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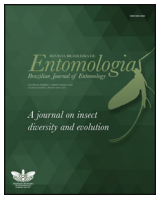

The identity of *Syllepte incomptalis* Hübner (Lepidoptera: Crambidae: Spilomelinae) with synonymies, new combinations and new species

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ABSTRACT

The identity of *Syllepte incomptalis* Hübner, 1823 is elucidated. *Pantographa* Lederer, 1863, **syn. n.**, and *Micromartinia* Amsel, 1957, **syn. n.,** are junior synonyms of *Syllepte* Hübner, 1823, including 15 species: *S. incomptalis* Hübner, 1823 (=*P. idmonalis* Druce, 1895, **syn. n.**); *S. acoetesalis* (Walker, 1859), **comb. n.**; *dialis* Schaus, 1912 (=*S. strigicincta* Hampson, 1912, **syn. n.**); *S. expansalis* (Lederer, 1863), **comb. n.**; *S. gorgonalis* (Druce, 1895), **comb. n.**; *S. limata* (Grote & Robinson, 1867), **comb. n.**; *S. scripturalis* (Guenée, 1854), **comb. n.**; *S. suffusalis* (Druce, 1895), **comb. n.**; *S. fraternalis* Becker, **sp. n.**, from Mexico; *S. confusalis* Becker, **sp. n.** from Brazil, and *S. sororalis* Becker, **sp. n.**, from Brazil. *Neomabra* Dognin, 1905, **stat. rev**., is revalidated, including two species: *N. nitidalis* Dognin, 1905, **comb. rev.** and *N. serratilinealis* (Lederer, 1863), **comb. n.** *Bocchoropsis* Amsel, 1956, **syn. n.** is a junior synonym of *Haritalodes* Warren, 1890, including two species: *H. derogata* (Fabricius, 1775) and *H. pharaxalis* (Druce, 1895), **comb. n.** (=*S. prorogata* Hampson, 1912, **syn. n.**; =*B. plenilinealis* Dyar, 1917, **syn. n.**). *Psara imbroglialis* (Dyar, 1914), **comb. n.** [from *Syllepte*]. Illustrations of adults and genitalia are provided to enable the identification of the species treated here.

Introduction

Syllepte incomptalis Hübner, 1823, described from material from Surinam, has remained as a mystery since its description, as shown by the absence of specimens, identified as such, in all major collections Natural History Museum, London, United Kingdom (NHMUK), USNM (Smithsonian National Museum of Natural History, Washington, DC, USA), Carnegie Museum of Natural History, Pittsburgh, USA CMNH). It has been also regarded as an unrecognized species by all major treatments of Pyraloidea (Guenée, 1854; Walker, 1859; Lederer, 1863; Druce, 1895, 1899; Hampson, 1899a, 1899b; Klima, 1939; Munroe, 1995). Despite this, *Syllepte* (or its subsequent spelling *Sylepta* Hübner, [1825]), has been widely used by several authors who described and/or treated dozens of species associated with it from all geographic regions of the world. Currently the genus includes seven generic synonyms and over 200 valid species-names (Nuss et al., 2021), 35 of them for the New World fauna (Munroe, 1995). It is very likely that the type material of *S. incomptalis,* the type-species, is either lost or destroyed, as Lederer (1863), who worked extensively with the Vienna Museum, does not mention neither the genus nor the species. Munroe (1958) stated that some old material belonging to *Epicorsia* Hübner, also a pyraloid, had been found in the Naturhistorisches Museum Wien, Austria,, (NHMW), that could include types. Therefore, type material belonging to *Syllepte* might eventually be found in this museum. In any case the original figure is good enough to allow recognition. Most of the authors who worked with neotropical pyraloids had at their disposal abundant material from Surinam and from French Guiana, but they did not report any specimen that could be associated with the figures of *S. incomptalis*. One exception is a specimen from Maracay, Venezuela, treated by Amsel (1956-1957: 128) as *Pantographa cybelealis* Druce, which genitalia (pl. 22, fig. 4) match those of the species that is here understood as *S. incomptalis.* In the USNM there are specimens from Costa Rica. These records indicate that, despite rare, the distribution of this species extends south to Northern South America. The known collecting localities are dry, semi desertic habitats. A series of specimens in the author's collection, from several localities in Mexico, revealed that the species was described again and is wrongly associated with other species of Neotropical Spilomelinae.

The purpose of this work is to clarify both the taxonomic placement of *Syllepte incomptalis* and the resulting synonymy and combinations for the species occurring in the Neotropical region. The information

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presented here will also allow authors who work on the pyraloid fauna of other regions to evaluate the taxonomic situation of the taxa currently associated with *Syllepte,* occurring in the regions they study.

Material and methods

This work is based on the material (171 specimens; 28 genitalia slides, in the Vitor O. Becker collection, Serra Bonita Reserve, Camacan, Bahia, Brazil, (VOB), the Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil (MNRJ), the NHMUK, and the USNM, as well as on the pertinent bibliography. The types of the new species are provisionally deposited in VOB, and will be transferred, together with the collection, to a Brazilian institution in the future. Genitalia were prepared following the methods described by Robinson (1976). Terms for morphological characters follow Hodges (1971) and Kristensen (2003).

Results and discussion

Examination of material and the original illustrations made it possible to establish the identity of *Syllepte incomptalis* Hübner, resulting in several synonymies and new combinations for the taxa belonging to the Neotropical region. As *S. incomptalis* is congeneric with *Pionea scripturalis* Guenée, 1854, the type-species of *Pantographa* Lederer, 1863, the species listed under *Pantographa* by Munroe (1995: 59), except for two of them: *P. serratilinealis* (Lederer, 1863), and *P. prorogata* (Hampson, 1912), have to be transferred to other genera, and most of the species Munroe (1995: 60) listed under *Syllepte* are presumed not congeneric with *S. incomptalis* and should be removed from this genus, which is not in the scope of this work. For this reason, they are maintained for the time being in *Syllepte,* as misplaced species, as Munroe (1995: 60) had already listed them. Considering that the species from the Palaearctic and Indo-Australian regions are also not congeneric with *S. incomptalis* they should be assigned to other genera. Shaffer et al. (1996: 196) listed ten synonyms under *Syllepte,* seven of them from the Palaearctic and Oriental regions. Two of these were revalidated: *Patania* Moore, 1888 (=*Pleuroptya* Meyrick, 1890) (Rose, 1989: 39), and *Pramadea* Moore, 1888 (Kirti and Gill, 2004, 2007). To avoid leaving them unassociated with any genus they are provisionally kept in *Syllepte,* as misplaced species. Certainly, a revision of the species from those regions will revalidate some of these remaining synonyms, with proposition of new ones. According to Mally et al. (2019: 171, 172) *Micromartinia* Amsel, 1956 and *Pantographa* Lederer, 1863, here synonymized under *Syllepte* Hübner, belong to the Agroterini, as well as *Bocchoropsis* Amsel, 1956, here synonymized under *Haritalodes* Meyrick, 1890. These authors did not assign *Neomabra* Dognin, 1905, reinstated here as a good genus, to any of the tribes they recognized. The characters of genitalia, and especially the row of spines across the 8th sternite (figs. 5i-k), indicates that they do not belong in the Agroterini. These characters should be better evaluated to establish its proper association, what is not in the scope of this work.

Agroterini

Syllepte Hübner, 1823

Syllepte Hübner, 1823: *Zuträge Samml. exot. Schmett.,* **2**: 18.

TS: *Syllepte incomptalis* Hübner, 1823, *Zuträge Samml. exot. Schmett.,* **2**: 18, pl. [50], figs 285, 286, by monotypy.

