

**PSEUDODREPHALYS: A NEW GENUS COMPRISING THREE
SHOWY, NEOTROPICAL SPECIES (ONE NEW) REMOVED
FROM—AND QUITE REMOTE FROM—DREPHALYS
(HESPERIIDAE: PYRGINAE)**

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ABSTRACT. *Drephalys* is polyphyletic: it includes morphologic misfits (closely related to each other) that share nothing but showy color patterns with some real *Drephalys* species. The convergence may involve mimicry. Removed from *Drephalys*, the **new genus** *Pseudodrephalys* has highly distinctive genitalia, marked most of all by an enormous, dentate hook on the valva of the male and by deep notches (perhaps unique among hesperiids) in the ovipositor lobes of the female. Palpi, antennae, and male secondary sex characters of *Pseudodrephalys* differ greatly from those of *Drephalys*. The metatibial tufts of *Pseudodrephalys* males (lacking in males of *Drephalys* and its relatives) are extraordinary because the scales start out hairlike (and pale) but then broaden (and darken) instead of coming to a point. While *Drephalys* rightfully goes in the middle of Evans's B Group of pyrgine hesperiids, *Pseudodrephalys* belongs in Evans's E Group. The three species of *Pseudodrephalys* are *P. atinas* (Mabille), **new combination** (type species), *P. hypargus* (Mabille), **new combination**, and *P. sohni*, **new species** (known from one male that Evans treated as the male of *Drephalys hypargus*). *Pseudodrephalys* is recorded from southern Venezuela, Guyana, French Guiana, Brazil (Amazonas, Pará, Mato Grosso, Rondônia), and eastern Peru.

Additional key words: genitalia (male and female), ovipositor lobes (with deep notches), metatibial tufts (whose hairs widen), palpi, mimicry.

Things are seldom what they seem. That may be more true in skipper systematics than it is in Gilbert and Sullivan's *H.M.S. Pinafore*. Consider, for example, my reassessment of several nonadjacent genera in Evans's 36-genus sequence of **M** or **Hesperia Group** hesperiines:

Evans 1955	Burns 1994a, 1994b
M.7 <i>Yvretta</i>	<i>Polites</i>
	syn. <i>Yvretta</i>
M.13 <i>Polites</i>	syn. <i>Poanopsis</i>
M.17 <i>Atrytone</i>	<i>Atrytone</i>
syn. <i>Anatrytone</i>	<i>Anatrytone</i>
M.21 <i>Poanopsis</i>	syn. <i>Mellana</i>
M.25 <i>Mellana</i>	<i>Quasimellana</i> n. gen.

Here are various kinds of major changes, all of them justified primarily on genitalic grounds.

Now consider *Drephalys*. When an *Epargyreus*-like skipper that was reared in Guanacaste, Costa Rica, struck me as an odd species of *Drephalys*, I looked into this genus of large, showy, neotropical pyrgines so as to describe the new Costa Rican species comparatively, in an evo-

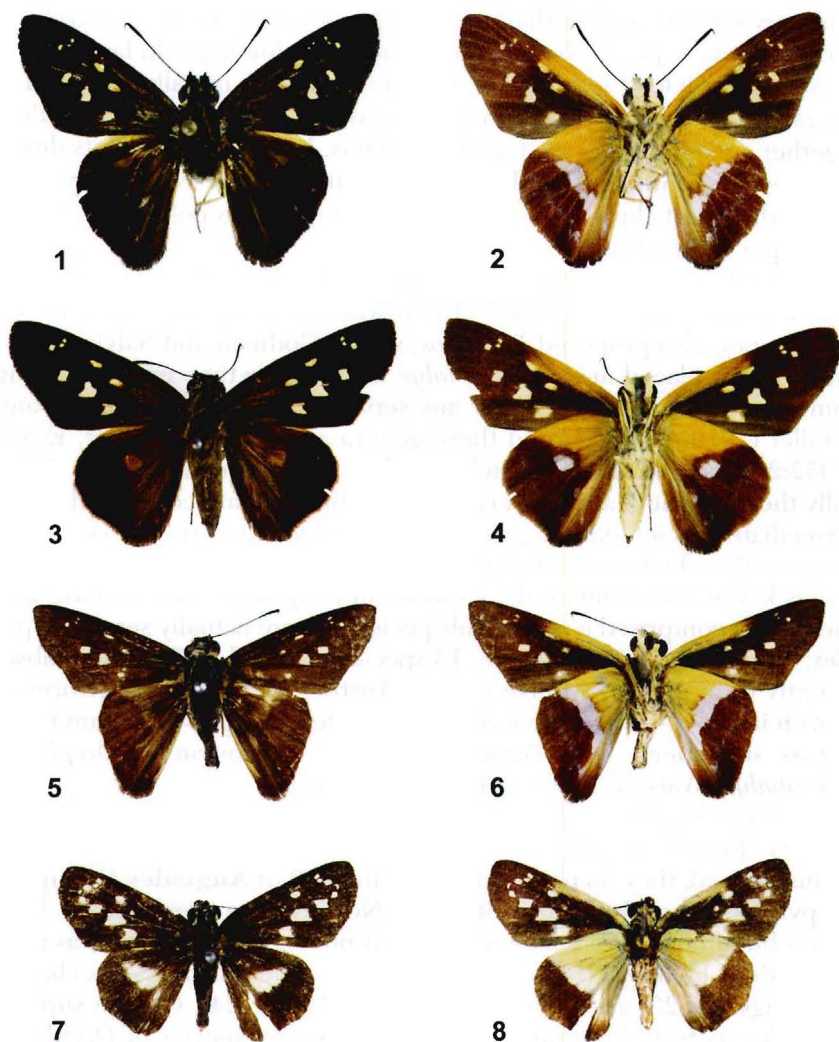
lutionary context, rather than in splendid isolation (Burns & Janzen in press). Because Janzen had had no difficulty in finding wild larvae from which to rear a long series of the new species, I was initially surprised at the rarity of *Drephalys* adults in collections. Then, after gradually pulling together a modest cross section of this genus, I was surprised at its diversity (several more undescribed species), its internal complexity (two widely divergent clusters of species), and, above all, its polyphyly—which this paper will rectify.

A capsule taxonomic history is in order. *Drephalys* was proposed just over a century ago by Watson (1893) who, eleven genera later in the same paper, also proposed *Paradros*, which Godman and Salvin (1894) immediately placed next to *Drephalys*, at the same time even admitting some doubt about the need for any separation. Although Mabilie and Boulet (1919) still regarded these genera as close but distinct, Evans (1952:23) merged them—which is right—and commented that “Typically these 2 genera appear very different, but they are connected by intermediate species *and the genitalia conform to a general pattern*” [italics added]—which, in light of the various species he included, is wrong. Evans keyed and numbered 13 species in *Drephalys*; but, because 2 of them each comprised a pair of subspecies that are actually separate species, he dealt with 15. Of these, 13 species—as well as 5 species subsequently described by Mielke (1968), Austin (1995), and me (Burns & Janzen in press)—form two well-differentiated groups which I am treating as subgenera, with *Paradros* Watson a synonym of *Drephalys* (*Drephalys*) Watson (Burns & Janzen in press).

