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Three new *Paratrytone* species from Mexico (Hesperiidae: Lepidoptera)

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ABSTRACT. Three new *Paratrytone* species from relatively high elevations in the Mexican states of Coahuila, Guerrero and Oaxaca are described and illustrated.

KEY WORDS: Coahuila, Oaxaca, Guerrero, rostellum(a), flag, *Ochlodes*, vesica, ampulla, harpe.

There are several very closely related taxa from Mexico within the genus *Paratrytone* Godman, [1900], that appear to differ slightly from population to population. Often these may be known from one or two or at best a few specimens, frequently worn and tattered, and usually from more or less isolated, high altitude locations. Very occasionally an avid collector may visit such a location at the right time and come across a small series of recently eclosed specimens. When this happens, it is probably safe to treat such populations, if morphologically distinct from named taxa, as new species or subspecies; scattered residents of other similar locales may eventually prove to be identical, but for the present, I am limiting type series to individual specific local populations.

John Kemner happened to be in the right place at the right time on two occasions: once in Coahuila province near Saltillo and once in Oaxaca near Miahuatlan. On 4 August 1989, he collected a series of seven males and two females at a location 18 miles southeast of Saltillo and an elevation of 8000 feet above sea level; these are described below as a new species, followed by the description of a second new species from the Miahuatlan locality, collected by him on 31 August 1989, in a small series of four males and one female. Two males of a third new species were taken in November 1960, at Omilteme in the state of Guerrero by the late Dr. Tarsicio Escalante, along with four males and a female of what is probably the same species as the second new species described below, but not included in the type series.

Paratrytone kemneri, new species

Figures 1, 2 ♂ Holotype; 3, 4 ♀ Paratype;
11 ♂ Genitalia; 12 ♀ Genitalia

DESCRIPTION. MALE: Upperside: Forewing with prominent, narrow, black stigma

more or less continuous from behind fork of Cu_1 from cell to slightly basad of mid 2A. Ground color brown overlaid with rufous scales, heavily along costa and at wing base, becoming less dense apically and more ochreous in tornal area. Semi-hyaline spots as follows: three small subapical white spots, which may be minute in some specimens, in a straight line directed to about mid termen, in R_3 - R_4 , R_4 - R_5 and R_5 - M_1 ; a small, sometimes minute, white upper cell spot approximately behind the origin of R_2 ; a large, roughly triangular spot in Cu_1 - Cu_2 , its outer edge somewhat excavate and inner edge abutting the distal edge of the stigma; a small squarish spot in M_3 - Cu_1 , distad of and separate from the spot in Cu_1 - Cu_2 ; a medium sized, roughly quadrate spot in 1A-2A (I treat the trace of ancestral vein 1A in Cu_2 -2A as a vein rather than referring to an upper or lower spot in Cu_2 -2A) separate from the large spot in Cu_1 - Cu_2 and, like it, abutting the distal edge of the stigma. These last three spots are at least partially covered with ochreous scales, that in 1A-2A being almost entirely opaque ochreous. Fringes concolorous at apex, gradually becoming somewhat whitish at tornus.

Hindwing same brown as forewing, more or less densely covered with ochreous hair scales in the basal two thirds behind the radial sector and vein M_1 . There is a curving postdiscal band of poorly defined opaque ochreous spots, separated by the dark veins, extending from M_1 to Cu_2 , and often continued forward of M_1 as a minute spot in Rs - M_1 . Fringes mixed brown and whitish becoming mostly whitish at tornus.

Underside: Forewing rufous except behind cell and all but the terminal portion of the cubitus, where it is dull grey; the rufous color extends into the distal portion of Cu_1 - Cu_2 . The spots from above are repeated as semi-hyaline white spots, that in 1A-2A nearly obscured by opaque whitish scales forming a small, poorly defined, white patch, faintly extended along 2A toward the tornus. Fringes as above, not concolorous.

Hindwing evenly rufous, the postdiscal band faintly present as vague ochreous spots. Fringes as above, not concolorous.

Palpi quadrate, not at all flattened, grizzled black, whitish and very pale ochreous; third segment short, conical, almost completely concealed in hairs of second. Antennae reach slightly beyond mid costa; actual length from base to tip varies from 7.5 mm to 8.8 mm, averaging 8.18 mm in seven specimens (holotype 8.3 mm). Antennal club short and stout, its length about 0.3 times the total antenna length, varying from 0.27 to 0.32, and its width about 4 times the shaft thickness, varying from 3.8 to 4.2; the apiculus short, constricted at its beginning, its length 0.80 times the club thickness, varying from 0.71 to 0.93. Antennal shaft prominently checkered black and white or pale ochreous; club above black, ochreous on the sides, whitish beneath. Nudum rufous, varying from 5/7 to 6/8 or 7/7, averaging 13.57 segments in seven specimens (holotype 6/8). Head and thorax dark brown above with admixed whitish and ochreous hair scales. Abdomen dark brown above, pale ochreous to whitish beneath with dark brown median stripe. Legs dark brown, heavily overscaled rufous; mid and hind tibiae spined, mid tibiae with single pair of spurs, hind tibiae with two pairs.