=*Sylepta* Hübner, [1825]: *Verz. bekannter Schmett.:* 336, misspelling (misspl).

=*Syllepta* Hübner, [1826]: *Verz. bekannter Schmett.* (Anz.): 58, misspl.

=*Pantographa* Lederer, 1863, *Wien ent. Monatschr.* **7**: 270. **Syn. n.**

Type-species (TS): *Pionea scripturalis* Guenée, 1854, *Hist. nat. Insectes,* **8**: 373, by monotypy.

=*Pantographis* Lederer, 1863, *Wien ent. Monatschr.* **7**: 270, incorrect original spelling.

=*Micromartinia* Amsel, 1957, *Ent. Venez.* **10** (3-4): [2], replacement name. **Syn. n.**

=*Martinia* Amsel, 1956, *Bol. Ent. Venez.* **10**(3): 198. Preoccupied. (M'Coy, 1844 [Brachiopoda]). **Syn. n.**

TS: *Botys mnemusalis* Walker, 1859, *List Specimens of lepid. insects in the Colln Br. Mus.* **18**: 593, by original designation.

Diagnosis: Medium to large (Figs. 1-2a-m): FW length 14-20 mm (32-45 mm wingspan). Labial palpi short, curved up to mid frons. Antenna short ciliated in males, filiform in females. Forewing (FW) apex angled or falcate, pale yellow, area distad of median line to termen, from dorsum to M_1, often fuscous; orbicular and reniform spots well marked; a dotted line distad of the postmedial band, half the way between this and termen. Hind wing (HW) often dusted with fuscous scales; orbicular spot present, often followed distad by a conspicuous whitish reniform dot; four dotted, partially interrupted, nearly parallel lines from near base to before termen.

Male genitalia (Figs. 3-4): Uncus short, wide, apex round (Figs. 3a-h) or indented (Figs. 3i-m). Valva broad, tapering towards round apex, costa straight, ventral margin evenly round, sacculus ill-defined, fibula small, thin, sharp pointed, or a flat, small, subrectangular plate. Vinculum round, small, expanded basad as thin or long spine at middle. Phallus long, thin, nearly straight; vesica with or without long, sclerotized plate.

Female genitalia (Figs. 5l-q): Ostium bursae long, except for *S. sororalis,* narrow; ductus bursae long, almost as long as abdomen, straight, broadened slightly basad; corpus bursae oblong, signum a small, round, spiny plate.

Host plants: Known only for two species of the genus, all plants belong in the Malvaceae. *Syllepte limata,* popularly known in the USA as the Basswood (*Tilia americana*) leafroller moth was also reared on *Ochroma pyramidale* in Puerto Rico (Martorell, [1976]: 182). *Syllepte confusalis* was reared by the author from leafroller caterpillars feeding on *Callianthe rufinervia* (A.ST.-Hil.) in Brazil.

Distribution: New World, from Quebec, along eastern North America, to the Caribbean (*S. limata*), and all of them from Mexico to southern Brazil, where at least some of them are present. In VOB there is a series of 12 specimens of *S. incomptalis* (Fig. 1d) collected at the dry, semi-desertic areas of Mexico (Sonora, Colima, Puebla, Chiapas), and in the USNM a few from Mexico, and one from Costa Rica (as *P. idmonalis* Druce).

Remarks: The original figures in Hübner (1823: pl. [50], figs 285, 286), reproduced here (Figs. 1a-b), are rather crude, as expected to be found in publications from the time. However, the patterns of both the dorsal and ventral sides, are sufficient to allow recognition. There are several species in the New World tropics that resemble *S. incomptalis.* However, as clearly shown in the original illustrations, *S. incomptalis* FW has a dotted line distad of the postmedial band, halfway between this and termen, and the HW presents four dotted lines, a unique combination of characters only present in this species. All the other species either do not have such a line, or this line is replaced by a broad, gray band along termen, and the HW usually has two lines -three in a few cases- but never four. As old specimens of pyraloids have been found in the NHMW, Vienna, that possibly includes Hübner material (Munroe, 1958: 298), it seems appropriate that a neotype should not be designated, as some relevant type specimen(s) might still turn up.

Munroe (1995: 59) listed nine species in *Pantographa,* including *P. idmonalis* Druce, **syn. n.**, a junior synonym of *S. incomptalis* and *Sylepta* [sic] *S. prorogata* Hampson, 1912, **syn. n.** (Fig. 2o), a junior synonym