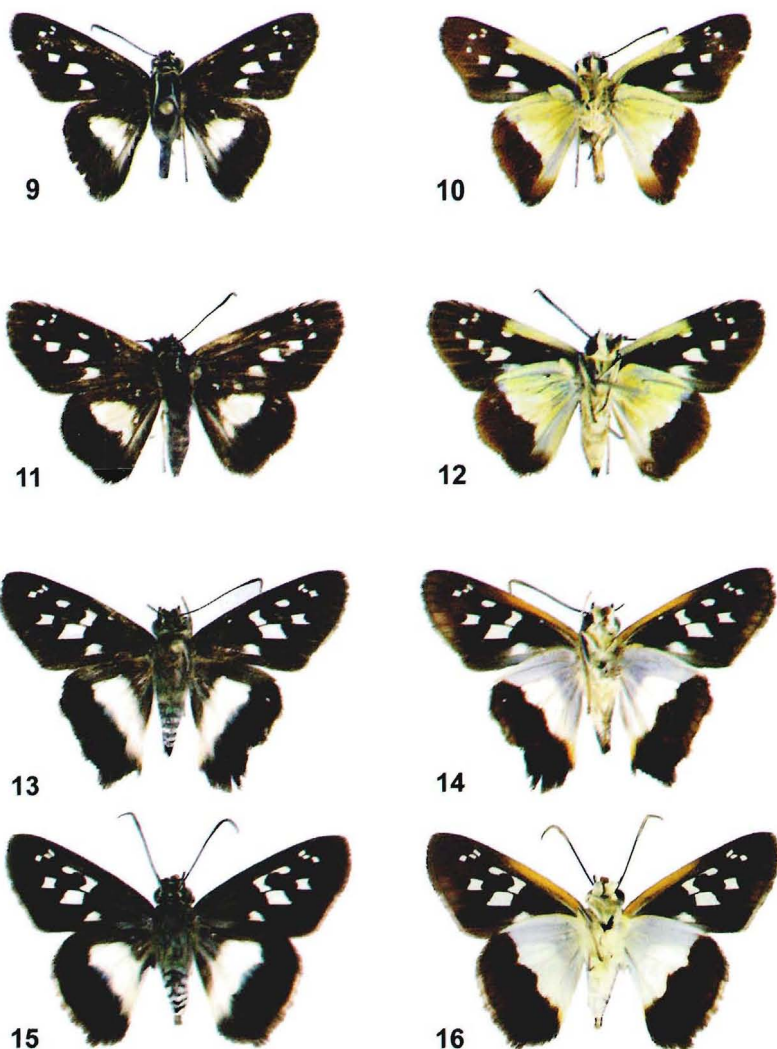
However, Evans’s (1952) seventh species (Figs. 1–4) and thirteenth species (Figs. 7–12) of *Drephalys* have nothing at all to do with this genus; indeed, they do not even belong in his **B** or **Augiades Group** (of 11 pyrgine genera) which contains it. Not just their genitalia (in both sexes) but other, more readily visible, morphologic features such as their palpi (Figs. 17, 18) and their odor-releasing, male secondary sex characters (Figs. 21–23) are clearly wrong (Figs. 19, 20, 24). Only in superficial color pattern do these misfits suggest certain species of *Drephalys* (e.g., Figs. 13–16).

Though intrasubfamilial in this case, such resemblances between showy, unrelated skippers are reminiscent of intersubfamilial resemblances involving, for instance, various pyrrhopygine genera and the pyrgine genus *Phocides* or the pyrrhopygine genus *Sarbia* and the hesperiine genus *Pseudosarbia*. Especially in light of the sympatry of *Drephalys*/non-*Drephalys* look-alikes, their convergence may involve mimicry.

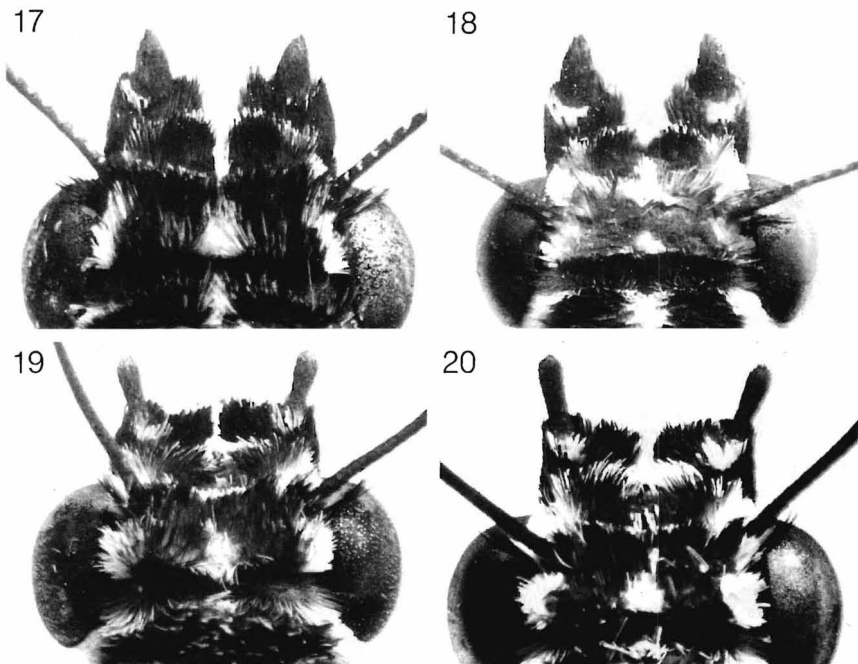
Evans’s (1952) treatment of his thirteenth species of *Drephalys* is longer than any other because he itemizes a number of differences in color pattern between the 1 male and 3 females in the BMNH collec-



Figs. 1–8. The species (and type specimens) of *Pseudodrephalys* in dorsal (odd-numbered) and ventral (even-numbered) views ($\times 1\frac{1}{4}$). 1, 2, *Pseudodrephalys atinas* ♂, PERU, Madre de Dios, Parque Manu, Pakitza, $11^{\circ}55'48''\text{S}$, $71^{\circ}15'18''\text{W}$, 340 m, 10 October 1991, M. Casagrande (unnumbered genitalic dissection by Mielke in 1992) (MUSM). 3, 4, *Pseudodrephalys atinas* ♀, holotype, PERU, Pebas, Hahnel (later, J. M. Burns genitalic dissection no. X-4409) (ZMHB). 5, 6, *Pseudodrephalys sohni* ♂, holotype, BRAZIL, Amazonas, Manaus (J. M. Burns genitalic dissection no. X-4331 of material previously dissected dry by Evans) (BMNH). 7, 8, *Pseudodrephalys hypargus* ♀, holotype, BRAZIL, Manaus, 1886, Hahnel (later, J. M. Burns genitalic dissection no. X-4408) (ZMHB).



