.4,5).

Entheus crux, new species

Figures **5,6** (♂); **7,8** (♀); **68** (♂ genitalia); **100** (♀ genitalia)

Entheus m. matho: Evans, 1952, (*partim*), *nec* Godman & Salvin, 1879

MALE: Upperside: Forewing dark blackish brown traversed by two semi-hyaline yellow bands. The inner discal band slightly arcuate and composed of conjoined spots, not separated by dark veins, extending from the tornus above vein 2A to the costa; its inner and outer margins slightly irregular, being slightly offset or stepped at the veins. The band does not enter M_3-Cu_1, thus its outer edge is indented V-wise by the dark base of that space. The band is widest at the costa, varying from 5.33 mm there to 4.27 mm in the discal cell. The outer subapical band composed of six conjoined spots slightly stepped at the veins extends from R_2-R_3 to M_2-M_3, tapering slightly toward the outer end; at its widest in R_5-M_1 it is 2.0 mm. The spots are somewhat paler and more hyaline than in the discal band and the veins between them show as fine dark lines. There is an additional elongate, inwardly concave spot in M_3-Cu_1 about 0.8 mm wide by 2.4 mm long, parallel to the subapical band and separated from it by about 0.8 mm. There are a few scattered rufous scales concentrated mostly in the base of the discal cell. Fringe dark brown.

Hindwing completely dark brown except for the oval patch of white scales (androconial?) filling the anal cell below 3A. Fringe dark brown.

Underside: Forewing dark brown as above, slightly paler along inner margin below 2A; semihyaline bands as above. Hindwing uniformly dark brown.

Palpi, third segment black, slender, cylindrical, porrect, placed on outer edge of second which is centrally yellow with dark brown inner and outer edges. Head dark brown with yellowish white spots behind eyes and at base of antennae, central yellow spot on frons. Antennae slightly less than half costa, shaft plain brown, whitish beneath club and apiculus, nudum 21. Thorax and abdomen dark brown with a few rufous hairs. Legs brown, overscaled yellowish on outside of fore and midlegs. Tibiae smooth, mid tibiae one pair spurs, hind tibiae short, about equal to femur and with one pair of spurs, upper pair missing. Hind first tarsus much longer than tibia, swollen and centrally grooved to receive long red brown hair tuft arising from the tibia.

Genitalia exactly as described for *matho* except that the caudal group of very small spines sometimes present in the cornutus of *matho* are reduced to two minute sclerotized dots and the process from the costa tends to be more hooked terminally in *matho*, but these may be variable characters.

FEMALE: Upperside: Forewing dark blackish brown traversed by two hyaline white bands, the inner discal band composed of three contiguous spots: the smallest, somewhat rhomboid, in Cu_2-1A; a longer wider spot in Cu_1-Cu_2 with its inner edge a convex parabola and outer edge sinuously concave; a rhomboid spot in the discal cell, the side along the cubitus longer than that against the radius; outer edge of the cell spot slightly indented just behind radius. Due to the curvature of the inner edge of the spot in Cu_1-Cu_2, it contacts the spots on either side only at their adjacent outer corners. Immediately proximad of this spot and nearly touching it at the peak of its convexity is a minute detached hyaline spot. Proximad of the spot in Cu_2-1A is a narrow, oblique, opaque white spot in 1A-2A parallel to the discal band and separated from it by about the width of the spot in Cu_2-1A. The outer subapical band consists of six contiguous hyaline white spots extending from R_2-R_3 to M_2-M_3, somewhat offset at M_1. There is a separate narrow oblique spot in M_3-Cu_1 parallel to the subapical band proximad of its lower spot and separated from the band by about twice its own width. The spots of both bands are separated by the intervening dark veins. There is a bright fulvous streak in the base of the discal cell, continuing into the base of Cu_1-Cu_2 and continued below the cubitus at the distal end but not reaching 1A. There are scattered fulvous hairs at the wing base from costa to inner margin and

in the anal cell nearly to the tornus. Fringe dark brown.

Underside: Forewing dark brown, slightly paler in anal cell; bands and spots from above repeated with the addition of white scaling at the costa connecting costal spot to discal band, and white scaling in Cu_1-Cu_2 connecting detached interior spot to discal band, joining it to the inner lower corner of the cell spot, resulting in an uninterrupted inner edge of the band at the lower edge of the cell. Greyish white scaling in base of discal and costal cells and extending slightly below the cells to form a whitish basal area extending distad about to origin of Cu_2.

Hindwing dark brown with greyish white superscaling in the basal 1/4 to 1/3 of the wing from costa to inner margin and extending along 3A nearly to its end.

Palpi, third segment dark brown, long, cylindrical, porrect and placed on outer edge of second which is centrally white with brown inner and outer edges. Head dark brown with white spots behind eyes, at base of antennae and in center of frons. Antennae less than half costa, shaft plain dark brown, whitish beneath club and apiculus, nudum 23. Thorax with rufous hairs, abdominal color not noted prior to dissection. Legs heavily overscaled white, tibiae smooth, mid tibiae single pair spurs, hind tibiae with two, but upper pair reduced to single short spur on outside.

Genitalia as described for *matho* except that lamella postvaginalis is much wider, nearly as wide as combined lengths of lamella and trough leading to ostium bursae, its caudal margin very irregular on either side of the deep central U-shaped indentation. Lobes of lamella antevaginalis broader than in *matho* and overlapping the lamella postvaginalis, the form of dentation somewhat different.

Wing measurements: Forewing, Holotype ♀ 25 mm; paratype ♂ 23 mm.

Type material: Holotype ♀, Mexico: Veracruz; Catemaco, viii.60, T. Escalante, bearing the following labels: printed and hand printed, black bordered white label, T Escalante Catemaco Ver. viii.60; printed white label, A. C. Allyn Acc. 1973-48; printed and hand printed white label, Genit. Prep. SRS-1181; printed and hand printed red label, HOLOTYPE ♀ Entheus crux S. R. Steinhauser; white paper triangle with mid tibia glued on; printed and hand printed white label, Allyn Museum Photo No.880729A/9,10. One ♂ paratype, Mexico Veracruz; Catemaco, vi.72, T. Escalante (Genit. Prep. SRS-1213; Allyn Museum Photo No. 880729A/7,8). The ♀ holotype and ♂ paratype are deposited in the Allyn Museum of Entomology.

The male of *crux* most nearly resembles the males of a Costa Rican species, tentatively placed in *aequatorius*, which are smaller (average 21 mm), with forewing maculation more orange and, on the underside, have more or less orange yellow scaling at base of forewing costa. These Costa Rican males have a short upper spur on the outside of the hind tibia, as in *matho*, but missing in *crux* males. They somewhat resemble worn specimens of *matho* from which they can be separated by the complete lack of rufous scaling on the upper hindwing.

The female most nearly resembles *matho* females, from which it is distinguished by the smaller size, darker rufous coloration, additional forewing spot in 1A-2A, tiny separated spot in Cu_1-Cu_2, and by the genitalic differences noted above.

Eventually, *crux* may prove to be a northern subspecies of the Costa Rican males mentioned above, but until more examples of females without a white discal area on the hindwing are found in Central America, I feel it must be treated as a new species.

Astraptes halesius (Hewitson, 1877)

Figures **9,10** (♂)

Eudamus halesius Hewitson, 1877:(4)20:321
Astraptes halesius (Hewitson, 1877), Evans (1952:105, Pl.19)
=*Thymele anthius* Mabille, 1891(35):61, new synonymy

Examination of the male holotype of *anthius*, borrowed from Dr. Hannemann (ZMHU) proves it to be a specimen of *halesius*. This synonymy was noted by Williams & Bell

(1934:20), who compared the original descriptions of both names. When Mabille & Boullet (1912:96) re-described *anthius* they did not have the type before them, but based the description on two male specimens, one from Bolivia and one from "Amazone", which were not *anthius*. Evans (1952:105) had four males in the BM(NH) that matched the Mabille & Boullet description and whose genitalia differed from *halesius*, justifying their separation as different taxa; but again, these specimens are not *anthius*, but represent a new species, well described by both Mabille & Boullet and by Evans, but misidentified by them. It is redescribed below under a new name. I have not illustrated the male genitalia of *halesius* as it is well presented by Williams & Bell (1934(III):Pl.8, f.5).

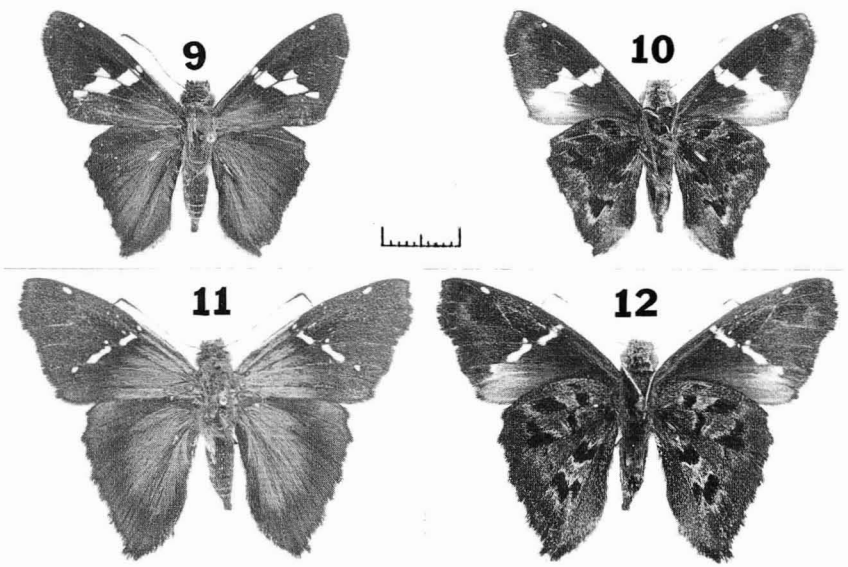
Astraptes mabillei, new species

Figures **11,12** (♂); **69** (♂ genitalia)

Thymele anthius: Mabille & Boullet, 1912:96, *nec* Mabille, 1891
Astraptes anthius: Evans, 1952:105, *nec* Mabille, 1891

It is not necessary to describe this taxon in complete detail because the descriptions (as *anthius*) by Mabille & Boullet and Evans are very adequate and it is very well illustrated in Seitz (V:Pl.186a as *erycina*). I shall merely add those features not previously noted and iterate the principal differences separating *mabillei* from its closest relatives, *halesius* and *erycina* (Plötz, 1881).

MALE: Upperside: Forewing with costal fold, hyaline band in the holotype is very narrow (0.8 mm), the spots well separated as in the Seitz figure, that in the base of M_3-Cu_1 minute and distad of that in Cu_1-Cu_2. There is only one minute costal spot in the costal cell of the holotype; in some specimens there is another very narrow opaque white spot behind it in Sc-R_1. The discal band may reach a width of nearly 2 mm and the spot in



Figures **9-12.** (Scale line = 1 cm) *Astraptes* spp. **9,10** *A. halesius* (Hewitson, 1877) ♂ (Holotype of *Thymele anthius* Mabille, 1891) upperside (**9**), underside (**10**) (Photo Nos. 880729C/23,24) Peru: [San Martin]; Huayabamba. **11,12** *A. mabillei*, new species, ♂ Holotype upperside (**11**), underside (**12**) (Photo Nos. 880729C/21,22) Bolivia: Cochabamba.

M_3-Cu_1 may be contiguous with the outer upper edge of the spot in Cu_1-Cu_2. There are a few scattered white scales in the distal half of the wing. Fringe dark brown except for a few white scales at the end of 1A, around the tornus and in M_3-Cu_1.

Hindwing fringe dark brown with a few white scales in M_1-M_3, M_3-Cu_1 and Cu_1-Cu_2 and near the end of 3A.

Underside as described by Mabille & Boullet, but it should be noted that the bluish white and yellow markings may be predominantly yellow as in the holotype, or predominantly bluish white, or about evenly distributed.

Palpi brown, speckled with white; antennae brown above, whitish beneath with some checkering; nudum 2/18. Abdomen with prominent patch of creamy white scales on each side at its base. Mid and hind tibiae smooth in holotype and one paratype from Ecuador, legs in other two paratypes missing or covered with mold, mid tibiae one pair spurs, hind tibiae with two.

Genitalia: Uncus bifurcate, the arms parallel, separated by about their width; gnathos entire, more or less heavily shagreened, almost spiculose; saccus moderately short, triangular in ventral view; penis stout, slightly upturned in caudal 1/3, without teeth and bearing a cornutus of two stout, rather straight spines approximately 1/4 the length of the penis; valvae symmetrical, relatively narrow, costa concave, harpe ending in a broad, upturned dorsal process, heavily dentate on its dorsal edge and projecting dorsad beyond ampulla.

FEMALE: Unknown.

Wing measurements: ♂ forewing, holotype 27 1/2 x 14 1/2 mm; one paratype (Ecuador) 26 x 14 mm; the other two paratypes were not measured.

Type material: Holotype ♂, Bolivia: Cochabamba; Yunga de Espiritu Santo, P. Germain 1888-89, bearing the following labels: printed white label, Bolivie Cochabamba (Yunga de Espiritu Santo) P. Germain 1888-89; printed white label, R. Oberthür coll. Brit. Mus. 1931-136; printed and hand printed white label, Genit. Prep. SRS-1095; printed and hand printed red label, HOLOTYPE ♂ Astraptes mabillei S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729C/21,22; white paper triangle with hind leg glued on. One ♂ paratype, Ecuador: Zamora; 3-4000 ft., O. T. Baron, Genit. Prep. SRS-1094; two ♂ paratypes, Peru (data not recorded). The type series will be deposited in the British Museum (Natural History).

The two species most likely to be confused with *mabillei* are *halesius* and *erycina*. It is readily distinguishable from *halesius* by the form of the forewing discal band which is narrow and linear in *mabillei*, much like that of *erycina*, but more regular, rather than the broad band of overlapping rhomboid spots of *halesius*. The subapical spot of *mabillei* is elongate, that of *halesius* round, both of them hyaline whereas in *erycina* there are usually two to four faint opaque subapical spots. This, along with *erycina's* distinctive hindwing tornal lobe and scalloped termen, forewing tornal lobe, and checkered fringe on both wings, serves immediately to distinguish it from the other two.

The patches of creamy white scales on the abdomen of *mabillei* also are found in *halesius*, but are reduced to a few white scales in *erycina*. The genitalia of *mabillei* and *erycina* are quite similar, but the form of the dorsal harpe projection of *halesius* is very different, being very narrow and with the distal end of the harpe projecting well caudad of it.

Thessia, new genus

Type species: *Eudamus athesis* Hewitson, 1867[1]:8

Other included species: *Eudamus jalapus* Plötz, 1882:100

Mid and hind tibiae smooth; mid tibiae one pair spurs, hind tibiae two. Forewing length less than twice width, ratio varying from 1.77 to 1.88 (average 1.822) in 3 males and 8 females of type species, *athesis*, and from 1.72 to 1.85 (average 1.787) in 10 males and 5 females of *jalapus*. Male with forewing costal fold. Forewing termen quite straight rather than evenly rounded; inner margin straight; vein m_3-cu_1 longer than m_2-m_3 but usually

less than twice as long, ratio varying from 1.54 to 2.17 (average 1.90 in 11 *athesis* and 1.81 in 15 *jalapus*); recurrent vein in discal cell joins cubitus before or at cell end, but always nearer M_3 than Cu_1; discal cell approximately 2/3 forewing length, varying from 0.63 to 0.68. Hindwing with short tail or lobe at 2A; Cu_1 arises near cell end; Cu_2 arises nearer cell end than base; Rs arises nearer cell end than does Cu_2. Body and wing bases above brown. Palpi short, third segment very short, more or less porrect, barely projecting beyond second which is appressed to head. Antennae about half costa, shaft plain, paler beneath shaft and club; apiculus tends to be somewhat arcuate rather than sharply hooked; nudum varies from 21 to 25 (3/18 to 4/21 or 5/20) in *athesis* (average 23.1 in 8 specimens) and from 20 to 24 (2/18 to 3/21 or 4/20) in *jalapus* (average 22.6 in 13 specimens).

Male genitalia with long uncus about equal to tegumen, bifurcate with moderately long, well separated, parallel arms; gnathos entire, not shagreened nor spiculose; penis relatively slender, terminally curved dextrad, without teeth; cornutus a single slender, blunt ended cylindrical spine, 1/5 to 1/3 the length of the penis; valvae symmetrical, long and slender, longer than penis, produced at caudal end of harpe which is strongly dentate on its dorsal edge and bears a cephalad projecting dentate process from its base, overlapping the ampulla; transtilla membranous, juxta well developed, in two parts, the upper cradling the penis, the lower hinged to the upper and weakly sutured to the sacculi (see Fig. **71**); saccus short.

Female genitalia with simple unadorned ductus and corpus bursae, the latter very finely spiculose internally; ductus seminalis connected dorsally to ductus bursae immediately cephalad of antrum; lamella postvaginalis broad laterally, narrow longitudinally and shallowly concave on its caudal margin; lamella antevaginalis broad laterally, narrow longitudinally and prominently asymmetrical, skewed left.

Thessia is a meaningless anagram of the name of the type species and is to be considered feminine in gender.

Several of the morphological characters used by Evans to separate genera do not work out too well in practice. Some, such as relative lengths of certain veins may be applicable between type species of allied genera but do not always apply to other species he included in those genera. Others, such as presence or absence of certain maculation features or of hind wing tails or lobes may serve as good characters in identification keys, but are not necessarily valid phylogenetically. He separates *Urbanus* Hübner, [1807], *Astraptes* Hübner [1819] and *Calliades* Mabille & Boullet, 1912 from *Autochton* Hübner, [1823], *Achalarus* Scudder, 1872, *Venada* Evans, 1952, *etc.* on the basis of the relative lengths of vein 1 (= 1A) of the forewing and vein 6 (= M_1 from wing base) of the hindwing, but the ratio is the same for *athesis* which he placed in *Urbanus* as for *jalapus* which he placed in *Achalarus*. I have found that the form of the genitalia, or at least of selected characters in the genitalia, often can be far more reliable than many other morphological characters, or should be considered in conjunction with them. It must be more than mere coincidence that the genitalia of both sexes of the two species I have placed in *Thessia* are practically identical and uniquely different from other known allied taxa.

For the present, I leave the phylogenetic placement of *Thessia* undetermined until a thorough analysis can be made of the entire Pyrginae. For convenience only, I place it following *Autochton*.

Thessia athesis (Hewitson, 1867), new combination

Figures **70** (♂ genitalia); **101** (♀ genitalia)

Eudamus athesis Hewitson, 1867(1):8
Urbanus athesis (Hewitson, 1867), Evans (1952:97. Pl.18)
=*Eudamus motilones* Williams, 1926:68, f.6;Pl.2, f.6

Thessia jalapus (Plötz, 1882), new combination
Figures **71** (♂ genitalia); **102** (♀ genitalia)

Eudamus jalapus Plötz, 1882(43):100

Achalarus jalapus (Plötz, 1882), Evans (1952:128, Pl.21)
=*Telegonus xerxes* Bell, 1934:90-92, Pl.6, f.2

The type locality of *jalapus* is "Jalappe" which I assume refers to Jalapa, Mexico. Since the word jalapus is not a proper Latin adjective nor is it a properly derived adjective based on a geographical name nor the genitive case of a Latinization of Jalapa, I consider it to be a meaningless combination of letters not subject to emendation and leave it as *jalapus*.

Telemiades megallus Mabille, 1888, revised status

Figure **72** (♂ genitalia)

Telemiades megallus Mabille, 1888(2)2(38):221, f.3, *nec* 4
Telemiades epicalus megallus: Evans, 1953:27 (*partim*), *nec* Pl.27

Evans assumed incorrectly that *megallus* occurs in two forms: one without white scaling on the underside hindwing, at least in the male; the other as described by Mabille for the female, and the male as illustrated by Godman & Salvin (1879-1901:Pl.79, f.1,2) in both of which the tornal half of the hindwing beneath is white. The only male specimen in the BM(NH) was from Mexico, without the white scaling; this is the insect whose genitalia Evans figured incorrectly as *megallus*. There is a series of four males from Turrialba, Costa Rica in the AME in which the tornal half of the underside hindwing is bluish white, perfectly matching the Godman & Salvin figure. I have identified these as *megallus*. The genitalia are very different from *epicalus* as well as from the illustration by Evans of "*megallus*", which is of the male genitalia of *Graius* [*sic*!] *choricus* Schaus, 1902, described from a female and re-described below.

Male genitalia: Uncus broad in dorsal view, centrally flat ended with two short lateral horns not projecting caudad as far as the central portion; gnathos short, not reaching end of uncus and consisting of two lateral sclerotized lobes with shagreen- like surface, the central portion between them mostly membranous; tegumen twice as long as uncus and bearing two pairs of caudally projecting straight processes, the outer lower pair shorter than the inner upper pair, neither pair projecting caudad as far as end of uncus; penis long and slender, gently S-curved as illustrated, slightly longer (1.1 times) than valva and bearing, in the vesica, a cornutus consisting of a linear bunch of about 25 very short spines and a separate terminal group of five larger spines: two separate, the last three in a bundle. Juxta large, heavily sclerotized; valvae symmetrical, distal end of harpe dentate and projecting dorsad to sharp dentate point; cephalad margin of harpe centrally produced as prominent cephalad pointing dentate prong; costa bearing prominent dentate, spiculose, inward and ventrad projecting process.

The forewings of the four Costa Rican males vary in size from 19 x 10 1/2 mm to 20 x 11, averaging 19.6 x 10.9.

The holotype of *megallus* is a female but I have seen no females for comparison with other *Telemiades* species.

Telemiades epicalus Hübner, [1819]

Figure **73** (♂ genitalia)

Telemiades epicalus Hübner, [1819](7):106

Various authors have published figures of the male genitalia of this taxon (Godman & Salvin, 1879-1901:Pl.78, f.17 as *phasias* (Hewitson, 1867); Lindsey, 1928:232, f.1 as *phasias* and Evans, 1953:Pl.27). Because of differences in these figures, it seems advisable to publish it once again in more detail than previously shown. It does not seem necessary to again publish the rather lengthy synonymy given by Evans.

There is a good possibility that *phasias* is not a synonym of *epicalus*, but a good species in its own right and that the Godman & Salvin figure is a true representation of *phasias*. In general it is quite close to the other figures, but shows what appears to be a bifurcate uncus, referred to in the text of the Biologia (p.318) as "a pointed tegumen cleft at the end", a feature not found in *epicalus*. Examination of the specimen illustrated as well as the holotype of *phasias* is needed to clarify this.

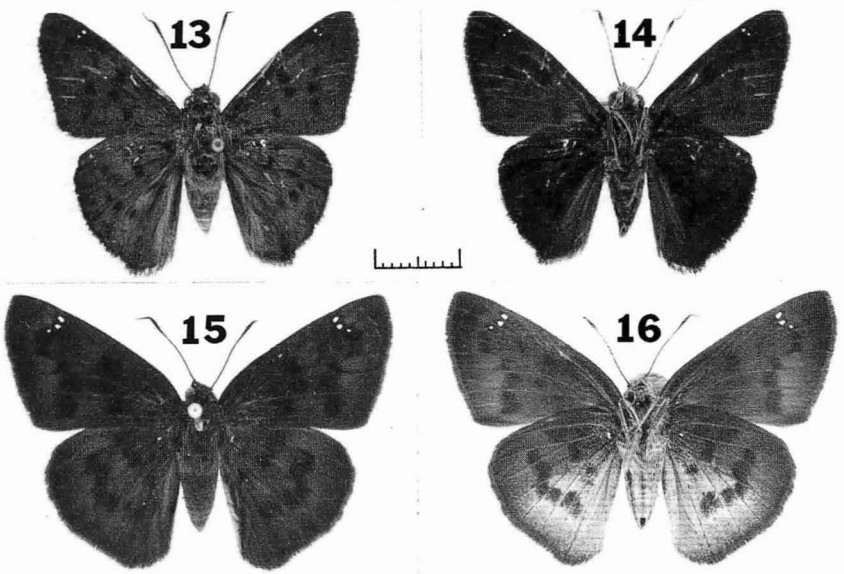
I have illustrated the genitalia of a male from Fr. Guiana in which the uncus is somewhat humped dorsally in lateral view slightly caudad of its midpoint. The ventral side of this hump shows as a curved line well dorsad of the ventral edge of the uncus proper. In the Lindsey figure this has the appearance of a separate process much like the caudal pair of the two pairs arising from the tegumen in the present illustration; apparently the cephalad pair was either overlooked or missing. It is also possible that this is not the same insect that I have shown and that the Lindsey drawing is accurate but of a different taxon. As with the Godman & Salvin figure, examination of the material illustrated is needed. Should a future revision of *Telemiades* be made, a neotype should be designated for *epicalus* to eliminate these uncertainties.

Telemiades choricus (Schaus, 1902), new combination

Figures **13,14** (♂); **15,16** (♀); **74** (♂ genitalia); **103** (♀ genitalia)

Graius [*sic*!] *choricus* Schaus, 1902:429
Telemiades epicalus megallus: Evans, 1953:27 *(partim)*, Pl.27, *nec* Mabille, 1888
Grais stigmaticus choricus (Schaus): Evans (1953:179)

Dr. Olaf H. H. Mielke (pers. comm., 1988) kindly pointed out to me that what I was about to describe as a new species in *Telemiades* was, in fact, *choricus*. The original description by Schaus is of the female holotype and is not very detailed. I will describe the male and re-describe the female below. This is the insect whose genitalia Evans



Figures **13-16.** (Scale line = 1 cm) *Telemiades choricus* (Schaus, 1902). **13,14** ♂ upperside (**13**), underside (**14**) (Photo Nos. 880729A/13,14) Mexico: San Luis Potosí. **15,16** ♀ upperside (**15**), underside (**16**) (Photo Nos. 880729A/15,16) Mexico: Veracruz; Catemaco.

illustrated as *megallus* and which he included in his description as a form of *megallus*.