Genitalia are of the general *Paratrytone* form, appearing nearly identical to the unnamed species so beautifully illustrated by Sohn in Burns, 1992 (figs. 19-21). Uncus very narrowly and rather shallowly bifurcate, extending caudad slightly beyond bifurcate gnathos whose arms meet or overlap terminally, and are connected by a central membrane. The valvae are symmetrical; minor departures from perfect symmetry appear to be individual variants, supporting no overall pattern. The dorsal projection of the harpe may be narrow and sharply pointed or relatively broad and bluntly pointed, its sloping dorso-caudal edge more or less serrate, its inner surface very faintly dentate; it projects slightly dorsad of the ampulla from which it may be narrowly but clearly separate or rather broadly overlapping; ampulla distally rounded but not projecting dorsad of the costa. Saccus rather short and narrow, its sides more parallel than tapered. Penis somewhat broadened distally and possessing a pair of very prominent, symmetrical, long, curving, sharply pointed, moveable, sclerotized dorsal processes at the distal end of the aedeagus, and articulated thereto by a narrow membranous hinge. There is relatively little consensus in the terminology of the lepidopteran phallus (penis to some, aedeagus to others). There is still less consensus concerning the various phallic decorations and

processes. Burns (1985:4), discussing *Wallengrenia* Berg, 1897, used the term "flag" to signify a two-layered hollow process, laterally and distally sclerotized, depending from a dorso-distal toothed prong of the aedeagus, which he redescribed (Burns, 1994:294) as a "pair of terminal, dependent, . . . cornuti" instead of "flags". In discussing *Paratrytone*, Burns (1992:10) refers to the "Two pairs of symmetric titillators [that] spring from the distal end of the aedeagus - one dorsally, one ventrally." It should be noted that the dorsal pair of these "titillators" are not fixed, but articulate with the aedeagus by a narrow membranous hinge, much like the hollow process of *Wallengrenia*, leading me to refer to them also as "flags". In contrast, the ventral pair do not articulate, but are firmly fixed, much like the rostellum of Roepke, 1938, whose term I use here to distinguish them from the moveable dorsal "flags". When the vesica is not everted, these "flags" are parallel, very narrowly separated or touching and, in lateral view, curved over the distal end of the aedeagus and pointed ventrad; when the vesica is everted, they are spread apart and divergent in dorsal view and point more caudad in lateral view. In addition to the "flags" there is a pair of fixed rostellum on the ventral surface of the aedeagus, consisting of two straight, slender, smooth, sharply pointed, parallel prongs, extending caudad to about the distal end of the aedeagus. There are some weakly sclerotized plates in the dorsal portion of the vesica near its attachment to the aedeagus, but nothing that can be reliably referred to as a cornutus. The exact configurations of both the vesica opening and that for the ductus ejaculatorius are indistinct. The transtilla is mostly membranous; the juxta well sclerotized but of simple form, its arms long and slender in lateral view.

FEMALE: Wing surfaces superficially similar to male but without stigma and lacking most of the ochreous scaling on the forewing semi-hyaline spots resulting in those spots being essentially white except for that in 1A-2A which is opaque ochreous; the hindwing fringes are somewhat whiter than in the male.

Palpi, head, thorax, abdomen and legs as male; antennal length varies from 7.6 mm to 8.2 mm in the two female paratypes; the club length varies from 0.29 to 0.31 times the total antennal length and its width from 4.0 to 4.2 times the shaft thickness; the apiculus length varies from 0.83 times the club thickness to equal to it; nudum varies from 6/7 to 6/8; in other respects the antennae are as the male.

Genitalia of the general *Paratrytone* form as illustrated by Sohn in Burns, 1992 (figs. 24,25). The lamella postvaginalis is rather shallowly excavate on its distal edge and well covered with microtrichia; in lateral view, prominently projecting ventrad behind the ostium bursae. The lamella antevaginalis, forming the ventral rim of the ostium bursae, is a narrow sclerotized ring or band connected latero-dorsally to a pair of longitudinal sclerotized bands which join it to the ends of the lamella postvaginalis. Between these longitudinal bands, and projecting ventrally from the membrane connecting them, is a central sclerotized ridge.

Wing Measurements: ♂ forewing 14 1/2 x 7 to 16 x 8 1/2 mm (holotype) averaging 15.50 x 7.86 mm for type series of seven ♂; ♀ forewing 15 1/2 x 8 to 16 1/2 x 8 1/2 mm averaging 16.00 x 8.25 mm for two ♀ paratypes.

TYPE MATERIAL: Holotype ♂, Mexico: Coahuila; 18 mi. SE of Saltillo, 8000' Elev., 4.viii.1989, John Kemner, bearing the following labels: hand printed white label, Mex: Coah: 18 mi. SE. Saltillo-4 Aug.1989 John Kemner-El. 8000'; printed and hand printed white label, Allyn Museum Photo No. 900105, 05A/7,8; printed and hand printed white label, Allyn Museum Acc. 1989-7; printed and hand printed red label, Holotype ♂ *Paratrytone kemneri* S.R. Steinhauser; printed and hand printed white label, Genit. Vial SRS-4458; printed and hand printed white label, SRS Database No. 636. There are six ♂ and two ♀ paratypes, same data as holotype. A single ♂ from Atizapan, D.F., Mexico and a ♀ from Pedregal, D. F., Mexico appear to be other examples of *kemneri*, but are not included in the type series. The holotype and paratypes are deposited in the collection of the Allyn Museum of Entomology.

