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NOTES ON HESPERIIDAE IN NORTHERN GUATEMALA, WITH DESCRIPTIONS OF NEW TAXA

GEORGE T. AUSTIN

Nevada State Museum and Historical Society, 700 Twin Lakes Drive,
Las Vegas, Nevada 89107, USA

ABSTRACT. Several significant records of Hesperiidae were obtained in the vicinity of Parque Nacional Tikal, northern Guatemala. A new genus, ***Vinpeius,*** is proposed for *Pompeius tinga* Evans (=*Vinius freemani* L. Miller). Another new genus, ***Inglorius,*** is proposed for a newly described species, ***Inglorius mediocris. Niconiades incomptus,*** similar to *Niconiades xanthaphes* Hübner, is described as a new species. Range extensions are reported for *Methionopsis dolor* Evans, *Mnasitheus nitra* Evans, *Parphorus storax* (Mabille), *Styriodes zeteki* (Bell), *Phlebodes campo* Evans, *Euphyes antra* Evans, *Amblyscirtes tolteca* Scudder, *Aides brilla* (Freeman), *Ridens allyni* Freeman, *Cyclosemia leppa* Evans, and *Staphylus lenis* Steinhauser. Genitalia are illustrated for many of the foregoing, including variation in the harpes of *Nisoniades rubescens* (Möschler).

Additional key words: Central America, distribution, genitalia, Neotropics.

The butterflies of Guatemala are poorly known. Except for reports on a few old collections (Boisduval 1870, Godman & Salvin 1879–1901, Gibbs 1912), nearly nothing has been published on this fauna. A survey and monitoring study in the Parque Nacional Tikal region, Petén Department, northern Guatemala, has produced numerous interesting records (Austin et al. 1996), many of which represented species not previously recorded for the country. Most of these were known from surrounding countries, but others extended distributions considerably southward or northward, sometimes spectacularly. Miller (1985) observed that several butterfly species exhibited apparently broad disjunctions between southern Central and South American populations and those in Mexico similar to those noted below. I will herein discuss significant extensions of known ranges among skippers (Hesperiidae), propose two new genera of Hesperiinae, and describe two new species.

HESPERIINAE

Vinpeius Austin, new genus

Type species: *Pompeius tinga* Evans, 1955

Description. Palpi slender, third segment protruding about 1/2 length of second, pale yellow-orange with scattered black scales; antennae long, reaching beyond end of discal cell, nearly 60% of costal length, yellow beneath club and on most of ventral surface of shaft except narrowly black at segments, club 1/3 shaft length, bent to apiculus after thickest part, apiculus length 1.5× width of club, nudum brown, of 14 segments (6 on club, 8 on apiculus); forewing discal cell somewhat produced anteriorly, just over 75% length of anal margin, vein CuA_2 arises somewhat nearer origin of vein CuA_1 than to base of wing, hindwing discal cell about 1/2 width of wing; mid tibiae spined on inner surface and with one pair of terminal spurs, hind tibiae with two pairs of spurs; forewing somewhat produced, costa very slightly concave just before middle, termen evenly convex, stigma along

cubitus from origin of vein CuA_1 nearly to origin of CuA_2 where bent posteriad across vein CuA_2 to 1/2 distance to vein 2A where angled proximad again nearly reaching 2A, composed of numerous fine gray hair-like scales interspersed with shorter spine-like black scales, these continuous along anterior edge where adjoining cubitus, entire stigma narrowly surrounded by unmodified, but semierect brown scales, these extending from stigma to base of cell CuA_1-CuA_2; hindwing evenly convex except slightly indented in cell CuA_2-2A. Male genitalia with tegumen short, but with central spur which extends caudad over uncus; uncus short, blunt, broad, not divided; gnathos short, not reaching end of uncus, divided, arms convergent; vinculum nearly straight; saccus moderately long; valva broad; costa/ampulla margin gradually ascending caudad; harpe very broad; caudal margin excavate ventrad, dorsal margin triangular with narrow tooth-like projection dorsad from inner surface barely exceeding dorsal margin; aedeagus tubular with long (about 2/5 total aedeagus length), narrow, and spinate caudal projection from lower right side; no cornutus.

Etymology. The name is a combination of parts of the names of the two genera in which the included species was previously placed, *Vinius* Godman, 1900 and *Pompeius* Evans, 1955.

Diagnosis. A full diagnosis is given below under the one included species of *Vinpeius*.

Vinpeius tinga (Evans, 1955), **new combination**
(Fig. 11)

Pompeius tinga Evans, 1955
Vinius freemani L. Miller, 1970, **new synonymy**
Pompeius freemani de la Maza et al. 1991, **new synonymy**

A male hesperiine taken south of Parque Nacional Tikal and east of Coaba on 1 Oct. 1994 initially defied generic determination using the keys of Evans (1955). The genitalia of this specimen, however, resembled one species illustrated by Evans (1955), *Pompeius tinga*, and the description given in the accompanying text confirmed this identification (note that the Evans figures of the tegumen, uncus, gnathos, and aedeagus are different from those shown herein and by Miller [1970]; the uncus and gnathos of the Evans specimen were evidently lost in dissection and only the tegumen and aedeagus were illustrated). A further search of the literature from surrounding countries indicated that this taxon was redescribed by Miller (1970) as *Vinius freemani*. The Tikal male matches this taxon perfectly in wing pattern and genitalia.

The characters of *Vinpeius tinga* are neither those of *Pompeius* nor *Vinius*. Evans (1955) included *Pompeius* in his "Hesperia Sub-group" of the "Hesperia Group" of hesperiines and characterized the genus as having the antenna nearly 1/2 the length of the costa with the club 1/4 the length of the antennal shaft, an apiculus equalling the width of the antennal club, a nudum of 13 segments with 6 or 7 of these on the apiculus, and a well-marked black stigma on the dorsal forewing. Examination of the type species, *Pompeius pompeius* (Latreille, [1824]), indicated that this diagnosis needed some embellishment. The nudum of *P. pompeius* varies from 13 to 14 segments arranged as 7 on the club and 6

(n = 8) or 7 (n = 2) on the apiculus. It should be noted here that the antennal segments vary in number and are difficult to count (e.g., Burns 1964, MacNeill 1964), especially in distinguishing between those on the club and those on the apiculus (Steinhauser 1981). The blunt third segment of the palpus barely protrudes from the scales of the second segment. The mid tibiae are conspicuously spined on both the outer (stout, short) and inner surfaces (stout, long). The origin of vein CuA_2 is barely distad of the midpoint between the wing base and vein CuA_1. The stigma is conspicuous and complex extending from the base of vein CuA_1 to nearly the base of CuA_2 and then posteriad to vein 2A. The anterior edge along vein CuA_1 consists of relatively dense, small, spike-like black scales. Posterior to this is an area of dense, hair-like, gray scales which curves posteriad across CuA_2 and extends nearly to 2A. This gray area has scattered black scales and is margined posterio-distad by a narrow line of spike-like black scales. A more or less round patch of these black scales also occurs at the posterior end of the gray area; this is the "lower brush patch" of MacNeill (1964). Distad of this is a large area of somewhat modified shiny scales extending posteriad from near the base of CuA_1, bulging outward at CuA_2 and angling proximad to 2A. Similar scaling occurs in the base of CuA_1-CuA_2 and in the postbasal area of CuA_2-2A.

