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FOUR NEW SPECIES OF NEOTROPICAL SKIPPERS FROM COLOMBIA, PERU AND BRAZIL (LEPIDOPTERA: HESPERIIDAE)

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ABSTRACT: Two new species of Pyrginae (*Pellicia alta*, new species from Peru, *Tosta saltarana*, new species from Peru) and two new species of Hesperiinae (*Joanna clara*, new species from Brazil and *Neoxeniades anchicayensis*, new species from Colombia) are described.

KEY WORDS: brand, costal fold, epiphyses, genitalia, stigma.

As additions to the data base of biological diversity of Neotropical Lepidoptera, two new species of pyrgine skippers from Peru and two new species of hesperiine skippers from Colombia and Brazil are described below.

Pellicia alta, new species

Figs. 1(♂ Holotype), 5 (♂ ventral hindwing venation), 6 (♂ genitalia)

Male. Head: Brown, palpi speckled brown and whitish, third segment long, porrect, pendulous. Antennae about half costa, reaching nearly to end of vein Sc (subcosta), shaft and club plain brown, apiculus hooked, slightly less than half of slender, gradually tapered club which is 0.36 times shaft length, nudum 11/9, terminal apiculus segment short, round.

[1] Deceased, 11 August 2007.

Thorax: brown. **Legs** brown; foretibiae with long slender brown epiphyses reaching tarsi; mid- and hindtibiae smooth, midtibiae with single pair of spurs, hindtibiae with two pairs.

Forewing about half as wide as long, apex acute, termen rather straight from apex to about Cu_2, then rounded at tornus, costa slightly concave between ends of R_2 and R_3; Cu_2 arises from cell much nearer to base than to Cu_1; M_3 arises from cell midway between M_2 and Cu_1; M_2 straight, not decurved at origin. Discal cell shorter than dorsum, ending just distad of end of Sc. **Hindwing** more or less triangular, dorsum longer than costa, tornus acute due to vein 3A being nearly as long as 2A and the fringe between 2A and 3A being longer than elsewhere. On the dorsal surface there is a brown hair tuft arising from near the base of $Sc+R_1$ and extending nearly to the end of the discal cell which is slightly less than half the wing length. On the ventral side, vein Rs leaves the cell at about its mid-point and is swollen and bare of scales to nearly cell end, as is the adjacent portion of the median vein, but without the glandular patch that Evans (1953:57, 61) notes for *P. dimidiata* Herrich-Schäffer, 1870.

Dorsal surface: Forewing rather dark purplish brown with a more or less violet sheen, showing indistinct, somewhat reflective paler lavender bands as follows: subapical from costa to about M_3; postdiscal from costa through end of discal cell and base of M_3-Cu_1 to anal vein 2A; discal from costa through Cu_1-Cu_2 near its base and merging with postdiscal band in Cu_2-2A; a vague basal area from costa to 2A. Fringes brown. **Hindwing** same rather dark purplish brown as forewing, shading to paler grayish brown forward of Rs. There is a faint suggestion of slightly paler discal spots in M_3-Cu_1, Cu_1-Cu_2 and Cu_2-2A. Fringes brown.

Ventral surface: Forewing much paler brown than above, becoming very pale in anal cell and basal half of Cu_2-2A. There is a very faint indication of a paler postdiscal band corresponding to that of the dorsal surface. Fringes brown. **Hindwing** same brown as forewing becoming paler unmarked brown in 2A-3A and anal cell. There are faint paler sub-basal, discal, postdiscal and terminal bands above 2A. Fringes brown. **Abdomen** brown above and beneath.

Genitalia: Tegumen short with prominent central indentation cephalad. Uncus broad-ended in dorsal view with fairly sharp corners before a central rounded "nose" projecting ventrad, all covered in rather dense setae. Just caudad of its juncture with the tegumen are two dorso-lateral projecting, rounded, setae-covered "ears". Gnathos depends from tegumen as a narrow sclerotized ring not projecting caudad. Vinculum a narrow sclerotized band forming a ring with the almost completely undeveloped saccus. Valvae broad, asymmetrical; left valva with harpe developed as a sharply pointed prong curving over the end of the prominently dentate valva on its interior face. This dentate portion of the valva projects dorsad slightly beyond the costa and is further adorned with inward projecting dentate processes. Right valva similar, but harpe slightly more dentate, but not heavily; valva terminally rounded and dentate but not projecting dorsad and bearing an inwardly projecting, non-dentate ridge. Penis short, slightly more than half valva length, slender; phallobase curved ventrad, distal end of aedeagus sharply upturned; no cornutus. Juxta a simple sclerotized plate; transtilla prominent, caudally dentate.