DIAGNOSIS: *Paratrytone kemneri* is perhaps closest to *P. snowi pilza* (Evans, 1955), which Evans had placed in *Ochlodes* Scudder, 1872. I have examined the holotype of *pilza*, which is the specimen used by Godman & Salvin (Pl. 93, f. 19,20,21) to illustrate, rather inaccurately, *Ochlodes snowi* (Edwards, 1877), and from which the genitalia are

unfortunately missing. Its dorsal forewing spots in M_3 - Cu_1 and Cu_1 - Cu_2 are broad and overlapping unlike *kemneri*, and the spot in Cu_2 -2A extends fully across the space, whereas that in *kemneri* is absent in Cu_2 -1A. On the dorsal hindwing of *pilza*, the ochreous discal band is broader and more sharply defined than that of *kemneri*, and the dark distal border is narrower than the discal band, rather than broader as in *kemneri*. The Godman & Salvin figure (Pl. 93, f.19) is misleading in this respect. There is a rather prominent ochreous spot at the cell end of both surfaces of the hindwing of *pilza*, shown only in the ventral Godman & Salvin figure and not present at all in *kemneri*. The Godman & Salvin genitalia figure (Pl. 93, f.21) suggests that the rostellum of *pilza* are more widely spaced than in *kemneri*, but approximately the same length.

The differences between *kemneri* and the two new species described below are outlined in the diagnoses of those species. Other *Paratrytone* species which could be confused with *kemneri* are *polyclea* Godman, [1900] and *snowi*. The dorsal surface spots of *polyclea* are all white and its ventral surface ground color is a rather dark ochreous grey. The uncus of *polyclea*, very broad in dorsal view with its arms widely and shallowly separated, and its penis, with what is either two pairs of rostellum or a single pair attached to a bifurcate aedeagus, suggest that it possibly does not even belong in *Paratrytone*, but that problem will not be addressed here. The ground color, both above and below, of *snowi* is a much paler, more ochreous brown, its ventral hindwing postdiscal band is quite well marked and there is a pale ochreous cell-end spot. The penis "flags" of *snowi* are much shorter than in *kemneri* and do not extend distad of the aedeagus, and the rostellum are more widely separated. The sclerotized processes in the vesica of *snowi* are in the form of two rather prominent sclerotized, serrate ridges, unlike the simple plates of *kemneri*.

The remaining species in *Paratrytone*, *rhaxenor* Godman, [1900], *aphractioia* Dyar, 1914, *browni* Bell, 1959, and *decepta* L.D. & J.Y. Miller, 1972, are immediately distinguished by their prominent, usually sharply defined white or pale yellow under hindwing markings.

ETYMOLOGY: I am pleased to name this skipper for its discoverer, John Kemner, who found so many interesting new and scarce Hesperiid species in Mexico in his brief collecting career, unfortunately cut short by legal difficulties.

Paratrytone miahua, new species

Figures 5, 6 ♂ Holotype; 7, 8 ♀ Paratype;
13 ♂ Genitalia; 14 ♀ Genitalia

DESCRIPTION: MALE: Upperside: Forewing with prominent, narrow, grey stigma more or less continuous from behind fork of Cu_1 from cell to slightly basad of mid 2A and surrounded by black scales which, in a fresh specimen, may completely cover the stigma causing it to appear black. Ground color brown overlaid with ochreous scales, heavily along costa and at wing base, becoming less dense apically and in tornal area. Semi-hyaline spots as follows: three small subapical white spots in a straight line directed to slightly behind mid termen, in R_3 - R_4 , R_4 - R_5 and R_5 - M_1 ; a small triangular white upper cell spot approximately behind the origin of R_2 and often extending across the cell to the cubitus; a large rhomboid spot in Cu_1 - Cu_2 , its outer edge somewhat excavate and the forward part of its inner edge abutting the distal edge of the stigma (the entire inner edge of this spot may be more or less tinted ochreous); a small squarish spot in M_3 - Cu_1 , slightly larger than the subapical spots and distad of and separate from the spot in Cu_1 - Cu_2 ; a medium sized, roughly triangular spot in 1A-2A separate from the large spot in Cu_1 - Cu_2 and, like it, abutting the distal edge of the stigma. This last spot is opaque ochreous rather than semi-hyaline. Fringes concolorous at apex, gradually becoming somewhat whitish at tornus.

Hindwing same brown as forewing, more or less densely covered with ochreous hair scales in the basal two thirds behind the radial sector and vein M_1 . There is a curving postdiscal band of rather well defined opaque ochreous spots, separated by the dark veins

from M_1 to Cu_2 , the spots in M_1 - M_2 and M_2 - M_3 often conjoined, and a faint ochreous cell-end spot which may be concealed by the dense hair scales. Fringes mixed brown and whitish becoming mostly whitish at tornus.

Underside: Forewing reddish ochreous, approaching rufous, except behind cell and all but the distal portion of the cubitus, where it is dull grey; the ochreous color extends into the distal portion of Cu_1 - Cu_2 , and becomes more rufous along the basal half of the costa. The spots from above are repeated as semi-hyaline white spots, that in 1A-2A a large, quadrate, rather poorly defined opaque whitish spot, extended toward the tornus as white scaling along vein 2A. Fringes as above.

Hindwing reddish ochreous as forewing, becoming quite rufous in one paratype, the postdiscal band and cell-end spot present as usually vague ochreous spots. Fringes as above.