MALE: Upperside: Forewing brown to dark brown, more or less heavily overlain by long golden hair scales creating a rather ochreous hue. The costa, apex and termen somewhat darker, very much so in some individuals due to decreased golden superscaling combined with darker brown ground. There are two macular bands of darker brown spots: an inner discal band from the discal cell to 2A, completely broken at Cu_2 where the spot in Cu_2-2A is offset proximad, and an outer postdiscal band from R_3-R_4 to Cu2-2A, completely broken at M_3, the lower portion offset proximad. The three spots of this band at the apex in R_3-R_4 to R_5-M_1 bear small hyaline white spots, that in R_5-M_1 offset distad, but missing in five of the 16 males examined. The veins closing the distal end of the cell are more or less darkened, forming a narrow dark bar at cell end. There is a prominent costal fold filled with yellowish-white androconial scales. Fringe brown.

Hindwing ground color as forewing with same superscaling, more or less darker along termen as on forewing; two macular bands of darker brown spots, an inner discal band from Sc+R_1-Rs, where there are two spots, prediscal and discal, to Cu_1-Cu_2, and an outer postdiscal band from Rs-M_1 to Cu_2-1A, sometimes with a faint suggestion of an additional spot in 1A-2A, this band more or less completely broken at M_3 where the lower portion is offset distad. Fringe brown.

Underside: Forewing ochreous brown to very dark brown, variable, with some golden overscaling in the base of the costal cell and upper basal portion of the discal cell; dark specimens tend to be somewhat darker toward the apex and slightly paler on the inner margin, paler specimens are more or less uniform. Dark macular bands from above repeated, but much less distinctly, sometimes nearly extinct. Hyaline spots as above.

Hindwing as forewing but with more or less extensive golden overscaling in the discal area; dark bands as above, but may be nearly obsolete.

Palpi short, dark brown with liberal admixture of pale yellow scales, third segment very short, porrect. Head, thorax and abdomen dark brown with heavy ochreous overscaling. Antennae about half costa, dark brown, checkered pale yellow in front, but very faintly in some specimens, yellowish white beneath club base and apiculus and extending well down antennal shaft; nudum reddish brown varying from 7/17 to 9/19 (average 8.2/17.6 in the 12 specimens measured). Legs dark brown with yellowish scaling especially heavy on outside of forelegs; tibiae smooth, mid tibiae one pair spurs, hind tibiae two, no hair tuft.

Genitalia very similar to *epicalus*. Uncus long and slender, bluntly rounded at caudal end, about as long as tegumen, but slightly shorter than *epicalus*; dorsal hump less pronounced than *epicalus* and well caudad of mid point. Gnathos short, with two sclerotized and shagreened lateral lobes, centrally membranous. Tegumen bears two pairs of caudally projecting processes, the caudal inner pair long and pointed in dorsal view as in *epicalus*, the cephalad outer pair short, not reaching base of uncus and broadly rounded in dorsal view, whereas in *epicalus* they extend caudad beyond base of uncus and are narrow and bluntly pointed. Saccus relatively short. Valvae symmetrical, longer than combined uncus and tegumen; harpe somewhat produced caudally to a narrow rounded dentate end and produced dorsally as a dorso-cephalad directed sharp, dentate point, differing from *epicalus* in that this dorsal process as well as the harpe terminus are not dentate on the inner surface, but rather heavily so in *epicalus*. The costa is strongly dentate on its inner surface. Penis long and slender, straight in dorsal view, somewhat sinuous laterally; vesica opening on the right side twisting to dorsal at the caudal end, dorsal edge of this opening prominently dentate in the cephalad half on left side only (it is toothless in *epicalus*). Cornutus, as in *epicalus*, consists of two rows of spines set in the very long vesica: a cephalad comb-like row of about 30 slender spines and a caudad row of about 12 stouter, more widely separated spines. Juxta a small, lightly sclerotized U-shaped yoke as in *epicalus*.

FEMALE: Upperside: Forewing medium brown with violet gloss, lacks ochreous superscaling of male, somewhat darker at apex, costa and along termen; traversed by two darker brown bands arranged as in male, but broader and the spots conjoined, not

macular; three subapical hyaline white spots as in male, all three present in all 11 females examined. Fringe brown.

Hindwing the same violet glazed brown, more or less densely clothed discally with long brown hairs; darker along termen, a bit paler on inner margin; traversed by two darker brown bands arranged as in male, the spots more contiguous yet tending to be slightly macular; the two spots in $Sc+R_1$-Rs of the inner discal band merged into one and connected to cell spot. Fringe grey brown.

Underside: Forewing medium brown, darker at apex, slightly paler in anal cell; a few scattered yellowish scales in base of costal cell; bands from above repeated, the spots a bit smaller, more or less separate. Fringe brown, slightly paler in interior row of scales, inwardly bordered by thin dark hairline.

Hindwing ground color as forewing, a few scattered yellowish scales in bases of costal cell, $Sc+R_1$-Rs and upper part of discal cell; more or less densely overscaled bluish white in lower part of cell and from behind M_2 to inner margin, nearly reaching termen. Dark bands from above repeated, spots slightly smaller and more or less separated, very prominent in the bluish white area. Fringe and terminal dark hairline as forewing.

Palpi as male but third segment slightly longer, admixed scales whitish rather than yellowish. Antennae slightly less than half costa, dark brown, lightly checkered whitish in front in some specimens, whitish beneath base of club and apiculus; nudum brown, varying from 8/17 to 9/18 (average 8.5/17.5 in 10 specimens). Head, thorax and abdomen same brown as dark bands; abdomen beneath overscaled bluish white. Legs as male, but overscaling whitish.

Genitalia: Papillae anales with narrow rounded tips, apophyses posteriores about as long as papillae; lamella postvaginalis deeply indented centrally on caudal margin, with microtrichia, flanked by two smooth sclerotized plates that partially overlap it and are in turn overlapped by the broad, lamella antevaginalis which is roughly rectangular but with rounded corners and densely covered with microtrichia. The smooth lateral plates overlapping the lamella postvaginalis extend laterally beyond the edges of the lamella antevaginalis and are in turn outwardly bordered by two rounded processes with dense microtrichia. There is an internal sclerotized tube in the caudal part of the ductus bursae fused with the antrum to form a moderately long tube from whose approximate mid point arises the ductus seminalis on the dorsal side; the ductus bursae contains a second, longer sclerotized tube from slightly caudad of mid point to about the cervix where it fades; ductus between this tube and the extension of the antrum strongly wrinkled as it is around the cephalad half of the cervical tube. Corpus bursae cylindrical, shorter than ductus bursae, with very fine internal spiculation. Sinus conjunctionis well developed, not crinkled, not extending cephalad as far as the ductus seminalis connection.

Wing measurements: ♂ forewing varies from 20 x 11 mm to 21 x 12, averaging 20.66 x 11.44 mm in 16 ♂. ♀ forewing varies from 22 x 12 mm to 25 x 13 1/2, averaging 24.05 x 13.18 mm in 11 ♀.

The ♀ holotype of *choricus* is from Paso de San Juan, Mexico. A series 16 ♂ and 11 ♀ in the AME are from the Mexican states of Veracruz, Tabasco, Oaxaca and Chiapas.

Telemiades sila Evans, 1953, new status

Telemiades epicalus sila Evans, 1953:28, Pl.27

Because of the great disparity between the male genitalia of *epicalus* with symmetrical valvae and two pairs of tegumen processes, and *sila* with asymmetrical valvae and a single pair of tegumen processes, plus the probable overlap of their ranges, I believe that *sila* deserves specific rank.

Only two of the above four *Telemiades* species, *epicalus* and *choricus* are likely to be confused; *sila* with its very dark aspect, asymmetrical valvae and single pair of tegumen processes is distinct, as is *megallus* with the broad bluish white tornal area of the underside hindwing in the male and the short broad uncus. I am unsure of the identity of female *epicalus*, but the males can be separated from *choricus* males by the genitalia characters

mentioned in the latter's description and by their size; the two *epicalus* males I have seen have forewing lengths of 18 and 19 mm in contrast to the 20 to 21 mm forewing of *choricus*.

Eracon pebana Evans, 1953

Figures **17,18** (♂); **75** (♂ genitalia)

Eracon pebana Evans, 1953: 36, Pl.28, f.E.13.4

Evans did not indicate asymmetry in the valvae of *pebana* and I thus had intended to describe this insect as a new species because its valvae are asymmetrical, but Dr. Mielke (pers. comm., 1988) assures me that it is, in fact, *pebana*. As the male genitalia are somewhat different from Evans' illustration and the insect itself has not been figured, I leave the figures I had originally included as a new species, to illustrate *pebana*.

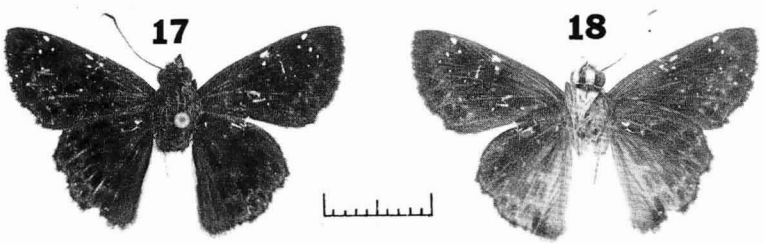
The male genitalia are described as follows: Uncus long, narrow, undivided, more or less bulbous at end, shorter than tegumen which bears a pair of lateral flanges at its caudal end; gnathos short, weakly bilobed, more or less spiculose; valvae asymmetrical, right harpe overlaps prominently dentate ampulla which projects caudad nearly as far as harpe, left harpe does not overlap ampulla which is not prominently dentate, sacculus of both valvae with dorsally projecting, finger-like process or style; penis simple, about as long as valvae, three or four small teeth on right side distally, no cornutus, phallobase strongly upturned; juxta prominent; saccus moderately long and narrow.

This specimen, from Brasil: Mato Grosso; Sinope, km. 500 Cuiaba-Santarem Hwy., taken by C. Callaghan 13.vii.1978 is somewhat smaller than the holotype of *pebana*; forewing 16 mm instead of 18 mm reported by Evans for the holotype.

Nisoniades Hübner, [1819]

A few comments on *Nisoniades* are needed to clarify some points in specific descriptions by various authors. The genus is characterized in part by the modification of hindwing vein Rs which is variably swollen and bared of scales beneath. As noted by Evans, the point where it branches from the cell and the form of its modification are very important in differentiating between species groups, a factor unfortunately overlooked by Williams and Bell. In addition to this modified vein, there is a sharp fold or crease in the costal cell of the hindwing, starting at the base and curving parallel to $Sc+R_1$ to about mid costa or beyond. On the upper surface of the wing this fold contains a hair tuft which more or less covers the modified portion of Rs. The extent, color and length of this tuft are also important diagnostic characters.

The genitalia of both sexes are very distinctive. In the male, the uncus is long, generally narrow and undivided. The gnathos is missing. The appendices angulares are usually well developed and prominent, often fused ventrally to form a complete sclerotized ring, sometimes prominently asymmetrical, and may be either smooth, dentate, spinose or covered with microtrichia. These appendices were referred to by Evans as the gnathos



Figures **17,18**. (Scale line = 1 cm) *Eracon pebana* Evans, 1953, ♂ upperside (**17**), underside (**18**) (Photo Nos. 880729A/17,18) Brasil: Mato Grosso.

and by Bell and Williams as the scaphium. The penis is very short and sharply upturned at its caudal end. The valvae are asymmetrical with a usually narrow, more or less dentate harpe which more or less overlaps a usually broad dentate ampulla. The juxta is generally narrow and ribbon-like and the transtilla often strongly developed and dentate or setose. The saccus is very short, in some species practically non existent.

In the descriptions below, only specifically significant differences from the general form will be noted.

In the female, instead of two more or less discrete separate plates, above and beneath the ostium bursae (the lamellae post and antevaginales), the cephalad portion of the sterigma, apparently combined with the antrum have formed a prominent tube-like cephalad extension of the lamella postvaginalis directed ventro-cephalad between two asymmetric, ornately dentate and spinose processes. The ostium bursae is usually very near or at the end of this tube on its dorsal side which results in the caudal end of the ductus bursae facing more or less cephalad and making a near U-turn to proceed cephalad toward the corpus bursae. There is no internal sclerotization in the ductus bursae and no signum in the corpus bursae.

Nisoniades bessus (Möschler, 1876)

Pellicia bessus Möschler, 1876(26):341, Pl.4, f.25
Nisoniades bessus bessus (Möschler, 1876), Evans (1953:47, Pl.30)
=*Pellicia trigeminus* Plötz, 1882(26):254
=*Pellicia* sordidulus Mabille, 1903:59, invalid MS name

Evans (1953:46-48) divided *bessus* into nine subspecies with varying male genitalia. This genitalic variation, coupled with overlap or near overlap of known geographic ranges of these "subspecies" leads me to separate them as valid species. Some of Evans' synonymy also seems to be somewhat in error and I have separated as valid species some of the names he considered synonyms of various *bessus* subspecies. Others, where no genitalia details are available, I leave as Evans treated them. These changes are shown below.

Nisoniades montana (Williams & Bell, 1939), new combination

Pellicia montana Williams & Bell, 1939:137, f.1
=*Nisoniades bessus bessus* (Möschler), Evans (1953:47)

The shape of the left appendix angularis of *montana* is quite different from that of *bessus*, as is the right harpe, sufficiently so that I treat them as separate species, certainly not synonyms.

Nisoniades godma Evans, 1953, new status

Nisoniades bessus godma Evans, 1953:46, Pl.30

Nisoniades panama Evans, 1953, new status

Nisoniades bessus panama Evans, 1953:46, Pl.30

Nisoniades benda Evans, 1953, new status

Nisoniades bessus benda Evans, 1953:46, Pl.30

Nisoniades hecale (Hayward, 1939), new status

Pellicia hecale Hayward, 1939:151, f.20
Nisoniades bessus hecale (Hayward, 1940 [*sic*!]), Evans (1953:47, Pl.30)

Nisoniades cauca Evans, 1953, new status

Nisoniades bessus cauca Evans, 1953:47, Pl.30

Nisoniades remo Evans, 1953, new status

Nisoniades bessus remo Evans, 1953:47, Pl.30

Nisoniades criton (Mabille, 1897), new status

Pellicia criton Mabille, 1897:192
Nisoniades bessus criton (Mabille, 1897), Evans (1953:47, Pl.30)

Nisoniades hesperia (Hayward, 1939), new combination

Pellicia hesperia Hayward, 1939(10)(3):518, f.5
=*Nisoniades bessus criton* (Mabille), Evans (1953:47)

The shape of the appendices angulares and of the left valva in particular are quite different from *criton* therefore *hesperia* is raised from synonymy.

Nisoniades maura (Mabille & Boullet, [1917]), new status

Pellicia maura Mabille & Boullet, [1917]:322
Nisoniades bessus maura (Mabille & Boullet, 1916 [*sic*!]), Evans (1953:48, Pl.30)
=*Achlyodes gambrus* Mabille & Boullet, [1917](21):56

Nisoniades suprapanama, new species

Figures **19,20** (♂); **76** (♂ genitalia)

MALE: Upperside: Forewing brown; preterminal dark brown macular band from R_4-R_5 to 1A-2A parallel to the termen; narrow dark brown postdiscal band from R_3-R_4 to anal cell where it is continued proximad to the base, its upper three preapical spots with hyaline white centers, that in R_5-M_1 offset slightly distad from the other two which are aligned normal to the costa, the band bent nearly at a right angle in M_1-M_2 whence it proceeds in a straight line to the anal cell; indistinct discal and prediscal dark bands from the upper edge of the cell to 1A-2A where they more or less merge and join the dark anal cell. Between the preterminal and postdiscal dark bands, the ground color is paler, forming a well marked pale spot band from the costa to 2A. No costal fold. Fringe brown, slightly paler distally.

Hindwing ground color as forewing, slightly paler in costal cell and somewhat darker in 2A-3A and anal cell; indistinct macular dark brown preterminal, postdiscal and discal bands from Rs to 2A; a more or less well marked paler spot band between the preterminal and postdiscal dark bands. Termen slightly excavate in Cu_2-2A. Short tuft of brown hairs arising from basal part of crease in costal cell and extending distad to about cell end. Fringe brown, slightly paler distally.

Underside: Forewing brown, paler in Cu_2-2A, increasingly so in anal cell; dark bands repeated from above but less distinct, the postdiscal band a bit broader, discal and prediscal bands nearly extinct; pale band between preterminal and postdiscal dark bands as above; a pale apical spot in R_4-R_5.

Hindwing slightly paler brown than above; markings from above repeated. Rs arises from mid cell, well separated from M_1, swollen and bared of scales as far as cell end. Crease in costal cell clearly marked, like an extra vein.

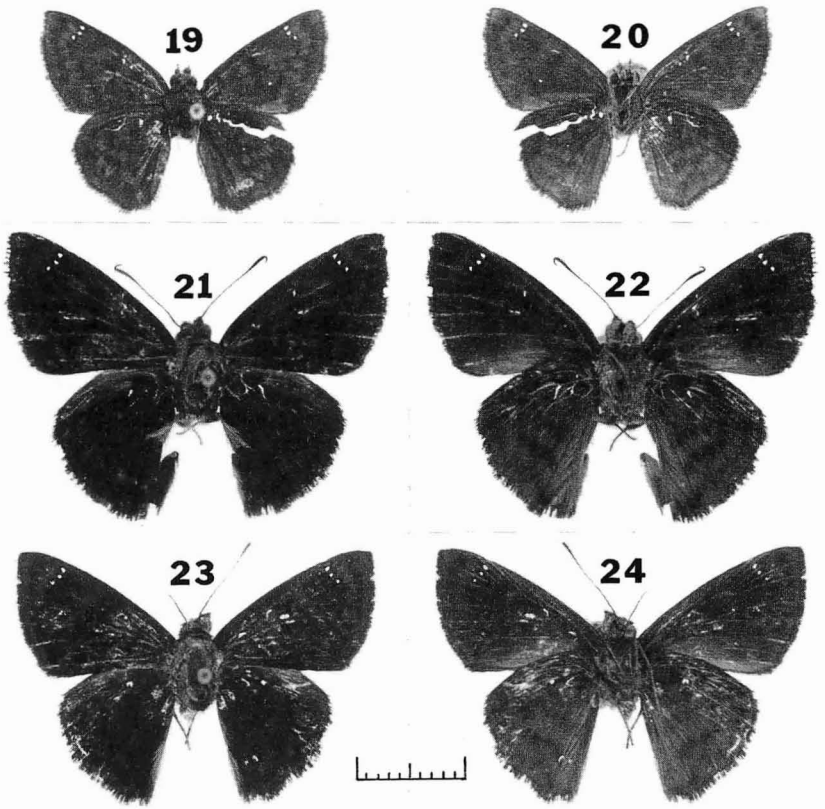
Palpi brown, somewhat speckled buff, especially below; third segment as long as second, narrow, porrect. Antennae missing. Head, thorax and abdomen brown; legs grey brown, hind tibiae smooth, two pairs spurs, no hair tuft, mid tibiae missing.

Genitalia of general *Nisoniades* form, very similar to *panama* from which it differs principally in the presence of a small superuncus arising from the tegumen, and a sclerotized dentate process arising in the membrane of the anellifer of the right valva. The anellifer was torn in dissection and the exact location of this process could not be determined. Appendices angulares nearly symmetrical, dentate, fused ventrally to form complete ring, their dorsal processes rather long and narrow. Upturned caudal portion of penis much longer than phallobase.

FEMALE: Unknown.

Wing measurements: ♂ holotype forewing 14 x 8 mm.

Type material: Only the holotype, Colombia: Valle del Cauca; Cali, Cañas Gordas 1000 m. S. R. & L. M. Steinhauser 1.ii.76, bearing the following labels: printed and hand printed white label, COLOMBIA: VALLE DEL CAUCA Cali, Cañas Gordas 1000 m. 1.ii.1976 S. & L. Steinhauser; printed white label, A. C. Allyn Acc. 1976-3; printed and hand printed white label, Genit. Vial SRS-2019; printed and hand printed red label, HOLOTYPE ♂ Nisoniades suprapanama S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729A/19,20. The holotype is deposited in the Allyn Museum of Entomology.



Figures 19-24. (Scale line = 1 cm) *Nisoniades* spp. **19,20** *N. suprapanama*, new species, ♂ Holotype upperside (**19**), underside (**20**) (Photo Nos. 880729A/19,20) Colombia: Valle del Cauca. **21,22** *N. coca*, new species, ♂ Holotype upperside (**21**), underside (**22**) (Photo Nos. 880729A/21,22) Ecuador: Napo. **23,24** *N. lata*, new species, ♂ Holotype upperside (**23**), underside (**24**) (Photo Nos. 880729A/23,24) Ecuador: Napo.

Following Evans' key, *suprapanama* falls into the *bessus* (*sensu* Evans)-*brazia-laurentina* group characterized by the divergence of Rs from M_1 and the origin of Rs being from mid cell and swollen only to cell end. Superficially, the species in this group are nearly impossible to determine; genitalic examination is needed. Two other new species of this group are described below followed by an identification key for the species within the group.

Nisoniades coca, new species

Figures **21,22** (♂); **77** (♂ genitalia)

MALE: Upperside: Forewing dark brown, more or less purple glazed, with very dark brown, narrow macular preterminal band from R_4-R_5 to tornus; broad postdiscal band of more or less conjoined very dark brown spots from R_3-R_4 to 1A-2A, the upper three with hyaline white centers, those in R_3-R_4 and R_4-R_5 aligned normal to the costa, that in R_5-M_1 slightly offset distad; this band bent nearly at a right angle in M_1-M_2 as in *suprapanama*, but the band much broader; discal band of very dark brown spots through the cell near its end and joining the postdiscal band in Cu_2-2A; very indistinct sub-basal dark band; a spot band, slightly paler than ground, between preterminal and postdiscal dark bands. No costal fold. Fringe dark brown.

Hindwing the same dark brown, more or less glazed purple, somewhat paler in the costal cell; obscure, very dark brown preterminal, postdiscal, discal and sub basal bands from Rs to about 2A where they disappear beneath the long dark brown hairs covering the inner portion of the wing; a macular spot band, paler than ground color, between preterminal and postdiscal dark bands and some vague pale spotting near cell end. Termen rather evenly rounded. Fringe dark brown, slightly paler on inner margin. Short brown hair tuft from basal part of crease in costal cell reaches cell end.

Underside: Forewing dark brown, but paler than above and with faint purple glaze; base of Cu_2-2A and all of anal cell much paler; hyaline subapical spots as above; dark bands as above but much less distinct.

Hindwing ground color as forewing but much stronger purple glaze; dark bands as above but much more distinct; last spot in preterminal band reaches termen around end of 2A, forming a dark tornal spot. Rs from mid cell, well separated from M_1, swollen and bared of scales as far as cell end. Crease in costal cell prominent.

Palpi brown above, grey brown beneath, third segment as long as second, prominently porrect. Antennae plain brown, about half costa, apiculus hooked, nudum brown, 10/8. Head, thorax and abdomen dark brown; legs grey brown, hind tibiae smooth, two pairs spurs, no hair tuft; mid tibiae missing.

Genitalia of general *Nisoniades* form, specifically marked by completely smooth appendices angulares ventrally fused into a ring, with a very prominent broad dorsal process on left side but barely expressed on right; right harpe a bit longer than ampulla; left harpe slightly shorter than ampulla; distal upturned portion of penis very short, about equal to phallobase; prominent sclerotized transtilla consisting of two lateral ovoid plates; saccus slightly more developed than in most species.

FEMALE: Unknown.

Wing measurements: ♂ holotype forewing 19 1/2 x 10 1/2 mm.

Type material: Only the holotype, Ecuador: Napo; Rio Coca 300 m. vii.71, R. de Lafebre, bearing the following labels: printed white label, ECUADOR: NAPO Rio Coca, 300 m. vii.1971 R. de Lafebre; printed white label, A. C. Allyn Acc. 1971-41; printed and hand printed white label, Genit. Vial SRS-1957; printed and hand printed red label, HOLOTYPE ♂ Nisoniades coca S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729A/21,22. The holotype is deposited in the Allyn Museum of Entomology.

There is great similarity between the male genitalia of *coca* and *montana*, but *montana*, with a wing expanse of 33 mm is much smaller; I have not seen its hindwing veination and do not know if it even belongs in this group.

Nisoniades lata, new species

Figures **23,24** (♂); **78** (♂ genitalia)

MALE: Superficially as described for *coca* with the following differences: upperside very slightly paler, much less purple glaze; forewing pale spot band between preterminal and postdiscal dark bands slightly more prominent.

Underside, especially hindwing, with very faint purple glaze; hindwing dark bands slightly less prominent, especially the preterminal band which is much narrower and lacks the prominent tornal spot at end of 2A; basal portion of Rs slightly less swollen. No nudum count possible due to broken antennae; legs as coca, mid tibiae smooth, one pair spurs.

Genitalia of general *Nisoniades* form, specifically marked by the non-dentate appendices angulares which are not fused ventrally and have a very prominent, microtrichia covered dorsal process on the left side which projects dorsad in a sharp point, reaching above the uncus, this process smooth and barely developed on the right; caudal end of uncus somewhat constricted, not evenly tapered as *coca*; right harpe only slightly longer than ampulla; distal upturned portion of penis short, but slightly longer than phallobase; transtilla developed as two lateral sclerotized ovoid plates; saccus very small.

FEMALE: Unknown.

Wing measurements: ♂ holotype forewing 18 x 9 1/2 mm.

Type material: Only the holotype, Ecuador: Napo; Latas, 460 m. ii.71, R. de Lafebre, bearing the following labels: printed white label, ECUADOR: NAPO Latas, 460 m. ii.1971 R. de Lafebre; printed white label, A. C. Allyn Acc. 1971-12; printed and hand printed white label, Genit. Vial SRS-1958; printed and hand printed red label, HOLOTYPE ♂ Nisoniades lata S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729A/23,24. The holotype is deposited in the Allyn Museum of Entomology.