Female. Unknown.

Wing measurements. Male forewing 17 × 8.5 mm.

Type material. Only the holotype male, Peru: Junin; Huancayo Tuclo 4800 m December, 1944, Pedro Papryzki, bearing the following labels: printed beige label, PERU: JUNIN HUANCAYO TUCLO El. 4800 m DATE: DECEMBER 1944 LEG:

PEDRO PAPRYZKI #7176 *ACQ: KENT WILSON COLL. 1993;* printed white label, Allyn Museum Acc. 1997-13; printed beige label, HESPERIIDAE PELLICIA costimacula (Herrich-Schaffer) det: H.A. Freeman 1997; printed and hand printed white label, Genit. Vial No. SRS-4879; printed red label, HOLOTYPE Male *Pellicia alta* S.R. Steinhauser; printed and hand printed white label, Allyn Museum Photo No.030301-15,16. The holotype is deposited in the McGuire Center for Lepidoptera and Biodiversity (MGCL).

Etymology. *P. alta* is named "high" for the extreme altitude of its habitat.

Discussion. Superficially very much like *P. costimacula* Herrich-Schäffer, 1870 (Freeman's 1997 determination), differing only slightly in having a bit more prominent violaceous areas on the dorsal forewing, but immediately separated by its distinctive genitalia, quite similar to the genitalia of *P. simulator* Williams & Bell, 1939, which Evans (1953:57) tentatively synonymized, but erroneously, with *P. santana* Williams & Bell, 1939, as noted by Steinhauser (1989:29). Evans' genitalia sketch of *P. santana* bears little resemblance to that of Williams and Bell (1939; fig. 11). It is possible that the insect figured by Evans as *P. santana* is instead *P. alta;* this is quite conjectural, though many of the distinctive features of *P. alta* might easily be misinterpreted when merely using a hand lens on a dry dissected specimen. It is interesting to note that the valvae are reversed, left for right, in the Williams and Bell (1939; fig. 12) drawing for *P. simulator*, a not uncommon occurrence when genitalia are slide mounted.

P. alta differs genitalically from *P. simulator* in several aspects: the ear-like processes from the anterior part of the uncus protrude cephalad in *P. simulator* rather than dorsolaterad as in *P. alta*; the transtilla of *P. simulator* is weakly developed and not dentate unlike the well developed dentate transtilla of *P. alta* (Evans' version of *P. santana* has this same dentate transtilla); *P. simulator* has a weakly developed saccus, absent from *P. alta*; the uncus of *P. simulator* is roundly broadened caudally just before its down-turned "nose", unlike the rather sharply projecting corners of *P. alta*; *P. simulator* has a much more prominent gnathos than does *P. alta*; the harpes of both valvae are prominently dentate in *P. simulator*, but weakly dentate or nearly smooth in *P. alta*.

Tosta saltarana, **new species**

Figs. 2 (♂ Holotype), 7 (♂ genitalia)

Male. Head: Brown, palpi brown, third segment round, porrect, protrudes slightly beyond second. Antennae slightly greater than half costa, reaching nearly to end of discal cell; shaft and club plain brown; apiculus arcuate, nearly equal to the slender club which is about 0.37 times shaft length; nudum 28; terminal apiculus segment long.

Thorax: brown. **Legs** brown with white scaling on outside; foretibiae with long slender epiphyses reaching tarsi; mid- and hindtibiae smooth, midtibiae with single pair of spurs, hindtibiae with two pairs.

Forewing width about 0.58 times length, apex acute, termen rounded, white centered costal fold reaches nearly to end of Sc; Cu_2 arises from cell much nearer to base than to Cu_1; M_3 arises slightly nearer to M_2 than to Cu_1; M_2 decurved toward M_3 at origin; discal cell much shorter than dorsum, ending near R_1 terminus. **Hindwing** more or less triangular, dorsum longer than costa, tornus appears acute due to vein 3A being nearly as long as 2A and fringe in 2A-3A being longer than elsewhere.