Palpi quadrate, not at all flattened, grizzled black, whitish and very pale ochreous; third segment short, conical, almost completely concealed in hairs of second. Antennae reach slightly beyond mid costa; actual length from base to tip varies from 9.3 mm to 10.5 mm, averaging 9.83 mm in four specimens (holotype 9.3 mm). Antennal club short and stout, its length about 0.26 times the total antenna length, varying from 0.23 to 0.28, and its width about 6 times the shaft thickness; the apiculus short, constricted at its beginning, its length 1.07 times the club thickness, varying from 0.86 to 1.17; nudum 4/8 (HT), 4/9 (3 PT). Antennal shaft prominently checkered black and white or pale ochreous; club above black, ochreous on the sides, whitish beneath. Head and thorax dark brown above with admixed whitish and ochreous hair scales. Abdomen dark brown above, pale ochreous to whitish beneath with dark brown median stripe. Legs dark brown, heavily overscaled dark ochreous; mid and hind tibiae spined, mid tibiae with single pair of spurs, hind tibiae with two pairs.

Genitalia are of the general *Paratrytone* form (see illustration by Sohn in Burns, 1992 (figs. 19-21)): Uncus very narrowly and rather shallowly bifurcate, extending caudad slightly beyond bifurcate gnathos whose arms meet or overlap terminally, and are connected by a central membrane. The valvae are symmetrical; minor departures from perfect symmetry appear to be individual variations. The dorsal projection of the harpe is rather broadly pointed, weakly dentate on its inner surface, prominently serrate on its dorso-distal margin and projecting dorsad beyond the rounded ampulla, which it may or may not overlap; the ventro-distal edge of the harpe is slightly concave rather than evenly rounded. Saccus rather short and narrow, its sides slightly tapered. Penis somewhat broadened distally and possessing a pair of very prominent, symmetrical, long, curving, sharply pointed "flags", hinged to the dorso-distal portion of the aedeagus. When the vesica is not everted, these "flags" are parallel, very narrowly separated or touching and, in lateral view, curved over the distal end of the aedeagus and pointed ventro-caudad; when the vesica is everted, they are spread apart and divergent in dorsal view and point more caudad in lateral view. In addition to these "flags" there is a pair of fixed rostellae on the ventral surface of the aedeagus, consisting of two long, slightly curved, slender, smooth, sharply pointed, somewhat divergent prongs, extending caudad well beyond the distal end of the aedeagus. There are some weakly sclerotized plates in the dorsal portion of the vesica near its attachment to the aedeagus, but no true cornutus. The exact configurations of both the vesica opening and that for the ductus ejaculatorius are indistinct. The transtilla is membranous; the juxta simple and well sclerotized, its arms long and slender in lateral view.

FEMALE: Upside: Wing surfaces superficially similar to male but without stigma. The forewing semi-hyaline spots are very slightly larger than in the male and, except for the more or less triangular ochreous spot in Cu_2 -2A, are completely white; the cell spot completely crosses the cell. The hindwing fringes are somewhat whiter than in the male and the ochreous cell-end spot and postdiscal spot band rather more prominent.

Underside: Generally as the male, but more rufous; the hindwing ochreous spots more prominent.

Palpi, head, thorax, abdomen and legs as male; antennal length 8.6 mm; the club length 0.25 times the total antennal length and its width 6.1 times the shaft thickness; the

apiculus length 1.02 times the club thickness; nudum count 4/8; in other respects the antennae are as the male.

Genitalia are essentially as described for *P. kemneri*, but slightly larger as would be expected for a larger insect. The lamella postvaginalis is slightly longer, and broader laterally than in *kemneri* and somewhat more deeply excavate. The lamella antevaginalis is broader laterally than in *kemneri*, and the mid dorsal ridge more pronounced. These differences are based on a very small sample ($n=1$ for *miahua* and $n=2$ for *kemneri*) and may be meaningless.

Wing Measurements: ♂ forewing 17 1/2 x 9 mm (holotype) to 18 x 8 1/2 and 18 x 9 mm, averaging 17.88 x 8.88 mm in the type series of four males; ♀ forewing 18 x 9 1/2 mm.

TYPE MATERIAL: Holotype ♂, Mexico: Oaxaca; 8 mi. S of Miahuatlan, 7200' Elev., 27.viii.1989, John Kemner, bearing the following labels: hand printed white label, Mex: Oaxaca: 8 mi. S. Miahuatlan-27 Aug. 1989 John Kemner-el. 7200'; printed and hand printed white label, Allyn Museum Photo No. 900105, 05A/11,12; printed and hand printed white label, Allyn Museum Photo No. 930818A-15,16; printed and hand printed white label, Allyn Museum Acc. 1989-7; printed and hand printed red label, Holotype ♂ *Paratrytone miahua* S.R. Steinhauser; printed and hand printed white label Genit. Vial SRS-4456; printed and hand printed white label, SRS Database No. 647. There are three ♂ and one ♀ paratypes, same data as holotype. The holotype and paratypes are deposited in the collection of the Allyn Museum of Entomology.