N. lata is immediately distinguished from other *Nisoniades* species by its very prominent, microtrichia-covered dorsal process on the left appendix angularis.

There are 14 *Nisoniades* species in the group characterized by Rs of the hindwing branching from mid cell, well separated from M_1 from the beginning, and swollen and bared of scales only to the cell end. These are: *godma, panama, benda, hecale, cauca, remo, bessus, criton, maura, brazia* Evans, 1953, *suprapanama, coca, lata,* and *laurentina* (Williams & Bell, 1939). I have not included *montana*, not having seen its hindwing veination, nor *hesperia* in which Rs of the hindwing arises distad of mid cell. With few exceptions these insects are very difficult or impossible to identify on the basis of superficial characters. The following key, based mostly on genitalic characters, should be of help.

Key to the species of the *bessus* group of *Nisoniades*.

1	Left harpe longer than ampulla	*brazia*
1'	Left harpe not longer than ampulla	2
2	Left harpe equals or nearly equals ampulla	3
2'	Left harpe definitely shorter than ampulla	7
3	Right harpe more or less bifurcate, dorsal arm projects over ampulla	*laurentina*
3'	Right harpe not divided, not overlapping ampulla	4
4	Appendices angulares more or less symmetrical	5
4'	Appendices angulares prominently asymmetrical	*coca*
5	Dorsal processes of appendices angulares long, prominent	*godma*
5'	Dorsal processes very short, barely developed	6
6	UNH tornal half may be paler, but with discal markings	*criton*
6'	UNH tornal half unmarked pale ochreous brown, may be subspecies of *criton*	*remo*
7	Appendices angulares more or less symmetrical	8
7'	Appendices angulares prominently asymmetrical	13

8 Upturned distal part of penis short, about equal to phallobase ..... *cauca*
8' Upturned distal part of penis much longer than phallobase 9
9 Tegumen with superuncus, right harpe with internal sclerotized process from anellifer ..... *suprapanama*
9' No superuncus nor right harpe process 10
10 End of left ampulla narrow, bluntly pointed ..... *benda*
10' End of left ampulla broad, rounded 11
11 Dorsal processes of appendices angulares rather long, narrow; left harpe and ampulla rather finely dentate, not overlapping ..... *panama*
11' Dorsal processes rather short, broad; left harpe and ampulla heavily dentate, overlapping 12
12 Right harpe longer than ampulla ..... *maura*
12' Right harpe not longer than ampulla ..... *hecale*
13 Left appendix angularis dorsal process round, dentate ..... *bessus*
13' Dorsal process pointed, with microtrichia ..... *lata*

Nisoniades torta, new species

Figures **25,26** (♂); **79** (♂ genitalia)

MALE: Upperside: Forewing very dark brown, the usual preterminal, postdiscal and discal dark bands almost completely obscured; three preapical hyaline white spots in R_3-R_4 to R_5-M_1, the latter offset distad. No costal fold; fringe very dark brown.

Hindwing the same very dark brown, somewhat paler in anal cell; the usual preterminal, postdiscal and discal dark bands slightly more visible than on forewing due to narrow, slightly paler than ground, spot band between preterminal and postdiscal dark bands. Hair tuft from crease in costal cell not limited to basal portion, paler brown, hairs darkening at ends, extending beyond cell end. Fringe very dark brown, paler on inner margin.

Underside: Forewing brown, paler than above, much paler in anal cell and basal 2/3 of Cu_2-2A; preapical hyaline spots as above, dark bands almost completely obscured.

Hindwing brown, paler than above, especially behind 2A, dark bands more or less prominent; Rs arising slightly distad of mid cell, separated from M_1, but running close to it, bared of scales and swollen from its origin to beyond end of cell where it diverges from M_1; crease in costal cell well marked.

Palpi brown above, grey brown beneath, third segment short, porrect. Antennae plain brown, somewhat paler beneath, nudum brown, 7/9 in holotype and one paratype, 8/9 in one paratype; apiculus hooked. Head, thorax and abdomen dark brown; legs grey brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, no hair tuft.

Genitalia of general *Nisoniades* form, specifically marked by the completely smooth, nearly symmetrical appendices angulares, which are fused ventrally to form a ring; dorsad of this suture there is a weakly sclerotized process (subscaphium?) in the membranous fultura superior reaching dorsad nearly to anus; the usual dorsal processes of the appendices angulares are missing on the left side and reduced to a minute smooth tooth on the right, but the appendices themselves are bent sharply outward or shouldered at this point as illustrated in the posterior view (Fig.**79k**). Harpes upturned dorsad, right harpe prominently twisted and not extending caudad as far as the end of the rounded dentate ampulla; left harpe extends beyond and more or less wraps around caudal end of ampulla, but is not prominently twisted; left ampulla with a prominent smooth, finger-like process projecting inward and overlapping the harpe. Upturned caudal portion of penis short, about equal to phallobase.

FEMALE: Unknown.

Wing measurements: Holotype ♂ and one ♂ paratype, forewing 18 x 10 mm., one ♂ paratype 18 1/2 x 10 1/2 mm.

Type material: Holotype, Panama: Canal Zone; Piña, 15.iv.71, H. L. King, bearing the following labels: printed and hand printed white label, CANAL ZONE Piña 15.iv.1971

H. L. King; printed white label, A. C. Allyn Acc. 1972-5; printed and hand printed red label, HOLOTYPE ♂ Nisoniades torta S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729B/1,2. One paratype ♂ same location and collector as holotype, 22.iii.71; one paratype ♂ Panama: Colon; Piña 100 m. 31.vii.72, H. L. King (Genit. Vial SRS-1960). The holotype and two ♂ paratypes are deposited in the Allyn Museum of Entomology.

Apparently the species closest to *torta* is *borra* (Bell, 1947) which Evans synonymized with *brunneata* (Williams & Bell, 1939). The valvae of *torta* differ from *borra* in the presence of the inward projecting finger-like process on the left ampulla of *torta* and in the more heavily dentate and apparently untwisted right harpe of *borra*. Bell's illustration is of the exterior of the valvae with interior features shown because of transparency.

Nisoniades supra, new species

Figures **27,28** (♂); **80** (♂ genitalia)

MALE: Upperside: Forewing dark brown with the usual darker brown preterminal, postdiscal and discal bands more clearly visible than in *torta*; basal area vaguely darker, discal band does not extend below Cu_2 and thus does not connect with postdiscal band; narrow area distad of preterminal dark band paler than ground, forming a pale spot band between dark terminal hairline and dark preterminal band; three preapical hyaline white spots as usual in R_3-R_4 to R_5-M_1, but all in a straight line; fringe grey brown. No costal fold.

Hindwing dark brown with the usual darker brown bands faintly discernible; somewhat paler in costal cell; light brown hair tuft from basal portion of costal cell crease, extending beyond end of cell; fringe grey brown.

Underside: Forewing dark brown as above, much paler in anal cell and Cu_2-1A, especially the basal half; dark bands from above not visible; pale terminal spot band clearly visible, the apical pale spots of this band, in R_4-R_5 and R_5-M_1, large and prominent.

Hindwing slightly paler than above, especially along inner margin and distad of preterminal dark band where there is a faint pale terminal spot band; dark bands as above but more visible. Rs branches from cell beyond mid cell, swollen to beyond cell end and fused to M_1 as a single bared glandular strip. Sc+R_1 bent down toward Rs above the swollen area.

Palpi missing; antennae about half costa, plain brown above, slightly paler beneath, apiculus hooked, nudum brown, 7/9. Head, thorax and abdomen brown; legs grey brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, no hair tuft.

Genitalia of general *Nisoniades* form, characterized by the weakly developed appendices angulares, not fused ventrally and not connected to tegumen (perhaps indicating that "appendices angulares" is not the correct term for this process); uncus in dorsal view broader than usual and centrally constricted; right harpe prominently dentate, more or less bifurcate, overlapping ovoid ampulla; left harpe relatively narrow and straight, extending caudad well beyond ampulla which bears a prominent finger-like process projecting inward and cephalad; upturned distal portion of penis short, about equal to phallobase; small but prominent superuncus constricted before its caudal end to form a small "nipple".

FEMALE: Unknown.

Wing measurements: Holotype ♂ forewing 18 x 9 1/2 mm.

Type material: Only the holotype, Peru: Madre de Dios; 0-2 km. W. of Puerto Maldonado 250 m. 8.viii.81, Lee D. Miller, bearing the following labels: printed white label, PERU: MADRE de DIOS 0-2 km. W of Puerto Maldonado, 250 m. moist forest 8.viii.1981 Lee D. Miller, sta. PE5; printed white label, Aronheim Exp. Allyn Museum Acc. 1982-1; printed and hand printed white label, Genit. Prep. SRS-1554; printed and hand printed red label, HOLOTYPE ♂ Nisoniades supra S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729B/3,4. The holotype is deposited in the Allyn Museum of Entomology.

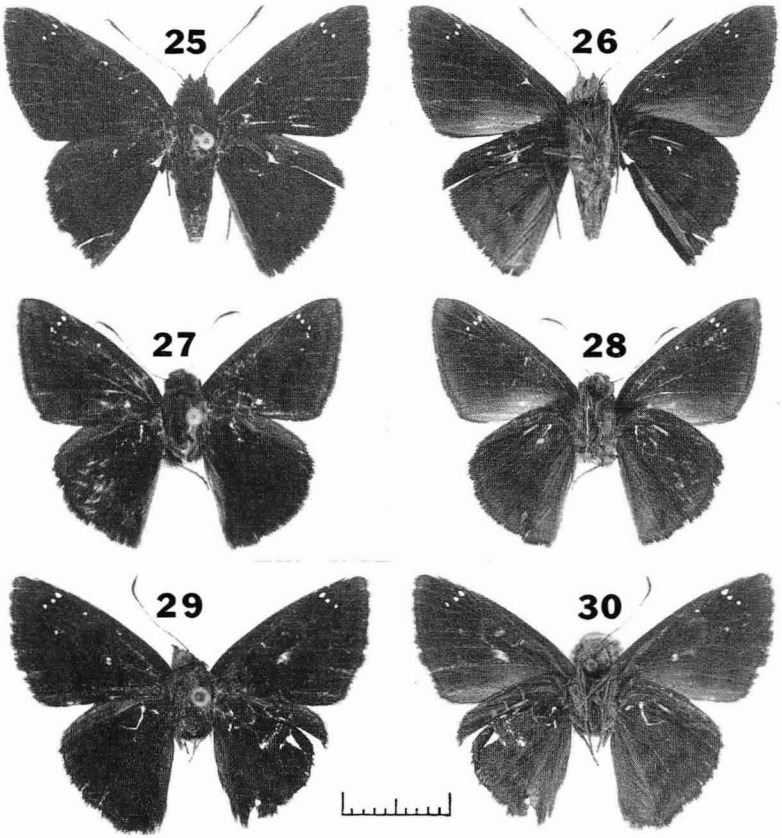
N. supra is almost exactly like the insect misidentified and described by Evans as *rimana* (Bell, 1942) except for the presence of a superuncus in *supra*. *N. rimana*: Evans, 1953:51, Pl.31, *nec* Bell, 1942 is redescribed below as a new species. Both it and *supra* are easily distinguished from *rimana* because of the latter's prominent dentate, completely fused appendices angulares, dorsally directed dentate process from the middle of the right harpe, and well marked dark bands on the forewing beneath.

Nisoniades evansi, new species

Figures **29,30** (♂); **81** (♂ genitalia)

Nisoniades rimana: Evans, 1953:51, Pl.31, *nec* (Bell), 1942:73

MALE: Upperside: Forewing dark brown with the usual darker brown preterminal, postdiscal and discal bands visible but not prominent, discal and postdiscal bands merged below cell; poorly defined dark sub basal band; the usual three preapical hyaline white



Figures **25-30.** (Scale line = 1 cm) *Nisoniades* spp. **25,26** *N. torta*, new species, ♂ Holotype upperside (**25**), underside (**26**) (Photo Nos. 880729B/1,2) Panama: Canal Zone. **27,28** *N. supra*, new species, ♂ Holotype upperside (**27**), underside (**28**) (Photo Nos. 880729B/3,4) Peru: Madre de Dios. **29,30** *N. evansi*, new species, ♂ Holotype upperside (**29**), underside (**30**) (Photo Nos. 880729B/5,6) Ecuador: Oriente.

spots in R_3-R_4 to R_5-M_1 more or less in a straight line oblique to the costa and directed at mid termen as in *supra*; fringe concolorous. No costal fold.

Hindwing dark brown with the usual darker brown bands faintly discernible; slightly paler in costal cell; hair tuft light brown from about the basal 2/3 of crease in costal cell, reaching well beyond cell end; fringe concolorous.

Underside: Forewing brown, paler than above, considerably paler in anal cell and basal portion of Cu_2-2A; dark bands from above barely visible; vague, slightly paler terminal spot band.

Hindwing brown, paler than above, only slightly paler along inner margin; dark bands from above clearly visible, preterminal band reaching termen at end of 2A to form a very vague tornal dark spot. Rs branches from cell beyond mid cell, swollen to beyond cell end and fused to M_1 as a single bared glandular strip. Sc+R_1 slightly bent down toward Rs above swollen area.

Palpi dark brown above, grey brown beneath, third segment short, porrect. Antennae about half costa, plain brown above, slightly paler beneath, apiculus hooked, nudum brown, 8/8 in holotype, 8/9 in two paratypes. Head, thorax and abdomen brown; legs grey brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, no hair tuft.

Genitalia as described above for *supra*, but without the superuncus and with the appendices angulares fused ventrally though not attached to tegumen.

FEMALE: Unknown.

Wing measurements: Forewing, holotype ♂, one paratype ♂ 18 x 10 mm., one paratype ♂ 17 x 9 1/2 mm.

Type material: Holotype ♂, Ecuador: Oriente; Sadzayacu, viii.68, R. de Lafebre, bearing the following labels: printed and hand printed white label, ECUADOR: ORIENTE Sadzayacu viii.1968 R. de Lafebre; printed white label, A. C. Allyn Acc. 1969-11; printed and hand printed white label, Genit. Vial SRS-1965; printed and hand printed red label, HOLOTYPE ♂ Nisoniades evansi S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729B/5,6. One ♂ paratype, same data as holotype; one ♂ paratype, Guyana: Berbice; New River Triangle, Camp Jaguar +500' 9.xi.1980, S. R. Steinhauser. The holotype and two paratypes are deposited in the Allyn Museum of Entomology.

This appears to be the same as the insect misidentified as *rimana* by Evans. I have not seen *rimana* and therefore do not know if the swollen portion of Rs is the same as in *evansi* and *supra*; Bell (1942:74) described it merely as "the usual swollen area at the junction of veins 6 and 7". The genitalic differences are detailed in the note on *supra*.

Nisoniades borra (Bell, 1947), new combination

Pellicia borra Bell, 1947:4, f.4
=*Nisoniades brunneata* (Williams & Bell, 1939), Evans (1953:51)

Evans synonymized *borra* with *brunneata*, but the genitalia as well as the maculation are quite different; *brunneata* has very clearly marked upperside dark bands, whereas in *borra* they are barely visible. These two names are not synonyms.

Nisoniades guianae (Williams & Bell, 1939), new combination

Pellicia guianae Williams & Bell, 1939:137,139, f.2
=*Nisoniades macarius* (Herrich-Schäffer, 1870), Evans (1953:52)

Evans synonymized *guianae* with *macarius*, but the genitalia of the two are quite different; the appendices angulares are well developed and dentate in *macarius* but feebly developed and smooth in *guianae*; there are also considerable differences in the shape of the valvae. The two names are not synonyms.

This entire group of the Pyrginae is in need of revision; the form of the female genitalia

offers many characters that should be very useful in untangling some of the phylogenetic problems that exist.

Pachyneuria milleri, new species

Figures **31,32** (♂); **82** (♂ genitalia)

MALE: Upperside: Forewing brown, slightly darker in Cu_2-2A and anal cell; preterminal macular band of darker brown conical spots from R_4-R_5 to Cu_2-2A, spot in R_4-R_5 elongate with a few ochreous scales in outer portion; postdiscal dark brown band from R_3-R_4 to Cu_2-2A, bent at right angle at M_1, more or less broken at M_3, the lower portion offset basad; short, broad, dark brown discal band from upper edge of cell to Cu_1-Cu_2, cell spot large and prominent; vague dark brown sub basal band from upper edge of cell to Cu_2-2A. No hyaline spots, no costal fold, termen very slightly excavate in Cu_2-2A. Fringe brown, faintly darker at vein ends.

Hindwing same brown as forewing, slightly paler in costal and anal cells; dark brown preterminal band from Rs-M_1 to 2A-3A; dark brown postdiscal band from Sc+R_1-Rs to 2A-3A where it shares a common spot with preterminal band, the spot in Cu_1-Cu_2 expanded outward to more or less join preterminal band; dark brown discal and prediscal bands from Sc+R_1-Rs to 2A-3A, vague and more or less merged below Cu_1. Termen excavate in Cu_2-2A, slightly produced at 2A. Fringe brown, darker brown at vein ends, slightly paler on inner margin. No hair tuft, no crease in costal cell.

Underside: Forewing slightly paler brown than above, paler in anal cell and base of 1A-2A; dark bands from above repeated, but preterminal band narrower and postdiscal band much broader; sub basal band indistinguishable.

Hindwing brown as above, becoming paler ochreous grey brown in tornal half, much paler in 2A-3A and anal cell; dark bands from above repeated, more prominent in tornal half due to contrasting ground color; postdiscal and discal bands not continued below 2A; preterminal band offset distad at 2A, below which it reaches termen to form a more or less prominent dark tornal spot in 2A-3A. Fringe brown, but more even than above, not as dark at vein ends. Rs branches from cell quite near cell end; no veins bared nor swollen.

Palpi brown with scattered buff scales above, heavily speckled whitish beneath, third segment rather long, porrect, projecting forward of head about the width of the eye; antennae slightly longer than half costa, plain brown above, lightly checkered pale buff in front, pale buff beneath shaft and club, apiculus bent at a right angle, nudum brown, 11/8. Head, thorax and abdomen brown; legs buff, mid tibiae missing, hind tibiae smooth, two pairs spurs, recumbent pale buff hair tuft, but no apparent thoracic pouch.

Genitalia: Uncus with "complex dorsal process" of Evans (1953:53) which consists of a small superuncus from the tegumen, sharply downturned cephalad portion of uncus with dense fan-like hair tuft before a right angle bend to horizontal distal portion, which is narrow in lateral view and tapers to a blunt point, wider in dorsal view, all of which is surrounded by asymmetrical appendices angulares fused ventrally to form a complete ring. No gnathos. Valvae asymmetrical, distal end of right harpe dentate, upturned dorsad, overlapping and extending caudad beyond the narrow, bluntly pointed ampulla; left ampulla broad, dentate, projecting caudad beyond left harpe which is sharply upturned dorsad as a long narrow dentate process extending nearly to dorsal edge of ampulla. Penis slender, straight, shorter than valvae, with neither teeth nor cornutus, but lightly shagreened on right side distally. Juxta well sclerotized, a U-shaped yoke. Transtilla, if present, completely fused to appendices angulares and indistinguishable from them. Saccus very short.

FEMALE: Unknown.

Wing measurements: Holotype ♂ forewing 15 x 8 1/2 mm.

Type material: Only the holotype, Peru: Madre de Dios; 0-2 km. W. Puerto Maldonado, 250 m. 19.viii.81, Lee D. Miller, bearing the following labels: printed white label, PERU: MADRE de DIOS 0-2 km. W of Puerto Maldonado, 250 m. moist forest 19.viii.1981 Lee

D. Miller sta. PE11; printed white label, Aronheim Exp. Allyn Museum Acc. 1982-1; white paper triangle with hind leg glued on; printed and hand printed white label, Genit. Prep. SRS-1309; printed and hand printed red label, HOLOTYPE ♂ Pachyneuria milleri S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729B/7,8. The holotype is deposited in the Allyn Museum of Entomology.

P. milleri is closely related to *lineatopunctata* (Mabille & Boullet, [1917]) from which it can be distinguished by the male genitalia; in *lineatopunctata* the left harpe is more or less bifurcate, overlapping the narrow, more or less pointed ampulla, whereas in *milleri* the left harpe has a long, narrow dentate dorsal process overlapping a broad rounded dentate ampulla. I am pleased to name this skipper for its discoverer, my good friend Dr. Lee D. Miller.

Pachyneuria lista Evans, 1953, new status

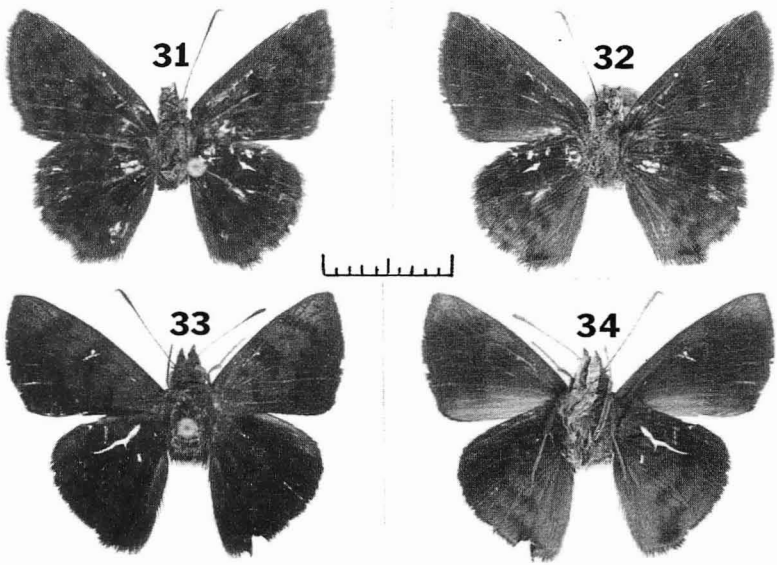
Pachyneuria licisca lista Evans, 1953:56, Pl.32

P. lista is raised to specific rank because of differences between it, *licisca* (Plötz, 1882) and *herophile* (Hayward, 1939) as discussed below.

Pachyneuria herophile (Hayward, 1939), new status

Pellicia herophile Hayward, 1939(43):147, f.5
Pachyneuria licisca herophile (Hayward, 1939), Evans (1955:56, Pl.32)

Evans divided *licisca* into three subspecies: *licisca* ranging from Mexico to Colombia and Venezuela; *lista*, then known only from the type from Fr. Guiana, and *herophile* from Ecuador, Upper Amazons, Brasil (Pará, Minas Gerais) and Paraguay. In addition to these locations, I have seen *lista* from Brasil (Pará) and Ecuador, and *herophile* from Peru. If



Figures **31-34**. (Scale line = 1 cm) *Pachyneuria* and *Pellicia* spp. **31,32** *Pachyneuria milleri*, new species, ♂ Holotype upperside (**31**), underside (**32**) (Photo Nos. 880729B/7,8) Peru: Madre de Dios. **33,34** *Pellicia vecina naja*, new subspecies, ♂ Holotype upperside (**33**), underside (**34**) (Photo Nos. 880729B/9,10) Peru: Madre de Dios.

not overlapping, their known ranges, especially of *lista* and *herophile* come close to it. This lack of clearcut geographic isolation coupled with greatly differing male genitalia lead me to treat all three as separate species.

Pellicia simulator Williams & Bell, 1939, revised status

Pellicia simulator Williams & Bell, 1939:145, f.12
=? *Pellicia santana* Williams & Bell, 1939, Evans (1953:57)

Evans apparently never saw a specimen of *simulator* and disbelieved the Williams & Bell genitalia figure with its grotesquely different uncus which immediately sets it apart from *santana*. There is a specimen from Venezuela in the AME, slightly larger but with similar genitalia that I have identified as *simulator* although it has prominent symmetrical, completely fused appendices angulares not shown in the Williams & Bell figure. It may be a different species, but I leave its description in abeyance until I have examined the *simulator* type series.

Pellicia arina Evans, 1953, new status

Pellicia costimacula arina Evans, 1953:57-58, Pl.33

Evans described *arina* as a subspecies of *costimacula* Herrich-Schäffer, 1870 despite the considerable differences in male genitalia and the overlap of their ranges in Panama. The genitalic differences alone should suffice to separate them as species, and I therefore raise *arina* to specific rank.

P. costimacula litoralis Biezanko & Mielke, 1973 probably also deserves specific rank because of differences in the male genitalia, but until there is good evidence that it is sympatric with *costimacula* I leave it as a subspecies.

Pellicia najoides Hayward, 1933, revised status

Pellicia najoides Hayward, 1933(5):231, Pl.19, f.9; Pl.24, f.10
nec Pellicia vecina najaoides [*sic*!]: Evans, 1953:59, Pl.33.
nec Pellicia vecina najoides: Biezanko & Mielke, 1973:67-68

Both Evans, 1953 and Biezanko & Mielke, 1973 apparently misidentified *najoides*, failing to note that neither of Hayward's figures of the male genitalia (1933:Pl.19, f.9 and 1948:Pl.7, f.13) indicates the presence of what Evans refers to as "anellus lobes", which, in the case of *Pellicia*, is a strongly sclerotized dentate transtilla. This, as noted by Evans, is a prominent diagnostic character of *vecina* Schaus, 1902. Naturally it is also present in both of its subspecies, *cyanea* Biezanko & Mielke, 1973 and *najoides*: Biezanko & Mielke, 1973 (= *najaoides* [*sic*!]: Evans, 1953, *nec* Hayward, 1933), which is redescribed below as a new subspecies of *vecina*. *P. najoides* is a different species entirely and is reinstated as originally described by Hayward.