Figs. 9–16. The superficially similar but unrelated species *Pseudodrephalys hypargus* and *Drephalys alcmon* in dorsal (odd-numbered) and ventral (even-numbered) views ($\times 1.3$). **9, 10**, *Pseudodrephalys hypargus* ♂, BRAZIL, Mato Grosso, Diamantino, Alto Rio Arinos, $14^{\circ}13'S$, $56^{\circ}12'W$, 350–400 m, 17 March 1991, E. Furtado (later, J. M. Burns genitalic dissection no. X-4406) (USNM). **11, 12**, *Pseudodrephalys hypargus* ♀, PERU, Madre de Dios, Parque Manu, Pakitza, $11^{\circ}53'S$, $70^{\circ}58'W$, 400 m, 21 October 1990, G. Lamas (later, J. M. Burns genitalic dissection no. X-4407) (MUSM). **13, 14**, *Drephalys alcmon* ♂, BRAZIL, Mato Grosso, Diamantino, Alto Rio Arinos, $14^{\circ}13'S$, $56^{\circ}12'W$, 350–400 m, 6 April 1991, E. Furtado (USNM). **15, 16**, *Drephalys alcmon* ♀, PANAMA, Canal Zone, La Pita, 15 June 1963, G. B. Small (USNM).



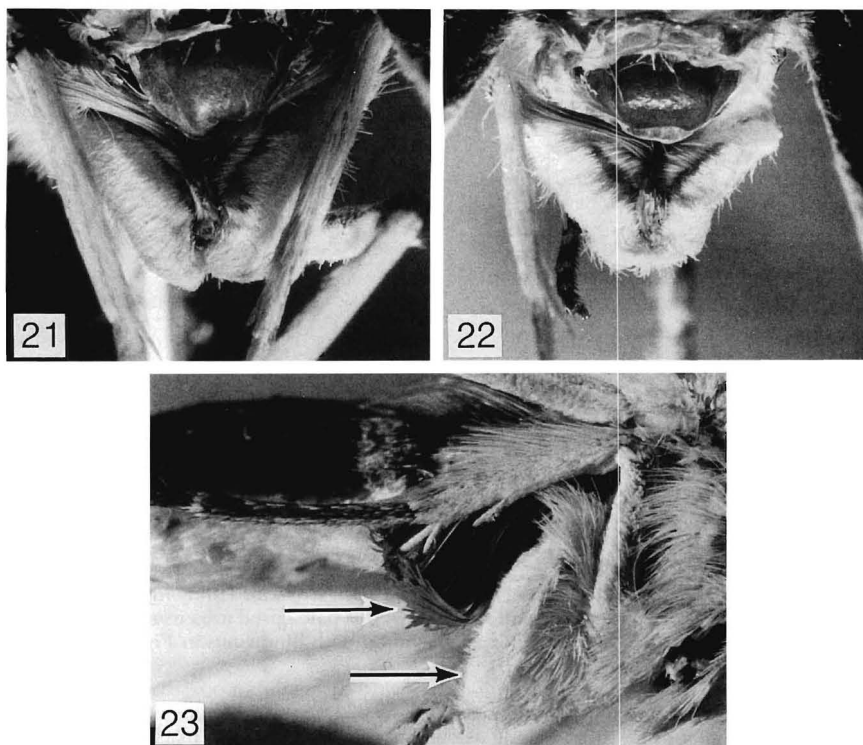
Figs. 17–20. Major differences between palpi of *Pseudodrephalys* and *Drephalys* in dorsal view: third segment centered on second segment and tapered to a fat point versus third segment shifted laterad and slightly swollen to a rounded end. **17**, *Pseudodrephalys atinas* ♂, PERU (same specimen as in Figs. 1, 2). **18**, *Pseudodrephalys hypargus* ♂, PERU, 30 km SW Puerto Maldonado, 300 m, 24 October 1983, S. S. Nicolay (S. S. Nicolay genital dissection no. H816) (USNM). **19**, *Drephalys alcmon* ♂, PANAMA, Canal Zone, Cololi, 2 December 1962 (J. M. Burns genitalic dissection no. X-3446) (USNM). **20**, *Drephalys alcmon* ♀, COSTA RICA, Area de Conservación Guanacaste, Puesto de Almendros, 10 July 1997, D. & J. Lindsley (USNM).

tion. But no such sexual dimorphism exists in this species: the male (Figs. 9, 10) resembles the female (Figs. 7, 8, 11, 12). Evans's male (Figs. 5, 6) is mismatched; it represents an undescribed species that goes with his two misfit species of *Drephalys* in a new and unrelated genus which, with a nod to the *Sarbia/Pseudosarbia* duo, I am calling *Pseudodrephalys*. Evans's caricature of the genitalia of this male (Evans 1952: pl. 12, fig. B.6.13) differs strikingly from those of true *Drephalys* males (Evans 1952: pls. 11, 12, figs. B.6.1–B.6.6, B.6.8, B.6.10–B.6.12).

Pseudodrephalys, new genus

(Figs. 1–12, 17, 18, 21–23, 25–37)

Description. Size. Smallish to medium-sized skippers, with (as usual) females averaging larger than conspecific males. Male (and female) forewing lengths in the three known species: 15.2 (15.9), 17.5 (?), and 19.0 (20.2) mm.



Figs. 21–23. Male secondary sex characters in *Pseudodrephalys*: metathoracic pouch and metatibial tufts. **21**, *Pseudodrephalys atinas*, abdomen removed, posterior view; hairlike scales of both tibial tufts enter anterior end of pouch, curve sharply caudad, and reemerge from posterior end of pouch with their widened ends projecting dorsad; PERU (same specimen as in Figs. 1, 2). **22**, *Pseudodrephalys hypargus*, abdomen removed, posterior view; hairlike scales of left tibial tuft enter anterior end of pouch, curve sharply caudad, and reemerge from posterior end of pouch with their widened ends projecting dorsad (right metathoracic leg missing); PERU, Madre de Dios, Parque Manu, Pakitzza, 11°55'48"S, 71°15'18"W, 340 m, 5 October 1991, M. Casagrande (J. M. Burns genitalic dissection no. X-4332) (MUSM). **23**, *Pseudodrephalys hypargus*, abdomen in place, right lateral view; upper arrow points to dark tibial tuft of hairlike scales that are distally widened and sharply curved dorsad but completely free of pouch; lower arrow points to pale outer edge of pouch; BRAZIL (same specimen as in Figs. 9, 10) (USNM).

Facies. Wings of females appreciably broader and rounder than those of conspecific males (commonly true in skippers): cf. Figs. 3, 4 with 1, 2; and Figs. 7, 8, 11, 12 with 9, 10. Color pattern of wings distinctive ventrally: proximal half of costal margin of forewing and proximal half of hindwing rich (orangy) yellow to pale yellow, with hindwing yellow area bordered distally by white band or spot; otherwise brown (Figs. 2, 4, 6, 8, 10, 12). Forewing with hyaline spots in spaces 1b, 2, 3 (in one species, also 4 [Figs. 7–12] and rarely 5 [Figs. 7, 8]), 6, 7, and 8, plus one or two hyaline spots in cell; forewing spots not in contact (except sometimes at apex). Position of cell spot(s) peculiar: one in anterior part of cell, under origin of vein 10 (always present, Figs. 1–12); and one in posterior part of cell, over spot in space 1b (sometimes absent, Figs. 9–12). Apical spots in spaces 7 and 8 in



Fig. 24. Male secondary sex characters in *Drephalys*: costal fold. Dorsal view of right forewing of *Drephalys alcmon*; BRAZIL (same specimen as in Figs. 13, 14).