The male genitalia (see figures in Godman & Salvin 1879–1901, Hayward 1951, Evans 1955) consist of a long and relatively narrow tegumen (V-shaped on the posterior edge in dorsal view), divided uncus with long and narrow arms in lateral view and narrowly pointed in dorsal view, and divided gnathos with long and narrow arms in lateral view with the tips laterad of the uncus arms in dorsal view. The vinculum is slightly curved and the saccus is short. The valva has a sharply sloping cephalad end, a prominent dorsal spike from the harpe, and the sacculus gradually narrows caudad extending nearly to the caudal end of the harpe. The aedeagus is tubular and the caudal end has short lower and lateral lips, the latter with thorn-like teeth. The two cornuti are short, tubular, and prominently dentate.

Of the six additional species included by Evans (1955) in *Pompeius*, I examined three. *Pompeius amblyspila* (Mabille 1897) is very similar to *P. pompeius* in numerous characters including antennae (nudum 7/6), stigma, and genitalia (figured by Bell 1932, Hayward 1951, Evans 1955). *Pompeius verna* (Edwards 1863), including its two subspecies, *P. v. verna* and *Pompeius verna sequoyah* (Freeman 1942), is somewhat different and may belong to another genus. The nudum is 6/7, the stigma is less complex and extensive and without a "lower brush patch," and the genitalia (figured by Scudder 1889, Lindsey et al. 1931, Evans 1955) are very different, including a shorter and stouter tegumen with a shallow

V-shape cephalad in dorsal view, a shorter and blunter uncus in both lateral and dorsal view with the arms not proximate in dorsal view, the gnathos much narrower than the uncus, and the cornutus an inconspicuous long and filament-like structure. *"Pompeius" tinga* is discussed above and below.

The taxa included in the "Vinius Group" by Evans (1955) either lack androconial structures on the forewing or have brands except for one genus (*Wahydra* Steinhauser, [1991]) with a stigma. *Vinius* was characterized (Evans 1955) by antennae longer than 1/2 the costa length with the club 1/4 the length of the shaft, a nudum of 13 segments of which 10 are on the apiculus, spined mid tibiae, males with short brands above and below the middle of vein CuA_2, and an erectile hair tuft along vein 3A on the dorsal hindwing with a groove in the same position of the ventral hindwing. Additional characteristics include an apiculus which is about 2× club width, the sharply pointed third segment of the palpus extends beyond the scales of the second segment by about 1/4 the length of the second segment, the mid tibial spines are fine and on the inner surface, and the origin of forewing vein CuA_2 is much closer to CuA_1 than to the wing base. The male genitalia (e.g., figures by Godman & Salvin 1879–1901, Williams & Bell 1934, Evans 1955, Mielke 1968, Biezanko & Mielke 1973) have a short tegumen, a blunt uncus that is short, broad, and not divided, a short and divided gnathos with parallel arms, a strongly curved vinculum, and a short saccus. The valvae of *Vinius* are variable with the harpe caudally sloping or having a toothed dorsal margin. The aedeagus is tubular and with no prominent caudal extensions or cornutus.

The antennae of *Vinpeius tinga* are proportionately longer than on *P. pompeius* and about the same as on *Vinius* and the antennal club is longer than on either genus. The nudum of *Vinpeius* has 14 segments (one more than either *Pompeius* or *Vinius*) with eight of these on the apiculus (more than the 6 or 7 on *Pompeius* and less than the 10 on *Vinius*). The third segment of the palpus protrudes from the second much more than on either *Vinius* or *Pompeius*. *Vinpeius* has fine mid tibial spines only on the inner surface as on *Vinius* and not stout spines on both the inner and outer surfaces as on *Pompeius*. The forewing discal cell of *Vinpeius* is shorter in relation to the anal margin than on either *Pompeius* or *Vinius* (over 80% its length on both genera). The origin of forewing vein CuA_2 is intermediate between the origin of this vein on *Pompeius* and *Vinius*. The androconial structure of *Vinpeius* extends across wing cells and thus is a stigma rather than brands which are simpler structures and parallel to veins. The species of *Vinius* obviously have brands, these in an unusual position over and under the middle of vein CuA_2 as noted by Evans (1955). The structure of the stigma on *Vin-*

peius is very different from those on the *Pompeius* species examined, being much less complex. *Vinpeius* lacks the prominent hindwing hair tuft present on *Vinius*. The genitalia of *Vinpeius* differ in several respects from both *Vinius* and *Pompeius*, especially in the form of the aedeagus.

No other genus has the combination of characters seen on *Vinpeius*; it will not key to any of the eight Hesperiine group keys in Evans (1955) despite his inclusion of *V. tinga* in *Pompeius*. In the "Hesperia Group" key *V. tinga* will key to the "Phemiades Sub-group" with "Nudum of 14 or more segments." Even if it remained in the "Hesperia Sub-group" including *Pompeius*, there are not more nudum segments on the club than on the apiculus. *Vinpeius* has too many segments to the nudum to key to any "Vinius Group" genus in Evans (1955).

The relationships of *Vinpeius* are, at best, unclear. Its stigma somewhat suggests that among the genera of the last half of Evans' (1955) "Hesperia Group" taxa, its antennal structure suggests the "Vinius Group" or "Apaustus Group", and the general color and pattern is characteristic of both the "Vinius" and "Hesperia" groups. The problems with Evans' (1955) often artificial groupings have been reiterated (e.g., Burns 1990) and the previous inclusion of *V. tinga* in both *Vinius* and *Pompeius* further demonstrates these problems. For the present, placement of *Vinpeius* among the "Vinius Group" taxa should suffice.