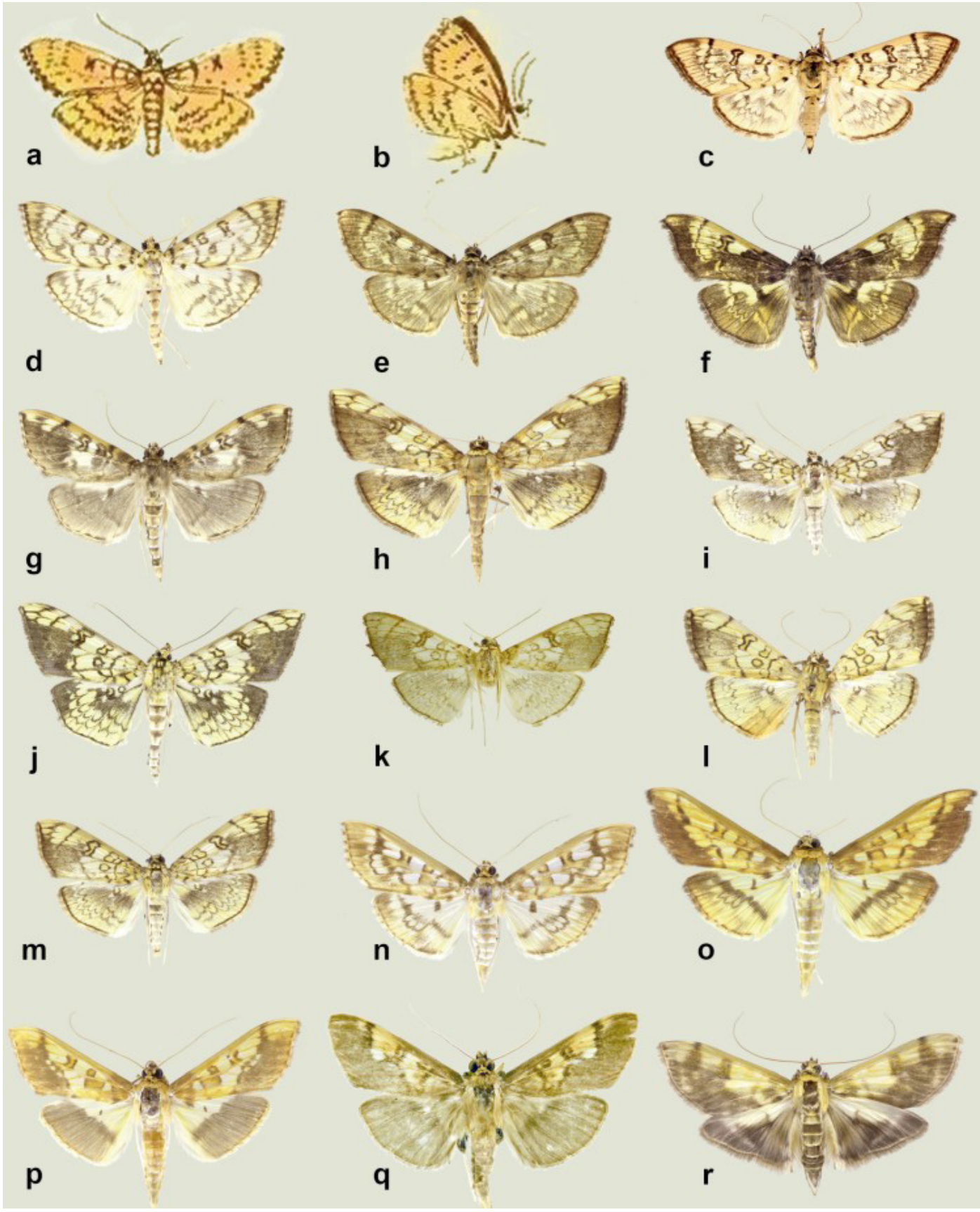

Figure 1 *Syllepte* adults, dorsal view. a-d. *S. incomptalis*: a-b. Hübner Figs 285, 286; c. [=*Pantographa idmonalis* Druce, holotype female, Mexico]; d. Male, Mexico. e. *S. fraternalis,* holotype male, Mexico. f. *S. acoetesalis,* male, Costa Rica. g. *S. expansalis,* male, Guatemala. h-i. *S. limata*: h. Male, Costa Rica. i. Female, USA. j. *S. confusalis*, male holotype, Brazil. k-l. *S. scripturalis,* female holotype; k. female, Brazil. m. *S. suffusalis,* female, Mexico. n. *S. gorgonalis,* male, Mexico. o-p. *S. mnemusalis,* males, Brazil. q-r. *philetalis*: q. Male, Costa Rica; r. Female, Ecuador.

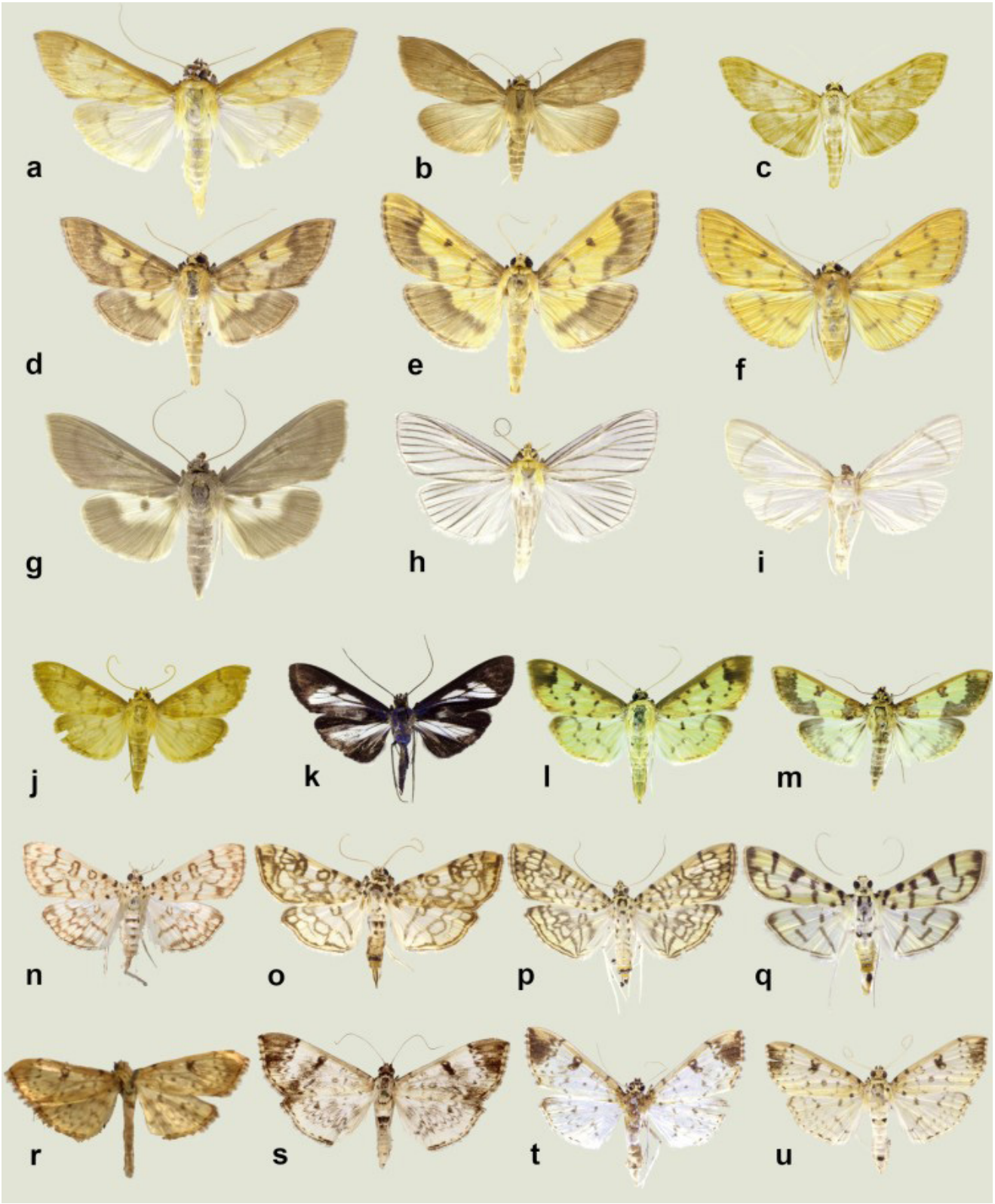

Figure 2 *Syllepte, Psara*, *Haritalodes*, *Neomabra*, *Coremata* adults, dorsal view. a. *S. belialis*, male, Mexico. b. *S. sororalis*, holotype, Brazil. c-f. *S. dialis*: c-d, males, Brazil; e. Male, Costa Rica; f. Female, Costa Rica. g. *S. laticalis*, female, Brazil. h. *P. striginervalis*, female, Brazil. i. *S. angulifera*, male, Guatemala. j. *P. imbroglialis*, male, Mexico. k. *S. coelivita*, male, Brazil. l. *S. amando*, male, Brazil. m. *S. pactolalis*, male, Brazil. n. *H. derogata*, male, Australia. o. *H. pharaxalis*, male, Brazil. p. *C. stigmatalis*, male, Brazil. q. *S. aechmisalis*, male, Brazil. r. *N. nitidalis*, male syntype, Ecuador. s-u. *N. serratilinealis*: s. Female holotype [=*S. leucinalis*]; t. Female, Costa Rica; u. Male, Cuba.

of *Haritalodes pharaxalis* (Druce, 1895), **comb. n.** It is very likely that his decision was based on the characters of genitalia. To confirm this, the genitalia of all species (Figs. 3-4) were examined. As *S. mnemusalis* (Walker) (Figs. 3q-r), the type species of *Micromartinia* Amsel, **syn. n.**, resembles *S. gorgonalis* (Druce, 1895) (Fig. 1n), specimens of these were also dissected and the genitalia (Figs. 3q-r) confirm their