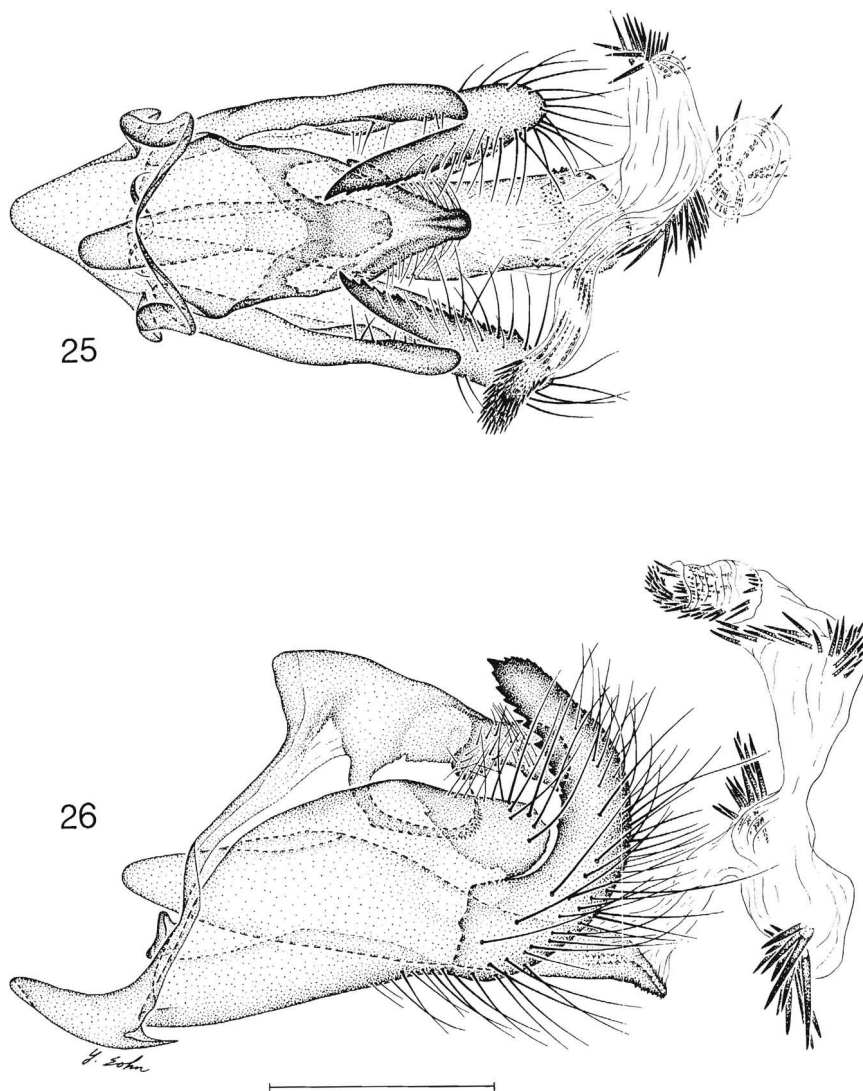
line, but that in space 6 shifted distad, toward apex (Figs. 1–12). Hindwing dorsally with space 8 light yellow or white (in spread specimens, this pale costal area usually tucked beneath forewing and hence hidden; but easily seen on both hindwings in Fig. 1 and barely seen, chiefly on left hindwing, in Fig. 3).

Antenna. Antenna about half as long as forewing costa; club modestly swollen, about one-quarter length of antenna from its base to start of apiculus; apiculus delicate, sharply reflexed, short, about one-third as long as club. Shaft dark brown to black, finely checkered anterodorsally with cream-colored scales. Number of nudum segments 18 to 29, apparently reflecting not only size of a species but also sex of an individual: starting with smallest species, numbers of nudum segments in males (and females) 18–19 (19–22), 22 (?), and 24 (29). In smaller species, nudum segments evenly divided between body of club and apiculus; but in largest species, only 10 segments on apiculus (in female as well as male).

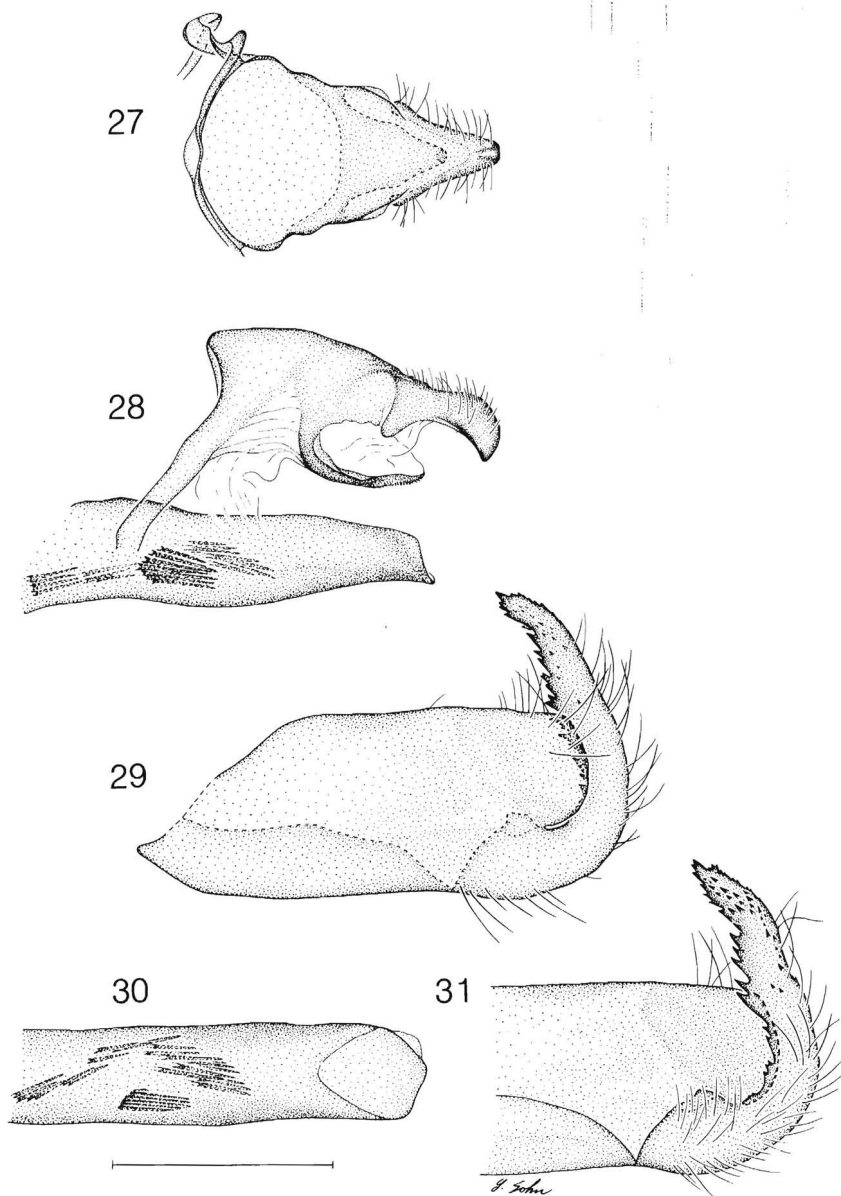
Palpus. Palpus short, pointing forward, its extension anterior to eye about equal to diameter of eye; mostly dark above and light below; third segment bullet-shaped, slightly drooping, and centered on second segment (Figs. 17, 18).