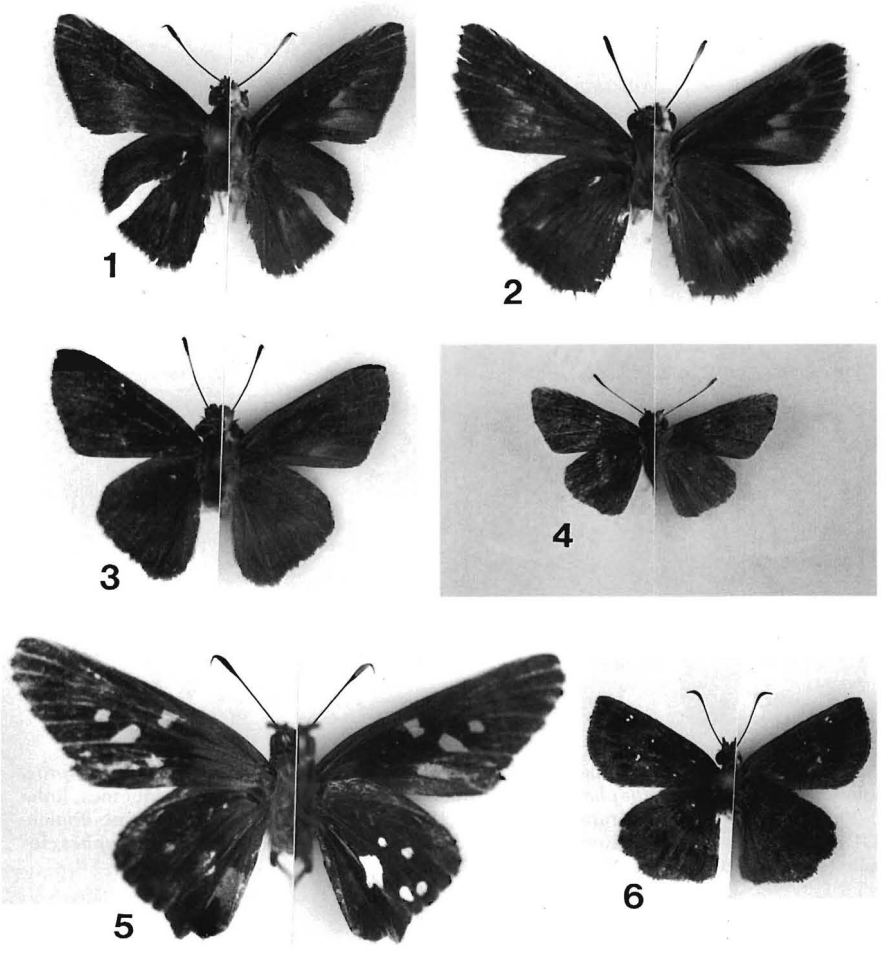
Inglorius Austin, new genus

Type species: *Inglorius mediocris* Austin, new species

Description. Palpi slender, third segment straight, protruding well beyond second segment, about equal to length of dorsal edge of second segment; antennae long, extending beyond end of forewing discal cell, nearly 60% length of forewing costa, black with pale ochreous beneath distad and below club; club just over 1/4 (28%) antennal length, bent to apiculus at thickest part, apiculus length about 2× club width, nudum gray, of 12 segments (3 on club, 9 on apiculus); forewing discal cell slightly produced, 75% length of anal margin, origin of vein CuA_2 nearer to CuA_1 than to wing base, hindwing discal cell just over 1/2 wing width; mid tibiae with four fine spines on inner surface and single pair of spurs, hind tibiae with two pairs of spurs; forewing produced with slight concavity between CuA_1 and 2A; hindwing convex anteriorly, somewhat concave between CuA_1 and 2A; no apparent secondary sexual characters. Male genitalia with short tegumen; uncus longer than tegumen, undivided, and hoodlike over gnathos; gnathos as long as uncus, divided, extending laterad of uncus in dorsal view and as rectangular flaps mesad in ventral view; vinculum sinuate; saccus short; valva very long, ampulla/costa long and sloping somewhat downward caudad, harpe long, roughly triangular ending in an inward turned point caudad, dorsal margin undulate, weakly serrate cephalad; aedeagus tubular (anterior portion missing), caudal end expanded terminally in lateral view, no apparent cornutus.

Etymology. The name means "undistinguished," as the only known species of the genus is a nondescript brown insect.

Diagnosis. *Inglorius* appears to belong within Evans' (1955) "Apaustus Sub-group" of his "Apaustus Group" characterized by a long third segment of the palpi. Most of these fourteen genera contain brown species with few distinguishing marks. None of these, nor any other hesperiine, has the combination of characters seen on *Inglorius* as outlined

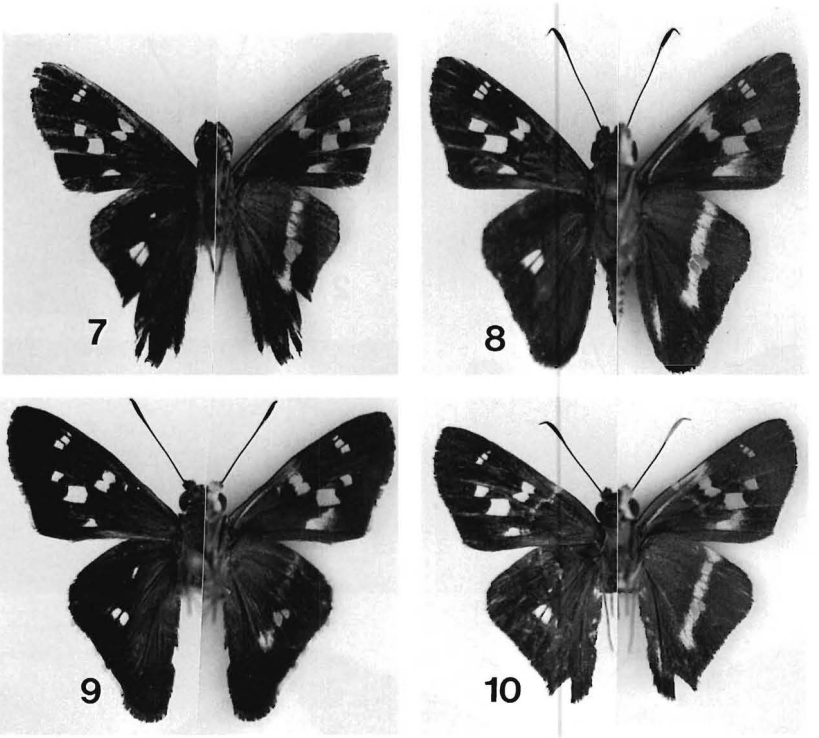


FIGS. 1–6. Hesperiidae from northern Guatemala (dorsum on left, venter on right; all from GUATEMALA: Petén; Parque Nacional Tikal, unless noted otherwise). **1,** *Euphyes antra,* male (25 June 1993). **2,** *E. antra,* female (30 July 1992). **3,** *Styriodes zeteki,* male (15 July 1993). **4,** *Inglorius mediocris,* holotype male. **5,** *Aides brilla,* female (29 Dec. 1992). **6,** *Staphylus lenis,* female (south of Parque Nacional Tikal, east of Cauba, 1 Oct. 1994).

above. The genitalia are particularly unique and totally unlike those of any other known taxon.