Dorsal surface: Forewing dark velvety brown in basal three-fourths, paler brown distally with very vague hint of narrow paler discal band. Fringes concolorous. **Hindwing** slightly paler velvety brown than forewing in basal two thirds with hint of a narrow paler discal band, distal third paler brown. Fringes concolorous.

Ventral surface: Forewing slightly paler brown than above, becoming much paler ochreous brown in anal cell; there is a hint of paler postdiscal and terminal bands. Fringes concolorous. **Hindwing** same brown as forewing forward of Rs, rest of wing much paler ochreous brown, becoming still paler in 2A-3A and anal cell; very faint indication of slightly darker postdiscal and subterminal bands. Fringes concolorous. **Abdomen** brown above and beneath.

Genitalia: Tegumen stout, bearing a pair of wide-spaced "horns" dorsocaudally overlapping the uncus and shorter "horns" formed by the vinculum projecting laterally from midsection; uncus as broad as tegumen, widely bifurcate; the dorsal view of the combined uncus and tegumen clearly shows the three sets of leapfrogging "horns"; gnathos broad, centrally membranous, not projecting caudad as far as the uncus. Vinculum fairly stout; saccus very small; juxta a small plate concave caudally and with a narrow "V"-shaped indentation cephalad; transtilla weakly developed. Valvae symmetrical, broad; harpe sharply reflexed dorsad, overlaps ampulla, where it projects inward as a dentate flap; ampulla with a small inward projection parallel to distal end of harpe; costa prominently humped centrally. Penis short, stout, about 73% of valva length, curved ventrad at distal end; vesica opening dorsad; vesica with small triangular sclerotized "flag" basally and prominent cornutus of about 16 separate, heavy spines.

Female. Unknown.

Wing measurements. Male forewing 22.5 × 13 mm.

Type material: Only the holotype, Peru: San Martin; Juanjui May, 1935 ex Colln. E. Le Moult, bearing the following labels: printed and hand printed white label, PERU Juanjui v. 1935 ex colln. Le Moult; printed and hand printed white label, A. C. Allyn Acc. 1968-1; printed and hand printed white label, Genit. Vial SRS-4448; printed red label, HOLOTYPE Male ***Tosta saltarana*** S.R. Steinhauser; printed white label, Allyn Museum Photo No.030301-13, 14. The holotype is deposited in the McGuire Center for Lepidoptera and Biodiversity (MGCL).

Etymology: *Tosta saltarana* is named "leapfrog" for the appearance of the tegumen/uncus in dorsal view.

Discussion. *Tosta saltarana* is very closely related to *T. sapasoa* Nicolay, 1973, differing superficially by its slightly larger size, 22.5 mm forewing for *T. saltarana* versus 20 mm for *T. sapasoa* and very slightly more distinct ventral wing markings. The antennal nudum is 21 segments in *T. sapasoa* versus 28 in *T. saltarana*. In the genitalia, the valvae of *T. sapasoa* are broader caudally than *T. saltarana* due to the broader ampulla, and the costa is less humped centrally; the coarsely dentate, dorsally and ventrally projecting portion of the harpe of *T. sapasoa* extends nearly the full width of the valva, whereas it is a much smaller, inwardly projecting, more finely dentate, dorsal flap in *T. saltarana*. The gnathos of *T. sapasoa* extends caudad at least as far as the uncus, much farther than in *T. saltarana*. The penis of *T. sapasoa* is relatively longer than that of *T. saltarana*; 87% of valva length in *T. sapasoa* versus 73% in *T. saltarana*, and 94% of vinculum/tegumen height in *T. sapasoa* versus 73% in *T. saltarana.*

Joanna clara, new species

Figs. 3 (♂ Holotype), 8 (♂ forewing venation and brands), 9 (♂ genitalia)

Male. Head: Brown. Palpi somewhat flattened, with mixed dark brown and whitish scaling, third segment cylindrical, protrudes slightly beyond clothing of second. Antennae slightly longer than half costa, shaft checkered dark brown and yellowish white below, entirely dark brown above; club slender, dark brown, yellowish white beneath at base; club 28% of total antennal length; apiculus hooked, about one third club length and three times club width; nudum 3/10, terminal segment short.

Thorax: brown. **Legs** brown, with some paler brown scaling on outside; foretibiae with stout pale brown epiphyses reaching tarsi; mid- and hindtibiae spined, clothed in long brown hairs on outside; midtibiae with single pair of spurs, hindtibiae with two.