Male secondary sex characters. Metathoracic pouch and metatibial tufts (Figs. 21–23). Pouch tightly clothed with short, whitish scales; these scales finer, hairlike, and sharp over rim of pouch and part way inside; but coarser, slightly spatulate, and blunt deep inside pouch. Tufts comprising extremely long scales, perhaps unique because hairlike and tan to light brown proximally, but broadened and flattened (with their wide ends sometimes notched) and much darker brown distally. No costal fold.

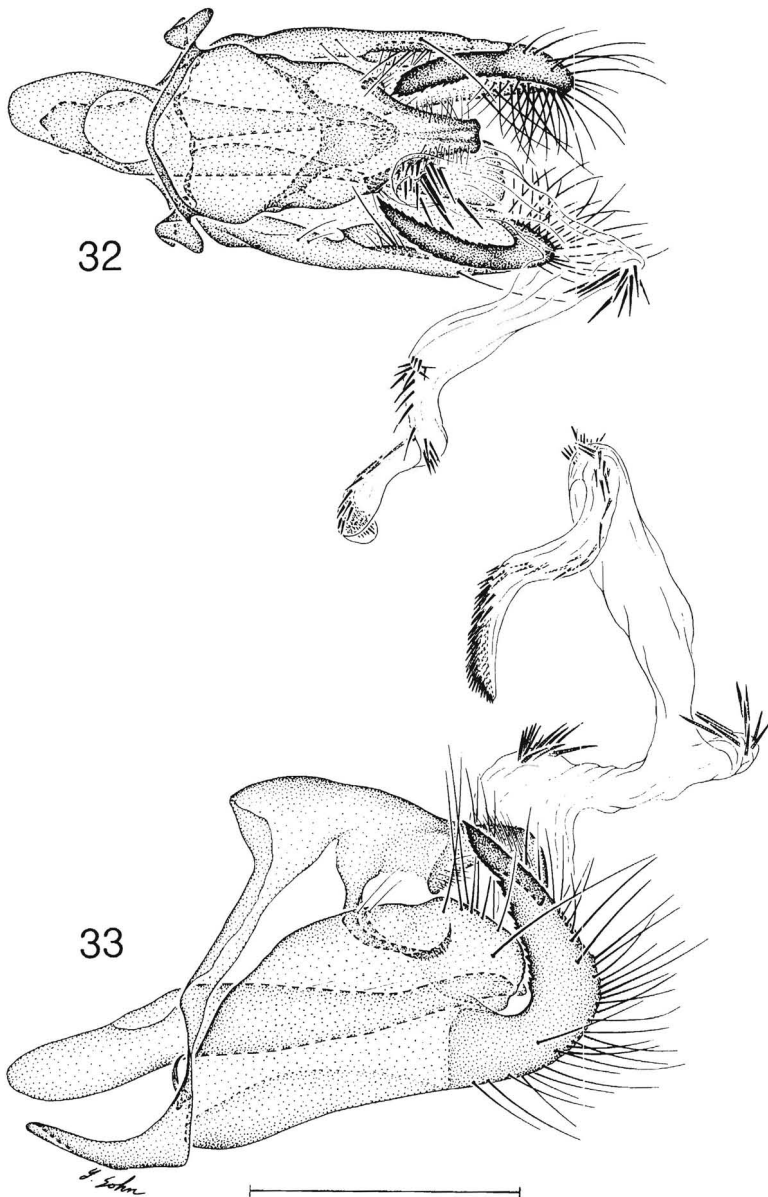
Male genitalia. *Uncus* undivided. In dorsal view (Figs. 25, 27, 32), triangular: apex distal and blunt, and with a prominent middorsal ridge; base proximal, with slight lateral lobes. In lateral view (Figs. 26, 28, 33), the ridged, distal portion resembling a helmet; lobes of proximal portion projecting anteroventrally toward gnathos. *Gnathos*—after medial union of its paired lateral arms—also undivided and more or less triangular in dorsal view, but originating much farther anterior and not extending nearly as far posterior as uncus; roughened with many fine conical teeth distally on ventral surface (Figs. 25–28, 32, 33). *Valva* with huge dentate process arising from ventrodistal end, curving sharply dorsad (also anterior), and extending far above body of valva; otherwise simple (Figs. 25, 26, 29, 31–33). *Aedeagus* simple, though with many spiny cornuti (Figs. 25, 26, 28, 30, 32, 33). Everted vesica more or less narrow (but with one or more blind sacs), with larger spines in



Figs. 25, 26. Male genitalia of *Pseudodrephalys atinas* from PERU, Madre de Dios, Parque Manu, Pakitzta, 11°55'48"S, 71°15'18"W, 340 m, 10 October 1991, M. Casagrande (unnumbered genitalic dissection by Mielke in 1992) (MUSM). Scale = 1.0 mm. **25**, Complete genitalia, with vesica everted, in dorsal view. Rotating the genitalia until the top of the tegumen/uncus is about flat makes some structures appear appreciably shorter than they do in the lower figure (but the scale is the same in both figures). **26**, Complete genitalia (minus right valva), with vesica everted, in left lateral view.



Figs. 27–31. Male genitalia of *Pseudodrephalys sohni*, holotype, from BRAZIL, Amazonas, Manaus (J. M. Burns genitalic dissection no. X-4331 of material previously dissected dry by Evans, who deliberately separated—and unavoidably broke—various parts) (BMNH). Scale = 1.0 mm. **27**, Tegumen, uncus, gnathos, and part of vinculum on right side in dorsal view. **28**, Tegumen, uncus, gnathos, and part of vinculum on left side, plus distal part of aedeagus (with bundled cornutal spines within), all in lateral view. **29**, Left valva in lateral view. **30**, Distal part of aedeagus (with bundled cornutal spines within) in dorsal view. **31**, Distal part of right valva in medial view.



Figs. 32, 33. Male genitalia of *Pseudodrephalys hypargus* from BRAZIL, Mato Grosso, Diamantino, Alto Rio Arinos, 14°13'S, 56°12'W, 350–400 m, 17 March 1991, E. Furtado (J. M. Burns genitalic dissection no. X-4406) (USNM). Scale = 1.0 mm. **32**, Complete genitalia, with vesica everted, in dorsal view. Rotating the genitalia until the top of the tegumen/uncus is about flat makes some underlying structures appear appreciably shorter than they do in the lower figure (but the scale is the same in both figures). **33**, Complete genitalia (minus right valva), with vesica everted, in left lateral view.

two, distinct, tight clusters proximally and with smaller spines in long, loose, linear series distally (Figs. 25, 26, 32, 33). *Juxta* notably small (Figs. 25, 26, 32, 33); **U**-shaped to shallowly **V**-shaped in anterior view.

Female genitalia. *Ovipositor lobes* strongly notched and hence conspicuously bilobed (Figs. 34–37). Three longitudinal, sclerotized bands immediately anterior to ovipositor lobes and dorsal to lamella postvaginalis, the middle band midventrally grooved (these are the only traits treated in this paragraph that are not shown in Figs. 34–37). *Lamella postvaginalis* fully sclerotized, long but especially broad, simple in outline (though with at least a suggestion of laterodistal shoulders), and with a low, midventral ridge posterior to ostium bursae. *Lamella antevaginalis* fully sclerotized, much smaller than lamella postvaginalis, well ventrad of it, and more or less triangular, with apex midventral and posteriorly directed. *Ductus bursae* long, strongly wrinkled in part of its posterior length; *corpus bursae* far anterior and spheroid. Paired, long, posterior (but not anterior) apophyses. Unpaired, somewhat crinkled sac, extending slightly anteriad and dorsad of sterigma.