Inglorius mediocris Austin, new species
(Figs. 4, 12)

Description. Male: forewing length of holotype = 11.8 mm; in addition to generic description above, dorsum brown, scattered ochreous scales, these forming vague macules

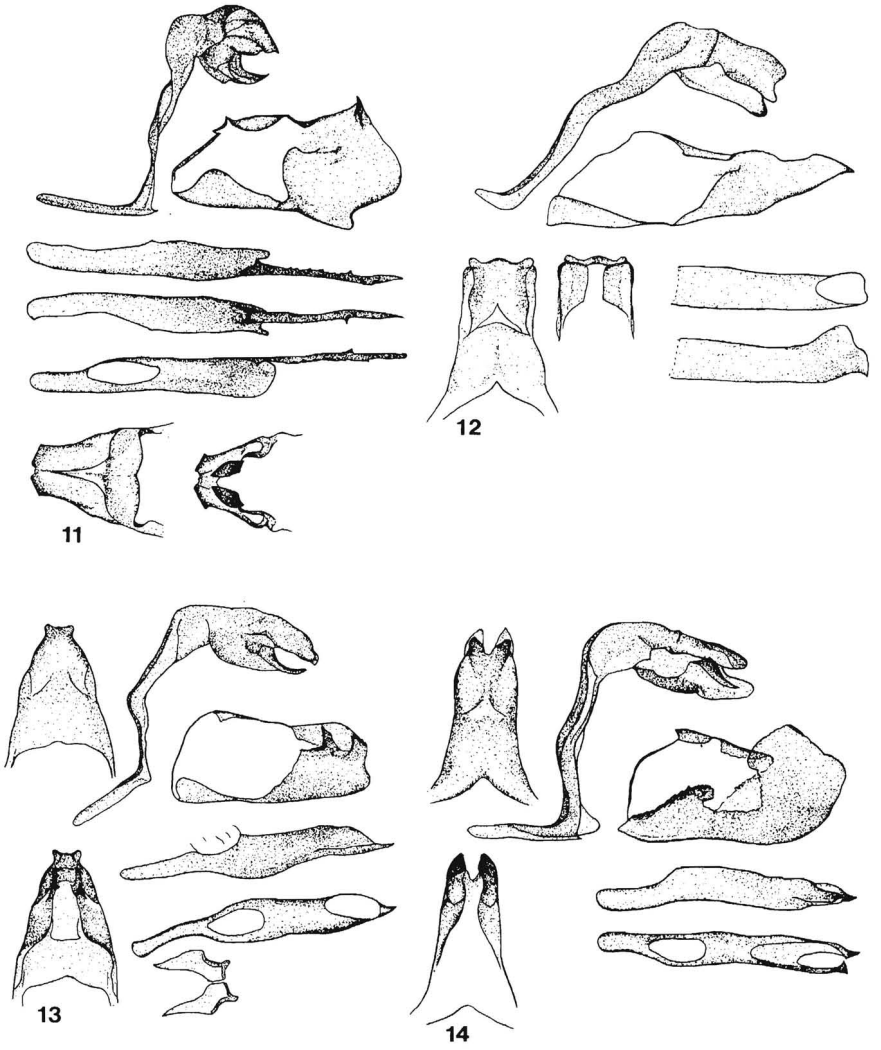


FIGS. 7–10. *Niconiades* species (dorsum on left, venter on right). **7,** *N. incomptus,* holotype male. **8,** *N. xanthaphes,* male (BRAZIL: Rondônia; 62 km S of Ariquemes, linha C-20, Fazenda Rancho Grande, 27 Nov. 1991). **9,** *N. incomptus,* paratype female (GUATEMALA: Petén; El Remate, Cerro Cahui, 29 Sept. 1994). **10,** *N. xanthaphes,* female (same location as Fig. 8, 14 Nov. 1992).

(not seen except under magnification) in CuA_1-CuA_2 just beyond origin of CuA_1, smaller macules offset distad in M_3-CuA_1 and in upper portion of discal cell; long ochreous hairlike scales on forewing at base of CuA_2-2A and along basal 1/2 of anal margin; hindwing immaculate with ochreous hairlike scales on posterior 1/2; fringes of both wings very worn, appearing gray. Ventral forewing paler brown especially distad, slight purplish cast along costa; hindwing with similar purplish cast over most of wing except for brown anal fold, small cream-colored macules at distal end of discal cell and as postmedian row from Rs to CuA_2. Head brown with scattered ochreous scales especially around eyes; palpi gray with scattered white scales beneath becoming white and then ochreous on sides; thorax brown with scattered ochreous scales above, whitish beneath, legs pale brown; dorsal abdomen brown, ventral abdomen white (possibly with dark central line). Genitalia: see generic description above. Female: unknown.

Type. Holotype ♂ with the following labels: white, printed - Tikal, Petén / Guatemala / September 12, 1993 / D. L. Lindsley; printed and handprinted - Genitalia Vial / GTA - 5283; red, printed - HOLOTYPE / *Inglorius mediocris* / Austin. The holotype will be deposited in the Entomological Collections at the Universidad del Valle, Guatemala City, Guatemala. *Type locality.* GUATEMALA: Petén; Parque Nacional Tikal.

Etymology. The name means "ordinary" as this is a rather ordinary brown skipper.



FIGS. 11–14. Genitalia of male Hesperiidae; all from GUATEMALA: Petén. **11,** *Vinpeius tinga,* GTA Vial #5230 (lateral view of uncus, gnathos, tegumen, vinculum, saccus; internal view of right valva; right and left lateral and dorsal views of aedeagus; dorsal and ventral views of uncus, gnathos, and caudal end of tegumen). **12,** *Inglorius mediocris,* holotype, GTA Vial #5283 (lateral view of uncus, gnathos, tegumen, vinculum, saccus; internal view of right valva; dorsal and left views of caudal end of aedeagus; dorsal view of uncus, gnathos, and tegumen; ventral view of uncus and gnathos). **13,** *Mnasitheus nitra,* GTA Vial #3236 (lateral view of uncus, gnathos, tegumen, vinculum, saccus; internal view of right valva; left and dorsal views of aedeagus; dorsal and ventral views of uncus, gnathos, and tegumen; ventral view of juxta). **14,** *Euphyes antra,* GTA Vial #5190 (lateral view of uncus, gnathos, tegumen, vinculum, saccus; internal view of right valva; left and dorsal views of aedeagus; dorsal and ventral views of uncus, gnathos, and tegumen).

Diagnosis and discussion. The type of *Inglorius mediocris*, a worn male of a small, nearly entirely brown, skipper does not resemble any described genus or species (see also generic diagnosis above). The species is known only from the holotype taken in mid September.

Methionopsis dolor Evans, 1955

This species has previously been reported from Panama southward (Evans 1955). Single males were taken at Tikal by D. Lindsley on 11 and 12 Sept. 1993.

Mnasitheus nitra Evans, 1955
(Fig. 13)

Evans (1955) described *M. nitra* based on a pair of males from Paraná, Castro (southern Brazil). There seems to be no subsequent report of this species although it is known from Peru (*fide* O. Mielke). It thus was a surprise to find it among the Tikal area fauna. Three males, all from Parque Nacional Tikal, were taken on: 29 Feb. 1992, leg. N. M. Haddad; 31 May 1992, leg. N. M. Haddad, and 8 June 1994, leg. G. A. Orellana. The genitalia of one of these is illustrated.