DIAGNOSIS: *P. miahua* differs superficially from *pilza* in having well separated rather than overlapping ventral forewing spots in M_3 - Cu_1 , Cu_1 - Cu_2 and Cu_2 -2A. The dorsal hindwing discal band of *miahua* is much narrower than in *pilza*, and much narrower than the dark distal border in *miahua*, but much wider in *pilza*. The prominent hindwing cell-end spot of *pilza* is missing from the ventral surface in *miahua*, and barely visible on the dorsal surface. The genitalic differences, based on the Godman & Salvin figure, are primarily in the rostellum, which extend distad well beyond the aedeagus in *miahua* but subequal to it in *pilza*. It differs from *kemneri* by its larger size, presence of at least a trace of a cell-end spot on the dorsal hindwing, grey centered stigma, more ochreous underside color, larger under forewing spot in Cu_2 -2A, and most importantly in the male genitalia. The principal male genitalic differences between *miahua* and *kemneri* are in the penis. The rostellum of *miahua* are long, extending appreciably further distad than the aedeagus rather than subequal to it as in *kemneri* and *pilza*, and are slightly curved rather than straight, divergent rather than parallel and much wider apart at their commencement. Other more minor differences are a slightly tapered saccus in *miahua* rather than parallel sided, the shape of the valva, more evenly rounded ventro-caudally in *kemneri*, and the serration of the dorsal harpe process, much more prominent in *miahua*. The female genitalia offer no characters, apart from size, for separation of *miahua* and *kemneri*.

P. snowi and *P. polyclea* are easily distinguished from *miahua* by the male genitalic characters mentioned above in the discussion of *kemneri*. There is no possibility of confusion between *miahua* and the remaining described species of *Paratrytone* which all have prominent, usually sharply defined underside hindwing pale markings.

ETYMOLOGY: *miahua* is a meaningless combination of letters based on the name of its type locality, Miahuatlan, in the state of Oaxaca, Mexico.

Paratrytone olmitemensis, new species

Figures 9,10 ♂ Holotype; 15 ♂ Genitalia

DESCRIPTION: MALE: Upperside: Forewing dark brown, some bronzy reflection in basal area; basal half of costal cell overscaled fulvous. Prominent, slightly curved, tripartite dark grey stigma beginning at fork of Cu_1 from cell and extending to slightly basad of mid 2A, the lower portion of the hindmost segment velvety black. Six semi-hyaline white spots as follows: three small subapical spots in R_3 - R_4 to R_5 - M_1 , the lower spot slightly larger, in a line directed to slightly behind mid termen; a rather narrow oblique spot across the cell approximately behind the origin of R_2 ; a large, nearly rectangular spot

in Cu_1-Cu_2 , its inner edge about normal to the veins and behind the origin of Cu_1 ; a smaller, squarish spot in M_3-Cu_1 , well separated from the spot in Cu_1-Cu_2 . There is a small, isolated, triangular opaque ochreous spot in 1A-2A, its outer edge more or less behind the inner edge of the spot in Cu_1-Cu_2 . Fringe concolorous, but with admixed whitish scales at tornus.

Hindwing same dark brown as forewing. Opaque ochreous spots as follows: obscure cell spot near but not at cell end; row of four postdiscal spots, elongate in M_1-M_2 and M_2-M_3 , where they are nearly conjoined and in Cu_1-Cu_2 , small and quadrate in M_3-Cu_1 , its outer edge even with outer edge of spots on either side. There may be a faint suggestion of a fifth spot in Cu_2-1A . Basal portion of wing clothed in long hair scales, concolorous with the underlying surface except for a narrow streak of slightly whitish brown along vein 2A, nearly reaching the tornus. Fringe concolorous from apex to M_1 , becoming progressively more whitish toward tornus.

Underside: Forewing a paler warm brown than above, becoming somewhat ochreous in the costal cell; concolorous with the upper surface in and behind cell and behind all but the distal portion of the cubitus. The spots from above are repeated as semi-hyaline white spots, that in 1A-2A opaque and extended somewhat toward the tornus. Fringes concolorous.

Hindwing similar warm brown as forewing, but slightly rufous in basal three fourths of wing and in the anal cell, the reddish color more or less obscured by scattered whitish scales. The spots from above are very faintly suggested, if visible at all, but there is a relatively prominent though poorly defined darker brown band, with no whitish superscaling, from the apex to mid vein 1A. Between 1A and 3A the color is blackish brown with a more or less prominent streak of whitish scales behind 2A. Fringes brown.

Palpi quadrate, not at all flattened, covered with admixed pale brown, brown and blackish hair scales; third segment short, conical, almost completely concealed in hairs of second. Antennae reach slightly beyond mid costa; actual length from base to tip varies from 9.9 mm (holotype) to 10.5 mm. Antennal club short and stout, its length about 0.26 times the total antenna length, and its width about 4.5 times the shaft thickness; the apiculus short, constricted at its beginning, its length about 1.3 times the club thickness; nudum 4/8 (HT & PT). Antennal shaft plain dark brown above, obscurely checkered brown and buff beneath; club above dark brown, buff beneath with some central dark scaling. Head and thorax dark brown above. Abdomen dark brown above, very slightly paler beneath; valvae with external whitish scales. Legs brown; mid and hind tibiae spined, mid tibiae with single pair of spurs, hind tibiae with two pairs.