Pellicia vecina naja, new subspecies

Figures **33,34** (♂); **83** (♂ genitalia)

Pellicia vecina najaoides [*sic*!]: Evans, 1953:59, Pl.33. *nec* Hayward, 1933
Pellicia vecina najoides: Biezanko & Mielke, 1973:67-68, *nec* Hayward, 1933

MALE: Upperside: Forewing shining dark violet grey, slightly paler subapically due to pale violet overscaling. Vague very dark brown preterminal band; prominent very dark brown postdiscal band from R_2-R_3 to anal cell, bent at right angle at M_2, above which it is oblique to costa, has a few ochreous scales, and is directed distad to mid termen; below M_2 it more or less merges with preterminal band; very dark brown discal band

consisting of a large quadrate cell spot between origins of R_1 and R_2 and extending narrowly above cell nearly to costa and below cell as a narrow spot from the inner half of the cell spot to Cu_2, but not entering M_3-Cu_1; very dark brown narrow prediscal band from discal cell to anal cell. There are no hyaline spots and no costal fold. Termen slightly excavate in Cu_2-2A. Fringe dark brown.

Hindwing very dark brown with violet glaze, much paler but not violaceous in costal cell and distal part of Sc+R_1-Rs, slightly paler with violet glaze in anal cell; violet grey bar in mid cell and at cell end faintly suggested. Termen slightly excavate in Cu_2-2A; dark brown hair tuft from crease in costal fold just reaches cell end. Fringe dark brown, slightly paler distally.

Underside: Forewing brown, much paler, almost whitish in anal cell and basal 2/3 of Cu_2-2A; prominent but poorly defined pale buff apical area and less prominent violet grey area at costa above cell end; dark bands from above almost completely obscured.

Hindwing below cubitus rather pale buff brown with slight violet tinge in anal cell; above cubitus dark brown, from which area prominent narrow dark brown discal, postdiscal and preterminal bands extend to 2A, the preterminal band nearly to 3A, reaching termen at end of 2A where it forms prominent dark tornal spot in holotype, but barely visible in the rather worn male paratype. Rs arises from slightly distad of mid cell, divergent from M_1, not bared of scales and only slightly swollen to cell end; costal cell crease prominent.

Palpi dark brown above, heavily scaled white beneath, third segment long, porrect, tapered to a sharp point, extending forward more than the width of the eye. Antennae about half costa, plain dark brown above, buff beneath shaft and club, apiculus hooked, nudum 6/9 in both holotype and paratype. Head, thorax and abdomen brown. Legs brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, no hair tuft.

Genitalia: Uncus longer than tegumen, slender, undivided, caudal half bent sharply ventrad; no gnathos; appendices angulares strongly developed as in *Nisoniades*, symmetrical, not dentate, fused ventrally to form a ring below which is the very prominent, heavily dentate transtilla (anellus lobes of Evans) fused to yoke-like juxta to form a complete sclerotized ring around short penis whose distal portion is slightly upturned and a bit longer than phallobase; the upturned distal portion has a few small teeth on the right side dorsally and a single larger tooth on the left side near the end; vesica opening on right side, no cornutus. Valvae somewhat asymmetrical; right harpe ending in dorsally projecting short, hook-like process which overlaps the dentate, inwardly projecting distal end of ampulla but does not reach its dorsal edge; prominent dentate process from mid dorsal edge of harpe; left valva similar but harpe, though prominently dentate dorsally, lacks the distal hooked process; saccus practically nonexistent.

FEMALE: Unknown. There is a female from nearly the same location as the holotype which may be *naja*, but its genitalia are more like typical *Nisoniades*, in which the ostium bursae is centrally located, than either *Pellicia* Herrich-Schäffer, 1870 or *Pachyneuria* Mabille, 1888, in which, for those taxa I have examined, the ostium is on the left side. The forewing of this female, however, lacks the hyaline subapical spots of *Nisoniades* and I leave it undetermined.

Wing measurements: Holotype ♂ forewing 14 1/2 x 8 1/2 mm; paratype ♂ 16 x 9 mm.

Type material: Holotype ♂, Peru: Madre de Dios; 0-2 km. W. Pto. Maldonado, 250 m. 19.viii.81, Lee D. Miller, bearing the following labels: printed white label, PERU: MADRE de DIOS 0-2 km. W of Puerto Maldonado, 250 m. moist forest 19.viii.1981 Lee D. Miller, sta. PE11; printed white label, Aronheim Exp. Allyn Museum Acc. 1982-1; printed and hand printed white label, Genit. Prep. SRS-1551; printed and hand printed red label, HOLOTYPE ♂ Pellicia vecina naja S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729B/9,10. One ♂ paratype, Peru: Huanuco; 1 km. S. Las Palmas, 14 km. S. Tingo Maria, 29.iii.81 J. Y. Miller (Genit. Prep. SRS-1480). The holotype and ♂ paratype are deposited in the Allyn Museum of Entomology.

This is the insect described by Evans and by Biezanko & Mielke as *najoides*. The male genitalia are the same as *vecina* and *cyanea*; the distinguishing differences between the

three are found on the underside in which the forewing apical patch and hindwing tornal half are whitish grey in *vecina*, violet grey in *cyanea* and pale brown in *naja*.

Pellicia tonga Evans, 1953, new status

Pellicia theon tonga Evans, 1953:60, Pl.33

Pellicia trax Evans, 1953, new status

Pellicia theon trax Evans, 1953:60, Pl.33

The considerable differences between the male genitalia of *theon* Plötz, 1882, *tonga* and *trax* justify their separation as distinct species rather than subspecies as set forth by Evans, despite their apparent geographic separation.

Evans placed *nema* Williams & Bell, 1939 as a synonym of *theon*. I have not seen any specimens of either, but suspect that the slight differences in shape of the valvae and of the underside hindwing color (tornal area broadly whitish in *theon* and paler brown in *nema*) may indicate that they are not synonymous, but for now I leave them as set by Evans. There are many other questions regarding subspeciation and synonymy within *Pellicia*, but this should be the subject of a thorough future revision.

Viola dagamba, new species

Figures **35,36** (♂); **84** (♂ genitalia)

MALE: Upperside: Forewing very dark brown; indistinct preapical spot band of paler brown spots curving from R_3-R_4 to M_2-M_3; similar, very indistinct paler brown postdiscal spot band from costa above cell end curving around cell end and separated from it by a narrow, very dark brown area, to Cu_2-2A, the spots from costa to R_5-M_1 elongate and slightly more distinct; a narrow paler brown transverse bar at cell end; a vague pale spot in upper mid cell and another in M_3-Cu_1 proximad of postdiscal band. Fringe dark brown. No costal fold.

Hindwing the same very dark brown, much paler in costal cell, only slightly paler in anal cell and outer half of Sc+R_1- Rs. Very vague narrow subterminal pale band from R_5-M_1 to Cu_1- Cu_2. Short dark brown hair tuft arising from crease in costal cell, not reaching cell end. Termen slightly excavate in Cu_2-2A. Fringe very dark brown, slightly paler on inner margin.

Underside: Forewing dark reddish brown, paler in basal 2/3 of Cu_2-2A, very much paler in anal cell; preapical pale spot band from above faintly repeated and continued as vague subterminal band to Cu_2-2A; immediately proximad of termen a very vague slightly paler band, leaving between it and the subterminal pale band an indistinct, narrow, macular row of very dark brown spots; faint suggestion of pale bar at cell end, no postdiscal pale band.

Hindwing dark brown with slight reddish tint, slightly paler in 2A-3A and anal cell; subterminal pale band from above repeated more distinctly; more or less prominent large postdiscal pale spots in M_3-Cu_1, Cu_1-Cu_2 and Cu_2-2A; narrow pale bar at cell end. Crease in costal cell prominent but short, not reaching cell end; no veins bared nor swollen.

Palpi very dark brown above, dark grey brown beneath, third segment long, porrect, extending in front of head more than eye width. Antennae slightly more than half costa, plain dark brown, slightly paler beneath club, apiculus arcuate from beyond thickest part of club, shorter than rest of club, nudum brown, 11. Head, thorax and abdomen very dark brown. Legs brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, no hair tuft.

Genitalia: Uncus long, undivided, curved as in *Pellicia*; apparently no gnathos or else it is combined with the broad dorsal processes of the smooth, ventrally fused, symmetrical appendices angulares; tegumen short; valvae asymmetrical, right harpe not quite as long as rather narrow ampulla, its dentate dorsal edge centrally projecting inward and dorsad;

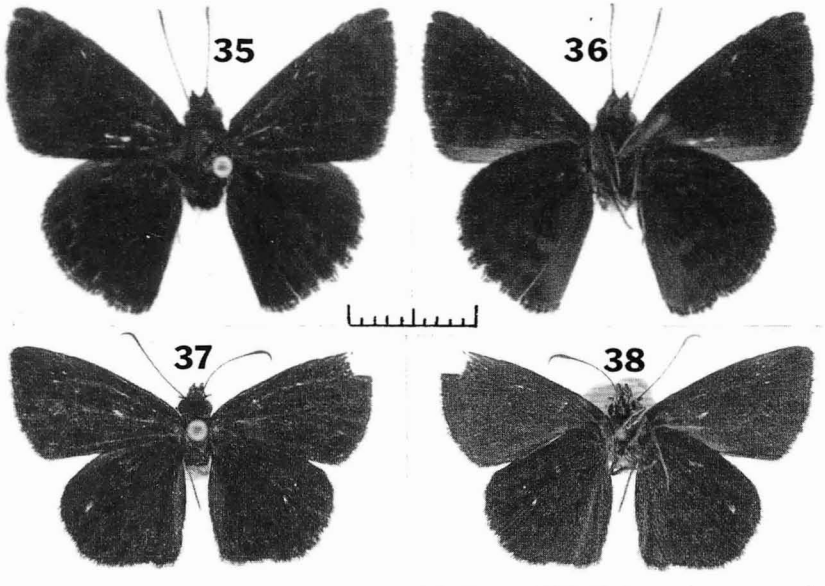
left harpe overlaps dentate ampulla in a smooth arc extending caudad slightly beyond ampulla which bears a dorsal, heavily dentate ridge, proximad of which it is sharply indented just distad of costa; penis slender with upturned distal portion slightly longer than phallobase, opening for ductus ejaculatorius very long, longer than phallobase; viewed dorsally, penis swollen laterally at bend in distal portion. Transtilla with long slender setose arms along lower portion of appendices angulares, connected caudally to semi cylindrical plate which is weakly sutured laterally to the narrow juxta. Saccus very short.

FEMALE: Unknown.

Wing measurements: Holotype ♂ forewing 16 1/2 x 10 mm.

Type material: Only the holotype, Guyana: Berbice; New River Triangle, Camp Jaguar +500' 10.xi.80, S. R. Steinhauser, bearing the following labels: printed and hand printed white label, GUYANA: BERBICE New River Triangle, Camp Jaguar, +500' 10-xi 1980 S. R. Steinhauser; printed white label, Allyn Museum Acc. 1980- 30; printed and hand printed white label, Genit. Prep. SRS-1295; printed and hand printed red label, HOLOTYPE ♂ Viola dagamba S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729B/11,12. The holotype is deposited in the Allyn Museum of Entomology.

In general appearance, *dagamba* comes closest to *egra* Evans, 1953 in that the upperside paler markings of both are brown or pale brown rather than violet grey as in the other *Viola* species. It is easily separated from *egra* (forewing 15 mm) by its larger size and by the male genitalia. The left harpe of *egra* does not curve around over the ampulla as in *dagamba* and does not extend as far caudad; the right harpe of *egra* is more strongly dentate and projects inward as a prominent, sharply pointed, dentate process which is short and rather bluntly rounded in *dagamba*. In *egra*, there is a pair of dentate lateral processes from the junction of tegumen and appendices angulares projecting dorsad of the tegumen that is not present in *dagamba*.



Figures **35-38.** (Scale line = 1 cm) *Viola* and *Bolla* spp. **35,36** *V. dagamba*, new species, ♂ Holotype upperside (**35**), underside (**36**) (Photo Nos. 880729B/11,12) Guyana: Berbice. **37,38** *B. dorsolaciniae*, new species, ♂ Holotype upperside (**37**), underside (**38**) (Photo Nos. 880729B/13,14) Colombia: Tolima.

Bolla ziza Evans, 1953

Bolla ziza Evans, 1953:79, Pl.36
=*Staphylus zuritus* Freeman, 1969(23, Suppl.2):19, Pl.7, f.5,6; Pl.15, f.4, new synonymy

This is one of several taxa in the *Bolla-Staphylus* complex whose exact generic staus is uncertain. Freeman placed it in *Staphylus* and therefore did not check it against *Bolla* species, else he would have seen the obvious synonymy; the genitalia of the two are identical. I believe that *ziza* probably belongs either in *Staphylus* Godman & Salvin, 1896 or a new genus rather than in *Bolla* Mabille, 1903, but leave it as established until a future revisionary study is made.

Bolla dorsolaciniae, new species

Figures **37,38** (♂); **85** (♂ genitalia)

MALE: Upperside: Forewing very dark brown with a very few scattered whitish and buff scales; slightly paler preterminal spot band more or less from costa to Cu_2-2A faintly suggested; small area in mid Cu_2-2A very slightly darker than ground; no hyaline markings. Costal fold present. Fringe concolorous.

Hindwing same very dark brown with faint paler preterminal and postdiscal spot bands and slightly paler along veins causing dark ground color to appear as vaguely defined spots. Termen produced at M_3 and very slightly excavate at 2A resulting in a quadrate wing shape; 2A only slightly longer than 3A. Fringe concolorous.

Underside: Forewing slightly paler than above becoming paler grey brown in anal cell; no markings visible from above.

Hindwing very slightly paler than above with more or less violet glaze and scattered yellowish scales mostly in tornal half; markings as above.

Palpi dark brown above, beneath with some whitish scales, third segment long, porrect, extending in front of head more than eye width. Antennae about half costa, plain dark brown above, slightly paler and very weakly checkered beneath, apiculus arcuate from beyond thickest part of club which is slightly flattened; nudum brown, 13. Head, thorax and abdomen dark brown. Legs dark brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, no hair tuft.

Genitalia almost exactly as *boliviensis* (Bell, 1937) but with prominent broad, finely dentate superuncus from mid tegumen.

FEMALE: Unknown.

Wing measurements: Holotype ♂ forewing 15 x 8 1/2 mm.

Type material: Only the holotype, Colombia: Tolima; Rio Chilí 900 m. 8.xii.75, S. R. & L. M. Steinhauser, bearing the following labels: printed and hand printed white label, COLOMBIA: Tolima; Rio Chili 900 m. 8/XII/1975 No. CH-1091 Coll. by S. R. y L. M. Steinhauser; printed white label, A. C. Allyn Acc. 1976-3; hand printed white label, Genitalia Slide SRS-113; printed and hand printed white label, Genit. Vial SRS-113 Trans. fr. Slide; printed and hand printed red label, HOLOTYPE ♂ Bolla dorsolaciniae S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729B/13,14. The holotype is deposited in the Allyn Museum of Entomology.

This is one of the least distinctly marked of all *Bolla* species, the markings even less visible than in its closest relative, *boliviensis*, from which it differs only in the presence of a superuncus. It is possible that *dorsolaciniae* is merely an aberrant *boliviensis*.

Bolla boliviensis (Bell, 1937), new status

Pholisora giselus race *boliviensis* Bell, 1937:10-11
Bolla tetra boliviensis (Bell, 1937), Evans (1953:81, Pl.36)

Hesperia giselus Mabille, 1883 is currently treated as a synonym of *H. tetra* Mabille,

1878. Evans (1953:81-82) divided *tetra* into five subspecies, three with forewing costal fold in the male (*oriza* Evans, 1953, *guerra* Evans, 1953 and *boliviensis*) and two without a costal fold (*tornea* Evans, 1953 and the nominate *tetra*). Of these, *tetra* and *boliviensis* are sympatric in Tolima province, Colombia and *boliviensis* from Guatemala and Nicaragua overlaps the southern part of the range of *guerra* from El Salvador. The genitalic differences in both sexes of the five forms are not very great, but I believe that *boliviensis* is clearly a separate valid species and treat it accordingly. It is very likely that *tetra* and *tornea*, both without costal fold, are conspecific and that *oriza* and *guerra*, both with costal folds, may also be, but I leave them as established by Evans until a detailed study is made.

Staphylus tridentis, new species

Figures **39,40** (♂); **41,42** (♀); **86** (♂ genitalia); **104** (♀ genitalia)

MALE: Upperside: Forewing rather shining brown with a few yellowish white scales in base of costal cell; vague darker brown markings as follows: ill-defined preterminal spot band; postdiscal spot band more or less broken at M_3, lower portion offset basad; somewhat darker spot in cell near cell end forming upper end of discal spot band; no hyaline spots. Prominent costal fold; fringe concolorous.

Hindwing same brown as forewing with a very few scattered yellowish white scales in basal area; vague preterminal, postdiscal and discal darker brown spot bands. Termen very slightly excavate in M_1-M_3, slightly produced at M_3 and Cu_1, making wing somewhat quadrate; 3A nearly as long as 2A. Fringe concolorous.

Underside: Forewing somewhat paler than above with scattered yellowish white scales concentrated mostly in base of costal cell and outer upper part of discal cell; anal cell only very slightly paler than rest of wing; dark markings as above but even less distinct, discal band not visible.

Hindwing same brown as forewing with more or less purple glaze, scattered yellowish white scales throughout; darker brown markings as upperside but very vague.

Palpi dark brown, a few yellowish scales above, heavily scaled yellowish white beneath, third segment rather short, porrect. Antennae about half costa, plain brown above, yellowish beneath club, shaft prominently checkered yellowish white beneath; apiculus arcuate from thickest part of slightly flattened club, equals rest of club, nudum 11 to 13 (holotype, 12; average of four males, 12.0). Head dark brown with pale yellowish scales, thorax and abdomen dark brown with a few scattered yellowish white scales, abdomen grey brown beneath. Legs grey brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two.

Genitalia: Uncus slender, undivided; no gnathos; tegumen with pair of long, caudally directed lateral processes nearly reaching distal end of uncus, in lateral view, these processes round ended, distally broadened; appendices angulares symmetrical, fused ventrally with transtilla; valvae symmetrical with narrow, heavily dentate harpe extending caudad well beyond small ampulla; penis slender, straight in dorsal view, slightly concave dorsally in lateral view, at distal end with flap-like process on right side, vesica opening ventrad, no teeth, no cornutus, phallobase short; juxta narrow, ribbon-like; saccus fairly short, broadly rounded.

FEMALE: Above and below as male but slightly paler, markings very slightly more distinct. Underside hindwing purple glaze very faint. Palpi, head, thorax, abdomen and legs as male; antennae as male, nudum 11.

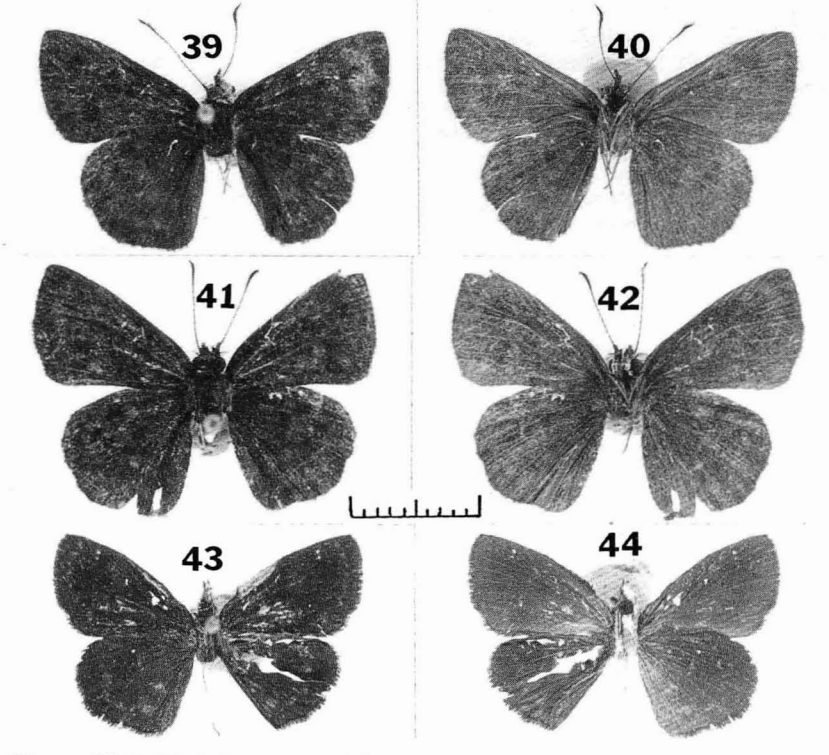
Genitalia: Microtrichia bearing lamella postvaginalis small, shield-shaped, no caudal indentation; lamella antevaginalis two separate smooth ovoid lateral lobes; sinus conjunctionis smooth, not extending cephalad as far as small sclerotized antrum; ductus seminalis connected to ductus bursae dorsally, just cephalad of antrum; ductus bursae long, narrow, unadorned, very finely spiculose; corpus bursae small, spherical, with fine internal spiculation, no signum.

Wing measurements: ♂ forewing 13 x 7 mm to 15 x 9 mm (holotype, 14 1/2 x 8 mm);

♀ forewing 14 1/2 x 8 mm.

Type material: Holotype ♂, Colombia: Tolima; La Marina area, Rio Ambeima 1600-1700 m. 9.vi.74, S. R. & L. M. Steinhauser, bearing the following labels: printed and hand printed white label, COLOMBIA: Tolima La Marina area, Rio Ambeima, 1600-1700 m. 9.vi.1974 S. & L. Steinhauser; printed white label, A. C. Allyn Acc. 1974-23; printed and hand printed red label, HOLOTYPE ♂ Staphylus tridentis S. R. Steinhauser; printed and hand printed white label, Genit. Vial SRS-2755; printed and hand printed white label, Allyn Museum Photo No. 880729B/15,16. Three ♂ and one ♀ paratypes: one ♂ same data as holotype; one ♂ same data as holotype except 1600-1900 m, 12.vi.74; one ♀ same data as holotype except 1400 m., 6.vi.74 (Genit. Vial SRS-2756; Allyn Museum Photo No. 880729B/17,18); one ♂ Colombia: Tolima; Rio San Fernando, La Marina area 1500 m., 3.vi.74, same collectors (Genit. Vial SRS-1876). The type series is deposited in the Allyn Museum of Entomology.

S. tridentis is not likely to be confused with any other *Staphylus* species because of its prominent three pronged uncus-tegumen. It is perhaps closest to *chlorocephala* (Latreille, [1824]) from which it differs in lacking the bright green head scaling of male *chlorocephala*, and in both sexes lacking the whitish tornal area of the underside hindwing. The tegumen processes of *tridentis* are much longer, the ampulla longer and the penis shorter. The female genitalia of *tridentis* lack the long paired processes from the antrum found in *chlorocephala*.



Figures **39-44.** (Scale line = 1 cm) *Staphylus* spp. **39-42** *S. tridentis*, new species, ♂ Holotype upperside (**39**), underside (**40**), ♀ Paratype upperside (**41**), underside (**42**) (Photo Nos. 880729B/15,16,17,18) Colombia: Tolima. **43,44** *S. melius*, new species, ♂ Holotype upperside (**43**), underside (**44**) (Photo Nos. 880729B/19,20) Argentina: Salta.

Staphylus toba (Hayward, 1947), new combination

Pholisora toba Hayward, 1947(4):125, f.4
=? *Staphylus v. vulgata* (Möschler, 1878), Evans (1953:85)

The male genitalia illustrated by Hayward for *toba* are so very different from *vulgata* that they cannot be considered synonymous. I have not seen *toba* and suspect that it may not even belong in *Staphylus* where I leave it for now, but certainly not as a synonym of *vulgata*.

Staphylus sambo, Evans, 1953, new status

Staphylus putumayo sambo Evans, 1953:85, Pl.37

The differences in male genitalia between *putumayo* (Bell, 1937) and *sambo* are certainly sufficient to warrant raising *sambo* to separate specific rank.

Staphylus sinepunctis Kaye, 1904, revised status

Staphylus sinepunctis Kaye, 1904:215
Staphylus vulgata sinepunctis Kaye, 1904, Evans (1953:86, Pl.37)

Evans treated *sinepunctis* as a subspecies of *vulgata* despite the occurrence of both in Venezuela and the differences in the male genitalia, most notably the shape of the uncus in ventral view, narrow and with long thin caudal extension in *vulgata*, broadly rounded before constriction to short thin caudal extension in *sinepunctis*. In the AME there is a male *sinepunctis* from Via Venezia, Napo, Ecuador, considerably widening its known range.

Staphylus melius, new species

Figures **43,44** (♂); **87** (♂ genitalia)

Staphylus buena: Evans, 1953:86 (*partim*), Pl.37, *nec* (Williams & Bell), 1940

MALE: Upperside: Forewing dark brown with a few scattered whitish scales which may be absent in faintly marked specimens; vague paler preterminal spot band which may be relatively well marked as in the holotype or completely obsolete; very vague darker brown postdiscal and discal bands faintly visible in holotype and a few paratypes; small, semi-hyaline to opaque subapical white spots in R_3-R_4 and R_4-R_5 in holotype and five paratypes, spot in R_4-R_5 missing in two paratypes, both spots missing in two paratypes. Fringe concolorous. Prominent costal fold.

Hindwing dark brown with a few scattered whitish scales which may be absent in faintly marked specimens; faint pale subterminal spot band from Rs-M_1 to Cu_2-2A, clearly visible in holotype, only faintly suggested or absent in paratypes; similar pale spots at cell end and mid Cu_2-2A tending to be obsolete in many of the paratypes. Fringe concolorous. Termen only slightly produced or not at all at M_3 and Cu_1, resulting in a more rounded wing than in *tridentis*; 3A nearly as long as 2A.

Underside: Forewing uniform dark brown with or without a few scattered yellowish scales principally in costal and apical areas; subapical white spots repeated if present above, sometimes a faintly suggested third spot in R_5-M_1; preterminal pale spot band, if visible above, may be faintly suggested.