Parphorus storax storax (Mabille, 1891)

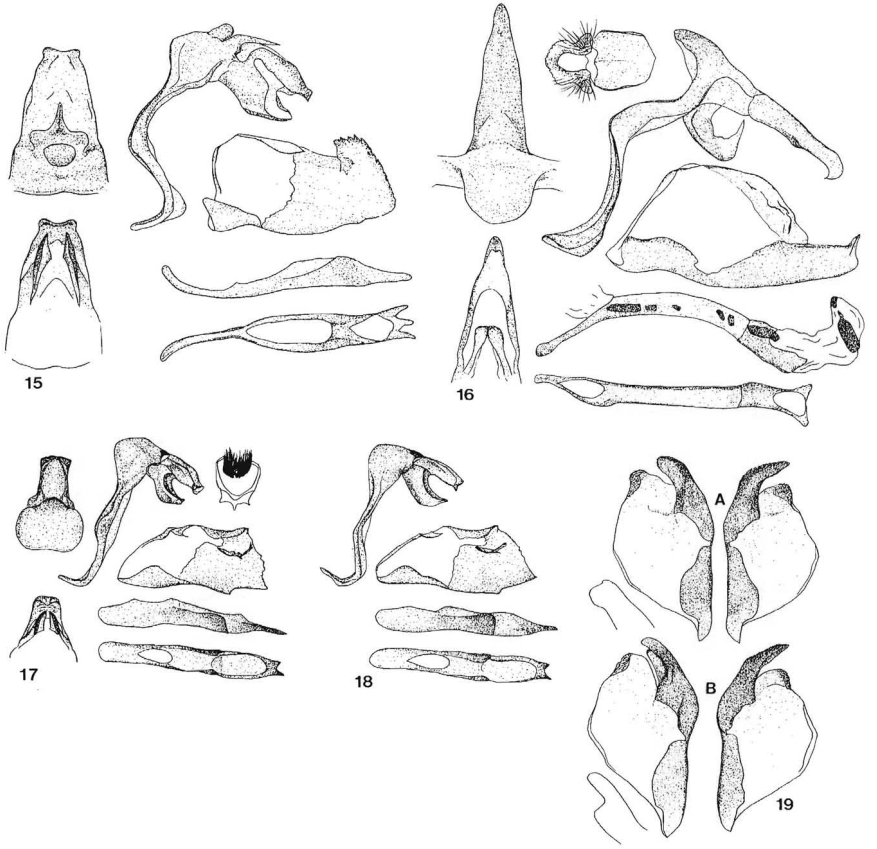
Evans (1955) recorded the distribution of this species as from Costa Rica southward. Monroe and Miller (1967) reported a record for Honduras. It was not known from El Salvador (Steinhauser 1975) nor Mexico (de la Maza et al. 1991). A male from Parque Nacional Tikal taken on 4 Feb. 1992 by G. T. Austin represents a northward extension of its known distribution.

Styriodes zeteki (Bell, 1931)
(Figs. 3, 15)

This species was described from a single male taken on Barro Colorado Island in the Canal Zone, Panama (Bell 1931), not from Bolivia as stated by Evans (1955) and has not otherwise been reported. Two males from Tikal taken on 15 July 1993, leg. G. A. Orellana and 12 Sept. 1993, leg. D. Lindsley represent a considerable extension of the known distribution. The male genitalia are illustrated here in more detail than previously.

Phlebodes campo sifax Evans, 1955

This species has only been known from South America and as far north as Guyana (Evans 1955). A male from Parque Nacional Tikal taken on 31 May 1992 by N. M. Haddad represents a significant extension of the reported distribution.



FIGS 15–19. Genitalia of male Hesperiidae; all from GUATEMALA: Petén, unless noted. **15,** *Styriodes zeteki,* GTA Vial #4699 (same structures as Fig. 14). **16,** *Cyclosemia leppa,* GTA Vial #1992 (same structures as Fig. 13). **17,** *Niconiades incomptus,* holotype, GTA Vial #5171 (same structures as Fig. 13). **18,** *Niconiades xanthaphes,* GTA Vial #2524 from same location as Fig. 8 (lateral view of uncus, gnathos, tegumen, vinculum, saccus; internal view of right valva; left and dorsal views of aedeagus). **19A,** *Nisoniades rubescens,* GTA Vial #5147 (internal view right and left valvae; flattened view of caudal end of right harpe). **19B,** *Nisoniades rubescens,* GTA Vial #5135 (same structures as Fig. 19A).

Euphyes antra Evans, 1955
(Figs. 1, 2, 14, 20)

This species was described based on one male from Lima, Peru, and two putative females from "Lower Amazons" (Evans 1955). Mielke (1972) found that the two females were of another taxon, *Euphyes derasa tuba* Evans, 1955, and knew of no other records of *E. antra*. An indication of how little we know of Neotropical hesperiid faunas was the discovery of a male and female of *E. antra* among the Tikal material

taken in the park on 25 Jan. 1993 and 30 July 1992, respectively, by G. A. Orellana. Since Mielke (1972) was unable to illustrate all the structures of the male genitalia, these are fully illustrated here. The female has not been previously described. It is similar to the male with broader and less produced wings and the pale yellow median band on the ventral hindwing is broader. The genitalia are most similar to those of Mielke's (1972) *"subferruginea"* and *"peneia"* groups with, especially, the long and relatively thin ductus bursae.

Amblyscirtes tolteca tolteca Scudder, 1872

Freeman (1993) recently reviewed the distribution of this species and indicated a distribution over most of Mexico including Chiapas. Steinhauser (1975) tentatively included this species for El Salvador but the record has not been verified. A single male from Parque Nacional Tikal taken on 14 July 1992 and two more taken on 18 July 1992 by G. A. Orellana represent a new record for Guatemala and an eastern extension of the species' distribution.

***Niconiades incomptus* Austin, new species**
(Figs. 7, 9, 17, 21)

Description. Male: forewing length = 17.1 mm (holotype), 17.0 mm (paratype); forewing produced, apex moderately rounded, termen slightly concave in CuA_2-2A; hindwing narrow, apex rounded, termen concave to prominently elongate tornus; dorsum blackish brown with prominent blue-green in basal 1/3 of CuA_2-2A and basal 1/2 of anal margin of forewing and on basal 1/2 of hindwing; forewing with three short gray brands, one above the other, one above vein CuA_2 at base of cell (the broadest), one below CuA_2, and another above 2A; forewing with very pale yellow hyaline macules as follows: in discal cell, strongly constricted in middle nearly separating upper and lower portions; CuA_2-2A, semicircular in lower half of cell over middle of vein 2A; mid CuA_1-CuA_2, square with slightly excavate distal edge; M_3-CuA_1, more or less quadrate, smaller than and offset distad from or contiguous with that in CuA_1-CuA_2; subapical, aligned in R_3-R_4, R_4-R_5, R_5-M_1, rectangular, that in R_3-R_4 smallest; fringe dark gray anteriorly, white behind vein CuA_2; hindwing with very pale yellow, more or less rectangular hyaline macules in M_3-CuA_1 and CuA_1-CuA_2; fringe brown at apex and tornus, otherwise white. Venter blackish brown, paler brown distad; forewing with macules repeated from dorsum, that in CuA_2-2A more quadrate, extended, especially distad, by white scaling, elongate cream-colored macule anterior to discal cell macule in Sc-R_1 and R_1-R_2, this extending basad as sparse scaling to wing base in Sc-R_1, similar scaling in base of costal cell; hindwing with hyaline macules outlined with white; narrow white band with ill-defined margins from costa (where vague) posteriad (including hyaline macules) to vein 2A where broadest and hooked somewhat basad. Dorsum of head, thorax, and anterior abdomen blue-green, posterior abdomen