Genitalia are of the general *Paratrytone* form (see illustration by Sohn in Burns, 1992 (figs. 19-21)): Uncus very narrowly and rather deeply bifurcate, extending caudad well beyond bifurcate gnathos whose arms meet terminally, and are connected by a central membrane. The valvae are symmetrical; the dorsal projection of the harpe completely fused with the prominent, bluntly rounded, dorsally projecting ampulla, the suture projecting inward as a narrow flange. It is not clear which is harpe projection and which is ampulla, as the fusion is complete; the resulting process is not dentate. The ventro-distal edge of the harpe is smoothly rounded, its distal apex bluntly angled. Saccus moderately long and narrow, its sides not tapered. Penis very slightly broadened distally and possessing a pair of prominent, symmetrical, long, curving, bluntly pointed "flags". When the vesica is everted, these "flags" are distally convergent, very narrowly separated or touching distally, and, in lateral view, curved only slightly over the distal end of the aedeagus and pointed caudad. It should be noted, however that this "flag" attitude may result from distortion in dissection. The "flags" are positioned more distad of the penis tube than in other *Paratrytone* species, more nearly resembling basally located cornuti. The unevverted vesica was not observed. The fixed rostellum on the ventral surface of the aedeagus, found in other *Paratrytone* species, are not developed, or have been nearly lost, here consisting of faint ridges at the distal end of the aedeagus, which is somewhat hollowed distally on its ventral surface. The penis has a clockwise twist of about 15 to 20 degrees, making it difficult to determine which view is exactly lateral, dorsal or ventral. There is no true cornutus. The exact configuration of the vesica opening is indistinct. The

transtilla is membranous; the juxta simple and well sclerotized, its arms long and slender, in both lateral and ventral view.

FEMALE: Unknown.

Wing Measurements: ♂ forewing 20 x 9 1/2 mm (holotype and paratype).

TYPE MATERIAL: Holotype ♂, Mexico: Guerrero; Omilteme, xi.1960 leg T. Escalante, bearing the following labels: printed and hand printed white label, T. Escalante/Omilteme/ Gro. XI-60; printed and hand printed white label, Genitalia Vial No. M-3589 ♂ Lee D. Miller; printed white label, A.C. Allyn Acc. 1973-48; printed and hand printed white label, Genit. Vial SRS-3377 File No.; printed and hand printed red label, Holotype ♂ Paratrytone omiltemensis S.R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No. 930921-19,20. There is one ♂ paratype, same data as holotype. The holotype and paratype are deposited in the collection of the Allyn Museum of Entomology.

DIAGNOSIS: *P. omiltemensis* apparently is not very closely related to any other *Paratrytone* species. The male genitalia of *omiltemensis* differ from other known *Paratrytone* species in their more deeply bifurcate uncus arms, fused harpe and ampulla and the lack of fully developed rostellum in the penis. Superficially it is immediately recognized by the blurred, but distinctive underside hindwing dark band from apex to mid vein 1A.

ETYMOLOGY: *omiltemensis* is named for its type locality, Omilteme, in the state of Guerrero, Mexico.

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Literature Cited

- Bell, E. L.**, 1959. Descriptions of some new species of Neotropical Hesperidae (Lepidoptera, Rhopalocera), American Mus. Novit., (New York), 1962:16pp.
- Burns, J. M.**, 1985. *Wallengrenia otho* and *W. egeremet* in Eastern North America (Lepidoptera: Hesperidae: Hesperinae). Smithsonian Contrib. Zool. 423:iii + 39 pp., 4 tables, 66 f.
- , 1992. Genitalic recasting of *Poanes* and *Paratrytone* (Hesperidae). J. Lepid. Soc. (Los Angeles) 46(1):1-23.
- , 1994. Genitalia at the Generic Level: *Atrytone* Restricted, *Anatrytone* Resurrected, New Genus *Quasimellana* - and Yes! We Have no *Mellanas* (Hesperidae). J. Lepid. Soc. (Los Angeles) 48(4):273-337.
- Dyar, H. G.**, 1914. Descriptions of new species and genera of Lepidoptera from Mexico. Proc. U.S. Natn. Mus. 47(2054):365-409.
- Edwards, W. H.**, 1877. Description of a new species of *Pamphila* from Colorado. Can. Ent. 9(2):29-30.
- Evans, W. H.**, 1955. A catalogue of the American Hesperidae in the British Museum (Natural History) IV. Hesperinae and Megathyminae. London. 499 pp., Pls. 54-88.
- Godman F. C.** and O. Salvin., 1879-1901. Biologia Centrali-Americana. Zoology: Insecta. Lepidoptera. London: Taylor & Francis. 3 V.
- Miller, L.D. & J.Y. Miller**, 1972. New high-altitude Hesperinae from Mexico and Ecuador (Hesperidae). Bull. Allyn Mus. 7:9pp.
- Roepke, W.**, 1938. *Rhopalocera javanica* (Derde Gedeelte). Geïllustreerd overzicht de Dagvlinders van Java Fam. Nymphalidae. Wageningen, Fonds Landb. Export Bur. 1916-18 Publ. No. 22 1938 pp. 235-362, 11 pls., 24 figs.
- Scudder, S. H.**, 1872. A systematic revision of some of the North American butterflies.... 4th Ann. Rept. Peabody Acad. Sci. (1871):24-83.