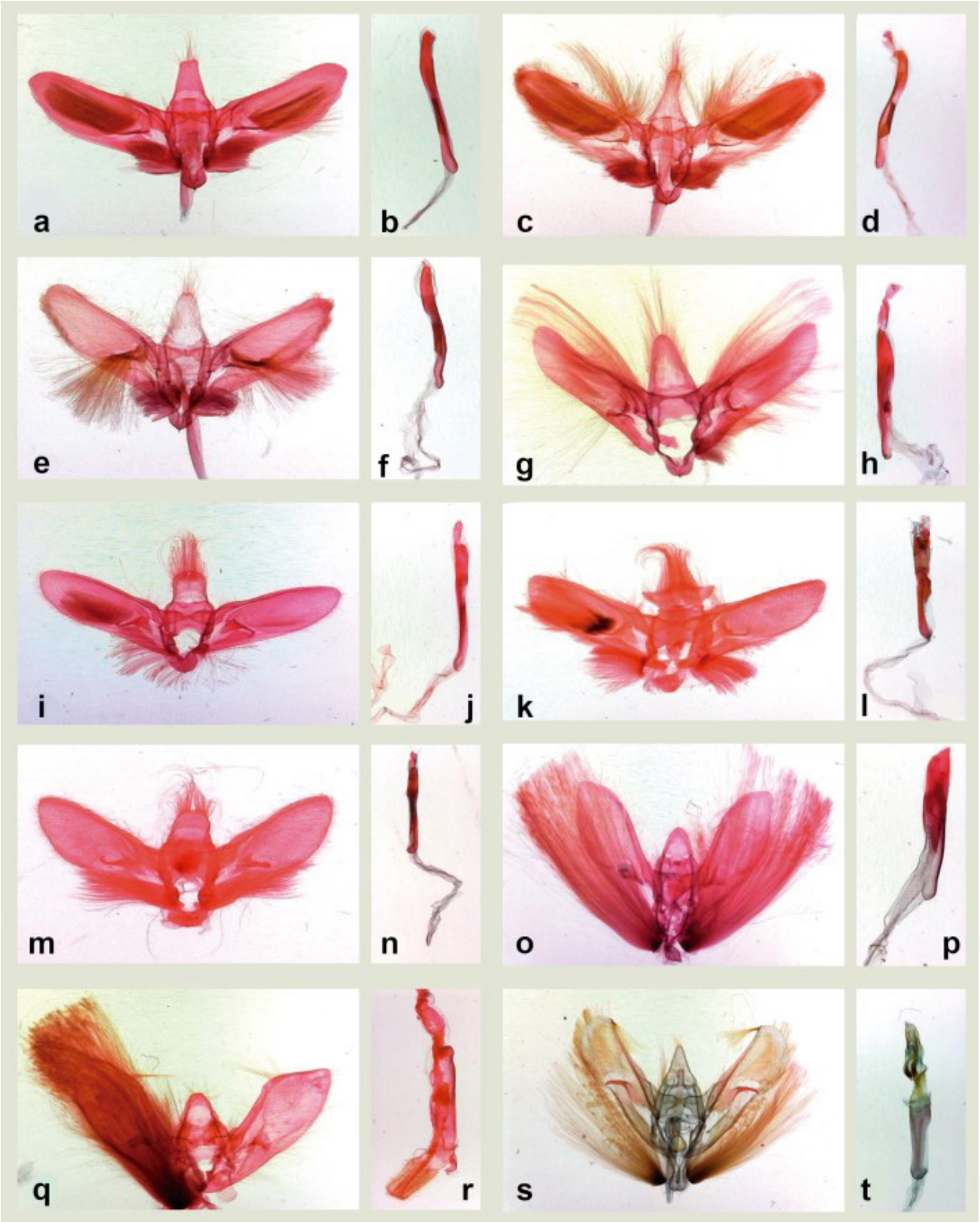

Figure 3 *Syllepte* male genitalia, ventral view: left, genitalia; right, phallus. a-b. *S. incomptalis,* Mexico. c-d. *S. fraternalis,* paratype, Mexico. e-f. *S. acoetesalis,* Costa Rica. g-h. *S. expansalis,* Costa Rica. i-j. *S. limata*, Mexico. k-l. *S. confusalis*, paratype, Brazil. m-n. *S. suffusalis*, Costa Rica. o-p. *S. gorgonalis*, Mexico. q-r. *S. mnemusalis*, Brazil. s-t. *S. philetalis*, Mexico.

close relationship, making *Micromartinia* another junior synonym. The genitalia of some of the species listed by Munroe under *Syllepte* with a pattern that resembles that of species formerly listed under *Pantographa,* were also dissected, but none seems to be congeneric with *S. incomptalis.* Two specimens that look very similar to specimens of *S. incomptalis,* collected together with specimens of this species,

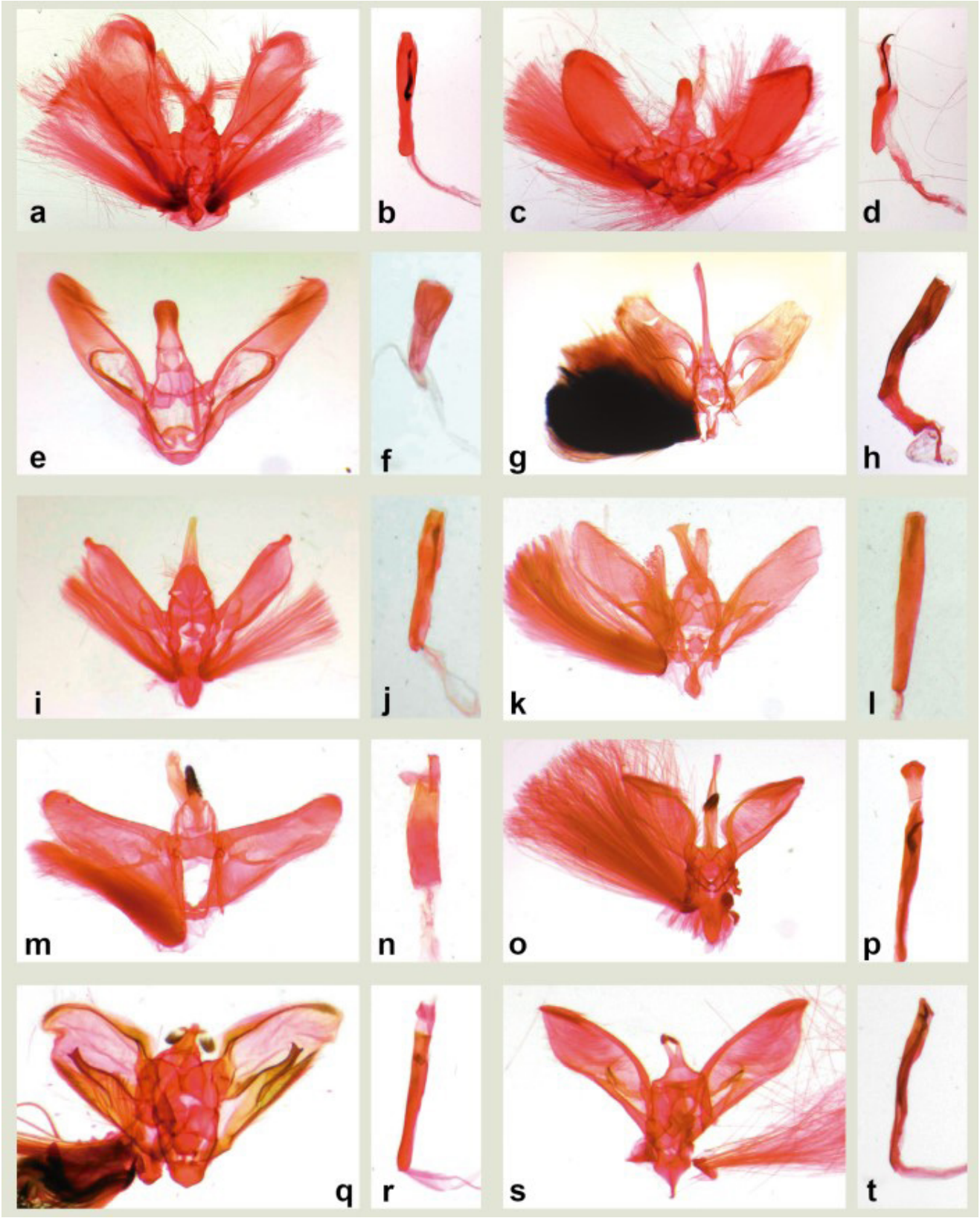

Figure 4 *Syllepte,* male genitalia, ventral view: left, genitalia; right, phallus. a-b. *S. belialis*, Mexico. c-d. *S. sororalis,* paratype, Brazil. e-f. *S. dialis,* g-h. *S. amando,* Brazil. i-j. *S. laticalis,* Brazil. k-l. *S. striginervalis,* Brazil. m-n. *S. angulifera,* Mexico. o-p. *S. coelivitta,* Brazil. q-r. *S. pactolalis,* Brazil. s-t. *S. aechmisalis*, Brazil.