Distribution. Southern Venezuela, Guyana, French Guiana, Brazil (Amazonas, Pará, Mato Grosso, Rondônia), and eastern Peru.

Type species. *Augiades atinas* Mabille (1888:146, fig. 2). Figs. 1, 2 (adult male); 3, 4 (adult female, holotype); 17 (palpi); 21 (male metathoracic pouch and metatibial tufts); 25, 26 (male genitalia); and 34, 35 (female genitalia).

The features that most distinguish *Pseudodrephalys* are genitalic: in males (Figs. 25–29, 31–33), especially the oversized dentate process that curves abruptly up from the ventrodistal end of the valva, as well as the undivided, middorsally ridged uncus, which, in profile, suggests a helmet; and in females (Figs. 34–37), especially the deeply notched ovipositor lobes, plus the wide, simply shaped, and fully sclerotized lamella postvaginalis, situated well dorsad of the lamella antevaginalis. Also highly distinctive are the very long scales of the metatibial tuft of males (Figs. 21–23) which start out hairlike and light but then widen and darken.

Where does *Pseudodrephalys* go? Classification of skippers below the subfamily level is still primitive: what we have are Evans's generic groups. I think that, in general, Evans's (1952, 1953) pyrgine generic groups (**B** to **G**) are much more valid than his (Evans 1955) hesperiine generic groups (**H** to **O**), which are deeply flawed (Burns 1990, unpubl.). *Drephalys* (from which I just extracted *Pseudodrephalys*) is in the middle of Evans's **B** or **Augiades Group**. Evans (1952:5) used palpi of the peculiar form seen in *Drephalys* (Figs. 19, 20) as the primary character state defining this group, and most included genera express it well. Moreover, as in *Drephalys* (Fig. 24), the main secondary sex character of **B Group** males is a costal fold. No **B** (or, for that matter, **C**) **Group** males have a metathoracic pouch with metatibial tufts. This feature and the form of the antenna and palpus put *Pseudodrephalys* in **Group E**. The placement is not too meaningful because **E** is the largest of the pyrgine generic groups (with three times as many genera [ca. 60] as the next largest) and is by far the most heterogeneous and artificial.

In defining **Group B**, Evans (1952:5) used one element of facies: "a very general feature, peculiar to the group, is the presence of 2 hyaline

spots in the cell" of the forewing. Although this peculiarity can also be expressed by *Pseudodrephalys* (Figs. 1–8), convergence is not complete: in **B Group** skippers with two cell spots, the one nearer the body spans the width of the cell (Figs. 13–16), while in *Pseudodrephalys* this spot stays in the posterior part of the cell (Figs. 1–8).

Two species of *Pseudodrephalys* are extremely rare in collections, and the third is scarce.

***Pseudodrephalys atinas* (Mabille), new combination**

(Figs. 1–4, 17, 21, 25, 26, 34, 35)

Augiades atinas Mabille 1888:146, fig. 2.

Paradros atinas: Mabille & Boullet 1919:241; Williams & Bell 1934:269, pl. XIX, fig. 2.

Drephalys atinas: Evans 1952:25; Robbins et al. 1996:244.

Description. Size and nudum. Largest species of *Pseudodrephalys*: male forewing length 19.0 mm; female, 20.2 mm. Nudum segments 24 in male but 29 in female, with only 10 segments on apiculus in each sex.

Facies. Hyaline spots of forewing yellow; none in spaces 4 and 5; two in forewing cell (Figs. 1–4). Space 8 of dorsal hindwing yellow (Figs. 1, 3). Yellow of ventral color pattern rich (orangy). Distal to yellow area on ventral hindwing, in male (Fig. 2), a well-defined white band in spaces 1a (vague), 1c, 2, distal end of cell, and 6; in female (Fig. 4), a well-defined large white spot at distal end of cell (plus very small white spot in space 1c). Large hindwing spot of female showing dorsally as pale yellowish spot (Fig. 3). (Description by Williams and Bell [1934] of individual variation in what they specified as "two male specimens" of this species closely matches the sex differences noted above.) Distal to white band or spot, ground color of ventral hindwing warm, rusty brown, traversed from space 1c to 6 by delicate, irregular band of pale bluish scales (Figs. 2, 4). Similar pale bluish scales on ventral forewing in spaces 4 and 5 between hyaline spots in spaces 3 and 6 (in female, scales in space 5 only).

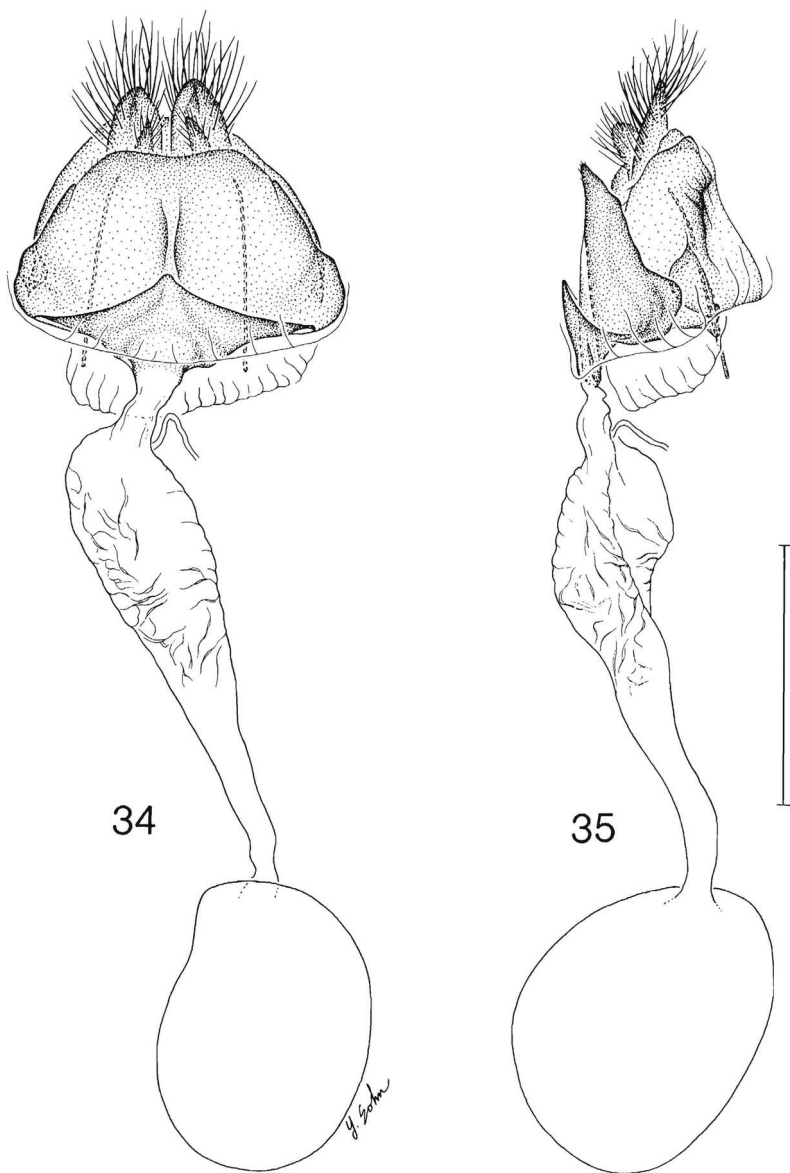
Superficially, *Pseudodrephalys atinas* most resembles such species of *Drephalys* as *D. phoenice* (Hewitson), *D. phoenicoides* (Mabille & Boullet), two undescribed species very similar to these, and an undescribed species related to *D. eous* (Hewitson). Though I have already pointed out various differences between these two genera, I should add that the above-cited species of *Drephalys* have conspicuous pale spots on their brown hindwings dorsally, which are lacking in *P. atinas*, and a much longer antennal apiculus.