Hindwing uniform dark brown with a few scattered buff scales; paler markings, if present above, may be faintly suggested.

Palpi golden above, white beneath, third segment long, porrect. Antennae dark brown above with some whitish scales, checkered whitish beneath, buff beneath broad flattened

club which is obtusely bent to apiculus just beyond mid point; nudum brown, 9 to 11 (holotype, 10), averaging 9.90 in ten specimens. Head and frons golden above, thorax and abdomen dark brown with a few scattered buff scales. Legs brown, more or less white scaled on outside, almost completely white inside, tibiae smooth, mid tibiae one pair spurs, hind tibiae two.

Genitalia: Uncus slender, narrow, undivided, with prominent dorsal fan-like hair tuft; gnathos covered with microtrichia, appears to be completely fused to broad, smooth appendices angulares (the exact relationships and morphology here are not clear); valvae symmetrical, harpe, with long hair-like setae in ventrocaudal area, produced inward and dorsad as a non-dentate, non-setose plate overlapping the ampulla which is also roundly produced dorsad and bears a cluster of dorsocaudally directed heavy spines, its ventral edge produced ventrocephalad as a strongly dentate quadrate process; sacculus broad, bearing another cluster of caudally directed heavy spines; penis relatively straight and slender, slightly shorter than valva and bearing five or six socketed spines on left side distally, vesica opening dorsad, no cornutus, no teeth aside from the spines, phallobase short; saccus moderately long and broad.

FEMALE: Unknown.

Wing measurements: ♂ forewing varies from 13 x 7 1/2 mm (holotype) to 11 x 6 1/2 mm in 10 specimens measured (average 12.25 x 7.00 mm).

Type material: Holotype ♂, Argentina: Salta; Yuchan, Rio San Francisco at R.R. 19.xii.74, R. Eisele, bearing the following labels: printed and hand printed white label, ARGENTINA: SALTA Yuchan: Rio San Francisco at RR 19.xii.1974 R. Eisele; printed white label, A. C. Allyn Acc. 1977-6; printed and hand printed white label, Genit. Vial SRS-1725; printed and hand printed red label, HOLOTYPE ♂ Staphylus melius S. R. Steinhauser; printed and hand printed white label, SRS Database No. 262; printed and hand printed white label, Allyn Museum Photo No. 880729B/19,20. Nine ♂ paratypes: 7, same data as holotype, dated 13.xii.74 (2); 23.xi.74 (2, 1-Genit. Vial SRS-1726); 16.xi.74 (1); 14.xi.74 (1); 22.x.74 (1, Genit. Vial SRS-1724); 1, Argentina: Salta; 1 km. NE Pichanal, 6.i.73, R. Eisele (Genit. Vial SRS-1727); 1, Argentina: Jujuy; San Pedro, 27.iii.78, R. Eisele (Genit. Prep. SRS-1496). The holotype and nine paratypes are deposited in the Allyn Museum of Entomology.

S. melius is closely related to *buena* which was described from Bolivia, differing in the male genitalia as follows: the ventrocaudal portion of the harpe bears long setae in *melius*, short fine spines in *buena*; the dorsal harpe projection of *melius* is long and smooth, reaching the ampulla spine cluster, but short and finely spinose in *buena*; the costa of *buena* bears a cluster of stiff spines, not found in *melius*; the saccus is very small in *buena*, moderately long in *melius*. The overall general similarity of the genitalia of the two species led Evans to misidentify at least part of the series of 19 males and 4 females in the BM(NH) that he determined as *buena*, including the specimen whose genitalia he illustrated. It is very possible that at least some of the series, perhaps the Bolivian material, is *buena*, but I suspect that all the Argentine specimens are *melius*.

Staphylus lizeri album, new subspecies

Figures **45,46** (♂); **88** (♂ genitalia)

MALE: Upperside: Forewing dark brown; narrow subterminal pale spot band from R_4-R_5 to Cu_2-2A; broader, poorly defined pale discal band from cell to Cu_2-2A; small subapical hyaline white spots in R_3-R_4 and R_4-R_5, the latter very faint. Fringe concolorous. Prominent costal fold.

Hindwing dark brown with a very few scattered whitish scales; narrow indistinct pale discal and subterminal bands; vague whitish bar at cell end. Termen excavate in M_1-M_3, wing more or less quadrate. Fringe concolorous with a few whitish scales in tornal area.

Underside: Forewing brown, paler in 1A-2A, whitish in anal cell; subterminal pale spot band most prominent in Cu_2-2A distad of which there is a whitish terminal spot at end

of 1A.

Hindwing brown; shining white in tornal 1/3 with three prominent brown spots, two in M_3-Cu_1 and one in Cu_1-Cu_2. Fringe brown, sharply contrasting with white tornal area.

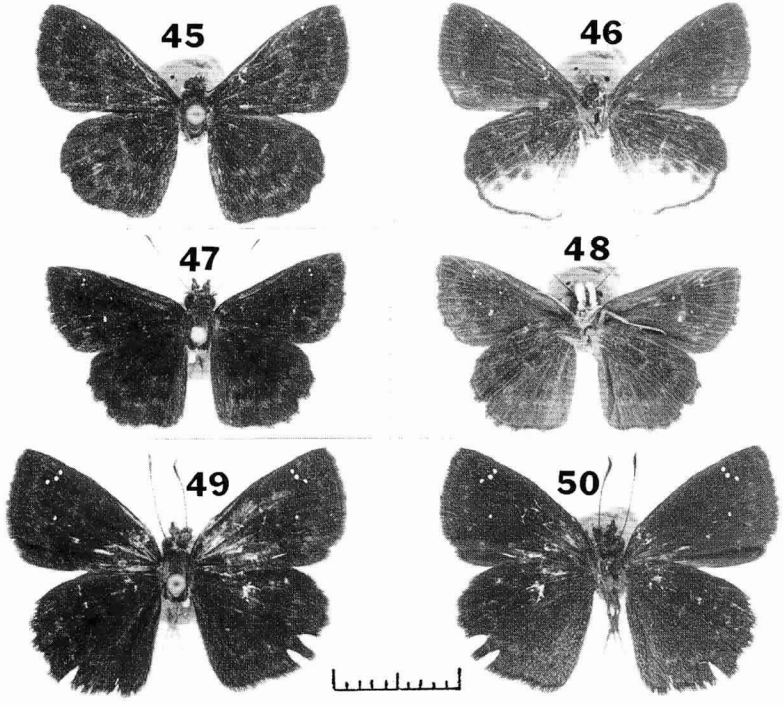
Palpi and antennae missing; head brown with yellowish scales; thorax and abdomen brown, abdomen white beneath. Legs brown, heavily scaled white, tibiae smooth, mid tibiae one pair spurs, hind tibiae two.

Genitalia as *lizeri* (Hayward, 1938), uncus long slender, undivided; gnathos membranous; appendices angulares not developed; transtilla prominently spined; valvae symmetrical, harpe long, spined in dorsal area; ampulla much shorter than harpe, terminally spined, developed on its ventral edge to a double dentate ridge; sacculus with a few small spines, less than *lizeri*; penis short and slender, without teeth or cornutus; saccus moderately long, narrow.

FEMALE: Unknown.

Wing measurements: Forewing, ♂ holotype 13 x 7 1/2 mm.

Type material: Only the holotype, Brasil: Minas Gerais; Sete Lagoas, 720 m. 8.iii.74, V. O. Becker, bearing the following labels: printed and hand printed black bordered white label, Sete Lagoas, MG BRASIL - 720 m. 8.III.1974 V. O. Becker col.; printed white label, Allyn Museum Acc. 1977-4; printed and hand printed white label, Genit. Vial SRS-2021; printed and hand printed red label, HOLOTYPE ♂ Staphylus lizeri album S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No.



Figures 45-50. (Scale line = 1 cm) *Staphylus* spp. **45,46** *S. lizeri album*, new subspecies, ♂ Holotype upperside (**45**), underside (**46**) (Photo Nos. 880729B/21,22) Brasil: Minas Gerais. **47,48** *S. lenis*, new species, ♂ Holotype upperside (**47**), underside (**48**) (Photo Nos. 880729B/23,24) Trinidad. **49,50** *S. tingo*, new species, ♂ Holotype upperside (**49**), underside (**50**) (Photo Nos. 880729C/1,2) Peru: Huanuco.

880729B/21,22. The holotype will be deposited in the Universidade Federal do Paraná, Curitiba, Brasil, but is temporarily on loan to the Allyn Museum of Entomology.

The only difference between *album* and *lizeri* is the shining white underside hindwing tornal area of *album* not found in *lizeri*; the male genitalia are identical.

Superficially, *lizeri album* is very like *epicaste melangon* (Mabille, 1883), from which it differs in the male genitalia. In *melangon*, as in *epicaste*, there is a prominent dorsal process from the harpe distad of the ampulla; this process is lacking in *album* and *lizeri*.

Staphylus perforatus (Möschler, 1878), new combination

Figures **89,105** (*perforatus* genitalia: ♂ (**89**), ♀ (**105**)); **90,106** (*ascalaphus* genitalia: ♂ (**90**), ♀ (**106**))

Nisoniades perforata Möschler, 1878:223
Staphylus mazans ascaphalus [*sic!*]: Evans, 1953:90 (*partim*), *nec ascalaphus* (Staudinger, 1875)
=*Staphylus mazans ascaphalus, recte* (1955) *ascalaphus* (Staudinger, 1876 [*sic*!]), Evans (1953:90-91)

I agree with Freeman (1969:19) that the taxa designated by Evans as subspecies of *mazans* (Reakirt, [1867]) deserve specific rank, as does *perforatus* (here emended from *perforata* to agree in gender with the generic name). Evans determined as *ascalaphus*, material from Mexico through Central America to southern Brasil. He mentioned, however, that material from Yucatan differs from that of Tabasco, the latter having the "cuiller bristles restricted to the apex" whereas "in Yucatan the cuiller bristles extend over the valva". He also distinguished Bolivian material as having "valva projection... still larger ...lower bristles longer, more conspicuous". These and other differences are constant and different names must be applied to the different populations.

Staudinger described *ascalaphus* from Panama and all the Panamanian specimens I have seen agree with Evans' Tabasco material, which he illustrated as *ascalaphus*. I include in *ascalaphus* those males in which the dorsal, finger-like ampulla process is relatively narrow and free of bristles, these being restricted to the external surface of the harpe, not necessarily just its apex, and are stout and directed dorsad. The density of these harpe bristles is variable, usually a dozen or so near the distal end, but individuals may have twice that many and be spread more broadly over the harpe.

The principal difference between males of *ascalaphus* and *perforatus* is that the latter bears two very stout, thorn-like bristles arising from the inner surface of the generally broader ampulla process; the arrangement of the dorsally directed bristles on the outer surface of the harpe is essentially the same in both species. The remainder of the male genitalia is the same as illustrated for the new species described below.

The female genitalia of *tierra* Evans, 1953, *mazans*, *ascalaphus* and *perforatus* are basically similar: the lamella postvaginalis, rather than being a more or less well defined plate, is the caudal portion of the lightly sclerotized intersegmental cuticula between the 7th and 8th sternites, its caudal edge centrally produced to a blunt point, dorsad of which is a small oval sclerotized process covered by the point and flanked by two lateral, microtrichia covered membranous lobes. The cepahalad edge of this intersegmental cuticula is produced caudad on either side of the ostium bursae, sometimes as separate lateral lobes, sometimes joined to a single, central, variously sculptured plate, all of which make up what I consider to be the lamella antevaginalis. Specific differences are based almost entirely on the form of the lamella antevaginalis which often shows very great individual variation. In *ascalaphus* the lamella is usually rather simple, formed of two lateral lobes with a more or less developed central, bifurcate process ventrad of the ostium. Individuals vary greatly as can be seen in the figure in which four individuals are shown.

The lamella antevaginalis of *perforatus* is a bifurcate plate with a serrate caudal edge as illustrated.

I have found it impossible to separate these two species, in either sex, on the basis of maculation characters.

Staphylus lenis, new species

Figures **47,48** (♂); **91** (♂ genitalia)

Staphylus mazans ascalaphus: Evans, 1953:90 (*partim*), *nec* (Staudinger, 1875)

MALE: Upperside: Forewing dark brown with a very few scattered pale buff scales; subterminal, macular pale brown band from R_3-R_4 to Cu_2-1A; minute, subapical, hyaline white spots in R_3-R_4 and R_4-R_5, a very faint hyaline upper cell spot behind origin of R_2, but missing in two paratypes, a minute hyaline discal spot in Cu_1-Cu_2, a minute hyaline prediscal spot in 1A-2A behind origin of Cu_2; in one paratype there is an additional subapical hyaline spot in R_5-M_1, offset distad from the other two and another additional minute hyaline postdiscal spot in M_3-Cu_1. Fringe very slightly paler grey brown. Prominent costal fold.

Hindwing dark brown with a very few scattered pale buff scales, very slightly paler in anal cell; macular paler brown postdiscal and discal bands. Fringe grey brown, slightly paler distally. Termen excavate in M_1-M_3, very slightly excavate in Sc+R_1-Rs and Cu_2-2A.

Underside: Forewing shining reddish brown with scattered buff scales in base of costal and discal cells; pale subterminal band as above; hyaline spots from above repeated more distinctly, spot in M_3-Cu_1, missing above in all of type series but one paratype, is clearly visible in that paratype and in the holotype, barely visible in two other paratypes, missing in the rest.

Hindwing shining reddish brown, very slightly paler in anal cell, scattered pale buff scales in basal and tornal areas; pale bands from above repeated.

Palpi brown with some yellowish white scaling above, mostly whitish beneath, third segment rather short, porrect. Antennae brown above, yellowish white beneath club and shaft which is prominently checkered in front; apiculus obtuse from just beyond thickest part of prominently broadened and flattened club; nudum brown, 10 or 11 (holotype), average of the eight specimens with complete antennal club, 10.6. Head brown with some yellowish scales, thorax and abdomen brown. Legs grey brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two.

Genitalia: Uncus with prominent basal, fan-shaped dorsal hair tuft, caudad of which it is sharply downturned, then bent up again in center at nearly a right angle, long and slender, slightly hooked at distal end; gnathos weakly bilobed, membranous, spinose; tegumen short, in dorsal view constricted at vinculum juncture; valvae symmetrical, narrow, harpe evenly rounded at distal end, fused on dorsal edge to ampulla which bears a prominent finger-like dorsal process; dorsal edge of harpe, caudad of ampulla process, armed with prominent thorn-like socketed bristles, at least two of which, the largest, arise from the inner face of the ampulla process near its caudal edge. These larger bristles are directed dorsad and curve slightly cephalad, the remainder, of decreasing size caudally, are directed more or less dorsad and generally are straight. On the exterior surface of the valva, more or less in a row approximately following the suture of ampulla to valva and thence to the lower caudal corner of the harpe, are 15 or so long slender socketed bristles directed caudo-dorsad and extending well beyond the end of the harpe. Penis slender, nearly as long as valva, without teeth or cornutus. Juxta a simple sclerotized band; transtilla bearing two prominent lateral clusters of long slender socketed bristles directed caudad; saccus a short broad triangle. Eighth tergite, when flattened and viewed dorsally, centrally constricted, its outer caudal corners armed with clusters of approximately four caudally directed long slender socketed bristles, similar to *hayhurstii* (W. H. Edwards), 1870, *tierra, mazans, ascalaphus* and *perforatus*.

FEMALE: Unknown.

Wing measurements: ♂ forewing 12 x 7 mm to 13 x 7 mm (holotype 12 1/2 x 7 mm); average of nine specimens in type series: 12.5 x 7.0 mm.

Type material: Holotype ♂, Trinidad, June, 1898 W. J. Kaye, bearing the following labels: printed and hand printed white label, TRINIDAD, '98 W. J. Kaye June; hand

printed white label, Staphylus ascalaphus Stgr.; printed and hand printed red label, HOLOTYPE ♂ Staphylus lenis S. R. Steinhauser; printed and hand printed white label, Genit. Vial SRS-2757; printed and hand printed white label, A. C. Allyn Acc. 1967-5; printed and hand printed white label, Allyn Museum Photo No. 880729B/23,24. Eight ♂ paratypes: (1) same data as holotype (Genit. Prep. SRS-1412); (1) Trinidad: St. Ann's Valley (FNS?) Dec. 1921 (Genit. Vial SRS- 2758); (1) Trinidad: St. Ann's G. E. Tryhane; (2) Trinidad: Palmiste W. J. Kaye 9.i.1921 & 14.i.1926; (1) Trinidad: Port of Spain; gardens c. 100ft.; St. Clair St. A. Rogers, 6.i.1913; (1) Trinidad: Port of Spain Charles F. Zeiger 31.viii,1971; (1) Mexico: Quintana Roo; Tullum 7.ii.1972 R. Wind (Genit. Vial SRS- 2759). The holotype and eight ♂ paratypes are deposited in the Allyn Museum of Entomology.

The closest relatives to *lenis* are *ascalaphus* and *perforatus*. Both *lenis* and *perforatus* are readily distinguished from *ascalaphus* by the complete lack of bristles on the ampulla process of the latter, whereas at least two bristles arise from the inner face of this process in the other two. In general, the bristles from the outer surface of the valva in *perforatus* are restricted to the distal or centro-distal portion of the harpe, are stout, straight and directed dorsad. An occasional specimen may have one or two long thin caudo-dorsally directed bristles from the valva forward of the suture with the ampulla, but the bulk of the bristles is from the harpe, stout and directed dorsad. In *lenis*, these external bristles are always slender and directed caudo-dorsad. The two heaviest bristles arising from the ampulla process are very stout in *perforatus*, somewhat slenderer and curved in *lenis*. I have been unable to find any superficial characters by which *lenis* can be distinguished from the other two.

Lindsey (1925:86, Pl.27, f.7a,c,e) illustrated the valvae of (a) *perforatus* from Peru, (c) *lenis* from Trinidad and (e) *ascalaphus* from Panama, but treated them as genitalic variations of *mazans*, which he considered synonymous with *ascalaphus*.

Staphylus tyro (Mabille, 1878), new status

Hesperia tyro Mabille, 1878 2(198):238
Staphylus azteca tyro (Mabille, 1878), Evans (1953:91, Pl.38)

Although quite closely related and well separated in geographic range, the genitalic differences between *azteca* (Scudder, 1872) and *tyro* are sufficient to justify their separation as distinct species.

Staphylus cartagoa (Williams & Bell, 1940), new combination

Pholisora cartagoa Williams & Bell, 1940 (66):136, f.16
=? *Staphylus h. huigra* (Williams & Bell, 1940), Evans (1953:92)
=*Bolla salva* Steinhauser, 1974:10, f.25,26,71, new synonymy

It was not until long after publication of the name *salva* that I first saw the Williams & Bell illustration of the genitalia of *cartagoa* and realized that it was the same as *salva*, and in no way could be considered synonymous with *huigra* as determined by Evans, albeit a questioned synonym. The problem still remains whether it more correctly belongs in *Staphylus* or *Bolla*, but I leave that decision for a future revisionary study.

Staphylus tingo, new species

Figures **49,50** (♂); **92** (♂ genitalia)

MALE: Upperside: Forewing dark brown with a few scattered pale buff scales; a faint, narrow, slightly paler brown, macular subterminal band from R_3-R_4 to Cu_2-2A; small but distinct subapical hyaline white spots in R_3-R_4 to R_5-M_1, the latter slightly offset distad; similar postdiscal hyaline spot in M_3- Cu_1. Termen very slightly excavate in Cu_2-2A; prominent costal fold. Fringe concolorous.

Hindwing dark brown with a few scattered buff scales, slightly paler in costal cell; paler macular postdiscal and discal bands very faintly suggested. Termen slightly excavate in M_1-M_3 and very slightly excavate in Cu_2-2A. Fringe concolorous.

Underside: Forewing brown with scattered buff scales in costal, apical and distal areas, considerably paler in anal cell and base of Cu_2-2A; pale subterminal band from above repeated as vague, well separated spots of whitish scales; hyaline white spots as above.

Hindwing brown with scattered buff scales behind mid cell and M_2.

Palpi brown with scattered golden scales above, yellowish white scales beneath, third segment rather short, porrect. Antennae about half costa, dark brown above, prominently checkered yellowish white in front, yellowish white beneath club and distal part of shaft; apiculus obtuse from just beyond thickest part of prominently broadened and flattened club; nudum dark brown, 10 in holotype and three paratypes, 11 in one paratype. Head above dark brown with scattered yellowish scales, thorax and abdomen dark brown. Legs dark brown, scaled yellowish white, tibiae smooth, mid tibiae one pair spurs, hind tibiae two.

Genitalia: Uncus in dorsal view basally rounded then more or less evenly tapered to a narrow rounded point caudally, bearing a prominent dense dorsal hair tuft; gnathos very weakly developed, more or less bilobed, mostly membranous, spinose; tegumen about as long as uncus, in dorsal view narrowed at junction with uncus; valvae symmetrical, ampulla longer than rounded harpe which it overlaps, ventral edge produced cephalad as a sharp tooth, distal end bluntly rounded and armed with a cluster of 15 or so long slender socketed spines directed caudad (most of these spines were lost in the holotype and I have used a paratype in the illustration), a few smaller spines on exterior surface of ampulla; penis slender, shorter than valva, about as long as tegumen plus uncus, without teeth or cornutus; transtilla very vague and weakly sclerotized; juxta a prominent shallow V-shaped yoke; saccus moderately short, broad and rounded.

FEMALE: Unknown.

Wing measurements: ♂ forewing 13 x 8 mm to 14 1/2 x 9 mm (holotype, 14 x 8 1/2 mm); average of five specimens in type series, 13.8 x 8.5 mm.

Type material: Holotype ♂, Peru: Huanuco; 1 km. S. Las Palmas, 14 km. S. Tingo Maria 29.iii.81 J. Y. Miller, bearing the following labels: printed white label, PERU: HUANUCO 1 km. S. Las Palmas, 14 km. S. Tingo Maria 29.iii.1981 J. Y. Miller; printed white label, Allyn Museum Acc. 1981-12; printed and hand printed white label, Genit. Prep. SRS-1463; printed and hand printed red label, HOLOTYPE ♂ Staphylus tingo S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729C/1,2. Three ♂ paratypes same data as holotype (Genit. Preps. SRS-1464, 1465, 1468); one ♂ paratype, Peru: Tingo Maria 30.vii.1980, D. & J. Jenkins (Genit. Vial SRS-1736). The ♂ holotype and four ♂ paratypes are deposited in the Allyn Museum of Entomology.

S. tingo is very close to *oeta* (Plötz, 1884), from which it differs by having a prominent forewing costal fold in the male, not present in *oeta*. In addition there are some slight genitalic differences: the harpe of *oeta* is as long or slightly longer than the ampulla, but shorter than the ampulla in *tingo*; viewed dorsally, the uncus of *oeta* has a more constricted taper; the tegumen of *oeta* is shorter than the uncus and not sharply narrowed where they join; the ventral edge of the ampulla is slightly serrate in *oeta*, smooth in *tingo*; the spines from the end of the ampulla are somewhat shorter in *oeta*.

Staphylus angulatus (Bell, 1937), new combination

Pholisora angulata Bell, 1937(914):15, f.14
=*Staphylus fasciatus* Hayward, 1933, Evans (1953:96)

The male genitalia of *fasciatus* are quite different from *angulatus* (here emended from *angulata* to agree in gender with the genus). Their principal point of similarity is the very short penis with a spined cornutus. This character and the peculiar shape of the forewing are indications that they are congeneric and probably do not belong in *Staphylus*, but

the vastly different valvae indicate that they are not synonymous. In his 1937 paper, Bell described eight new species which he placed in *Pholisora* Scudder, 1872, specifying the absence or presence of a forewing male costal fold for all of them except *angulata*. I have seen one male from Espirito Santo, Brasil with a prominent costal fold that I have determined as *angulatus*.

Ouleus bubaris (Godman & Salvin, [1895]), new status

Achlyodes bubaris Godman & Salvin, [1895] (2):395, Pl.86, f.13,14
Ouleus calavius bubaris (Godman & Salvin, 1895), Evans (1953:103, Pl.39)

O.calavius (Godman & Salvin, 1895):395, Pl.86, f.11,12 and *bubaris* are sympatric in Guatemala and have much differently shaped valvae; they deserve separate specific status.

Ouleus candidus, new species

Figures **51,52** (♀); **107** (♀ genitalia)

MALE: Unknown.

FEMALE: Upperside: Forewing dark brown; extremely faint suggestion of a paler subterminal band; fringe concolorous becoming very slightly paler grey brown distally.

Hindwing the same dark brown; faint subterminal pale band slightly more distinct than on forewing; fringe concolorous, very slightly paler grey brown distally, with a few whitish scales on inner margin. Termen evenly rounded.

Underside: Forewing dark brown, whitish in anal cell; very vague whitish postdiscal streak across Cu_2-2A.

Hindwing dark brown in costal 1/3, shining white in anal 2/3, somewhat shaded brown toward base; border between white and brown gradational in basal half of cell, sharply defined distad of mid cell, paralleling M_2 through mid M_1-M_2 to termen; faint whitish bar at cell end in upper half; fringe dark brown, sharply contrasting with white area, becoming more or less white on inner margin.

Palpi, second segment brown above with scattered white scales, mixed dark brown and white beneath, third segment short, porrect, pale buff above, dark brown beneath. Antennae slightly greater than half costa, plain dark brown above, slightly paler beneath, buff beneath club, not checkered; apiculus obtuse from beginning of nudum at widest part of club; nudum black, 13. Head, thorax and abdomen dark brown, a few white scales on head above. Legs grey brown, white scaling on outside; tibiae smooth, mid tibiae one pair spurs, hind tibiae two.