are also described here as a new species, to avoid future confusion. Some of the species listed by Munroe under *Syllepte* as mispl.[aced] were also dissected and found not congeneric with *S. incomptalis,* i.e.: *S. aechmisalis* (Walker) (Figs. 2q, 4s-t) [see *Haritalodes* remarks], *S. amando* (Cramer, 1779) (Figs. 2l, 4g-h), *S. angulifera* (Druce, 1895) (Figs. 2i, 4m-n), *S. coelivitta* (Walker, [1886]) (Figs. 2k, 4o-p), *S. dialis*

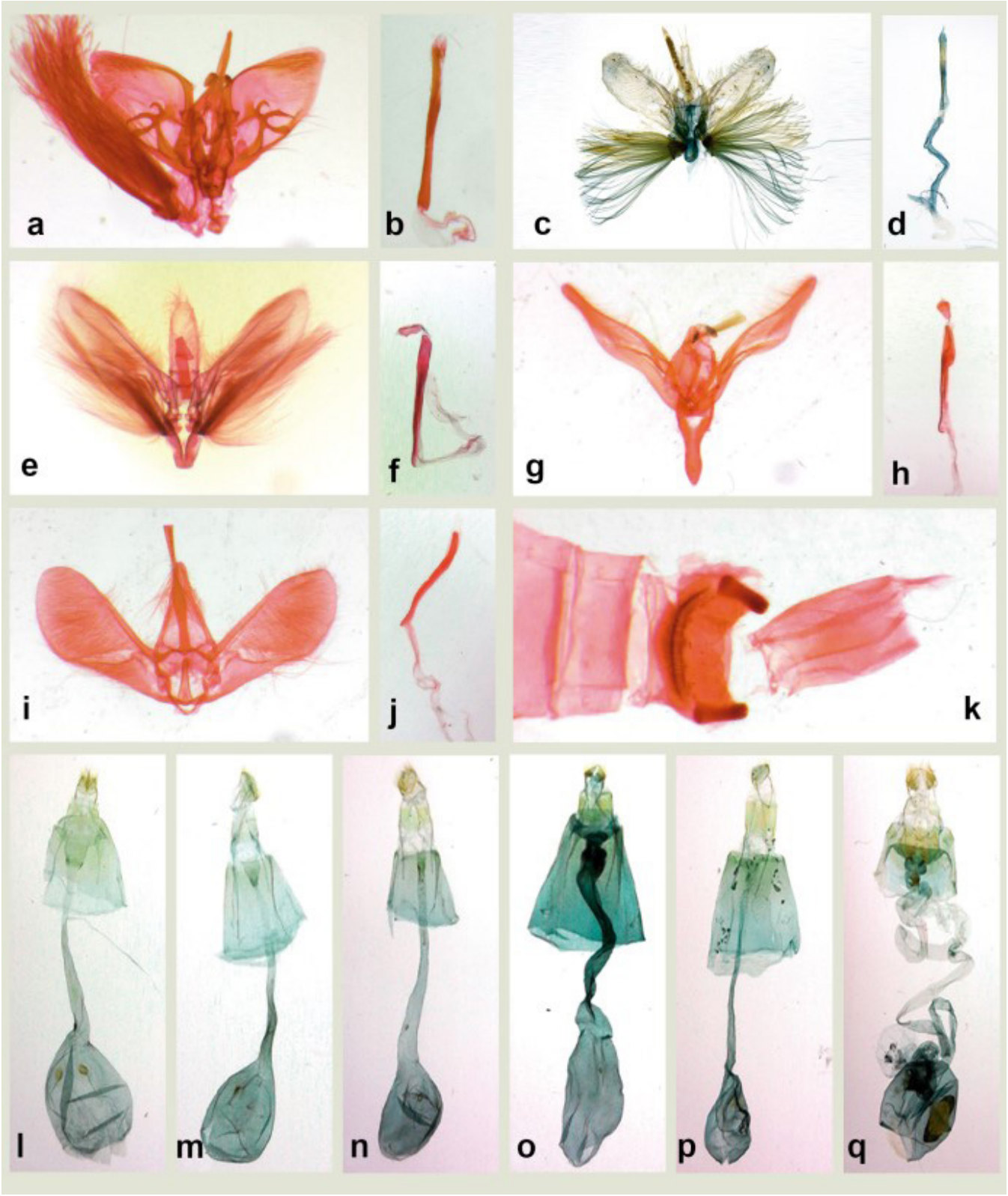

Figure 5 *Psara, Haritalodes*, *Coremata*, *Neomabra*: a-j. Male genitalia, ventral view; left, genitalis, right, phallus. a-b. *P. imbroglialis*, Mexico. c-d. *H. derogata*, Australia. e-f. *H. pharaxalis*, Brazil. g-h. *C. stigmatalis*, Brazil. i-j. *N. serratilinealis*, Brazil. k. *N. serratilinealis*, 8th abdominal sternite. l-q. *Syllepte*, female genitalia, ventral view. l. *S. incomptalis*, Mexico. m. *S. scripturalis*, Brazil. n. *S. confusalis*, paratype, Brazil. o. *S. belialis*, Brazil. p. *S. limata*, Costa Rica. q. *S. sororalis*, paratype, Brazil.

Schaus, 1912, [=*S. strigicincta* Hampson, 1912, **syn. n.**] (Figs. 2c-f, 4e-f), *S. laticalis* (Lederer, 1863) (Figs. 2g, 4i-j), *S. pactolalis* (Guenée, 1854) (Figs. 2m, 4q-r), and *S. striginervalis* (Guenée, 1854) (Figs. 2h, 4m-n).

Considering that the main purpose of this work is to establish the identity of *S. incomptalis,* not a revision of the genus, the resulting new combinations and synonymies are only summarized below (see

Nomenclatural summary), and illustrations of the adults and genitalia are presented to allow their identification.

***Haritalodes* Warren, 1890**

Haritalodes Warren, 1890: *Ann. Mag. nat. Hist.* (6) **6**: 476,

TS: *Botys multilinealis* Guenée, 1854: *Hist. Nat. Insectes*, **8**: 337 [=*H. derogata* Fabricius, 1775], by original designation.

=*Bocchoropsis* Amsel, 1956, *Bol. Ent. Venez.***10** (1-2): 146. **Syn. n.**

TS: *Pantographa pharaxalis* Druce, 1895, *Biol. cent.-am.* Lepidoptera, **2**: 240, by original designation.

Diagnosis: Small (Figs. 2n-o). FW length 10-13 mm (22-30 mm wingspan). Whitish; wings crossed with multiple thin, sinuous, fuscous lines.

Male genitalia (Figs. 5c-f): Uncus long, broad, almost as broad as the tegumen, round apically; valva long, three times as long as broad; margins nearly parallel; apex round; fibula vestigial; juxta a small shield; vinculum elongate, rectangular anteriorly. Phallus (Figs. 5d-f) long, thin, straight; vesica apparently without any modification.