Male genitalia. In lateral view (Fig. 26), huge dentate process of valva long, wide, and fairly uniform in width; gap evident between this process and dorsodistal end of valva; body of valva humped in middle of dorsal margin. Fine teeth laterally and ventrally at distal end of aedeagus (Figs. 25, 26). (The only genitalia figure previously published [Williams & Bell 1934] gives the essence of the valva and indicates bundles of spines in the aedeagus, but conveys nothing about the tegumen, uncus, and gnathos.)

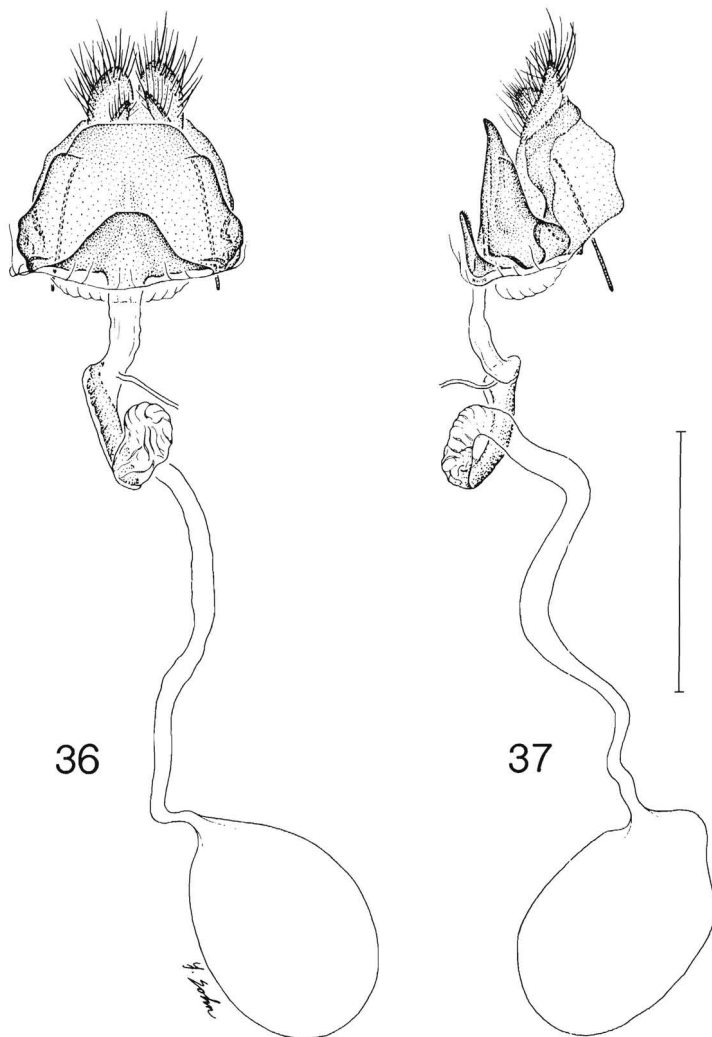
Female genitalia. In ventral view (Fig. 34), lamella antevaginalis a low, broad-based triangle with sharp apex. Ductus bursae fairly straight, swelling abruptly, then diminishing gradually in diameter toward corpus bursae (Figs. 34, 35).

Distribution. Amazonian region of Peru. This is the phrase used by Williams and Bell (1934) for the source of their two specimens, and it is still apt. The two specimens I have seen come from northeastern and southeastern Peru: the latter was recently listed for Pakitz by Robbins et al. (1996); the former, Mabille's type, is from Pebas.

Material examined. In his brief original description of this species, which dealt only with superficial appearance, Mabille (1888) specified that the sex of his material was female, implied that he had only one specimen, and provided a black and white drawing of it. Though he failed to give its geographic origin or to formally designate a type, his spec-



Figs. 34, 35. Female genitalia of *Pseudodrephalys atinas*, holotype, from PERU, Pebas, Hahnel (J. M. Burns genitalic dissection no. X-4409) (ZMHB). Scale = 2.0 mm. **34**, From posterior to anterior (top to bottom), paired, notched ovipositor lobes; dorsal sclerotization associated with lamella postvaginalis; paired, long posterior apophyses; lamella postvaginalis; lamella antevaginalis; unpaired, somewhat crinkled sac, extending slightly anterior of the lamellae; bursa copulatrix; and part of unpaired ductus seminalis—all in ventral view. **35**, The same in right lateral view (only right notched ovipositor lobe and right posterior apophysis shown; and sac extends dorsad, as well as slightly anterior, of the lamellae).



Figs. 36, 37. Female genitalia of *Pseudodrephalys hypargus*, holotype, from BRAZIL, Manaus, 1886, Hahnel (J. M. Burns genitalic dissection no. X-4408) (ZMHB). Scale = 2.0 mm. **36**, From posterior to anterior (top to bottom), paired, notched ovipositor lobes; dorsal sclerotization associated with lamella postvaginalis; paired, long posterior apophyses; lamella postvaginalis; lamella antevaginalis; unpaired, somewhat crinkled sac, extending slightly anterior of the lamellae; bursa copulatrix; and part of unpaired ductus seminalis—all in ventral view. **37**, The same in right lateral view (only right notched ovipositor lobe and right posterior apophysis shown; and sac extends dorsad, as well as slightly anterior, of the lamellae).

imen is unmistakable; and its three handwritten determination labels include one in Mabile's own shaky hand.

Holotype. ♀. [PERU: Loreto:] Pebas, [collector:] H[a]h[ne]l (J. M. Burns genitalic dissection no. X-4409) (ZMHB).

Other. PERU: Madre de Dios: Parque Manu, Pakitza, 11°55'48"S, 71°15'18"W, 340 m, 10 October 1991, 1 ♂, M. Casagrande (unnumbered genitalic dissection by Mielke in 1992) (MUSM).

***Pseudodrephalys sohni*, new species**

(Figs. 5, 6, 27–31)

Drephalys hypargus (male only): Evans 1952:27.

Description. Size and nudum. Intermediate species of *Pseudodrephalys*: male forewing length 17.5 mm. Nudum segments 22, evenly split between body of club and apiculus.

Facies. Similar to *atinas*, but forewings and hindwings perceptibly narrower (cf. Figs. 5, 6 with 1, 2). Hyaline spots of forewing white; none in spaces 4 and 5; two in forewing cell, smaller than in *atinas* (Figs. 5, 6). Space 8 of dorsal hindwing pale yellow. Yellow of ventral color pattern lighter than in *atinas* but darker than in *hypargus*. Distal to yellow area on ventral hindwing (Fig. 6), a well-defined white band in spaces 1a, 1c, 2, distal end of cell, 6, and 7. Distal to white band, ground color of ventral hindwing warm, rusty brown, traversed from space 1c to 6 by delicate, irregular band of pale bluish scales (Fig. 6). Similar pale bluish scales on ventral forewing in spaces 4 and 5 between hyaline spots in spaces 3 and 6.