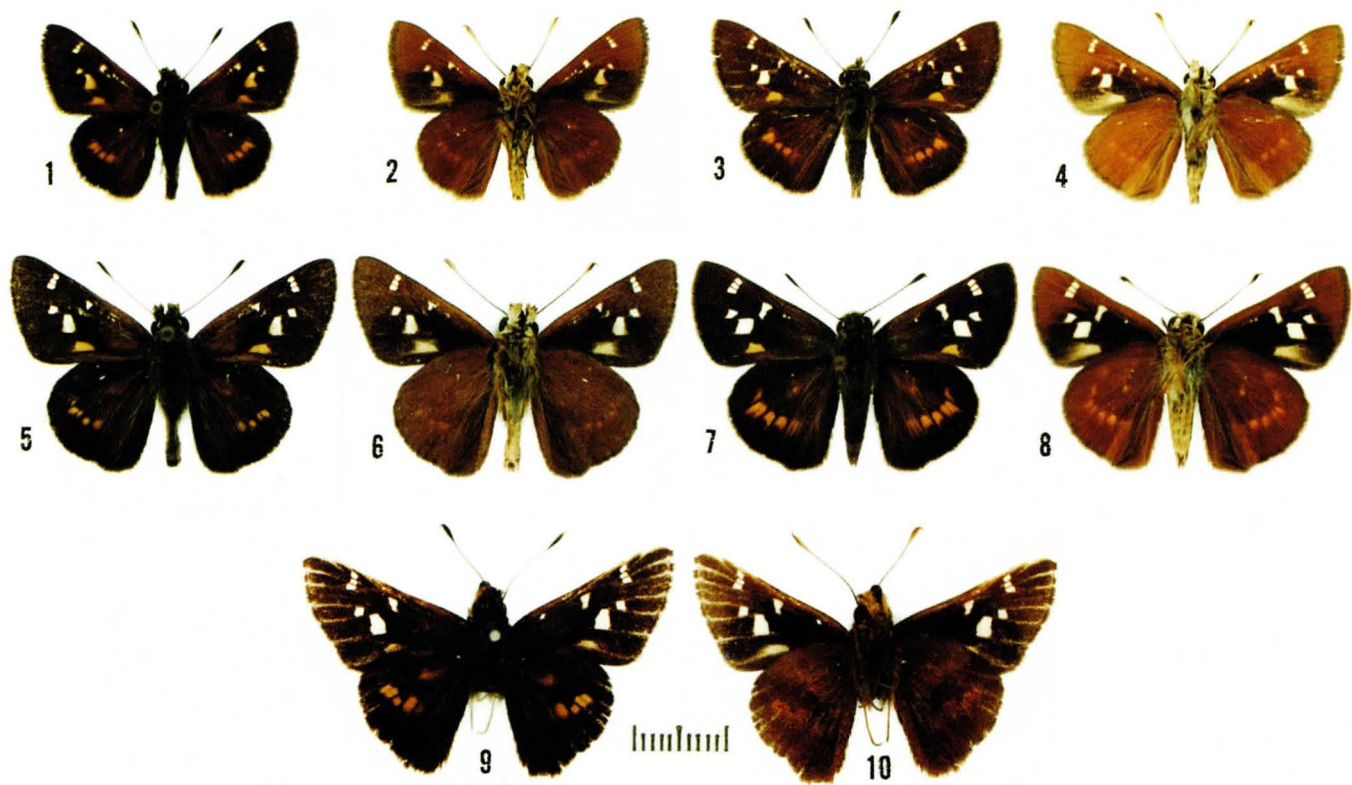


Fig. 1-10. *Paratrytone* species: 1) *P. kemneri* Steinhauser, Holotype ♂ - dorsal; 2) ditto - ventral; 3) *P. kemneri* Paratype ♀ - dorsal; 4) ditto - ventral; 5) *P. miahua* Steinhauser, Holotype ♂ - dorsal; 6) ditto - ventral; 7) *P. miahua* Paratype ♀ - dorsal; 8) ditto - ventral; 9) *P. olmitensis* Steinhauser, Holotype ♂ - dorsal; 10) ditto - ventral.