Genitalia: Lamella postvaginalis broad, caudal edge rather sinuous, small central caudal area lightly covered with microtrichia on dorsal side, ventral side with half-moon shaped, protruding, pouch-like, sclerotized "lip"; lamella antevaginalis symmetrically bilobed, coarsely serrate, densely covered with microtrichia in the broad basal portion, with two long slender, smooth, sharply pointed caudal projections on either side, extending caudad well beyond lamella postvaginalis; antrum not clearly developed; ductus bursae swollen immediately cephalad of ostium bursae; ductus seminalis connected dorsally to ductus bursae in center of swollen part; remainder of ductus bursae short, swelling more or less gradually to spiculose corpus bursae; sinus conjunctionis strongly projecting cephalad as pair of crinkled sacs; apophyses anteriores prominent, slightly longer than apophyses posteriores.

Wing measurements: ♀ holotype forewing 17 x 10 1/2 mm.

Type material: Only the holotype, Colombia: Valle del Cauca; Rio Anchicayá 1150 m. 15.ii.75 S. R. & L. M. Steinhauser, bearing the following labels: printed and hand printed white label, COLOMBIA: Valle del Cauca; Rio Anchicayá 1150 m. 15/II/1975 No. CH-597 Coll. by S. R. y L. M. Steinhauser; printed white label, A. C. Allyn Acc. 1975-17; printed and hand printed white label, Genit. Vial SRS-2726; white paper triangle with right antenna

glued on; printed and hand printed red label, HOLOTYPE ♀ Ouleus candidus S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729C/3,4. The holotype is deposited in the Allyn Museum of Entomology.

The distinguishing characters by which *candidus* can be separated from its nearest relatives will be discussed following the description below of a new subspecies of *O. negrus* Nicolay, 1980.

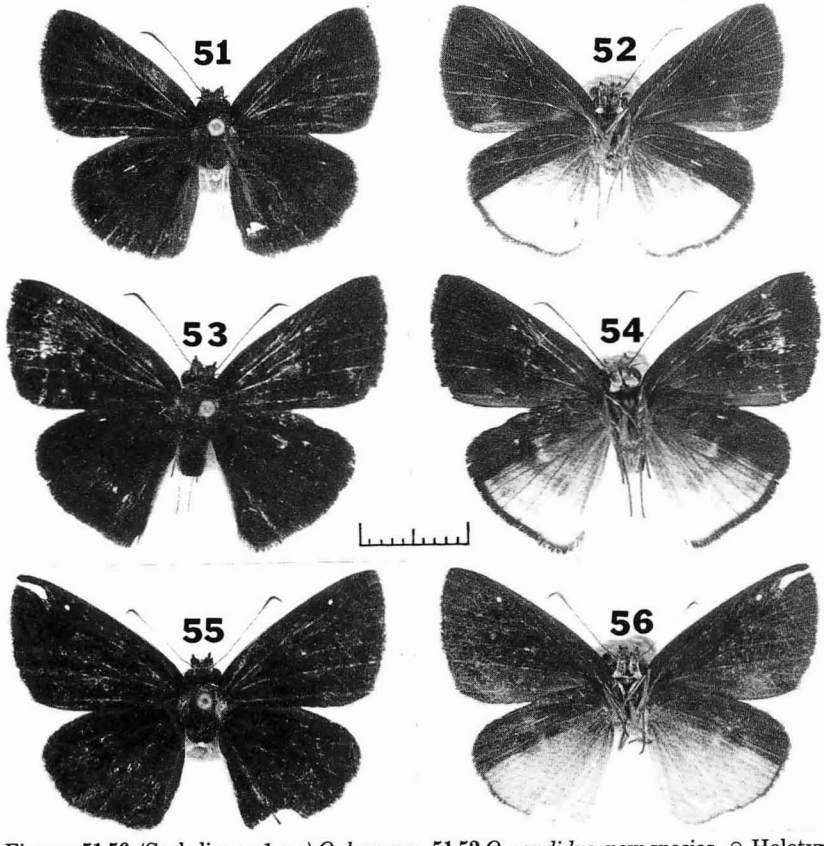
Ouleus negrus cristatus, new subspecies

Figures **53,54** (♂); **55,56** (♀); **93** (♂ genitalia); **108** (♀ genitalia)

MALE: Upperside very dark brown, unmarked; fringe concolorous, slightly paler grey brown distally, whitish on inner margin of hindwing.

Underside: Forewing slightly paler brown than above, paler grey brown in anal cell; very faint suggestion of a broad darker brown postdiscal band around cell end to Cu_2.

Hindwing dark brown, slightly paler than above in costal 1/3, shining white in anal 2/3, shaded brown and more or less invaded by vague brown markings in basal half; border



Figures **51-56.** (Scale line = 1 cm) *Ouleus* spp. **51,52** *O. candidus*, new species, ♀ Holotype upperside (**51**), underside (**52**) (Photo Nos. 880729C/3,4) Colombia: Valle del Cauca. **53-56** *O. negrus cristatus*, new subspecies, ♂ Holotype upperside (**53**), underside (**54**), ♀ Paratype upperside (**55**), underside (**56**) (Photo Nos. 880729C/5,6,7,8) Colombia: Valle del Cauca.

between white and brown areas less sharply defined than in *candidus*, but still parallel to M_2 through mid M_1-M_2 to termen, though the white is invaded to some extent by brown as indistinct, anally fading, preterminal, postdiscal and discal spot bands; a more or less distinct whitish bar at cell end; fringe brown, sharply contrasting with white area, becoming white on inner margin. Termen slightly excavate in M_1-M_3 and Cu_2-2A, slightly produced at tornus in 2A-3A.

Palpi dark brown above, dark brown mixed with white beneath, third segment short, porrect. Antennae about half costa, plain brown above, slightly paler beneath, not checkered, buff beneath club; apiculus obtuse from beginning of nudum at widest part of club; nudum brown, 14. Head, thorax and abdomen dark brown, a few white scales on head. Legs grey brown, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, but the upper pair reduced to a single spur, bearing a recumbent grey brown hair tuft extending to middle of first tarsus; no visible thoracic pouch.

Genitalia exactly as *negrus*, characterized by the caudal projection of the ampulla nearly reaching the dorsally curved end of the harpe and by the very prominent pair of lateral projections from the tegumen.

FEMALE: Wings as male, but slightly paler above and below, no forewing costal fold; dark markings in tornal white area of underside hindwing less distinct and less extensive; forewing above and below with prominent subapical hyaline white spot in R_3-R_4. Palpi, antennae, head, thorax and abdomen as male; legs as male, hind tibiae upper pair of spurs reduced to a single spur, but no hair tuft.

Genitalia: Lamella postvaginalis broad laterally but quite narrow longitudinally with a clearly defined cephalad edge, caudal edge straight, central caudal area heavily covered with microtrichia on dorsal side, ventral side with small centrally pointed sclerotized "lip", not pouch-like; lamella antevaginalis symmetrically bilobed, not serrate, covered with microtrichia, inner caudal corners very slightly produced to points, but not protruding caudally as far as caudal edge of lamella postvaginalis; ductus bursae swollen immediately cephalad of ostium bursae, with vague internal sclerotization which may represent the antrum, ductus seminalis connected dorsally at center of this swollen area; remainder of ductus bursae short, but longer and narrower than *candidus*, about equal to the subspherical, spiculose corpus bursae from which it is more or less clearly separated; sinus conjunctionis strongly projecting cephalad as pair of crinkled sacs; apophyses anteriores prominent, longer than apophyses posteriores.

Wing measurements: Holotype ♂ forewing 19 x 10 1/2 mm.; paratype ♀ forewing 19 x 10 1/2 mm.

Type material: Holotype ♂, Colombia: Valle del Cauca; Rio Anchicayá 1150 m. 18.i.75, S. R. & L. M. Steinhauser, bearing the following labels: printed and hand printed white label, COLOMBIA: Valle del Cauca; Rio Anchicayá 1150 m. 18/I/1975 No. CH-482 Coll by S. R. y L. M. Steinhauser; printed white label, A. C. Allyn Acc. 1975-17; printed and hand printed white label, Genit. Vial SRS-2727; printed and hand printed red label, HOLOTYPE ♂ Ouleus negrus cristatus S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729C/5,6. One ♀ paratype same data as holotype, No. CH-481 (Genit. Vial SRS-2728; Allyn Museum Photo No. 880729C/7,8). The holotype ♂ and paratype ♀ are deposited in the Allyn Museum of Entomology.

The differences between *negrus* and *cristatus* are apparently entirely superficial though I have not seen the female of *negrus* for comparison. The males differ in the underside hindwing, entirely dark brown in *negrus*, more than half the wing shining white in *cristatus*, and in size, 16-17 mm forewing in *negrus*, 19 mm in *cristatus*.

The taxon most likely to be confused with *cristatus*, at least in the female, is *candidus*, which is easily distinguished by lacking the forewing subapical hyaline spot of *cristatus* and having a complete upper pair of spurs on the hind tibiae; the third segment of the palpi is dark brown above in *cristatus*, pale buff in *candidus*. There are several characters in the female genitalia that serve to differentiate them as well: caudal margin of lamella postvaginalis, straight in *cristatus*, sinuous in *candidus*; central ventral process ("lip") of lamella postvaginalis, a pointed projection in *cristatus*, pouch-like in *candidus*; lamella

antevaginalis, strongly serrate with pair of long caudal projections in *candidus*, not serrate and without caudal projections in *cristatus*.

One other taxon that flies in the same area as these two and could be confused with them is *O. fridericus hilarina* (Mabille, 1878), which differs in the form and extent of the tornal white area of the underside hindwing which occupies half or less of the wing compared with 2/3 in the other two, and is not clearly and sharply separated from the brown area along a line between and parallel to M_1 and M_2, but by an indistinct, more or less scalloped line from about mid inner margin, crossing the veins to the termen in M_1-M_2. This same character serves to distinguish *candidus* and *cristatus* from *O. f. panna* Evans, 1953 and *O. f. candangus* Mielke, 1968, which are also much smaller (forewing 14-15 mm), and do not occur in the same area.

Zera teresa, new species

Figures **57,58** (♂); **94** (♂ genitalia)

MALE: Upperside: Forewing violet grey; macular dark brown subterminal band from R_4-R_5 to anal cell at tornus, spots in M_2- M_3 and M_3-Cu_1 conjoined and extending to termen, spots in Cu_2-1A rather small, conjoined to larger spot in 1A-2A which is conjoined to long spot at tornus in anal cell to form a large tornal spot; this subterminal dark band is inwardly and outwardly bordered by indistinct narrow ochreous bands liberally sprinkled with whitish scales; postdiscal contiguous dark brown band from Sc-R_1 at mid costa to M_2-M_3, bent at right angle at M_1; narrow dark bar at cell end vaguely extended proximad in mid cell; small vague ochreous spot just beyond upper cell end; larger, more distinct ochreous spot in lower cell end just above origin of Cu_1; sinuous ochreous spot across cell behind origin of R_1, outwardly narrowly bordered dark brown, inwardly with broad dark brown border as broad as the ochreous spot; similarly bordered ochreous spot in mid Cu_2-2A; anal cell centrally dark brown; wing base broadly dark brown; subapical hyaline white spot in R_3-R_4 on outer edge of dark postdiscal band; small triangular hyaline spot in base of M_3-Cu_1 distally bordered dark brown; large quadrate hyaline spot in Cu_1-Cu_2 behind origin of Cu_1, inwardly and outwardly bordered by thin ochreous line followed by wider dark brown. Termen slightly excavate in Cu_2-2A; anal cell widens at tornus, prominently concave on inner margin. Fringe concolorous, slightly paler distally. No costal fold.

Hindwing violet grey, shaded ochreous in Sc+R_1-Rs, completely ochreous in costal cell; preterminal macular dark brown band from Sc+R_1-Rs where it reaches termen, to 2A-3A where it again reaches termen at tornus, the spot in M_1-M_3 missing, those behind M_3 more or less with scattered whitish scales; vague narrow postdiscal dark band from Rs to approximately the anal cell; similar vague discal band from Sc+R_1 to anal cell where it joins postdiscal band; wing base behind Sc+R_1 dark brown. Fringe brown, white on inner margin. Vein 3A about equal to 2A causing wing to appear somewhat produced tornally.

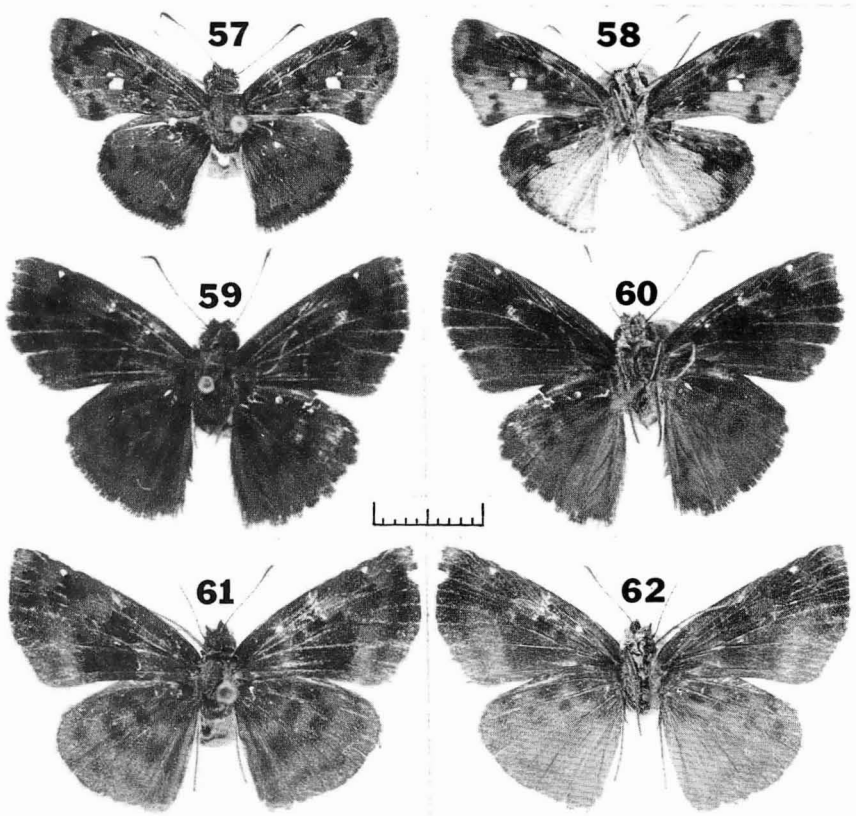
Underside: Forewing brown; hyaline spots from above repeated; terminal patch of conjoined ochreous spots from lower half of R_3-R_4 to upper half of M_2-M_3, widest at M_1 and cut by dark veins and slightly darker mid-space creases, bordered at termen by dark hairline; similar ochreous markings at costa from extreme distal corner of R_1-R_2 to R_3-R_4 where it fills the space distad of the hyaline spot; faint contiguous ochreous spots in central R_4-R_5 and R_5-M_1 behind the ochreous spot in R_3-R_4; vague ochreous spot in lower cell end; narrow sinuous ochreous spot across cell at origin of R_1 connected to the inner lower corner of a prominent ochreous costal spot which extends from base of R_1-R_2 across Sc-R_1 nearly to costa in costal cell where it is widest and separated from costa by a narrow dark brown streak; a broad, roughly triangular ochreous patch from Cu_1-Cu_2 where it extends from the narrow brown distal border of the hyaline spot to the termen, and contains a small isolated brown spot in the outer portion, through central portion of M_3-Cu_1, reaching termen in lower half of that space and ending in a small ochreous spot just distad of mid M_2-M_3; the distal half of Cu_2-2A and all of the anal cell are pale ochreous crossed by an irregular brown spot in outer portions of Cu_2-2A and anal cell, where it is widest and reaches the

tornus, leaving only a very small upper distal corner of the anal cell ochreous.

Hindwing brown, shining bluish white behind mid cell and, distad of cell, behind M_3, also in extreme bases of $Sc+R_1$-Rs and discal cell, in mid M_2-M_3, bluish white area extends above M_3 to slightly above M_2; vague ochreous terminal patch in Rs-M_1, M_1-M_2, where it is widest, and upper half of M_2-M_3; two vague ochreous spots in central $Sc+R_1$-Rs separated by a brown spot centered above junction of Rs and M_1; a very vague ochreous spot in upper cell behind the inner spot in $Sc+R_1$-Rs. Fringe as above, sharply contrasting with white area along termen.

Palpi brown above, mostly shining white beneath, third segment short, porrect; antennae less than half costa, shaft plain brown above, paler beneath, not checkered, buff beneath club; apiculus hooked, bent beyond thickest part of club; nudum brown, 5/10. Head, thorax and abdomen brown, abdomen more or less white beneath; legs brown, scaled white on outside, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, no hair tuft.

Genitalia: Uncus long, slender, undivided; gnathos smooth, sclerotized, entire, does not reach caudad to uncus mid point; valvae symmetrical, harpe long thin, curved dorsad, ampulla in lateral view long, narrow, widely separated from harpe and half as long, in dorsal view, the dorsal edge centrally projecting inward; penis shorter than valva, straight



Figures 57-62. (Scale line = 1 cm) *Zera* and *Pythonides* spp. **57,58** *Z. teresa*, new species, ♂ Holotype upperside (**57**), underside (**58**) (Photo Nos. 880729C/9,10) Brasil: Espirito Santo. **59-62** *P. rosa*, new species, ♂ Holotype upperside (**59**), underside (**60**), ♀ Paratype upperside (**61**), underside (**62**) (Photo Nos. 880729C/11,12,13,14) Mexico: Chiapas.

in dorsal view, centrally concave ventrally in lateral view, this concavity setose, phallobase narrow, less than half the width of aedeagus, sharply upturned in lateral view, no teeth, no cornutus; juxta small, weakly developed; saccus rather short.

FEMALE: Unknown.

Wing measurements: Holotype ♂ forewing 16 1/2 x 9 mm.

Type material: Only the holotype, Brasil: Espirito Santo; Sta. Teresa 800 m. (4-7).iii.73, C. Callaghan, bearing the following labels: printed and hand printed white label, BRASIL: ESPIRITO SANTO Santa Teresa; 800 m. 4-7.iii.1973 C. Callaghan; printed white label A. C. Allyn Acc. 1973-24; white paper triangle with hind leg glued on; printed and hand printed white label, Genit Vial SRS-2733; printed and hand printed red label, HOLOTYPE ♂ Zera teresa S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729C/9,10. The holotype will be deposited in the Universidade Federal do Paraná, Curitiba, Brasil; it is temporarily on loan to the Allyn Museum of Entomology.

Z. teresa is very close to *zera* (Butler, 1870), from which it differs by its smaller size (18-20 mm forewing in *zera*), some minor maculation differences which may be individually variable, and by a slightly less excavate forewing termen in Cu_2-2A and not produced and angled in Cu_1-Cu_2 in *teresa* as it is in *zera*. In the male genitalia, the harpe of *teresa* is narrower and the gnathos much shorter, not reaching mid uncus, whereas in *zera* it is nearly as long as the uncus, as shown in the Godman & Salvin illustration (Pl.82, f.16). *Zera zera*, as pointed out by Mielke (pers. comm., 1988), is a rather variable insect, but the genitalic differences noted above indicate to me more than infraspecific variation. There is also considerable variation in other *Zera* taxa; the genus needs detailed study.

Pythonides rosa, new species

Figures **59,60** (♂); **61,62** (♀); **95** (♂ genitalia); **109** (♀ genitalia)

MALE: Upperside: Forewing brown with purple glaze; indistinct narrow, macular dark brown subterminal band from apex in R_3-R_4 to Cu_2-2A; similar, slightly wider and less macular curved dark brown postdiscal band from costa in R_2-R_3 to anal cell; broad dark brown discal band from Sc-R_1 across discal cell to anal cell, completely fused with postdiscal band below cell; vague dark brown basal area; subapical hyaline white spot in R_3-R_4 on outer edge of postdiscal dark band. Termen produced and somewhat angled at Cu_1; inner margin very slightly concave. Fringe brown. No costal fold.

Hindwing same purple-glazed brown, slightly paler and with blue reflection in anal cell, paler in costal cell; extremely vague narrow macular dark brown subterminal band; inner half of Sc+R_1-Rs dark brown, from which vague postdiscal, discal and sub basal dark brown bands extend anally and more or less disappear beneath dense hair scales behind the cell. Fringe brown, a few whitish scales on inner margin. Termen evenly rounded; vein 3A about equal to 2A.

Underside: Forewing slightly darker purple-glazed brown than above, very slightly paler in anal cell; dark bands from above repeated but very indistinct; faint ochreous apical spot against termen in R_4-R_5 to R_5-M_1; subapical hyaline spot as above. Hindwing-purple glazed brown, paler than above; dark markings from above repeated, indistinct and not extending below cell, subterminal band disappears below M_1; anal cell, basal lower part of discal cell and vein 2A nearly to termen lightly covered with blue white hair scales.

Palpi grey brown above, liberally sprinkled with pale blue and white scales beneath, third segment short, porrect. Antennae slightly less than half costa, plain brown above, slightly paler beneath club, no checkering; apiculus slightly longer than rest of club, rather arcuate; nudum all on apiculus, brown, 17. Head, thorax and abdomen purple brown, abdomen paler beneath; legs brown, scaled whitish on outside, tibiae smooth, mid tibiae one pair spurs, hind tibiae two, but upper pair very small, no hair tuft.

Genitalia: Uncus short, bell shaped in dorsal view, narrow caudal portion (the handle of the bell) very short; gnathos prominent, sclerotized, broad with a square shagreened caudal end, longer than uncus but not extending caudad quite to its end; tegumen long

and broad; valvae symmetrical, simple, harpe broad, slightly upturned at caudal end and finely dentate, ampulla barely developed; penis long, 1.5 times valva, somewhat sinuous in dorsal view, phallobase short and skewed right, left side of dorsal vesica opening dentate; juxta and transtilla small but well developed; saccus moderately long, round ended.

FEMALE: Upperside as male but paler and dark markings more distinct.

Underside: Forewing as male but paler, dark markings more distinct; much paler and more ochreous in tornal area; apical ochreous spot more distinct.

Hindwing rather pale ochreous brown, paler in 2A-3A and anal cell; darker markings from above quite limited: three spots, sub basal, discal and postdiscal in $Sc+R_1$-Rs; vague sub basal and discal spots in upper half of cell; indistinct postdiscal and subterminal spots in Rs-M_1; a mere hint of the rest of the subterminal band below M_1; very vague postdiscal spot in M_1-M_2. Faint blue-white hair scaling in anal area as in male, but less pronounced.

Palpi, antennae, head, thorax and abdomen as male; legs as male, but upper pair of hind tibia spurs nearly as long as lower.

Genitalia: Lamella postvaginalis broad, bearing a few long setae laterally, evenly and shallowly concave on caudal edge, with central caudal, microtrichia bearing area on dorsal side, narrow sclerotized protruberance on ventral side; lamella antevaginalis a pair of prominent thin, sharply pointed, caudally directed processes on either side of the wide ostium bursae and more or less fused to prominent sclerotized antrum; ductus seminalis connected dorsally to ductus bursae immediately cephalad of antrum; ductus bursae short, caudal portion swollen and bearing irregular internal sclerotization; corpus bursae spherical, spiculose, more or less clearly separated from ductus bursae; sinus conjunctionis prominently produced cephalad as pair of crinkled sacs, centrally, between the papillae anales caudad of lamella postvaginalis, it bears a small sclerotized process.

Wing measurements: Holotype ♂ forewing 19 x 11 mm; paratype ♀ forewing 20 x 11 mm.

Type material: Holotype ♂, Mexico: Chiapas; Sta. Rosa Comitan iii.58, T. Escalante, bearing the following labels: printed and hand printed black bordered white label, T. Escalante Santa Rosa Comitan Chis. 3-58; printed white label, A. C. Allyn Acc. 1973-48; printed and hand printed white label, Genit. Vial SRS-2729; printed and hand printed red label, HOLOTYPE ♂ Pythonides rosa S. R. Steinhauser; white paper triangle with hind leg glued on; printed and hand printed white label, Allyn Museum Photo No. 880729C/11,12. One ♀ paratype, same data as holotype (Genit. Vial SRS-2730; Allyn Museum Photo No. 880729C/13,14); both are deposited in the Allyn Museum of Entomology.

The *Pythonides* species closest to *rosa* are *eminus* Bell, 1934 and *mundo* Freeman, 1979, neither of which has the subapical hyaline spot of *rosa*. In the male genitalia, all three are quite similar, *rosa* differing from the other two in the shape of the valva in which the distally smooth harpe is only slightly produced dorsad to a finely dentate rounded tip, unlike the sharp dorsal tooth from a distally serrate harpe in *eminus* and *mundo*. The narrow distal portion of the uncus of *rosa* is much shorter than that of *mundo*.

Carrhenes bamba Evans, 1953, new status

Figure **96** (♂ genitalia)

Carrhenes fuscescens bamba Evans, 1953:150

C. calidius Godman & Salvin, 1895 and *C. fuscescens* (Mabille, 1891) were separated as distinct species (Steinhauser, 1974:11, f.72,73) on the basis of small genitalic differences and range overlap. Although the geographic range of *bamba* does not overlap that of *fuscescens*, it is sympatric with *calidius* in several areas, and its ♂ genitalia differ from both *calidius* and *fuscescens*, and on these bases I raise it to specific rank. I have illustrated the genitalia of *bamba* to show the differences; the sacculus of *bamba* is more produced caudally and its ampulla process is longer, narrower and somewhat sinuous; in dorsal

view, the uncus is widened caudally in *bamba*, but with parallel sides in *calidius*; there is a tooth on the right side of the penis in *calidius* but lacking in *bamba* and *fuscescens*; the caudal thorn-like spine of the cornutus is much heavier in *calidius* and *fuscescens* than in *bamba*; the row of fine sharp teeth on left side of the vesica opening of the penis, present in *calidius* and *fuscescens* is replaced by a dorsal row of blunt teeth in *bamba*. Manica (not illustrated, but see f.97,98) balloon-like as in the new species described below.