Forewing width half of length, termen rather straight; discal cell shorter than dorsum, about 60% of forewing length; Cu_2 arises from cell much nearer to base than to Cu_1; M_3 about midway between Cu_1 and M_2 which is slightly decurved toward M_3. There is a rather obscure, brown tripartite brand, sagittate near base of Cu_1-Cu_2 and extending along cubitus about halfway between Cu_1 and Cu_2, and slender segments below Cu_2 and above 2A. **Hindwing** costa slightly less than dorsum, termen rounded, cell about half wing length; Rs branches from cell somewhat nearer cell end than base.

Dorsal surface: Forewing brown, lightly overlaid with ochreous scales basally and along costa. There are hyaline white spots as follows: minute spots in upper discal cell and in R_5-M_1, an ovoid spot near base of M_3-Cu_1 and a narrow oblique spot across Cu_1-Cu_2 beneath the origin of Cu_1. There is a small opaque yellowish spot in mid Cu_2-2A just above 2A. Fringes concolorous, becoming slightly paler grayish brown at tornus. **Hindwing** same brown as forewing, with very faint suggestion of paler yellowish spots near cell end and as a postdiscal band from M_1-M_2 to Cu_1-Cu_2. Fringes concolorous at apex, becoming pale gray along termen and at tornus.

Ventral surface: Forewing slightly paler brown than above, darker in basal half, no pale marking in Cu_2-2A, hyaline spots repeated from above. There is a darker brown terminal line before the fringe. Fringes concolorous. **Hindwing** same paler brown as forewing, lightly overscaled ochreous behind Cu_2, somewhat darker in basal half of wing, more or less faint whitish spots near cell end and as a postdiscal band from M_1-M_2 to Cu_1-Cu_2. Terminal prefringe line as on forewing. Fringes as above. **Abdomen** brown above, mottled gray and brown beneath.

Genitalia: Tegumen short and broad. Uncus broad, but narrower than tegumen and gnathos, rather sinuous caudally. Gnathos well separated from uncus in lateral view, bifurcate, with the arms tending toward bifurcation but much less so than in *J. joanna* Evans, 1955 and *J. boxi* Evans, 1955. Valvae symmetrical, long, slender; harpe square ended, bearing inwardly dentate ridge just cephalad of its caudal end. There is a rather prominent sharp tooth directed inward and ventrocephalad near the base of the harpe, more prominent than in *J. joanna*, but much less prominent than the cephalad directed tooth of *J. boxi*. Saccus very short. Juxta not prominent; transtilla a prominently sclerotized smooth rounded band. Penis short, shorter than valva, rather broad, straight, prominently forked caudally in dorsal and ventral view (a character common to the genus), without cornutus.

Female. Unknown.

Wing measurements: Male forewing 17 × 8.5 mm.

Type material. Holotype male, Brasil: Rio de Janeiro; Rio Claro; 1972 C. Callaghan, bearing the following labels: printed and hand printed white label, BRASIL: RIO de JANEIRO Rio Claro 1972 C. Callaghan; printed white label, A.C. Allyn Acc. 1973-2; printed and hand printed red label HOLOTYPE [male symbol] Joanna clara S.R. Steinhauser; printed white label, Genit. Vial SRS-3533; printed and hand printed white label, Allyn Museum Photo No. 030301-23, 24. The holotype is presently in the collection of the McGuire Center for Lepidoptera and Biodiversity (MGCL) and will be deposited in the collection of the Universidade Federal do Paraná, Curitiba, Brasil.

Etymology. *Joanna clara* is named for its place of origin, Rio Claro.

Discussion. *Joanna clara* will key to the genus *Joanna* in Evans' (1955:264, 265) key to the genera of his "L" group of the Hesperiinae and near to *J. boxi* in his key to the species. Superficially it differs from *J. boxi* in size, 17 mm forewing for *J. clara* versus 15 mm for *J. boxi*, in having smaller and narrower forewing hyaline spots, and in its lack of a white dash in space 1b (Cu_2-2A) of the ventral forewing. The male genitalia of *J. clara* differ from *J. boxi* in having a longer, narrower valva with a smaller interior tooth directed more ventrally than the prominent cephalad-directed tooth of *J. boxi*, a less prominent ventral offset in the harpe and less prominently bifurcate arms to the gnathos. *J. clara* differs from *J. joanna* principally in the form of the secondary male sex characters, more like a stigma in *J. joanna* than the brands of *J. clara*.