Distribution: Pantropical: from Africa, across Asia into Australia (*H. derogata*), and from southern Mexico, throughout Central America, to southern Brazil (*H. pharaxalis*); absent in the Antilles.

Host plants: The caterpillars of *H. pharaxalis,* that causes damage to the leaves and young fruits of cacao (*Theobroma cacao*, Malvaceae) in the American tropics, is known in the pest literature by its junior synonym: *Sylepta* [and/or *Syllepte*] *prorogata* Hampson (Zhang, 1994: 461). Interesting to note that the larvae of *Haritalodes derogata* (Fabricius, 1775), the type-species of *Haritalodes,* which adults (Fig. 2n) look almost identical to *S. pharaxalis,* are pests of cotton, also a Malvaceae (Robinson et al., 1994: 192).

Remarks: Specimens of *H. pharaxalis,* reared from larvae feeding on cacao, were compared with the types of *H. pharaxalis* (Druce, 1895), **comb. n.,** *S. prorogata* Hampson. 1912, **syn. n.**, and *Bocchoris plenilinealis* Dyar, 1917, **syn. n.** Their genitalia (Figs. 5e-f) also match those figured by Amsel (1956-1957: pl. 29, fig. 5) and are similar to those of *H. derogata* (Fabricius, 1775) (Figs. 5c-d), the type-species of *Haritalodes.* The wing pattern of *H. derogata* (Fabricius) (Fig. 2n), *H. pharaxalis* (Druce) (Fig. 2o), and *Coremata stigmatalis* (Hampson) (Fig. 2p), are extremely similar. While the former two can be separated by their distribution, the differences between the sympatric *H. pharaxalis* and *C. stigmatalis* are not so easy. Apart from genitalia (Figs. 5c-f), strongly distinct, the reason why Amsel (1956-1957) proposed two genera to accommodate them, one character that helps to distinguish *H. pharaxalis* from *H. stigmatalis* is the tip of the male abdomen as there is one central line in *H. pharaxalis* and a pair of lines in *C. stigmatalis*.

Haritalodes derogata (often under the generic names *Syllepte, Notarcha* or *Haritala)* has been considered to be a cotton pest widespread throughout the Old World tropics (CABI, 1979). Taxonomic treatments by Leraut (2005) and by Yamanaka (2008) show that *Haritalodes derogata* is actually a species complex. Not all the names still listed as synonyms of *H. derogata* have been resolved through examination of the genitalia of the type specimens. For example, *Botys multilinealis* Guenée, 1854, the actual type of *Haritalodes*, is still listed as a synonym of *H. derogata* (Yamanaka, 2008) and may prove to be a valid species. *S. aechmisalis* (Walker, 1859) (Figs. 2q, 4s-t) has the uncus split into two branches, spined at tip, it is retained in *Syllepte,* as one of the misplaced species.

The generic name *Notarcha* Meyrick, 1884 (or its unnecessary replacement name *Haritala* Moore, 1886), has frequently been used for *Haritalodes derogata* in the literature, but the definition of *Notarcha* was clarified by Shaffer and Munroe (1989: 248; 2007: 31).

Unplaced tribe

Neomabra Dognin, 1905 **status revised**

Neomabra Dognin, 1905: *Annls Soc. ent. Belg.* **49**: 67.

TS: *Neomabra nitidalis* Dognin, 1905: *Annls Soc. ent. Belg.* **49**: 67, by original designation.

Diagnosis: Small (Figs. 2r-u). FW length 10-12 mm (22-27 mm wingspan). Whitish or pale yellowish; FW with lines serrate and interrupted, with a prominent square, fuscous [reniform] spot at end of cell, and a large, dark fuscous patch at apex. Seventh segment of abdomen (Fig. 5k) with a transverse, arched band of small, thin spines, and a pair of short coremata laterally.

Male genitalia (Fig. 5i): Uncus long, triangular, small indentation at apex; valva spatulate, broad, costa and sacculus weakly differentiated; fibula vestigial; juxta long, narrow; vinculum round, shallow. Phallus (Fig. 5j) long, thin, slightly sinuose; vesica apparently without spines.

Distribution: Cuba, Costa Rica, throughout Venezuela, Ecuador and Peru, to central Brazil (Diamantino, Mato Grosso).

Remarks: According to size, pattern and male genitalia characters this genus is not related to *Syllepte.* Two species belong here: *N. nitidalis* Dognin, the type of the genus, so far known only from Ecuador, and *N. serratilinealis* (Lederer) [=*S. leucinalis* Hampson, 1912], a widely distributed species.

Nomenclatural summary

(Except for *H. derogata* (Fabricius) only the New World taxa formerly or currently related to *Syllepte* are listed).

Agroterini

Coremata Amsel, 1956

stigmatalis (Hampson, 1899a, 1899b) (*Bocchoropsis*) (Figs. 2p, 5g-h)

Haritalodes Warren, 1890

Bocchoropsis Amsel, 1956, **syn. n.**

derogata (Fabricius, 1775) (*Phalaena*) (Figs. 2n, 5c-d)

pharaxalis (Druce, 1895) (*Pantographa*), **comb. n.** (Figs. 2o, 5e-f)

prorogata (Hampson, 1912) (*Sylepta*), **syn. n.**

plenilinealis (Dyar, 1917) (*Bocchoris*), **syn. n.**

Syllepte Hübner, 1823

Sylepta Hübner, [1825], misspl.

Syllepta Hübner, [1826], misspl.

Pantographa Lederer, 1863, **syn. n.**

Pantographis Lederer, 1863, misspl.

Micromartinia Amsel, 1957, repl. n., **syn. n.**

Martinia Amsel, 1956, preocc., **syn. n.**

acoetesalis (Walker, 1859) (*Pionea*), **comb. n.** (Figs. 1f, 3e-f)

cybelealis (Druce, 1895) (*Pantographa*)

belialis (Walker, 1859) (*Botys*) (Figs. 2a, 3a-b, 5o)

albifrontalis (Möschler, 1890) (*Botys*)

holoxantha (Hampson, 1912) (*Pilocrocis*)

molliculalis (Walker, [1866]) (*Botys*)

confusalis Becker, **sp. n.** (Figs. 1j, 3k-l, 5n)

expansalis (Lederer, 1863) (*Botys*), **comb. n**. (Figs. 1g, 3g-h)

orsonalis (Druce, 1895) (*Pantographa*)

fraternalis Becker, **sp. n.**, (Figs. 1e, 3c-d)

gorgonalis (Druce, 1895) (*Pantographa*), **comb. n.** (Figs. 1n, 3o-p)

incomptalis Hübner, 1823 (Figs. 1a-d, 3a-b, 5l)

cybelealis (Amsel, 1956-1957) (*Pantographa*), misidentification.

idmonalis (Druce, 1895) (*Pantographa*), **syn. n.**

Iimata (Grote & Robinson, 1867) (*Pantographa*), **comb. n.** Figs. 1h-i, 3i-j, 5p

scripturalis (Amsel, 1956-1957) (*Pantographa*), misid.
mnemusalis (Walker, 1859) (*Botys*), **comb. n.** (Figs. 1o-p, 3q-r)
caudalis (Felder & Rogenhofer, 1875) (*Botys*)
sanguiflualis (Lederer, 1863) (*Botys*)
philetalis (Walker, 1859) (*Botys*) (Figs. 1q-r, 3s-t)
palmalis (Felder & Rogenhofer, 1875) (*Botys*)
scripturalis (Guenée, 1854) (*Pionea*), **comb. n.** (Figs. 1k-l, 5m)
silacealis (Amsel, 1956-1957) (*Sylepta*), **comb. rev.**
sororalis Becker, **sp. n.** (Figs. 2b, 4c-d, 5q)
suffusalis (Druce, 1895) (*Pantographa*), **comb. n.** (Figs. 1m, 3m-n)
Unplaced tribe
Neomabra Dognin, 1905, **stat. rev.**
nitidalis Dognin, 1905, **comb. rev.** (Fig. 2r)
serratilinealis (Lederer, 1863) (*Botys*), **comb. n.** (Figs. 2s-u, 5i-k)
leucinalis (Hampson, 1912) (*Sylepta*)

Unplaced species

The species listed below were included by Munroe (1995: 60, 61) as misplaced species. They were either dissected [marked] but their genitalia show that they are not congeneric with *S. incomptalis* or belong to species whose material was not available [unmarked].