Carrhenes sinesinus, new species

Figures **63,64** (♂); **97** (♂ genitalia)

MALE: Upperside: Forewing pale brown overlaid with yellowish white scales; macular preterminal dark brown band from apex in R_4-R_5 to tornus in Cu_2-2A, just reaching termen in lower part of 1A-2A; poorly defined postdiscal band composed of a large, vague dark brown area distad of cell between costa and M_3, containing three hyaline white spots on its outer edge, largest in R_3-R_4, smaller in R_4-R_5 and R_5-M_1, those in R_3-R_4 and R_5-M_1 on a line normal to the costa, the central spot offset proximad; in a continuation of this line normal to the costa, there may be a faint hyaline spot in the outer edge of the dark area in M_2-M_3; the central portion of this dark area is slightly paler; below M_3 the postdiscal band is narrow and macular, the spots in M_3-Cu_1 and Cu_1-Cu_2 almost entirely occupied by their prominent crescent shaped hyaline centers, the spot in Cu_2-2A a narrow sinuous double spot that may bear a faint hyaline spot just above 2A; a narrow, staggered dark brown discal band with the largest spot in the cell, quadrate and containing a poorly defined hyaline spot at its upper outer corner, above which are two adjacent hyaline spots in Sc-R_1 and near base of R_1-R_2; below the cell spot, with their outer edges in line, is a long triangular dark spot more or less filling the base of Cu_1-Cu_2 and bearing a vague small hyaline spot near its outer edge, below this the band is offset basad ending in a more or less quadrate double spot in Cu_2-2A; basal area more or less darkened. Termen very slightly excavate at end of R_5, more prominently excavate in Cu_2-2A; inner margin very slightly concave. Fringe brown with a few whitish scales in Cu_2-2A, inwardly bordered by a narrow dark line along termen. No costal fold.

Hindwing the same pale brown with scattered pale scales as forewing, broadly darker in basal 1/4 to 1/3; more or less prominent narrow terminal dark line; narrow macular preterminal dark brown band from costa in Sc+R_1-Rs to tornus at end of 2A; macular postdiscal spot band from mid Sc+R_1-Rs to 1A-2A, the spots dark brown with pale brown centers, that in Rs-M_1 offset distad; similar discal spot band more or less merged with dark basal area. Termen excavate in M_1-M_3, very slightly excavate in Cu_2-2A. Fringe brown, whitish on inner margin.

Underside: Forewing pale brown, paler grey brown in basal half and in anal cell; dark terminal line prominent; preterminal dark band from above repeated, but narrower, less distinct; hyaline spots as above; postdiscal and discal bands from above repeated, but much narrower and with pale centers in those spots not already occupied with hyaline centers.

Hindwing whitish, shading to whitish brown in costal cell and distad of postdiscal dark band; dark brown terminal line prominent; preterminal dark band repeated from above but as a spot band, tornal spot of which is centered on 2A, very dark, small but prominent; postdiscal and discal dark bands from above repeated as zig zag, narrow, very dark brown double lines outlining broad white centers.

Palpi dark brown above liberally sprinkled with pale yellowish scales, white beneath, becoming yellowish on third segment which is moderately long, porrect. Antennae about half costa, dark brown above, checkered white in front, more or less checkered buff beneath, apiculus arcuate or obtuse from before club center, nudum brown, 17 to 19 (holotype), average of 17 specimens in type series with complete club, 17.7. Head, thorax and abdomen brown with scattered buff scales, abdomen whitish beneath. Legs pale brown to whitish, tibiae smooth, mid tibiae one pair spurs, hind tibiae two and with long brown hair tuft fitting into thoracic pouch.

Genitalia exactly like *calidius*; uncus broad ended, bifurcate, sides parallel; gnathos a pair of sclerotized, shagreened lateral lobes; valvae symmetrical with prominent dentate caudo-dorsal ampulla projection, narrow, non dentate, setose harpe, prominent curved dentate dorsal process from sacculus; penis slightly shorter than valva, slightly sinuous in dorsal view, slightly concave ventrally in lateral view, constricted at zone which is just distad of ductus ejaculatorius opening, manica, as in *bamba*, balloon-like between zone and attachment to membranous transtilla and weakly sclerotized, setose, plate-like juxta, vesica opening dorso-dextral, a single rather large tooth on left side of aedeagus opposite cephalad end of vesica opening, caudad of this tooth, also on the left side is a row of fine teeth, on the right side, a single tooth, smaller than the one mentioned above on the left side, and caudad of it; cornutus a bundle of basally joined, long thin spines followed caudally by a short stout single or double thorn-like spine; saccus very short, bluntly pointed cephalad in ventral view as in *calidius* and *fuscescens*.

FEMALE: Unknown.

Wing measurements: ♂ forewing 16 1/2 x 9 mm to 18 x 10 1/2 mm (holotype, 18 x 10 mm), average of type series of 19 specimens 17.3 x 9.7 mm.

Type material: Holotype ♂, Colombia: Tolima; Los Guayabos, Rio Cucuana 1500 m. 13.iii.74 S. R. & L. M. Steinhauser, bearing the following labels: printed white label, COLOMBIA: TOLIMA Las Guayabas [*sic*!], Rio Cucuana, 1500 m. 13.iii.1974 S. & L. Steinhauser; printed white label, A. C. Allyn Acc. 1974-23; printed and hand printed white label, Genit. Vial SRS-2763; printed and hand printed red label, HOLOTYPE ♂ Carrhenes sinesinus S. R. Steinhauser; printed and hand printed white label, SRS Database No. 272; printed and hand printed white label, Allyn Museum Photo No. 880729C/15,16. Eighteen ♂ paratypes, same location and collectors as holotype dated: 8.iii.74 (2); 13.iii.74 (3); 14.iii.74 (3); 15.iii.74 (7, 1 Genit. Vial SRS-1866); 18.iii.74 (1); 20.iii.74 (2). The holotype and 18 ♂ paratypes are deposited in the Allyn Museum of Entomology.

The *fuscescens* group of species in *Carrhenes* Godman & Salvin, 1895 is characterized by the prominent broad dentate ampulla process. There is considerable individual variation in the male genitalia and most of the taxa involved are defined best by maculation characters supplemented in some cases by the genitalia. The male genitalia of *sinesinus* are indistinguishable from *calidius*; the only apparent constant difference between them is the lack of a costal fold in the male of *sinesinus*. The Godman & Salvin (1893-1901:Pl.85, f.23) figure of the underside of *calidius* shows no tornal dark spot at the end of 2A, which agrees with males I have seen from Mexico and El Salvador. Males that I have tentatively identified as *calidius* from Costa Rica, Venezuela and Colombia have a very prominent dark tornal spot, larger than in *sinesinus*. It is possible that these represent a subspecies of *calidius* but I have insufficient data to support it. So far, *sinesinus* is known only from the very limited type locality on the eastern flank of the Cordillera Central in Tolima Province. A very few miles south of there, also on the eastern flank I have taken the more heavily marked forms with a costal fold that are tentatively determined as *calidius*. This interesting group deserves more study.

Carrhenes infuscescens, new species

Figures **65,66** (♂); **98** (♂ genitalia)

MALE: Upperside: Forewing pale brown varying from somewhat darker in the holotype to very pale, especially in the lower discal area, rather heavily overscaled pale yellowish; darker brown bands and hyaline spots as described for *sinesinus* with the following differences: the subapical hyaline spots are somewhat larger and more distinct, clearly present in M_2-M_3 and also present in M_1-M_2 offset distad; there is no costal hyaline spot in R_1-R_2 and that in Sc-R_1 is faint or missing; more or less prominent upper and lower hyaline cell spots behind the origin of R_1 and a suggestion of a hyaline spot in Cu_1-Cu_2 immediately below the lower cell spot; the small crescent shaped hyaline spot in M_3-Cu_1 of *sinesinus* is replaced by a prominent quadrate hyaline spot immediately distad of the

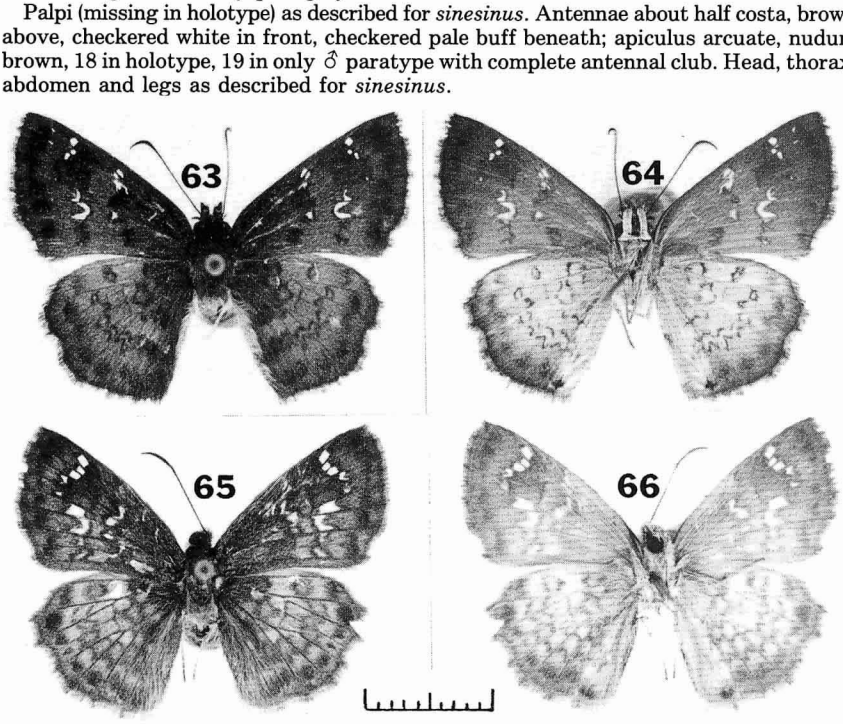
upper outer corner of the crescent shaped spot in Cu_1-Cu_2; the double dark spot of the postdiscal band in Cu_2-2A of *sinesinus* becomes two separate spots in Cu_2-1A and 1A-2A with pale semihyaline centers. Termen very slightly excavate in Cu_2-2A. Fringe pale brown, weakly checkered darker brown at vein ends.

Hindwing like *sinesinus* but somewhat paler discally; veins somewhat darkened causing paler areas between dark bands to appear as pale spot bands; preterminal dark band prominent, especially in Rs-M_1; pale centers of the dark spots of the postdiscal and discal dark bands larger and more pronounced than in *sinesinus*. Termen angled at Rs and at M_1, excavate in M_1-M_3, slightly angled again at Cu_1 and very slightly produced in 2A-3A. Fringe pale brown, somewhat checkered darker brown at vein ends.

Underside: Forewing pale brown, paler whitish brown in basal half and below Cu_2; dark terminal line very thin, not prominent; preterminal dark band from above repeated but narrower and much fainter; hyaline spots from above repeated, more or less overscaled whitish and with haloes of whitish scales; postdiscal and discal darker bands from above repeated but very faint and with broadly pale centers to the spots giving the appearance of pale spot bands narrowly rimmed in brown. Fringe slightly more prominently checkered than above, paler on inner margin.

Hindwing pale grey brown, slightly darker along termen distad of preterminal band, whitish below 1A; dark bands from above repeated but generally fainter, spots with large pale centers; tornal spot of preterminal band at end of 2A dark and prominent; terminal dark line very faint. Fringe pale brown, lightly checkered darker brown at vein ends, inner row of fringe scales very pale grey.

Palpi (missing in holotype) as described for *sinesinus*. Antennae about half costa, brown above, checkered white in front, checkered pale buff beneath; apiculus arcuate, nudum brown, 18 in holotype, 19 in only ♂ paratype with complete antennal club. Head, thorax, abdomen and legs as described for *sinesinus*.



Figures **63-66.** (Scale line = 1 cm) *Carrhenes* spp. **63,64** *C. sinesinus*, new species, ♂ Holotype upperside (**63**), underside (**64**) (Photo Nos. 880729C/15,16) Colombia: Tolima. Rio Cucuana. **65,66** *C. infuscescens*, new species, ♂ Holotype upperside (**65**), underside (**66**) (Photo Nos. 880729C/17,18) Argentina: Salta.

Genitalia as described for *sinesinus* with the following differences: uncus broader, sides not parallel, widening caudally as in *bamba*; the dentate dorsal process from the sacculus broader and shorter than *sinesinus*; no lateral aedeagus teeth and the row of fine sharp teeth on left side of vesica opening is replaced by a dorsal row of blunt teeth as in *bamba*; caudal thorn-like spine of cornutus much smaller than in *sinesinus*, similar to that of *bamba*.

FEMALE: Unknown.

Wing measurements: ♂ forewing 15 1/2 x 8 1/2 mm to 17 x 9 1/2 mm (holotype, 16 1/2 x 9 1/2 mm), average of four specimens in type series, 16.5 x 9.1 mm.

Type material: Holotype ♂, Argentina: Salta; Acambuco, Queb. at road and Rio Seco, Sa. de Tartagal 850 m. 4.iii.75 R. Eisele, bearing the following labels: printed and hand printed white label, ARGENTINA: SALTA Acambuco: Queb at Rd. + Rio Seco: Sa. de. Tartagal 850 mt. 4.iii.1975 R. Eisele; printed and hand printed white label, Allyn Museum Acc. 1977-6; printed and hand printed white label, Genit. Vial SRS-2764; printed and hand printed red label, HOLOTYPE ♂ Carrhenes infuscescens S. R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 880729C/17,18. Three ♂ paratypes: one, same data as holotype (Genit. Vial SRS-1874); one, Argentina: Salta; Sa. de Tartagal, Rio Yaquv(?) 14 Km. W. of Rt. 34, 800 m. 5.iii.75, R. Eisele; one, Argentina: Salta; Snia(?) de las Pavas Abra del Pescado, 750 m. 31.x.72, R. Eisele. The ♂ holotype and three ♂ paratypes are deposited in the Allyn Museum of Entomology.

This seems to be the only representative of the *fuscescens* group from Argentina. It can be distinguished from other similar appearing Argentine *Carrhenes* species by the *fuscescens* style valva. It is probably the same insect illustrated by Hayward (1948:Pl.24, f.10) as *C. canescens* (R. Felder, 1869); he did not illustrate the genitalia.

Achlyodes oiclus Mabille, 1889, revised status

Achlyodes oiclus Mabille, 1889; 11=(2)3(45):25, f.3
Bolla phylo oiclus (Mabille, 1889), Evans (1953:80)

Mabille described *oiclus* from a female from Chiriqui. Godman & Salvin (1879-1901:Pl.86, f.20,21) illustrated the holotype, lent them by Staudinger, showing the underside hindwing dorsal half yellow and the forewing length 19 mm. There is a female from Turrialba, Costa Rica at the AME with a 22 mm forewing and otherwise identical to the Godman & Salvin figure; I have identified this as *oiclus*. The single female at the BM(NH) that Evans determined as *oiclus* is a misidentified unknown smaller (17 mm) taxon from Mato Grosso, Brasil with a white underside hindwing dorsal half.

The female genitalia of *oiclus* are entirely different from *phylo* (Mabille, 1878) and in many ways are similar to various *Achlyodes* species. Unfortunately the antennae are missing from this Costa Rican specimen, making a definite generic placement difficult. Lacking evidence to support moving it elsewhere, I leave it in *Achlyodes* where Mabille originally placed it.

Acknowledgments

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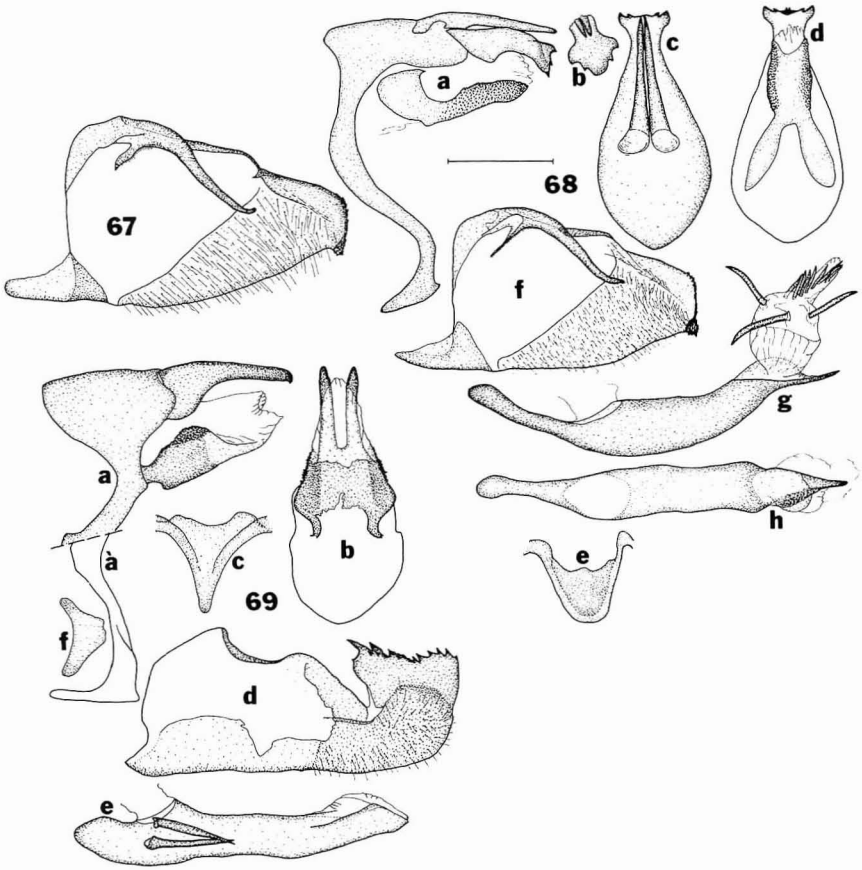
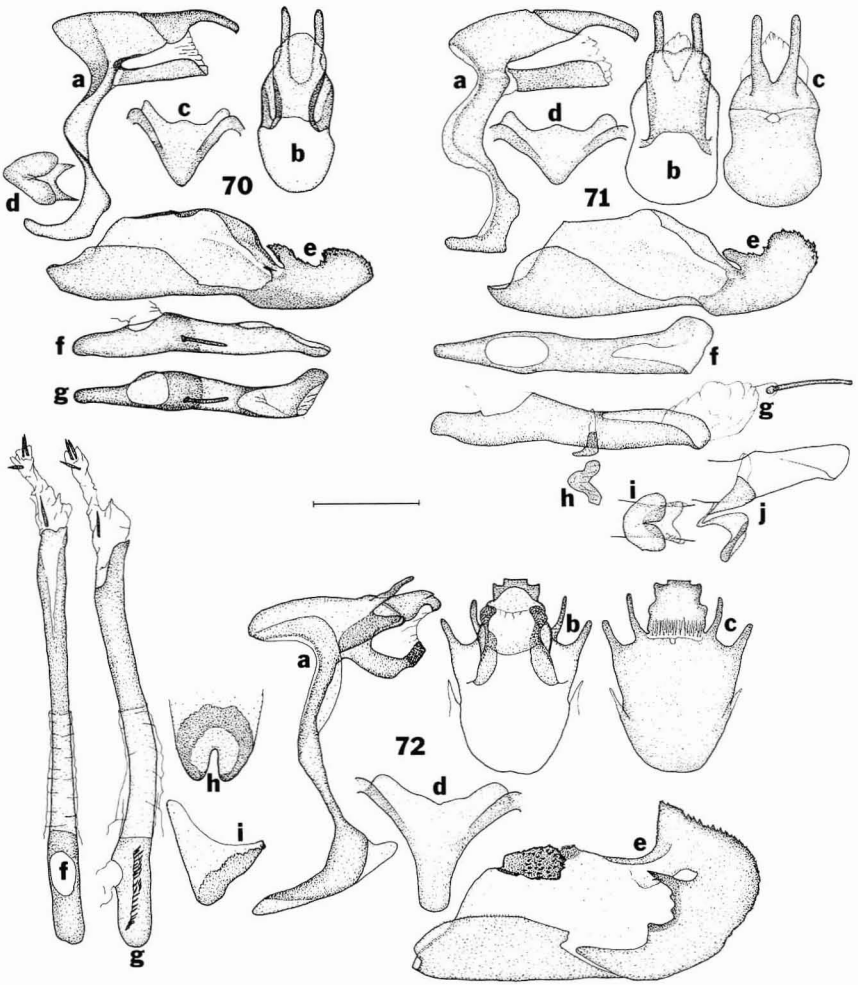
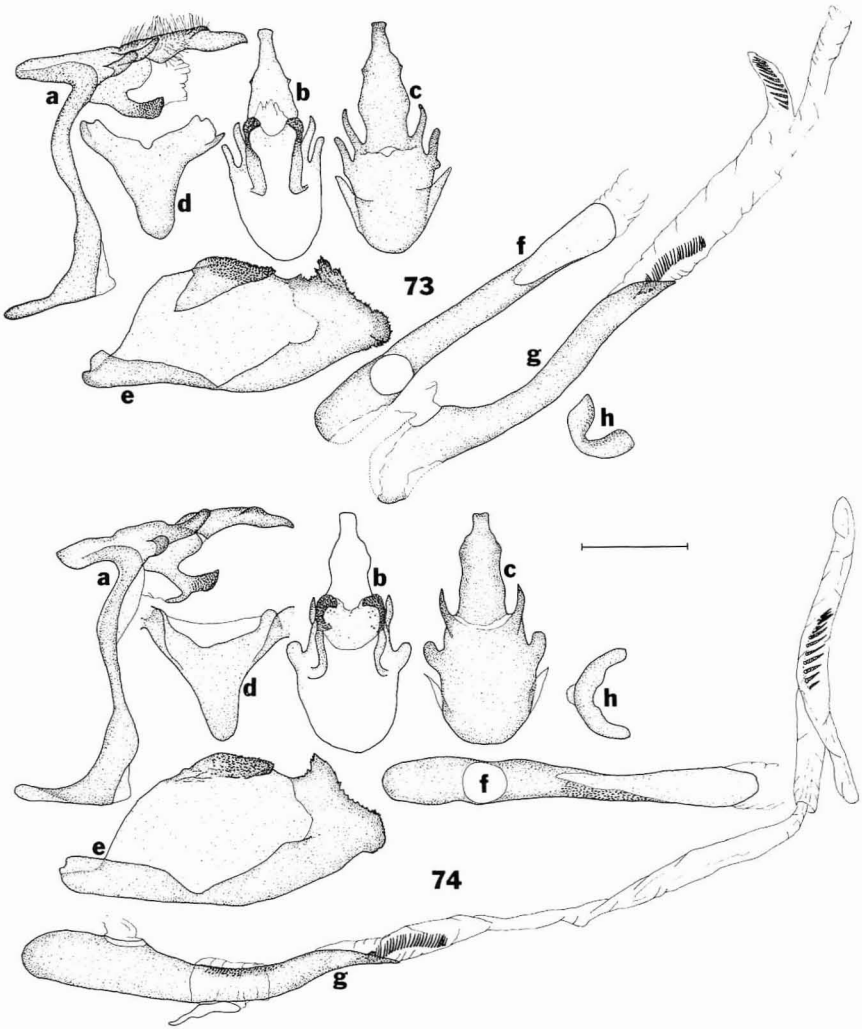


Figures 67-69. (Scale line = 1 mm) *Entheus* and *Astraptes* spp. ♂ genitalia. 67 *Entheus matho* Godman & Salvin, 1893, Mexico: Chiapas; Sta. Rosa Comitan (Genit. Vial SRS-1212); right valva-interior. 68 *Entheus crux*, new species, Paratype, Mexico: Veracruz; Catemaco (Genit. Vial SRS-1213); a) tegumen, uncus, gnathos, and associated structures-lateral; b) end of uncus, posterior aspect slightly above horizontal; c,d) tegumen, uncus, and associated structures-dorsal (c), ventral (d); e) saccus- ventral; f) right valva-interior; g) penis and cornutus-lateral; h) penis-ventral. 69 *Astraptes mabillei*, new species, Holotype, Bolivia: Cochabamba (Genit. Vial SRS-1094), Paratype, Ecuador: Zamora (Genit. Vial SRS-1095); a) tegumen, uncus, gnathos-lateral (HT); a') vinculum, saccus-lateral (PT); b) tegumen, uncus, gnathos-ventral (HT); c) saccus-ventral (PT); d) right valva-interior (HT); e) penis-lateral (HT); f) juxta-ventral (PT).