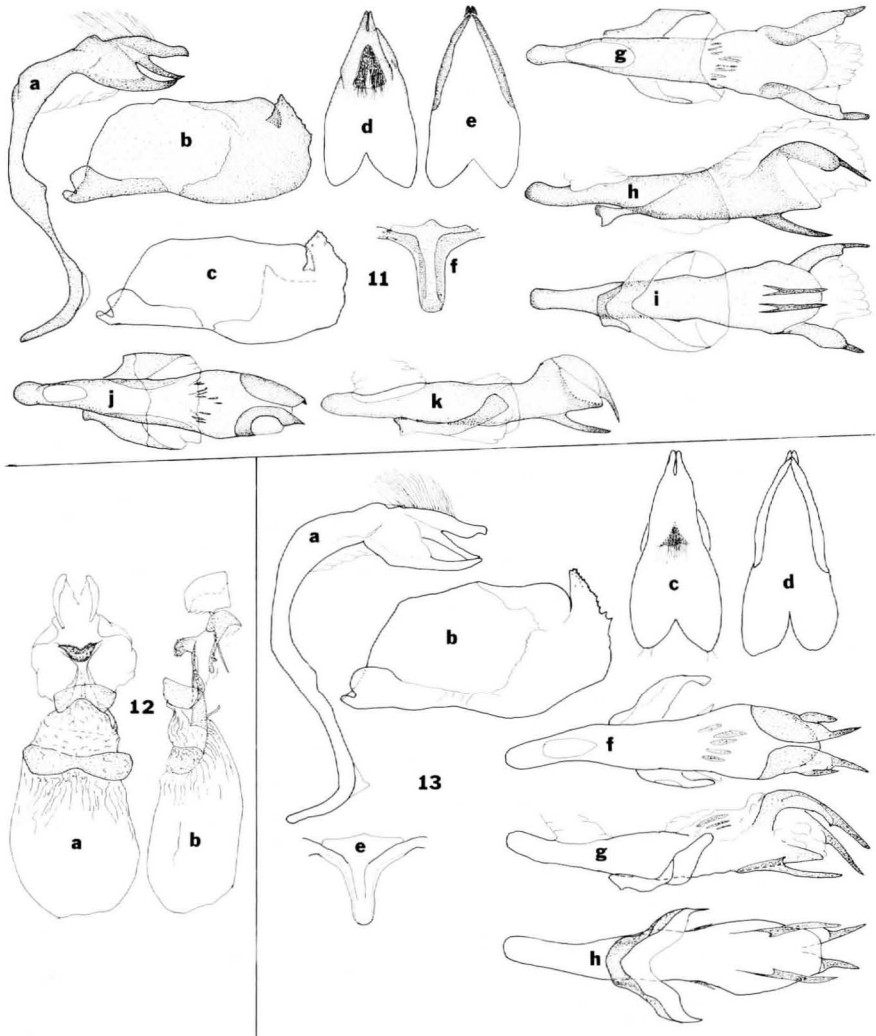


Fig. 11-13. *Paratrytone* species genitalia: 11) *P. kemneri* ♂ : 11a) Holotype ♂ , tegumen, uncus, gnathos, vinculum, etc. - lateral; 11b) Holotype ♂ , right valva - interior; 11c) Paratype ♂ , right valva - interior; 11d) Holotype ♂ , uncus, tegumen - dorsal; 11e) Holotype ♂ uncus, gnathos, tegumen - ventral; 11f) Holotype ♂ , saccus - ventral; 11g) Holotype ♂ , juxta and penis (vesica extruded) - dorsal; 11h) ditto - lateral; 11i) ditto - ventral; 11j) Paratype ♂ , juxta and penis (vesica not extruded) - dorsal; 11k) ditto - lateral; 12) *P. kemneri* Paratype ♀; 12a) ventral; 12b) lateral; 13) *P. miahua* Paratype ♂ : 13a) tegumen, uncus, gnathos, vinculum, etc. - lateral; 13b) right valva - interior; 13c) uncus, tegumen - dorsal; 13d) uncus, gnathos, tegumen - ventral; 13e) saccus - ventral; 13f) juxta and penis (vesica not extruded) - dorsal; 13g) ditto - lateral; 13h) ditto - ventral.

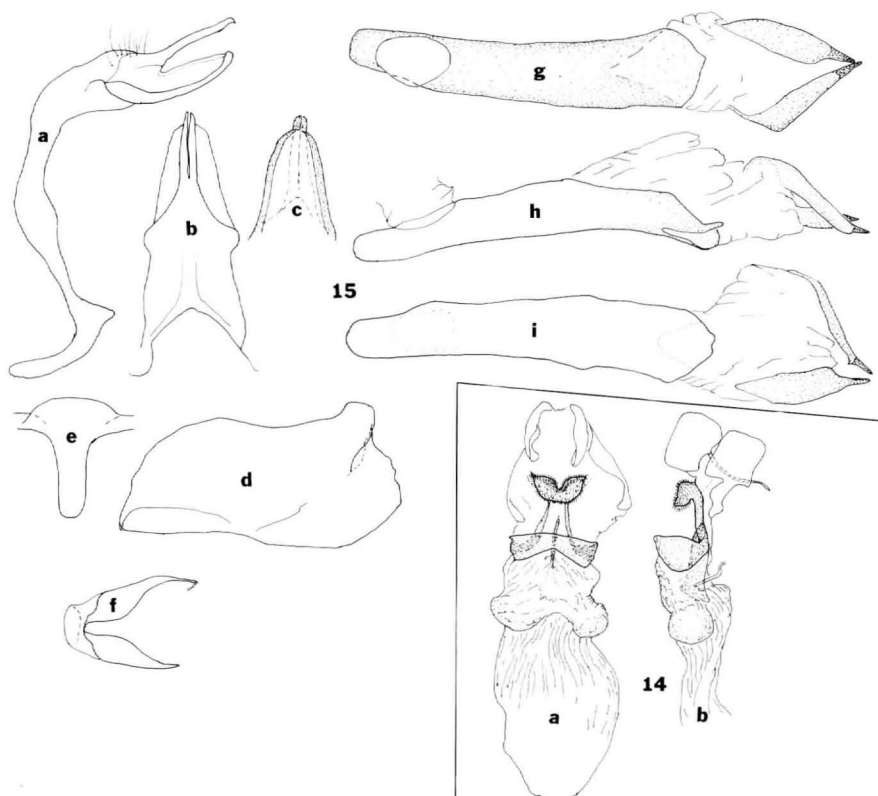


Fig. 14, 15. *Paratrytone* species genitalia: 14) *P. miahua* paratype ♀; 14a ventral; 14b lateral; 15) *P. olmitemensis* Holotype ♂; 15a) tegumen, uncus, gnathos, vinculum, etc. - lateral; 15b) tegumen, uncus, gnathos - dorsal; 15c) uncus, gnathos - ventral; 15d) right valva - interior; 15e) saccus - ventral; 15f) juxta - ventral; 15g) penis (vesica extruded) - dorsal; 15h) ditto - lateral; 15i) ditto - ventral.