Neoxeniades anchicayensis, new species

Figs. 4 (♂ Holotype), 10 (♂ forewing venation), 11 (♂ genitalia)

Male. Head: Dark brown with brilliant iridescent blue reflectance; palpi flattened, dark brown above with brilliant blue reflectance, speckled dark brown and whitish beneath with diminished blue reflectance, third segment short, stout; prominent white scaling beneath eyes. Antennae longer than half costa, reaching to end of Sc (subcosta), shaft and club plain brown, narrowly white beneath club base; apiculus angled, about half of slender, gradually tapered club which is 0.24 times total antennal length; nudum dark brown, 17 segments (5/12) in holotype, varying between 16 and 17 with 5 or 6 segments on club in three paratype males.

Thorax: brilliant iridescent blue. **Legs** brown with moderate blue reflectance; foretibiae with stout reddish brown epiphyses reaching tarsi; mid- and hindtibiae smooth, midtibiae with single pair of spurs, hindtibiae with two pairs.

Forewing slightly less than half as wide as long, apex rounded, termen rather straight from about M_2 or M_3 to tornus; Cu_2 arises from cell about midway between base and Cu_1; M_3 arises from cell midway between M_2 and Cu_1; M_2 very slightly decurved at origin. On the dorsal surface there are very obscure, very slender (barely wider than the adjacent vein) brands above and below Cu_2 and above 2A, the longest. **Hindwing** more or less triangular, dorsum longer than costa; discal cell slightly less than half wing length; vein M_2 not developed.

Dorsal wing surface: Forewing dark brown, brilliant iridescent blue in basal third behind cubitus. There are three golden yellowish hyaline spots in discal cell (nearly square, outer edge centrally excavate), M_3-Cu_1, the smallest (square), Cu_1-Cu_2, the largest (quadrilateral, inner corners square, lower edge extended, distally). There is a smaller, triangular, opaque golden yellowish spot in the lower part of Cu_2-2A, its outer corner

approximately beneath the inner edge of the spot in Cu_1-Cu_2. Fringes concolorous at apex shading to slightly paler brown at tornus. **Hindwing** same dark brown as forewing, unmarked, basal half or slightly less brilliant iridescent blue. Fringes concolorous, shading to paler brown at tornus.

Ventral wing surface: Forewing much paler brown than above distad of hyaline spots which are repeated from above, but black brown proximad of spots except in upper cell and costal area; basal area below radius with minor blue-green reflectance. The opaque spot in Cu_2-2A covered with white scales which extend distad in upper Cu_2-2A to outer edge of spot in Cu_1-Cu_2. Veins in apical area slightly darker than ground. Fringes concolorous at apex, shading to paler brown at tornus. **Hindwing** same paler brown as forewing with very faint greenish tint; veins darker than ground. There is a rather prominent small white spot at cell end and a white to whitish postdiscal spot band, fairly prominent in M_3-Cu_1 and Cu_1-Cu_2, quite faint in Rs-M_1 and M_1-M_3. Fringes concolorous, shading to whitish at tornus. **Abdomen** brilliant iridescent blue above, shading to dark brown anally, whitish beneath with dark brown median stripe.

Genitalia. Tegumen rather square, but with a triangular caudal extension over the uncus which narrows distally, then expands to a bifurcate terminus, forming a broad based "Y". Gnathos as broad as tegumen, widely bifurcate, the slightly convergent arms extending caudad somewhat less than the uncus. Saccus relatively short, triangular. Valvae symmetrical, long, about 1.2 times combined tegumen/uncus length, rather slender, length about 2.3 times widest width; harpe bluntly rounded ventrally, dorsocaudal corner a right angle, dorsal dentate edge sloped, sacculus rather short. Penis moderately long, about 1.2 times valva length, terminally bifurcate, without cornutus, but with two small, flag-like teeth, right and left near caudal end. Juxta well sclerotized, broadly and shallowly bifurcate at cephalad end.

Female. Unknown.

Wing measurements: Forewing 23 × 11 mm in holotype, varying from 21.5 × 10.5 to 22 × 11 in three male paratypes.