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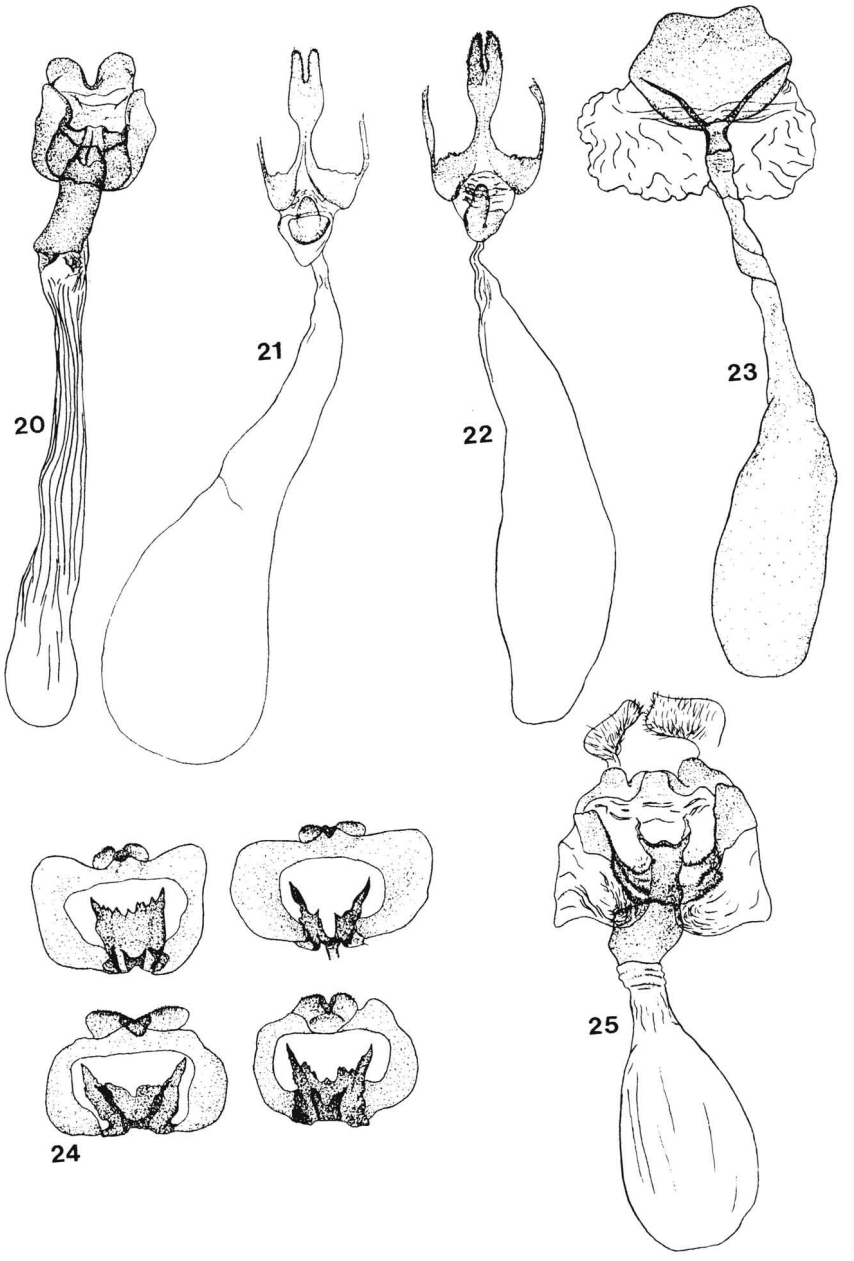
FIGS. 20–25. Genitalia (ventral view, including lamellae, antrum, ductus bursae, corpus bursae) of female Hesperiidae (all from GUATEMALA: Petén, unless noted). **20,** *Euphyes antra,* GTA Vial #6318. **21,** *Niconiades incomptus,* paratype, GTA Vial #5172. **22,** *Niconiades xanthaphes,* GTA Vial #3128, from BRAZIL: Rondônia. **23,** *Ridens allyni,* GTA Vial #5281. **24,** *Staphylus lenis,* GTA Vial #5298, #5290, #5300, #5301 (lamellae). **25,** *Aides brilla,* GTA Vial #5282 (including papillae anales).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dark brown; palpi blue-green above, whitish beneath and on cheeks; antenna black, vaguely white at base of club beneath, nudum dark gray with 17, 18 segments; pectus bright ochreous with green tinge; legs dark brown with some pale ochreous scaling, mid tibiae spined and with single pair of spurs, hind tibiae with two pairs of spurs; ventral abdomen whitish with very broad black median band. Genitalia: tegumen bulbous; uncus undivided, broad, blunt; gnathos slightly shorter than uncus, divided, pointed caudad, arms somewhat convergent; vinculum slightly sinuate; saccus short, upturned; valva broad, harpe stout, triangular, dorso-caudal margin with irregular fine serrations, produced to short tooth just after ampulla, ventral margin narrowly excavate, prominent "shelf" protruding mesad from upper inner surface; juxta as narrow band, ventral portion trifurcate cephalad, large cluster of bristles dorsad; aedeagus tubular, narrowing caudad to lateral prongs ventrad, left prong slightly longer than right; no cornutus. Female: forewing length 17.0, 18.8, 19.8 mm; similar to male; no brands; forewing discal cell macule less constricted in middle; forewing broader; hindwing termen less concave; antennal nudum with 18, 18, 19 segments. Genitalia: lamella postvaginalis not well developed; lamella antevaginalis with long central process extended caudad where bifurcate; ductus bursae and corpus bursae not clearly separable, gradually expanding to bulbous cephalad end.

Types. Holotype ♂ with the following labels: white, printed - GUATEMALA / Petén, El Remate / Cerro Cahui / 30 Sept. 1994 / leg. G. T. Austin; white, printed and handprinted - Genitalia Vial / GTA - 5171; red, printed - HOLOTYPE / *Niconiades incomptus* / Austin. Paratypes - same location as holotype, 29 Sept. 1994, leg. G. A. Orellana (1 ♂); 28 Sept. 1994, leg. G. T. Austin (1 ♀); 29 Sept. 1994, leg. G. T. Austin (1 ♀); Parque Nacional Tikal, 25 Mar. 1992, leg. N. M. Haddad (1 ♀); 26 Sept. 1992, leg. J. V. Orellana (1 ♀). The holotype and a female paratype will be deposited in the Entomological Collections at the Universidad del Valle, Guatemala City, Guatemala. *Type locality.* GUATEMALA: Petén; El Remate, Cerro Cahui. This is on the north shore of Lago Petén Itza with a mosiac of mature and second growth forests. Most of the types were taken along the forest edge.