Since *Pseudodrephalys sohni* looks so much like *P. atinas*, it superficially resembles the same set of *Drephalys* species as *P. atinas* (q.v.). However, *P. sohni* is appreciably smaller than any of those species; and, of course, the intergeneric differences noted under *P. atinas* likewise apply.

Male genitalia. In lateral and medial views (Figs. 29, 31), huge dentate process of valva about as long as in *atinas*, but relatively narrow and irregular in width, and more conspicuously dentate; overlap evident between this process and dorsodistal end of valva, with latter much larger than in *atinas*; body of valva with straight dorsal margin. Uncus, in lateral view (Fig. 28), less massive than in *atinas*.

Distribution. BRAZIL: Amazonas: Manaus.

Material examined. Only the specimen that Evans (1952) treated as the male of *hypargus*.

Holotype. ♂. [BRAZIL:] Amazon[a]: Manaus (J. M. Burns genitalic dissection no. X-4331 of material previously dissected dry by Evans) (BMNH).

Etymology. I delight in naming this species for Young T. Sohn, a scientific illustrator in entomology at the Smithsonian Institution, with whom I have worked for fifteen years. His superb and varied renderings of diverse skipper genitalia reflect extraordinary artistic skill, judgment, and patience. He will, when asked, draw genitalia at difficult, unconventional angles so as to convey maximum amounts of crucial information in a minimum number of figures.

***Pseudodrephalys hypargus* (Mabile), new combination**

(Figs. 7–12, 18, 22, 23, 32, 33, 36, 37)

Carystus hypargus Mabile 1891:CXX.

Drephalys hypargus (females only): Evans 1952:27.

Description. Size and nudum. Smallest species of *Pseudodrephalys*: male forewing lengths 15.0, 15.2, and 15.4 mm; female, 15.0, 15.5, 16.0, 16.4, and 16.5 mm. Nudum segments 18, 19, and 19 in males; 19, 21, and 22 in females, about evenly split between body of club and apiculus.

Facies. Hyaline spots of forewing white; present in space 4 and rarely also in 5; one (usually) or two in forewing cell (Figs. 7–12). Space 8 of dorsal hindwing white. Large white area in middle of dorsal hindwing from space 1c, through distal cell, to space 6 (Figs. 7, 9, 11); somewhat variable in size and expression, with portion in posterior part of space 1c partially (Figs. 9, 11) to completely (Fig. 7) isolated; in unworn specimens, also a long line of white hairs in space 1b (Figs. 9, 11). Yellow of ventral color pattern pale. Distal to yellow area on ventral hindwing, a proximally ill-defined white band, extending from space 1c to 7 when complete, but variable in expression (Figs. 8, 10, 12). Distal to white band, ground color of ventral hindwing warm, rusty brown, with or without traces of delicate band of pale bluish scales from space 1c to 6. Similar pale bluish scales sometimes on ventral forewing in space 5 between hyaline spots in spaces 4 and 6.

Superficially, owing to the large white central area of its dorsal hindwing, *Pseudodrephalys hypargus* (Figs. 7–12) departs from its congeners (Figs. 1–6) and resembles *Drephalys alcmion* (Cramer) (Figs. 13–16). But *D. alcmion*, on its dorsal hindwing, has a larger white central area that extends to the inner margin; on its forewing, lacks the hyaline spot in space 4 that *P. hypargus* has, and has a large, cell-spanning hyaline spot (in contact with the spot in space 2) that *P. hypargus* lacks (there is a vestige of such a spot in one female of *P. hypargus* [Figs. 7, 8]). Ventrally, the yellow of the forewing costa is much richer in *D. alcmion*, while the light proximal part of the hindwing is white in *D. alcmion* instead of pale yellow. Differences between these skippers in their antennal clubs (cf. Figs. 9–12 with 13–16), in their palpi (cf. Fig. 18 with 19, 20), and in their male secondary sex characters (cf. Figs. 22, 23 with 24) are glaring.

Male genitalia. In lateral view (Fig. 33), huge dentate process of valva less long, less conspicuously dentate, and more gradually and evenly tapered to distal point than in *atinas* and *sohni*; gap evident between this process and dorsodistal end of valva, much as in *atinas*, but with dorsodistal end of valva larger than in *atinas*, although not as large as in *sohni*. Uncus, in lateral view, less massive than in *atinas*, hence more as in *sohni*.

Female genitalia. In ventral view (Fig. 36), lamella antevaginalis a blunt triangle recalling a normal curve. Ductus bursae narrow, rather uniform in diameter, and looped (or at least sharply curved), with some longitudinal sclerotization in beginning of loop (Figs. 36, 37).

Distribution. Venezuela (Amazonas), Guyana, French Guiana, Brazil (Amazonas, Pará, Mato Grosso, Rondônia), and Peru (Madre de Dios).

Material examined. In his short, superficial original description, Mabille (1891) did not formally designate a type but did specify the size, sex, and geographic source of his specimen, as well as indiosyncrasies in its maculation. His calling *hypargus* a species of *Carystus* put *hypargus* in the wrong subfamily.

Holotype. ♀. [BRAZIL: Amazonas:] Manaos, [18]86, [collector:] H[a]h[ne]l (J. M. Burns genitalic dissection no. X-4408) (ZMHB). The venation of the left forewing of the holotype is highly abnormal distal to the cell: extra veins appear in spaces 2 and particularly 3, while veins 5 and 6 come together, fuse, and then once more go their separate ways to the outer margin.

Other. BRITISH GUIANA, 1 ♀, Parish (J. M. Burns genitalic dissection no. X-4333) (BMNH). FRENCH GUIANA, 1 ♀ (BMNH). BRAZIL: Pará: Obydos, 1907, 1 ♀, M. de Mathan (BMNH); Mato Grosso: Diamantino, Alto Rio Arinos, 14°13'S, 56°12'W, 350–400 m, 17 March 1991, 1 ♂, E. Furtado (J. M. Burns genitalic dissection no. X-4406) (USNM). PERU: Madre de Dios: 30 km SW Puerto Maldonado, 300 m, 24 October 1983, 1 ♂, S. S. Nicolay (S. S. Nicolay genitalic dissection no. H816) (USNM); Parque Manu, Pakitza, 11°53'S, 70°58'W, 400 m, 21 October 1990, 1 ♀, G. Lamas (J. M. Burns genitalic dissection no. X-4407) (MUSM); Parque Manu, Pakitza, 11°55'48"S, 71°15'18"W, 340 m, 5 October 1991, 1 ♂, M. Casagrande (J. M. Burns genitalic dissection no. X-4332) (MUSM).

Other material. Mielke (pers. comm.) provided the following records from specimens in his own collection and in that of the Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brazil. VENEZUELA: T. F. Amazonas: Yavita, 120 m, 20 November 1947, 1 ♀, Lichy. BRAZIL: Amazonas: Barcellos, Rio Negro, 29 July 1929, 1 ♀, Zikan; Mato Grosso: Sinop, October 1974, 1 ♂, Alvarenga; Rondônia: Vilhena, 20 November 1986, 1 ♂, Elias.

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