Type material: Holotype male, Colombia: Valle del Cauca; Rio Anchicayá 1000 m, 31-xii-1975, leg S. R. and L. M. Steinhauser, bearing the following labels: printed and hand printed white label, COLOMBIA: Valle del Cauca; / Rio Anchicaya 1000 m. / 31/XII/1975 / No. CH-1290 Coll. / by S.R. y L.M. Steinhauser; printed white label, A. C. Allyn / Acc. 1976-3; printed and hand printed white label, Neoxeniades sp. / scipio gp. (male symbol) / printed and hand printed white label, Allyn Museum Photo / No. 010824-16,17; printed red label, HOLOTYPE Male / *Neoxeniades anchicayensis* / Stephen R. Steinhauser. There are four male paratypes, same locality and collectors as holotype, two (CH-574, 575) 2-ii-1975 and two (CH-1289, 1291) 31-xii-1975. There is another male, not included in the type series, from Nicaragua: Matagalpa in the collection of Richard A. Anderson. The type series is deposited in the McGuire Center for Lepidoptera and Biodiversity (MGCL).

Etymology. *Neoxeniades anchicayensis* is named for its type locality, the Rio Anchicayá in Valle del Cauca Province, Colombia.

Discussion. In Evans' (1955: 453-458) key to the species of *Neoxeniades* Hayward, 1938, *N. anchicayensis* keys to *N. musarion* Hayward, 1938, the type species of *Neoxeniades*. It differs superficially from *N. musarion* on the dorsal surface in having more extensive and more intense blue iridescence. On the ventral surface, the white spots of *N. anchicayensis* are missing in *N. musarion*, which has a more greenish ochreous rather than light brown ground color. The male genitalia of *N. musarion* have much

shorter and broader valvae, about equal to combined uncus/tegumen length and about 1.5 times as long as wide, versus 1.2 times uncus/tegumen length, and 2.3 times as long as wide for *N. anchicayensis* which also has a longer harpe; the uncus of *N. musarion*, viewed dorsally is much less slender than that of *N. anchicayensis*. It should be noted that the male genitalia of all *Neoxeniades* species are quite similar, rendering significance to small differences.

Neoxeniades anchicayensis might be confused with several taxa of the *N. scipio* (Fabricius, 1793) group, in which I include the five subspecies listed by Evans, as well as *N. tropa* Evans, 1955 and *N. musarion.* It differs superficially from all but *N. musarion* in having golden yellowish hyaline spots instead of white.