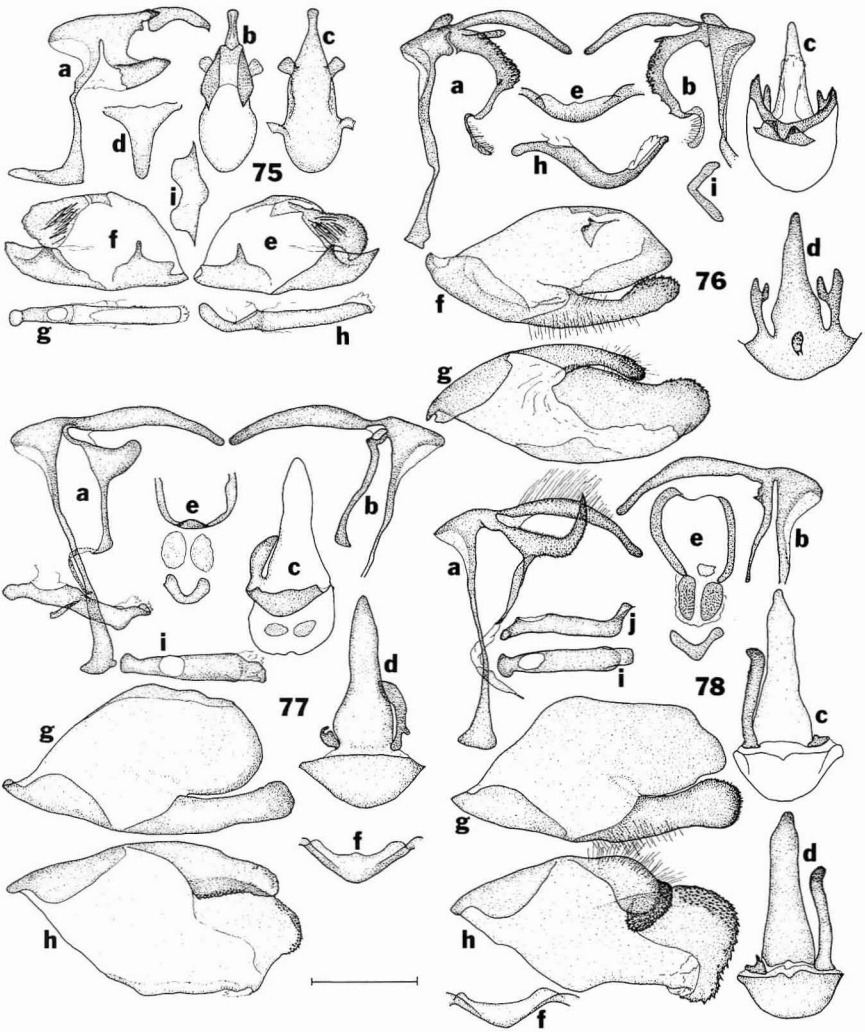


Figures 70-72 (Scale line = 1 mm) *Thessia* and *Telemiades* spp. ♂ genitalia. **70** *Thessia athesis* (Hewitson, 1867), Panama: Canal Zone; Farfan (Genit. Vial SRS-527); a) tegumen, uncus, and associated structures-lateral; b) same-ventral; c) saccus-ventral; d) juxta-ventral; e) right valva-interior; f) penis-lateral; g) penis-dorsal. **71** *Thessia jalapus* (Plötz, 1882), a-h) Mexico: Veracruz; Catemaco (Genit. Vial SRS-2153); a) tegumen, uncus, and associated structures-lateral; b,c) same- ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) penis-dorsal; g) penis and cornutus-lateral; h) upper part of juxta-ventral. i-j) Mexico: San Luis Potosi (Genit. Vial SRS-2772); i) juxta-ventral, j) juxta-lateral. **72** *Telemiades megallus* Mabille, 1888, Costa Rica: Cartago; Turrialba (Genit. Vial SRS-2059); a) tegumen, uncus, and associated structures- lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) penis-dorsal; g) penis-lateral; h) juxta-ventral; i) juxta-lateral. Up is caudad for figs. f,g,h,i.



Figures 73,74 (Scale line = 1 mm) *Telemiades* spp. ♂ genitalia. 73 *T. epicalus* Hübner, [1819], Fr. Guiana: Maroni River (Genit. Vial SRS-2747); a) tegumen, uncus, gnathos, and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) penis-dorsal; g) penis, cornutus, vesica-lateral; h) juxta-ventral. 74 *T. choricus* (Schaus, 1902), Mexico: San Luis Potosí; (Genit. Vial SRS-2746); a) tegumen, uncus, gnathos, and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) penis-dorsal; g) penis, cornutus, vesica, juxta-lateral; h) juxta-ventral.

Figures 75-78 (Scale line = 1 mm) *Eracon* and *Nisoniades* spp. ♂ genitalia. **75** *E. pebana* Evans, 1953, Brasil: Mato Grosso (Genit. Vial SRS-1746); a) tegumen uncus, gnathos, and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) left valva-interior; g) penis-dorsal, h) penis-lateral; i) juxta-ventral. **76** *N. suprapanama*, new species, Holotype, Colombia: Valle del Cauca (Genit. Vial SRS-2019); a) tegumen, uncus, superuncus, appendices angulares, transtilla-lateral (left side); b) same (right side); c,d) same-ventral (c), dorsal (d); e) saccus-ventral; f) right valva-interior; g) left valva-interior; h) penis-lateral; i) juxta-ventral. **77** *N. coca*, new species, Holotype, Ecuador: Napo (Genit. Vial SRS-1957); a) tegumen, uncus, appendices angulares, transtilla, penis, juxta-lateral (left side); b) tegumen, uncus, appendices angulares-lateral (right side); c,d) same-ventral (c), dorsal (d); e) appendices angulares, transtilla, juxta-posterior aspect; f) saccus-ventral; g) right valva-interior; h) left valva-interior; i) penis-dorsal. **78** *N. lata*, new species, Holotype, Ecuador: Napo (Genit. Vial SRS-1958); a) tegumen, uncus, appendices angulares, and associated structures-lateral (left side); b) same (right side); c,d) same-ventral (c), dorsal (d); e) appendices angulares, transtilla, juxta-posterior aspect; f) saccus-ventral; g) right valva-interior; h) left valva- interior; i) penis-dorsal; j) penis lateral.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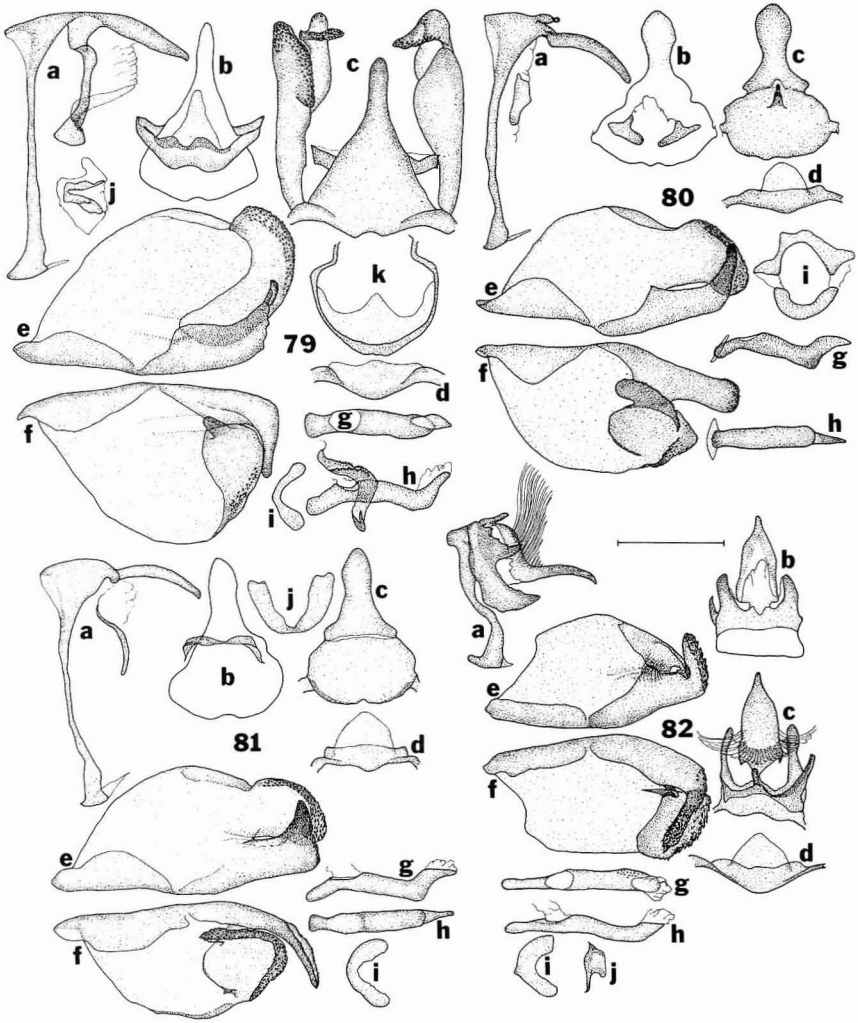
Figures 79-82 (Scale line = 1 mm) *Nisoniades* and *Pachyneuria* spp. ♂ genitalia. **79** *N. torta*, new species, Paratype, Panama: Colon; Piña (Genit. Vial SRS-1960); a) tegumen, uncus, appendices angulares, subscaphium (?) and associated structures- lateral; b) same-ventral; c) entire genital armature-dorsal; d) saccus-ventral; e) right valva-interior; f) left valva-interior; g) penis-dorsal; h) penis, transtilla, juxta-lateral; i) juxta- ventral; j) transtilla-dorsal; k) appendices angulares, subscaphium (?)-posterior aspect. **80** *N. supra*, new species, Holotype, Peru: Madre de Dios (Genit. Vial SRS-1554); a) tegumen, uncus, appendices angulares, superuncus and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) left valva-interior; g) penis-dorsal; h) penis, juxta, transtilla-lateral; i) juxta, transtilla-posterior aspect. **81** *N. evansi*, new species, Paratype, Guyana: Berbice; Camp Jaguar (Genit. Vial SRS-1556); a) tegumen, uncus, appendices angulares, and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) left valva-interior; g) penis-lateral; h) penis-ventral; i) juxta-ventral; j) appendices angulares-posterior aspect. **82** *P. milleri*, new species, Holotype, Peru: Madre de Dios (Genit. Vial SRS-1309); a) tegumen, uncus, superuncus, appendices angulares-lateral; b) same-ventral (superuncus not shown); c) same as a)-dorsal; d) saccus-ventral; e) right valva-interior; f) left valva-interior; g) penis-dorsal; h) penis-lateral; i) juxta-ventral; j) transtilla-dorsal.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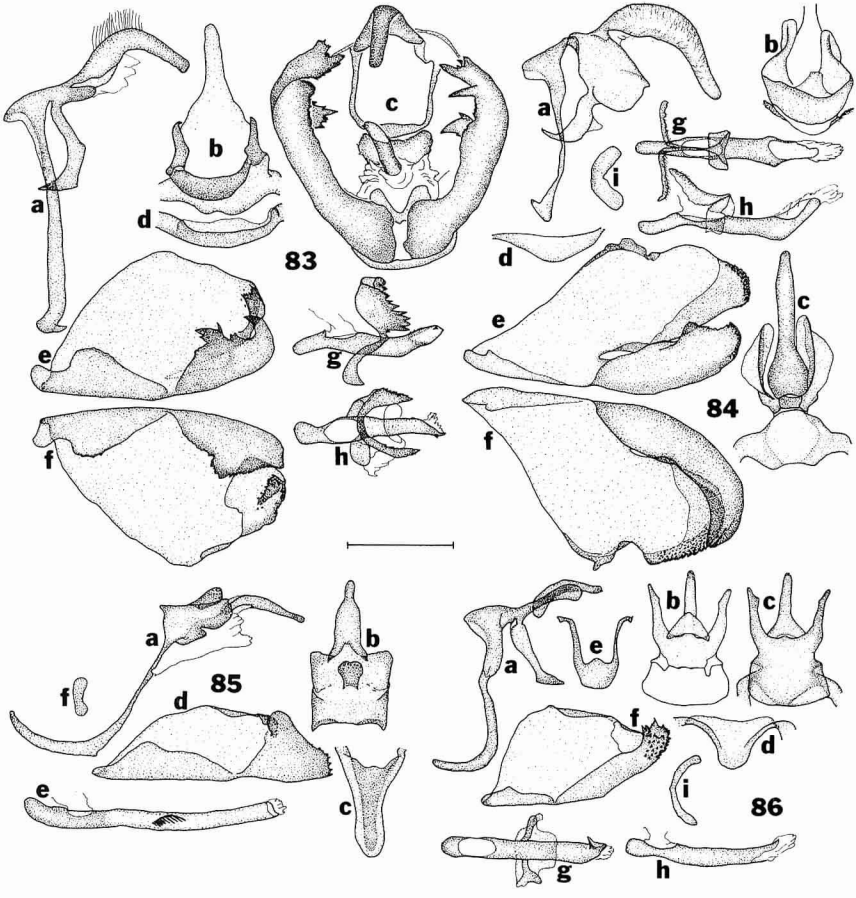
Figures 83-86 (Scale line = 1 mm) *Pellicia, Viola, Bolla* and *Staphylus* spp. ♂ genitalia. 83 *P. vecina naja*, new subspecies, Paratype, Peru: Huanuco; Las Palmas, 14 km. S. of Tingo Maria (Genit. Vial SRS-1480); a) tegumen, uncus, appendices angulares and associated structures-lateral; b) same-ventral; c) genital armature-posterior aspect; d) saccus-ventral; e) right valva-interior; f) left valva-interior; g,h) penis, transtilla, juxta-lateral (g), dorsal (h). 84 *V. dagamba*, new species, Holotype, Guyana: Berbice (Genit. Vial SRS-1295; a) tegumen, uncus, appendices angulares and associated structures-lateral; b) appendices angulares, transtilla arms-ventral; c) same as (a)- dorsal; d) saccus-ventral; e) right valva-interior; f) left valva-interior; g,h) transtilla, penis-dorsal (g), lateral (h); i) juxta-ventral. 85 *B. dorsolaciniae*, new species, Holotype, Colombia: Tolima (Genit. Vial SRS-113); a) tegumen, uncus, superuncus and associated structures-lateral; b) same-dorsal; c) saccus-ventral; d) right valva-interior; e) penis-lateral; f) juxta-ventral. 86 *S. tridentis*, new species, Holotype, Colombia: Tolima (Genit. Vial SRS-2755); a) tegumen, uncus, appendices angulares and associated structures-lateral; b) same-ventral; c) same-dorsal; d) saccus-ventral; e) appendices angulares-posterior aspect; f) right valva-interior; g) penis-dorsal; h) penis-lateral; i) juxta-ventral.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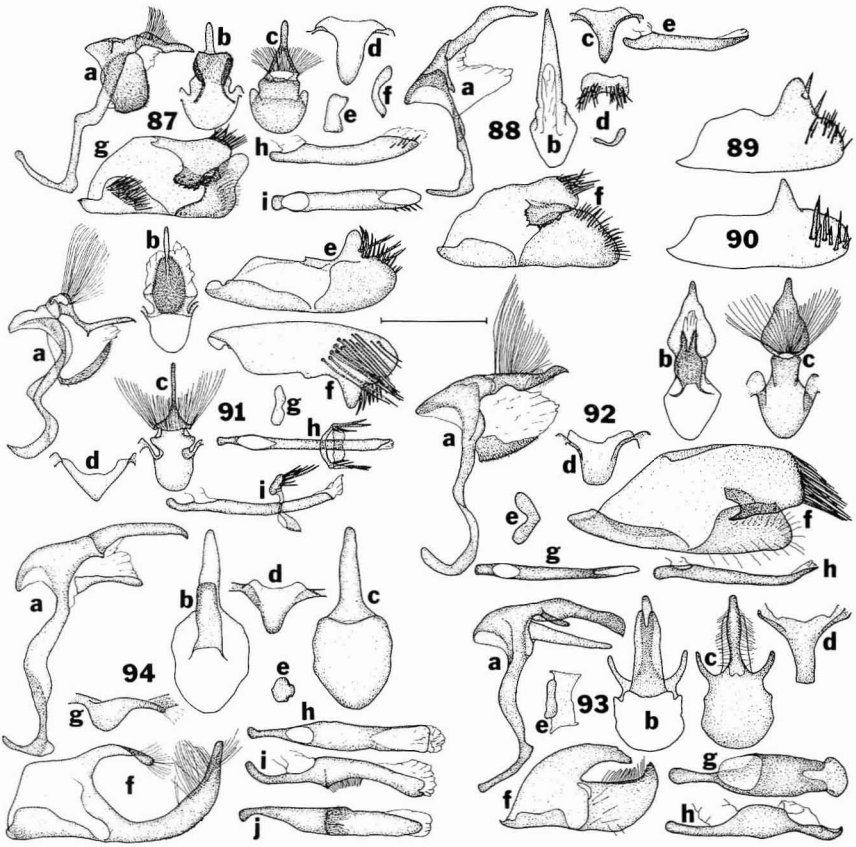
Figures 87-94 (Scale line = 1 mm) *Staphylus, Ouleus* and *Zera* spp. ♂ genitalia. **87** *S. melius*, new species, Paratype, Argentina: Jujuy; San Pedro (Genit. Vial SRS-1496); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) transtilla-dorsal; f) juxta-ventral; g) right valva-interior; h) penis-lateral; i) penis-dorsal. **88** *S. lizeri album*, new subspecies, Holotype, Brasil, Minas Gerais (Genit. Vial SRS-2021); a) tegumen, uncus, gnathos and associated structures-lateral; b) same-ventral; c) saccus-ventral; d) transtilla, juxta-posterior aspect; e) penis-lateral; f) right valva-interior. **89** *S. perforatus* (Möschler, 1878), Peru: Huanuco; Tingo Maria (Genit. Vial SRS-1460); left valva-exterior. **90** *S. ascalaphus* (Staudinger, 1875), El Salvador: Cerro Verde (Genit. Vial SRS-206); left valva-exterior. **91** *S. lenis*, new species, Holotype, Trinidad (Genit. Vial SRS-2757); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e,f) right valva-interior (e), exterior (f); g) juxta-ventral; h,i) penis, transtilla, juxta-dorsal (h), lateral (i). **92** *S. tingo*, new species, Paratype, Peru: [Huanuco]; Tingo Maria (Genit. Vial SRS-1736); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) juxta-ventral; f) right valva-interior; g) penis-dorsal; h) penis-lateral. **93** *O. negrus cristatus*, new subspecies, Holotype, Colombia: Valle del Cauca (Genit. Vial SRS-2727); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) juxta-ventral; f) right valva-interior; g) penis-dorsal; h) penis-lateral. **94** *Z. teresa*, new species, Holotype, Brasil: Espirito Santo (Genit. Vial SRS-2733); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) juxta-ventral; f) right valva-interior; g) ampulla of right valva-dorsal; h,i,j) penis-dorsal (h), lateral (i), ventral (j).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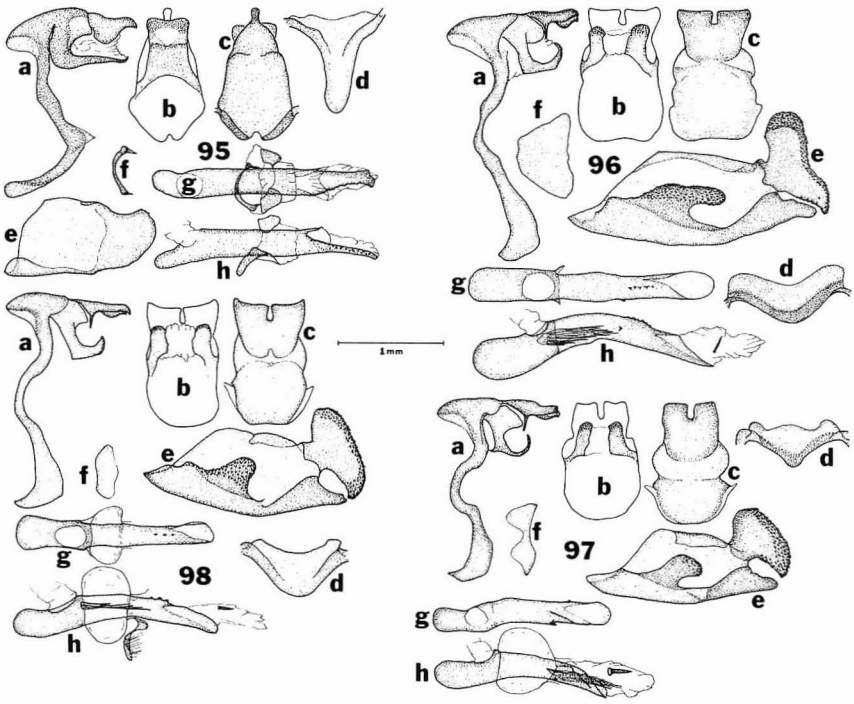
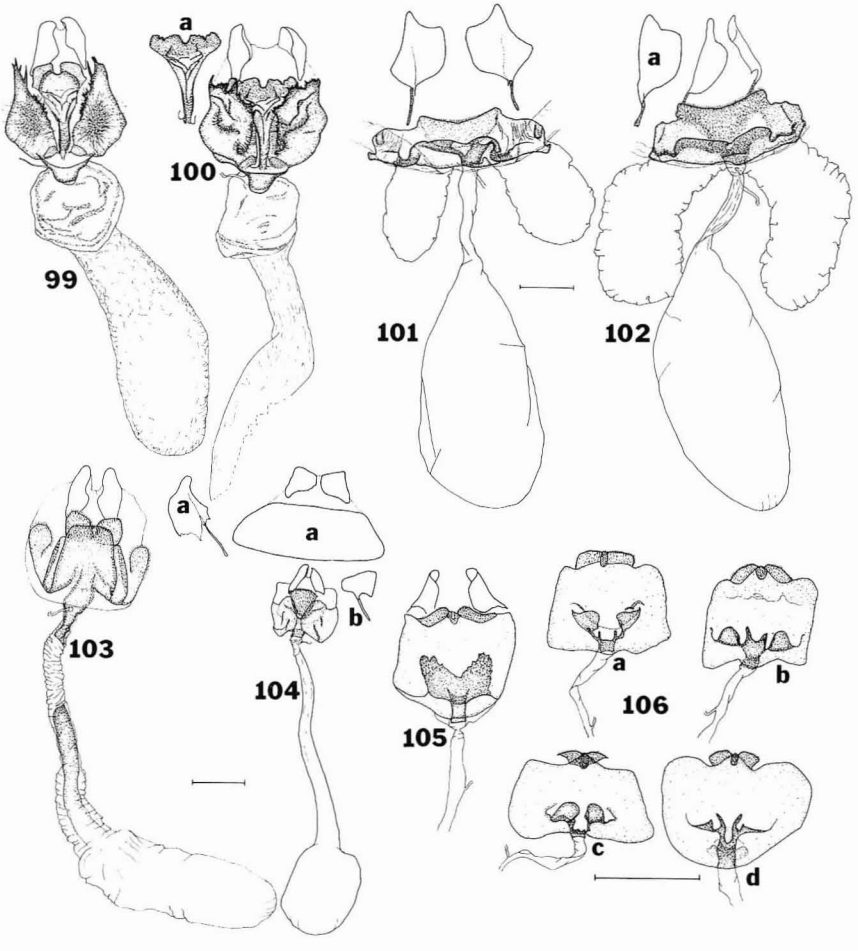
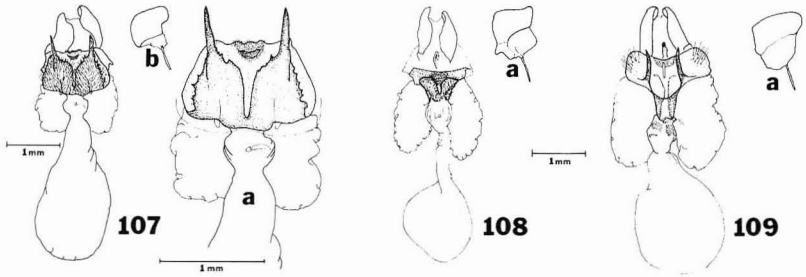


Figures 95-98 (Scale line = 1 mm) *Pythonides* and *Carrhenes* spp. ♂ genitalia. 95 *P. rosa*, new species, Holotype, Mexico: Chiapas (Genit. Vial SRS-2729); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) juxta-ventral; g,h) transtilla, penis, juxta-dorsal (g), lateral (h). 96 *C. bamba* Evans, 1953, Ecuador: Napo; Misahualli (Genit. Vial SRS-1871); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) juxta-ventral; g) penis-dorsal; h) penis-lateral. 97 *C. sinesinus*, new species, Paratype, Colombia: Tolima; Los Guayabos, Rio Cucuana (Genit. Vial SRS-1866); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) juxta-ventral; g) penis-dorsal; h) penis-lateral; 98 *C. infuscescens*, new species, Paratype, Argentina: Salta; Acambuco (Genit. Vial SRS-1874); a) tegumen, uncus, gnathos and associated structures-lateral; b,c) same-ventral (b), dorsal (c); d) saccus-ventral; e) right valva-interior; f) juxta-ventral; g) penis-dorsal; h) penis-lateral.



Figures **99-106** (Scale line = 1 mm) *Entheus*, *Thessia*, *Telemiades* and *Staphylus* spp. ♀ genitalia. (Note that **99-104** are half the scale of **105,106**). **99** *E. matho* Godman & Salvin, 1893, Mexico: Chiapas; Sta. Rosa Comitan (Genit. Vial SRS-1211). **100** *E. crux*, new species, Holotype, Mexico: Veracruz (Genit. Vial SRS-1181); a) lamella postvaginalis shown separately. **101** *Thessia athesis* (Hewitson, 1867), Colombia: Tolima; Rio Chili (Genit. Vial SRS-533). **102** *Thessia jalapus* (Plötz, 1882), Mexico: San Luis Potosí; Cd. Valles (Genit. Vial SRS-2154); a) papilla anal-lateral. **103** *Telemiades choricus* (Schaus, 1902), Mexico: Chiapas; Sta. Rosa Comitan (Genit. Vial SRS-2749); a) papilla anal-lateral. **104** *S. tridentis*, new species, Paratype, Colombia: Tolima; La Marina, Rio Ambeima (Genit. Vial SRS-2756); a) papilla anal-lateral; b) 7th and 8th tergites (flattened). **105** *S. perforatus* (Möschler, 1878), Ecuador: Napo; Latas (Genit. Vial SRS-1375). **106** *S. ascalaphus* (Staudinger), 1875: a) Mexico: Chiapas; nr. Escuintla (Genit. Vial SRS-1409); b,c) both El Salvador: Sta. Tecla (Genit. Vials SRS-1514,1516); d) Guatemala: Barbarena (Genit. Vial SRS-1399).



Figures **107-109** (Scale line = 1 mm) *Ouleus* and *Pythonides* spp. ♀ genitalia. **107** *O. candidus*, new species, Holotype, Colombia: Valle del Cauca (Genit. Vial SRS-2726) a) enlargement of sterigma area, microtrichia on lamella antevaginalis not shown; b) papilla anal-lateral. **108** *O. negrus cristatus*, new subspecies, Paratype, Colombia: Valle del Cauca; Rio Anchicayá (Genit. Vial SRS-2728); a) papilla anal-lateral. **109** *P. rosa*, new species, Paratype, Mexico: Chiapas; Sta. Rosa Comitan (Genit. Vial SRS-2730); a) papilla anal-lateral.

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