Etymology. The name means "untrimmed" referring to the ventral hindwing white band without well-defined edges.

Distribution. The distribution of this species is currently unknown and some of the *Niconiades xanthaphes* Hübner, [1821] reported from Central America and elsewhere may refer to *N. incomptus*. A pair of *N. incomptus* was seen from the Atlantic Slope of Costa Rica (male from Limon Province, female from Heredia Province); another pair was seen from the vicinity of Candelaria, Oaxaca, Mexico. All reports of *N. xanthaphes* from Mexico south through Central America should be treated as suspect until the specimens are reexamined. Certainly, *N. incomptus* is more widespread than the records indicated above and is residing in collections among series of *N. xanthaphes*.

Diagnosis and discussion. This new species is most similar to *N. xanthaphes* which may be slightly smaller in size (male forewing length = 16.7 mm [15.9–17.9, n = 10], female forewing length = 16.6, 17.3, samples from Rondônia, Brazil). The forewing of *N. xanthaphes* (Figs. 8, 10) is stouter and less produced apically than on *N. incomptus* (Figs. 7, 9), the hindwing is broader and less concave with a shorter anal lobe, the ventral forewing has the macules anterior to the discal cell macule more distinct and pale yellow-orange, the hindwing band is broader, nearly the full width of the hyaline macules, and with margins sharply defined, and there is a narrow white streak along the distal 1/3 to 1/2 of vein 3A.

While *N. incomptus* is readily separable from *N. xanthaphes* by characters of the wings (Figs. 7–10), the genitalia of the two species are very similar. The male genitalia of *N. incomptus* do not appear separable from those of *N. xanthaphes* (Fig. 18); those illustrated by Godman and Salvin (1879–1901), Hayward (1951), and Evans (1955) could be of either species. The female genitalia are also very similar but the central process of the lamella antevaginalis on *N. incomptus* is less robust than on *N. xanthaphes* (Fig. 22). The forewing with brands illustrated by Godman and Salvin (1879–1901) appears to be *N. xanthaphes* based upon the more rounded and less produced apex; they may have seen both species as there is no mention of the white streak on the anal margin of the ventral hindwing. Hayward (1951) mentioned this character and undoubtedly saw *N. xanthaphes* from Argentina. Mielke (pers. comm.), in review of this manuscript, suggested that *N. incomp-*

tus was a northern subspecies of *N. xanthaphes*, but he indicated overlap between the two in Panama.

Aides brilla (Freeman, 1970)
(Figs. 5, 25)

A male from Tikal (16 Sept. 1993, leg. N. M. Haddad) is like the single previously reported specimen, the holotype male fom Catemaco, Veracruz, Mexico (Freeman 1970). An additional *Aides* from Tikal (29 Dec. 1992, leg. G. A. Orellana) is apparently the first known female *A. brilla*. The wings are more elongate than on the male (forewing length = 26.5 mm) and the dorsal color and pattern is virtually identical except the discal cell macule is further from the macule in CuA_1-CuA_2. The ventral forewing is similar to that of the male as is the color of the ventral hindwing. The silverly-white maculation of the ventral hindwing, however, differs. The large macule in CuA_2-2A is similar in shape but does not extend as far basad, there is no macule in the base of CuA_1-CuA_2, the discal cell macule is a small round spot, similar (slightly larger) spots occur in the middle of M_1-M_3 and submargin of M_3-CuA_1, and an additional oval macule is in the submargin of CuA_1-CuA_2. The genitalia of this female are illustrated.

PYRGINAE

Ridens allyni Freeman, 1979
(Fig. 23)

This species is known from Veracruz, Oaxaca, and Chiapas, Mexico (Freeman 1979). It is not uncommon in the Tikal region with records for 11 Mar. 1993, leg. G. A. Orellana (1 male), 13 July 1992, leg. G. A. Orellana (1 female), 18 July 1992, leg. G. A. Orellana (1 male), 23 Aug. 1993, leg. J. V. Orellana (1 female), and 25 Sept. 1992, leg. G. A. Orellana (1 male). The female genitalia are illustrated for the first time herein.

Nisoniades rubescens (Möschler, [1877])
(Fig. 19)

Eight male *Nisoniades* Hübner, 1819 from Tikal were identified as *N. rubescens* with the key in Evans (1953). These, however, exhibit two somewhat different configurations of the valvae, especially the right. One phenotype, represented by a single specimen (Fig. 19A), is that illustrated as *N. rubescens* by Evans (1953) or its putative synonym *Pellicia bromias* Godman & Salvin, [1894] illustrated by Godman & Salvin (1879–1901) and Hayward (1948). On this, the ampulla/costa of the right valva is broadly and evenly convex, the caudal end of the ampulla has a somewhat upward orientation, and the harpe is broadly rounded caudad. The harpe of the left valva is rather sharply bent. The remaining

seven individuals are of the second phenotype (Fig. 19B) and has not been previously illustrated. The costa/ampulla of the right valva is less evenly convex, the caudal end of the ampulla has more of a ventrad orientation, and the caudal end of the harpe is truncated to a long and narrow finger-like lobe. The harpe of the left valva is less sharply bent.

No superficial differences between the two could be detected. Both genitalic phenotypes have also been seen among specimens from Costa Rica. Examination of additional material (including females) and of the types of *N. rubescens* and its listed synonyms *P. bromias*, *Pellicia clara* Mabille & Boullet, [1917], *Pellicia nigra* Mabille & Boullet, [1917], and *Achlyodes triangulus* Mabille, 1897 are required to properly evaluate the observed variation; two species may be involved. Evans (1953) noted variation in the genitalia of *Nisoniades maura* (Mabille & Boullet, [1917]), *Nisoniades mimas* (Cramer, [1775]), and *Nisoniades ephora* (Herrich-Schäffer, 1870).

Cyclosemia leppa Evans, 1953
(Fig. 16)

This species is evidently known only from the holotype male from Bolivia and a female from Peru (Evans 1953). A single very worn male taken at Tikal on 4 Feb. 1992 by G. T. Austin represents a major range extension. Its genitalia are illustrated herein.

Staphylus lenis Steinhauser, 1989
(Figs. 6, 24)

This species is relatively common in the Tikal region with records for February and May through October. At the time of its description, *S. lenis* was known only from males taken in Quintana Roo, Mexico and in Trinidad (Steinhauser 1989). The female (forewing length = 12.4 mm [11.7–12.8 mm, N = 4]) is similar to females of other species of the *Staphylus mazans* (Reakirt, [1867]) group, especially *Staphylus ascalaphus* (Staudinger, 1875) and *Staphylus unicornis* Steinhauser and Austin, 1993. It differs from female *S. ascalaphus* (forewing length from Costa Rica = 12.9 mm [12.2–13.3 mm, N = 10]) by its smaller mean size and less prominent contrast between the brown ground color and the blackish bands on the dorsum. It differs from the slightly larger female *S. unicornis* (forewing length from Costa Rica = 12.7 mm [12.0–13.9 mm, N = 12]) by the absence of the lower hyaline macule in the forewing discal cell (this present on most *S. unicornis*). Two of four females of *S. lenis* lack a white macule in M_3-CuA_1; this is absent on most *S. ascalaphus* but present on nearly all *S. unicornis*.