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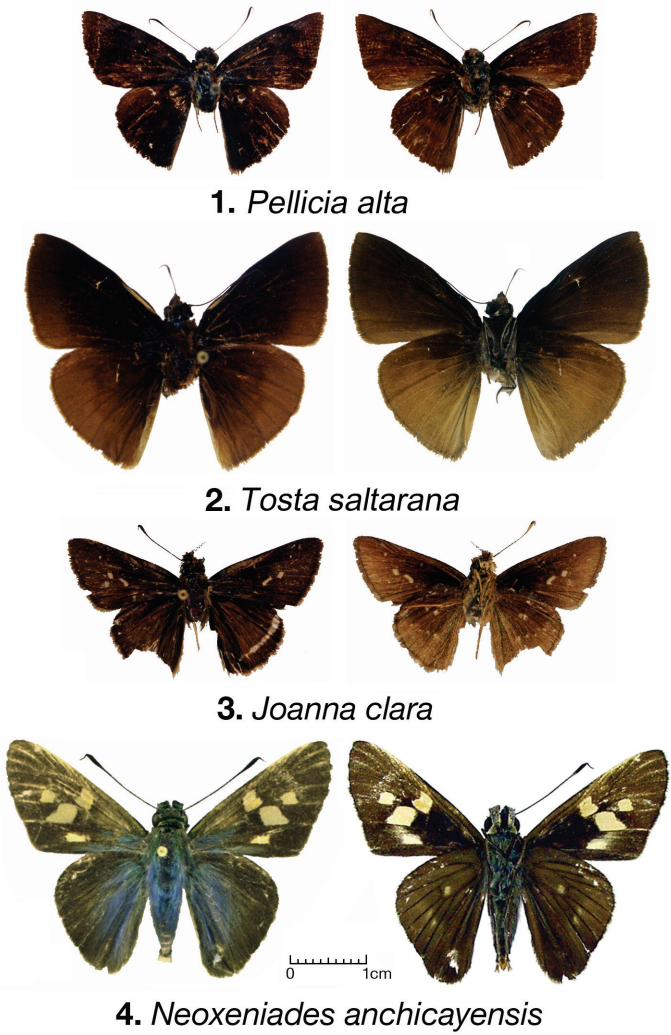
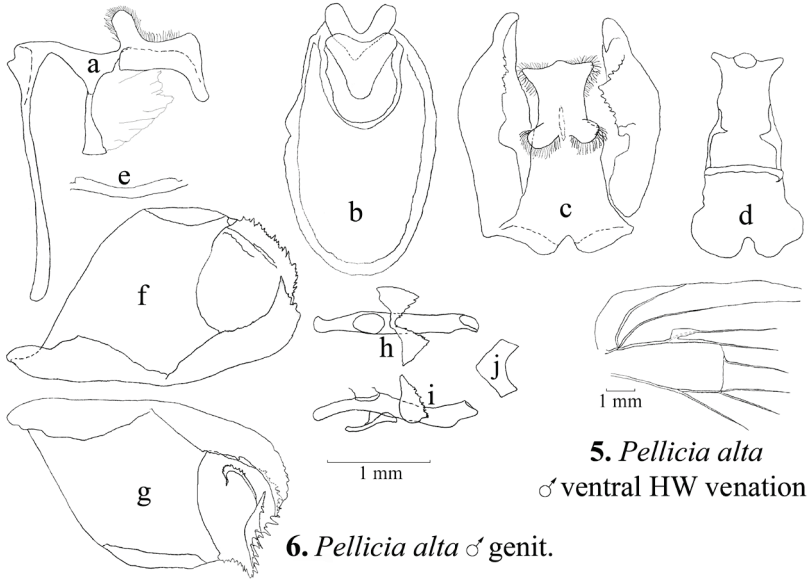
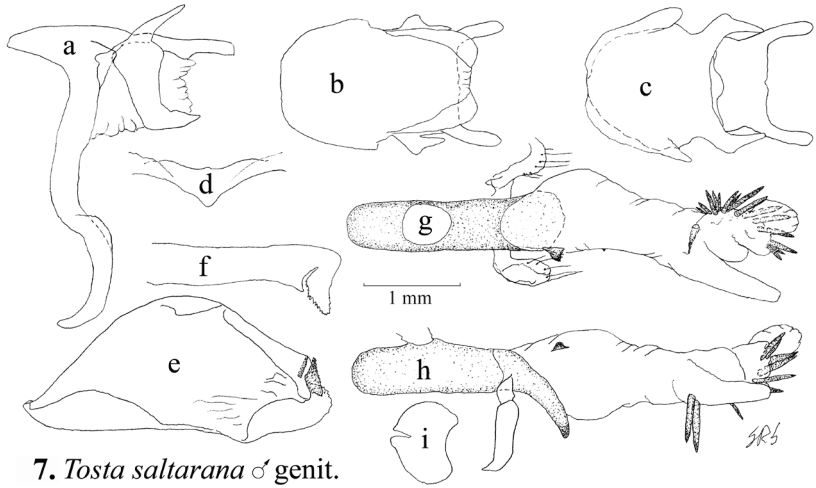


Figures 1-4. Hesperiidae; dorsal view left; ventral view right. **1)** *Pellicia alta*, **new species**, male holotype; **2)** *Tosta saltarana*, **new species**, male holotype; **3)** *Joanna clara*, **new species**, male holotype; **4)** *Neoxeniades anchicayensis*, **new species**, male holotype (note that the right antenna was lost subsequent to photography of the dorsal view).



