NEOTROPICAL MICROLEPIDOPTERA, V

SYNOPSIS OF THE SPECIES OF THE GENUS PROEULIA FROM CENTRAL CHILE
(LEPIDOPTERA: TORTRICIDAE)\textsuperscript{1}

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The Neotropical species usually referred to the genera \textit{Eulia} Hübner, \textit{Tortrix} Linné, and \textit{Cnephasia} Curtis actually have little in common with these Holarctic genera. Some of these species have been relegated recently to the genera \textit{Argyrotaenia} Stephens, \textit{Subargyrotaenia} Obraztsov, \textit{Proeulia} Clarke, \textit{Anopina} Obraztsov, and others, but the generic position of many species still remains uncertain. Five new species from Central Chile described in this paper and four already known are assigned to the genus \textit{Proeulia}. Additional information is included here concerning the previously described species.

The genus \textit{Proeulia} was established recently for two species from the Juan Fernandez Islands (Clarke, 1963). The characters of this genus, originally based on a study of its type, \textit{P. robinsoni} (Aurivillius),

and *P. griseiceps* (Aurivillius), have been confirmed by the additional nine species from Central Chile examined by the present author. Only in the description of the wing venation are some modifications necessary. In the original diagnosis of *Proculia*, the veins R and M₁ of the hindwing were described as stalked, and they are similar in most of the species treated in the present paper. In the new species *Proculia trigetra*, however, these veins are either variously long-stalked, or originating connate, or even slightly separate, although closely approximated to each other in the basal portions. Also, veins M₃ and Cu₁ of the hindwing are either connate (as in *P. robinsoni* and *P. griseiceps*) or slightly separate at origin. In view of the observed individual variation of these characters in one and the same species, it seems to be expedient to extend the diagnosis of the genus to include all these modifications.

The study of the nine additional species assigned to this genus has demonstrated some important specific modifications in the shapes of certain parts of the genitalia, as is seen from the descriptions and photographs in this paper. The most unusual is the process that projects from the ventral surface of the bursa copulatrix, exhibiting a greater reduction in *Proculia griseiceps* than in *P. robinsoni*. In *P. auraria* (Clarke), *P. chrysopteris* (Butler), and *P. apospasta*, new species, this process is very short. It is quite possible that in some species not yet known this reduction may appear to be even more complete. In *P. leonina* (Butler) and *P. aethalea*, new species, the above process is especially well developed. The location of this process close to the inception of the ductus seminalis and its connection with the surrounding sclerotization supports the identification of this structure as a cestum, developed in the present case as an external protrusion. The area around the ostium oviductus generally is sclerotized somewhat in all species of *Proculia*. The corresponding sclerite is reversely subcordate as a rule and probably represents a modification of the papillae genitales known in some other families of the Lepidoptera (Kusnezov, 1916). This structure still is studied poorly in the Tortricidae and probably will be found in other genera of this family.

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Key to the Species of *Proeulia* from Central Chile

1. Forewing unicolorously ochreous with some few, little, scattered black dots ................................................................. 2
   Forewing not ochreous; if ochreous, more markings, especially at dorsum, are present .................................................. 3

2. Hindwing pale ochreous, at base with a concolorous or slightly darker tuft of hairs; sacculus not protruding valva ................ *leonina* (Butler)
   Hindwing shiny white, at base with a white tuft of hairs; sacculus protruding valva .................................................... *cneca*, new species

3. Forewing with two bands originating at costa and meeting each other at a point slightly remote from dorsum .................... *tenontias* (Meyrick)
   Forewing without such bands .................................................................................................................................................. 4

4. Dorsum of forewing with a large triangular spot connected with wing base by means of a band along dorsum; hindwing dark hazel grayish to dark lead gray ............................................................... *triquetra*, new species
   Dorsum without any defined spot; if such is present, not connected with wing base; hindwing whitish or somewhat fuscous, never very dark ................ 5

5. Forewing dark fuscous, diffusely shaded, without defined markings.
   *aethalea*, new species

   Forewing of some other color; markings more or less distinct and consisting either of a dorsal spot or of some (at least incomplete) bands and/or reticulation, or all these markings present ........................................ 6

6. Forewing with a ferruginous blotch in basal portion; an oblique, white line closely basad from dorsal spot .................................... *apospasta*, new species
   Forewing without ferruginous blotch in basal portion and no white line basad from dorsal spot .................................................. 7

7. Sacculus protruding valva and ending with a free, sharp point.
   *chrysopteris* (Butler)

   Sacculus not protruding valva and not pointed at tip ....................................................................................................................... 8

8. External margin of valva curved in lower portion and reaching end of sacculus vertically; shorter cornutus longer than one-half length of long cornuti.
   *inconspicua*, new species

   External margin of valva not perceptually changing its direction from apex to end of sacculus; shorter cornutus less than one-half length of long cornuti.
   *auraria* (Clarke)

*Proeulia leonina* (Butler), new combination


Male genitalia: Uncus rather short; socii long, gradually and moderately dilated. Fultura superior narrow; fultura inferior high and rather narrow. Valva broad; sacculus moderate, pointed, not protruding valva. Aedeagus moderately thickened, with tip rounded; three long cornuti, one longer than remaining two.