Syllepte Auctorum
aechmisalis (Walker, 1859) (*Botys*) [dissected] (Figs. 2q, 4s-t)
sabatalis (Druce, 1895) (*Conchylodes*)
albicostalis Schaus, 1920
albifurcalis Dognin, 1913
amando (Cramer, 1779) (*Phalaena*) [dissected] (Figs. 2l, 4g-h)
amandalis Hübner, [1825], emendation.
amplalis Guenée, 1854
amissalis (Guenée, 1854) (*Botys*)
anchuralis Schaus, 1920
angulifera (Druce, 1895) (*Zunacetha*) [dissected] (Figs. 2i, 4m-n)
birdalis Schaus, 1920
brunnescens Hampson, 1912
terricolalis; Druce, 1895) (*Hedylepta*), part. misid.
coelivitta (Walker, [1886]) (*Erilusa*) [dissected] (Figs. 2k, 4o-p)
dianalis (Möschler, 1882) (*Erilusa*)
nitealis (Felder & Rogenhofer, 1875) (*Erilusa*)
cyanea (Walker, [1866]) (*Erilusa*)
diacymalis Hampson, 1912
dialis Schaus, 1912 [March] [dissected] (Figs. 2c-f, 4e-f)
strigicincta Hampson, 1912 [July], **syn. n.**
dioptalis (Walker, [1866]) (*Erilusa*)
pseudauxo (Felder & Rogenhofer, 1875) (*Erilusa*)
secta (Walker, 1864) (*Halesidota*), preocc.
kayei Klima, 1939, repl.. n.
seminigralis Kaye, 1924, preocc.
laticalis (Lederer, 1863) (*Botys*) [dissected] (Figs. 2g, 4i-j)
methyalinalis Hampson, 1912
microdontalis Hampson, 1912
mimalis (Felder & Rogenhofer, 1875) (*Erilusa*)
nebulalis Schaus, 1920
neofulviceps (Klima, 1939) (*Syllepte*), repl. n.
fulviceps Hampson, 1918, preocc.
nigralis Kaye, 1924
opalisans (Felder & Rogenhofer, 1875) (*Botys*)
pactolalis (Guenée, 1854) (*Botys*) [dissected] (Figs. 2m, 4q-r)
quirinalis (Walker, 1859) (*Botys*)
phaeophlebalis Hampson, 1912
purpuralis (Walker, [1866]) (*Botys*)
rosalina (Strand, 1920) (*Erilusa*)
striginervalis (Guenée, 1854) (*Botys*) [dissected] (Figs. 2h, 4k-l)
viridivertex Schaus, 1920
Psara Snellen, 1875
imbroglialis (Dyar, 1914) (*Syllepte),* **comb. n.** (Figs. 2j, 5a-b)

Remarks. A series of specimens from Mexico (Fig. 2j), which match the type has the male genitalia (Figs. 5a-b), similar to those of several species currently included in *Psara*.

New species

Syllepte fraternalis **Becker, sp. n.**
urn:lsid:zoobank.org:act:4763E9DE-2D77-4EBB-8446-BC6957D22E06
Figs. 1e, 3c-d

Material examined: Holotype ♂, MEXICO: Sonora, Yecora, 1650 m, 11-15.ix.1998, g. s. (Becker 115929); paratype: 1 ♂, same data as holotype, 5711 (VOB).

Diagnosis: Medium size; pattern strongly dusted fuscous; male genitalia with uncus long, with round apex.

Description: Male (Fig. 1e) 17 mm (37 mm wingspan). Labial palpus whitish ventrally, fuscous dorsally; frons pale-yellow, vertex fuscous. Thorax, dorsally, pale-yellow, patagia fuscous internally, tegula fuscous; whitish ventrally; fore and mid tibia fuscous on articulations. FW, dorsally, pale-yellow, strongly dusted fuscous, transversal bands, lines and veins, dark fuscous; pale-yellow blotch at end of cell, basad of well marked reniform spot; broad area before termen fuscous, termen and cilia dark fuscous; ventrally pale-yellow, basal and postmedial bands faded; reniform spot fuscous. HW fuscous; reniform spot inside pale-yellow blotch, pale-yellow area distad of postmedial band. Abdomen, dorsally, pale-yellow, slightly banded fuscous on articulations, whitish ventrally. Female unknown.

Male genitalia (Figs. 3c): Uncus long, slightly narrow along middle, apex round. Valva broad, long, tappered at distal third, towards round apex, costa straight, ventral margin slightly bent at distal third, sacculus not defined. Vinculum elongated basad, round; fibula short, thin, sharp tipped, bent ventrad. Phallus (Fig. 3d) long, thin, slightly sinuate, vesica with long, sclerotized, plate.

Distribution: Mexico, known from the type locality only.

Etymology: From the Latin *frater* =brother; adjective neuter.

Remarks: Very similar to *S. incomptalis* both in size and pattern, except for ground color: pale yellow in *S.incomptalis,* dusted fuscous in *S. fraternalis.* Male genitalia also distinct, especially in the shape of uncus: tappering gradually distad in *S. incomptalis* (Fig. 3a); narrow, slightly constricted along middle in *S. fraternalis* (Fig. 3c).

Syllepte confusalis **Becker, sp. n.**
urn:lsid:zoobank.org:act:6999ECDE-880B-4343-A36B-E614C12224BD
Figs. 1j, 3k-l, 5n

Material examined: Holotype ♂, BRAZIL: São Paulo (SP), São José do Barreiro, 1640 m, S 22,72°, W 44,61°, x.2021 (VOB 165009); Paratypes: 1 ♂, 3 ♀♀, same data as holotype, g. s. 5737 (VOB); 1 ♂, 1 ♀, Paraná (PR): Curitiba, 920 m, 14.x.1974, 5.vi.1975, g. s. 5738 (Becker 8201, 8448); 1 ♂, Guaratuba, 1600 m, 5.viii.1975, g. s. 5725 (Becker 8233); 1 ♀, Quatro Barras, 800 m, 2.v.1970, ex Bakeridesia rufinervia (VOB 8446); Rio de Janeiro (RJ), 1 ♂, Nova Friburgo, 1100 m, 9.xi.1998 (Becker 117807); 2 ♂♂, Itatiaia, 2000 m, S 22, 37°, W 44, 75°, 24-27.ix.2021, g. s. 5727, 5730 (Becker 164270), 1♂, Teresópolis, Casa do Pesquisador, 22°27'17"S 42°59'50"W, 1134m, 13-16.VI.2021, C. C. D. Corrêa leg., MN-LEP 0002626, DNA-LAPEL 436 (MNRJ), 1♂, Itatiaia, Parque Nacional do Itatiaia, Casa do Pesquisador, Casa do Pesquisador, 22°27'16"S 44°36'29"W, 807m, 07-08.IV.2021, T. Zacca leg., MN-LEP 0002247, DNA-LAPEL 245 (MNRJ),