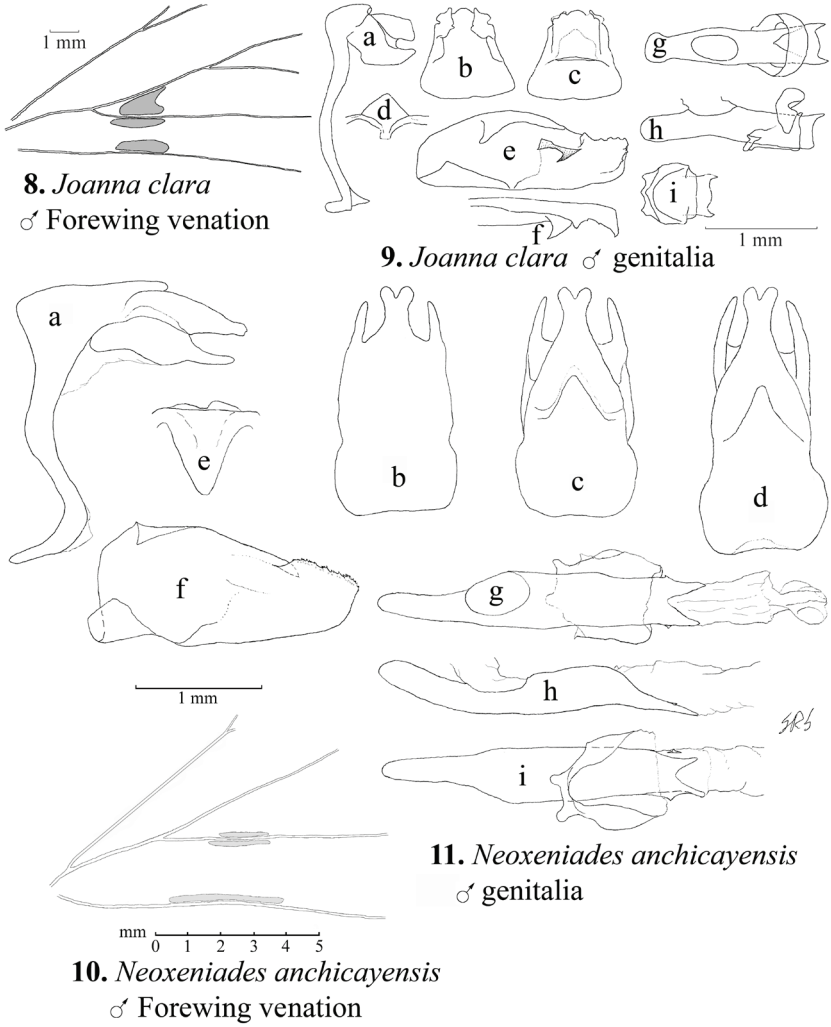
5. *Pellicia alta* ♂ ventral HW venation

6. *Pellicia alta* ♂ genit.



7. *Tosta saltarana* ♂ genit.

Figures 5-7. *Pellicia* and *Tosta* new species: **5**) *Pellicia alta*, **new species**, male ventral hindwing venation; **6**) *Pellicia alta* male genitalia: **a**) tegumen, uncus, gnathos & vinculum - lateral; **b**) same - viewed from behind; **c**) uncus, tegumen & valvae - dorsal; **d**) tegumen, uncus & gnathos - ventral; **e**) saccus - ventral; **f**) right valva interior - lateral; **g**) left valva interior - lateral; **h**) penis & transtilla - dorsal; **i**) penis, transtilla & juxta - lateral; **j**) juxta – ventral; **7**) *Tosta saltarana*, **new species,** male genitalia: **a**) tegumen, uncus, gnathos, vinculum & saccus - lateral; **b**) tegumen, uncus & gnathos - ventral; **c**) same dorsal; **d**) juxta - ventral; **e**) right valva interior - lateral; **f**) right valva- dorsal; **g**) penis (vesica extruded to show cornutus & flag) and juxta - dorsal; **h**) same - lateral; **i**) juxta - ventral.



Figures 8 - 11. *Joanna* and *Neoxeniades* species: **8**) *Joanna clara*, **new species,** male forewing venation & brands; **9**) *Joanna clara* male genitalia: **a**) tegumen, uncus, gnathos, vinculum & saccus - lateral; **b**) tegumen, uncus & gnathos - ventral; **c**) same - dorsal; **d**) saccus - ventral; **e**) right valva interior - lateral; **f**) right valva - dorsal; **g**) penis & transtilla - dorsal; **h**) penis, juxta & transtilla - lateral; **i**) juxta and caudal end of penis – ventral; **10**) *Neoxeniades anchicayensis*, **new species**: Dorsal forewing venation, showing brands; **11**) *Neoxeniades anchicayensis*, male genitalia: **a**) tegumen, uncus, gnathos, vinculum & saccus - lateral; **b**) tegumen, uncus & gnathos - ventral; **c**) same - dorsal; **d**) tegumen, uncus, gnathos of holotype - dorsal; **e**) saccus - ventral; **f**) right valva interior - lateral; **g**) penis and juxta - dorsal; **h**) penis - lateral; **i**) penis and juxta - ventral.