The lamellae of the female genitalia of *S. lenis* are highly variable (Fig. 24) as also shown for *S. ascalaphus* and *S. unicornis* by Steinhauser

(1989) and Steinhauser and Austin (1993). Generally, the plate-like lamella postvaginalis of *S. lenis* has a roughly heart-shaped and heavily sclerotized central process (this varies in size and shape) on its caudal edge, flanked by usually oval membranous lobes (also variable in size) with microtrichia especially caudad. The lamella antevaginalis has a caudally excavate central plate with two large and caudally pointed lateral processes and central serrations; the depth of the central concavity and number of serrations varies. No other *S. mazans* group species examined have the prominent lateral processes of the lamella antevaginalis seen on *S. lenis* (Steinhauser 1989, Steinhauser & Austin 1993).

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LITERATURE CITED

AUSTIN, G. T., N. M. HADDAD, C. MÉNDEZ, T. D. SISK, D. D. MURPHY, A. E. LAUNER & P. R. EHRLICH. 1996. Annotated checklist of the butterflies of the Tikal National Park area of Guatemala. Trop. Lepid. 7:21–37.

BELL, E. L. 1931. A list of Hesperiidae from Barro Colorado Island, Canal Zone, and adjacent Panama, with description of a new species. J. New York Entomol. Soc. 39:81–108.

———. 1932. Hesperiidae (Lepidoptera, Rhopalocera) of the Roraima and Duida Expeditions, with descriptions of new species. Amer. Mus. Novit. 555:1–16.

BIENZANKO, C. M. & O. H. H. MIELKE. 1973. Contribuição ao estudo faunístico dos Hesperiidae Americanos. IV. Espécies do Rio Grande do Sul, Brasil, com notas taxonômicas e descrições de espécies novas (Lepidoptera). Acta Biol. Par., Curitiba 2:51–102.

BOISDUVAL, J. B. A. D. DE. 1870. Considerations sur des lépidoptères envoyés du Guatemala a M. de l'Orza. Rennes, Oberthür et fils. 100 pp.

BURNS, J. M. 1964. Evolution in skipper butterflies of the genus *Erynnis*. Univ. Calif. Publ. Entomol. 37:1–214.

———. 1990. *Amblyscirtes*: problems with species, species groups, the limits of the genus, and genus groups beyond—a look at what is wrong with the skipper classification of Evans (Hesperiidae). J. Lepid. Soc. 44:11–27.

DE LA MAZA E., J., A. WHITE L. & R. DE LA MAZA E. 1991. La fauna de mariposas de Mexico. Parte II. Hesperioidea (Lepidoptera: Rhopalocera). Rev. Soc. Mex. Lepid. 14:3–44.

EVANS, W. H. 1953. A catalogue of the American Hesperiidae in the British Museum

(Natural History). Part III (groups E, F, G) Pyrginae. Section 2. London: British Museum (Natural History). 246 pp.

———. 1955. A catalogue of the American Hesperiidae in the British Museum (Natural History). Part IV. Hesperiinae and Megathyminae. London: British Museum (Natural History). 499 pp.

FREEMAN, H. A. 1970. A new genus and eight new species of Mexican Hesperiidae (Lepidoptera). J. New York Entomol. Soc. 78:88–99.

———. 1979. Nine new species and seven new records of Mexican Hesperiidae. Bull. Allyn Mus. 52:1–12.

———. 1993. Notes on *Amblyscirtes* Scudder, with the description of two new subspecies (Insecta: Lepidoptera: Hesperiidae: Hesperiinae). Ann. Carnegie Mus. 62:341–350.

GIBBS, A. E. 1912. Butterflies from British Honduras and Guatemala. Proc. Entomol. Soc. London 1912(2):xiv–xlviii.

GODMAN, F. D. & O. SALVIN. 1879–1901. Biologia Centrali-Americana. Zoologia, Lepidoptera-Rhopalocera. London. 3 vols.

HAYWARD, K. J. 1948. Genera et species animalium argentinorum. Vol. 1: Insecta, Lepidoptera, Pyrrhopyginae et Pyrginae. Buenos Aires, G. Kraft Ltd. 389 pp.

———. 1951. Genera et species animalium argentinorum. Vol. 2: Insecta, Lepidoptera, Hesperinae. Buenos Aires, G. Kraft Ltd. 388 pp.

LINDSEY, A. W., E. L. BELL & R. C. WILLIAMS. 1931. The Hesperioidea of North America. J. Sci. Lab., Denison Univ. 26:1–142.

MACNEILL, C. D. 1964. The skippers of the genus *Hesperia* in western North America with special reference to California (Lepidoptera: Hesperiidae). Univ. Calif. Publ. Entomol. 35:1–221.

MIELKE, O. H. H. 1968. Contrabuição ao estudo faunístico dos <<Hesperiidae>> brasileiros I. Resultados de uma excursão à Foz do Iguaçu, Paraná, Brasil, com notas taxonômicas (Lepidoptera). Atas Soc. Biol. Rio de Janeiro 12:73–78.

———. 1972. As espécies Sul-Americanas do gênero *Euphyes* Scudder, 1872 (Lepidoptera: Hesperiidae). Bol. Univ. Fed. Parana, Zool. 5:175–222.

MILLER, L. D. 1970. Two new Mexican Hesperiidae. J. Lepid. Soc. 24:120–124.

———. 1985. A revision of the genus *Ebusus* Evans (Lepidoptera: Hesperiidae), with the description of a new subspecies from Mexico. Insecta Mundi 1:43–45.

MONROE, R. S. & L. D. MILLER. 1967. Report on a collection of Hesperiidae from Honduras. J. Lepid. Soc. 21:243–247.

SCUDDER, S. H. 1889. The butterflies of the eastern United States and Canada with special reference to New England. Vol. III. Cambridge, Massachusetts, published by the author, pp. 1775–1958 (plates 1–89).

STEINHAUSER, S. R. 1975. An annotated list of the Hesperiidae of El Salvador. Bull. Allyn Mus. 29:1–34.

———. 1981. A revision of the *proteus* group of the genus *Urbanus* Hubner. Lepidoptera: Hesperiidae. Bull. Allyn Mus. 62:1–41.

———. 1989. Taxonomic notes and descriptions of new taxa in the Neotropical Hesperiidae. Part I. Pyrginae. Bull. Allyn Mus. 127:1–70.

STEINHAUSER, S. R. & G. T. AUSTIN. 1993. New species of Hesperiidae from Costa Rica. Trop. Lepid. 4 (suppl. 2):12–20.

WILLIAMS, R. C., JR. & E. L. BELL. 1934. Studies in the American Hesperioidea. Paper IV (Lepidoptera). On the synonymy and the male genitalia of some species. Trans. Am. Entomol. Soc. 60:265–280.

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