1♂, Itatiaia, Parque Nacional do Itatiaia, 910m, 23-27.X.2019, A. Soares, G. Marconato, M. A. Costa & N. Tangerini leg., MN-LEP 0001448 (MNRJ), 1♂, Itatiaia, Parque Nacional do Itatiaia, 910m, 07-10.II.2019, A. Soares, G. Marconato, M. A. Costa & N. Tangerini leg., MN-LEP 0001445 (MNRJ); SP, 1 ♂, Campos do Jordão, 1600 m S 22º46', W 45º31, 27.ii.2001 (Becker 131349); 1 ♂, Campos do Jordão, Parque Estadual Campos do Jordão, Alojamento, 1514m, 22°41'25"S 45°29'13"W, 05-06.X.2021, C. C. D. Corrêa leg., MN-LEP 0003497 (MNRJ); 1 ♂, São Luis do Paraitinga, 900 m, S 23º20', W 45º06', 13-20.iii.2001, g. s. 5726 (Becker 132329); 1 ♂, Salesópolis, Estação Biológica de Boracéia, 900 m, S 23°38', W45°52', 1-4.iv.2022 (Becker 166180); 2 ♂♂, Minas Gerais (MG), Aiuruoca, 1600 m, S 22,03°, W 44,68°, 24.i.2019, 4-9.x.2021 (Becker 157695, 165325) (VOB).

Diagnosis: Large (Fig. 1j). Male FW length 17-19 mm (37-42 mm wingspan), female 16-18 mm (35-40 mm wingspan). Yellowish. Wings ornate with an intricate net of curved and lunulate lines; FW apex acute, a large fuscous patch beyond the median line to termen, from R4 to tornus; HW with a fuscous area at apex, distad of postmedial band, narrowing along termen to M3; an elongate, irregular fuscous band at middle, delimiting a yellowish orbicular. Male genitalia with uncus short, expanded distally forming lateral, broad triangles.

Description: Sexes similar. FW 17-19 mm (37-42 mm wingspan) (Fig. 1j). Head and thorax pale yellow. Labial palpi pale yellow, fuscous distally. Patagia with a fuscous line across middle; tegula with row of fuscous scales at base. Legs pale yellow; fore and mid coxae and femora fuscous, tarsi ringed fuscous. FW pale yellow, basal and antemedial bands curved, fuscous; antemedial band followed with three orbicular spots; reniform spot extending to near costa; large, fuscous patch beyond postmedial band, from R4 to tornus. HW with orbicular and reniform spots well defined; postmedial line double, forming lunules on vein interspaces; broad fuscous patch on apex, narrowing along termen towards M3; terminal line fuscous; internal margin white; cilia fuscous from apex to M3, pale yellow to tornus. Abdomen pale yellow, banded fuscous on articulations.

Male genitalia (Figs. 3k): Uncus short, broad, with lateral triangular expansions; valva two times longer than wide, margins nearly parallel, costa straight, distal third of ventral margin round to acute apex; fibula a thin, sharp, bent hook. Juxta an elongate shield. Vinculum expanded basally, round. Phallus (Fig. 3l) straight, thin; vesica with an irregular, small plate.

Female genitalia (Fig. 5n): Ostium bursae long, narrow; ductus bursae, long, almost as long as abdomen, straight, broadened slightly basad; corpus bursae oblong, signum a small, round, spined plate.

Distribution: Endemic to the Atlantic Forest of southeastern Brazil, at high elevations.

Etymology: From the Latin *confusion -onis* =mixture, disorder; in reference to the confusion caused by the earlier workers misidentifications of *P. scripturalis.*

Remarks: A large species, the same size and externally almost identical to *S. limata.* Easily separated by their distribution: *S. limata* from North America to Ecuador, at high elevations; *S. confusalis* restricted to the Atlantic Forest of southeastern Brazil. Also by their male genitalia: in *S. limata* the uncus (Fig. 3i) is long, with the margins nearly parallel, and slightly concave at apex, whereas in *S. confusalis* (Fig. 3k) the uncus is short, broadly expanded laterally into a triangular projection. This species has been misidentified as *S. scripturalis* by earlier workers, and under this name curated in all collections. *S. scripturalis* (Figs. 1k-l) is a smaller [FW 12 mm; 27 mm wingspan], the same size and externally identical to *S. suffusalis* (Fig. 1m), if not the same species. As, unfortunately, no male of *S. scripturalis* is available to allow comparing their genitalia, the two are retained as distinct. *S. limata* is treated as *P. scripturalis,* by Amsel (1956-1957: 129), a misidentification; the male genitalia (Pl. 81, fig. 8) martch those of other specimens from Mexico and Central America.

***Syllepte sororalis* Becker, sp. n.**

urn:lsid:zoobank.org:act:24184935-DBD2-482B-944D-36729FF762EB

Figs. 2b, 4c-d, 5q

Material examined: Holotype ♂, BRAZIL: Rondônia (RO), Cacaulândia, 140 m, xi.1991 (Becker 79657); Paratypes: 2 ♀♀, 1 ♀, same data as holotype, g. s. 5744 (VOB).

Diagnosis. Medium size. FW length 12-15 mm (28-34 mm wingspan). Pale fuscous. FW 14-15 (32-34 mm wingspan), crossed with faint, curved lines; apex acute.

Description (Fig. 2b): Sexes similar. Male FW length 12 mm (28 mm wingspan); female 15 mm (34 mm wingspan). Pale fuscous. Labial palpi fuscous dorsally, white ventrally. Legs pale fuscous, white ventrally. FW dorsally with antemedial band, faint, curved; postmedial faint, curved from costa to M3, straigh to dorsum; reniform diffuse; cilia fuscous; pale fuscous underside. Abdomen whitish ventrally.

Male genitalia (Figs. 4c): Uncus nearly as long as valva, slightly constricted along middle, apex round; valva three times as broad as long, margins nearly parallel, evenly curved dorsad; pair of long, curved. thin, sharp pointed fibulae. Juxta a small shield, forked as pair of thin, sharp pointed prongs posteriorly. Vinculum expanded basally, as long triangle. Phallus (Fig. 4d) straight, short; vesica with a long, thin, twisted cornutus, almost as long as phallus.

Female genitalia (Fig. 5q): Ostium bursae short, narrow; antrum bulbose; ductus bursae very long, coiled; corpus bursae spherical, signum a large, spined plate.

Distribution: Known from the type-locality only.

Etymology: From the Latin *soror* =sister, in reference to its similarity to *S. belialis* (Walker).

Remarks: Very similar to *S. belialis* (Walker, 1864), both in size and shape, except for the ground color more yellowish. Externally almost identical to *Patania surinamensis* (Sepp, [1846]), from which it differes by the faded, almost absent markings on FW.

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Conflicts of interest

The author declares no conflicts of interest.

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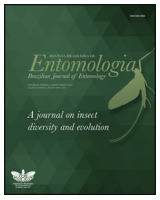

Erratum: The identity of *Syllepte incomptalis* Hübner (Lepidoptera: Crambidae: Spilomelinae) with synonymies, new combinations and new species

In the article "The identity of *Syllepte incomptalis* Hübner (Lepidoptera: Crambidae: Spilomelinae) with synonymies, new combinations and new species", with the DOI code number: https://doi.org/10.1590/1806-9665-RBENT-2022-0093, published at Revista Brasileira de Entomologia 67(1):e20220093, there were correspondence errors between the parts of the figures and their citations that were duly corrected in the text.

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