Female genitalia: Lamella antevaginalis large, deeply incised at middle, covering ostium bursae. Antrum large, subrectangular.
Corpus bursae elongate-ovate, with a large, lateral swelling bearing a well-developed cestum; cervix bursae broad and short. Sclerotization around ostium oviductus well developed.

Types: Lectotype, male (genitalia on slide 8641), Valparaiso, Chile, November 1881 (T. Edmonds, 1882-107); lectoallotype, female (genitalia on slide 8776), same data; British Museum (Natural History).

Other specimens examined: One male and two females, Chile (T. Edmonds, Druce Collection, 1917-36); one female (genitalia on slide 6711), Quillota, Valparaiso, Chile, 1886 (Paulson, 68384); British Museum (Natural History).

*Proculia auraria* (Clarke), new combination

**Plates 2, 3**


The original description of this species was based on a series of six male specimens, all of them taken in Cajón de Maipo, Santiago. Many additional specimens examined for the present paper originated from other localities, showing that the species is rather variable. The length of the forewing varies from 7 to 12 mm. Most of the small specimens (the type series included) have the forewing markings reduced to an incomplete oblique band running from the middle of the costa toward the tornus and sending from slightly below its middle a short band directed toward the middle of the dorsum. These bands are generally underdeveloped, and only some of their elements are present in each specimen. In some specimens the dorsal portions of the above-mentioned bands form a more or less distinct dorsal triangle or a semicircular arch, some outlines of which are dilated and more intensively dark colored, forming blackish-brown spots. In addition, one more band may be present, running externally to the oblique costotornal band and parallel to it. Occasionally all or some of the bands are widely dilated, and/or some minute, brownish, or ferruginous streaks at the costa and dorsum are present. The golden-ocherous ground color of the forewing is more or less mottled with brown or ferruginous, which causes development of a fine reticulation or separate spots or short lines. Rarely the two basal thirds of the forewing or even the entire forewing are overlaid with brown. Upper basal angle of the forewing commonly differs from the ground color of the wing and is brown, gray, or yellowish. The hindwing is white, ocherous white, or pale cinereous, in some specimens distinctly speckled with gray.

Male genitalia: Uncus rather long, slightly bent; socii dilated externally. Fultura superior narrow; fultura inferior moderately
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high. Valva elongate, gradually bent upward and slightly narrowed apicad; sacculus moderate, somewhat tapering apicad, not free pointed. Aedeagus rather stout; from two to four long cornuti, one short, slightly curved, less than half length of long cornuti.

Female genitalia: Lamella antevaginalis band shaped, narrowed laterad; lamella postvaginalis semimembranous. Antrum not developed. Corpus bursae somewhat ovate, scobinate; cestum shaped as a short, rotundate projection with a moderately sclerotized base; cervix bursae broad and short. Sclerotization around ostium oviductus A-shaped.

Types: Holotype, male (genitalia on slide), and three male paratypes in USNM. One male paratype in the British Museum (Natural History). One male paratype (not seen by the present author) in the collection of F. Bourquin. All were collected in Cajón de Maipo, Santiago, Chile, Jan. 12–20, 1948 (Don Tito Ramírez).

Other specimens examined: One male, Chile Centro-Austral, January–March 1898 (V. Izquierdo), in USNM. Five males (genitalia of two on slides 6694 and 6703), and two females (genitalia of one on slide 6710), Coquimbo, Chile, July 1–Oct. 19, 1883 (Walker, 3021–3024, 3000, 3205), and May 1884, bred from Aristolochia chilensis (Walker, 3234); two males (genitalia of one on slide 6760) and one female, Valparaíso, Chile, Mar. 22–Apr. 13, 1882, Sept. 30–Oct. 8, 1883 (Walker, 2353, 2359, 3078); six males (genitalia of one on slide 6693), Quillota, Valparaíso, Chile, 1886 (Paulson, 68013–68018); the foregoing 15 specimens are deposited in the British Museum (Natural History). Five males (genitalia of one on slide, 21–Obr., 1962), Guayacán, Santiago, Chile, 1100 m., Jan. 25–26, 1951, October 1952 (L. E. Peña); two males (genitalia on slides, 1–Obr., 1962, and 2–Obr., 1962), La Obra, Santiago, Chile, October 1952 (L. E. Peña); one male (genitalia on slide, 22–Obr., 1962), El Principal, Chile, November 1888 (V. Izquierdo); all eight specimens are in USNM.

Remarks: The holotype and its genitalia were figured by Clarke (1949). The shape of the valvae became distorted slightly on the original photograph, and they look more narrow apicad than they really are. The holotype has three long cornuti, but this number varies in the species. In one of the males examined (slide, 1–Obr., 1962) there are only two long cornuti; another male (slide, 21–Obr., 1962) has four of them. The presence of a short, slightly bent cornutus is apparently constant for the species. The variation of the number of

Because the collector is deceased, there is probably no way of ascertaining exactly this location. Gazetteer (no. 6, Chile, Office of Geography, Department of the Interior, Washington, August 1955, p. 107) lists two names, one located at 33.47 S. and 70.30 W., the other at 33.42 S. and 70.34 W.
the cornuti and the forewing markings are independent from each other.

*Proeulia aethalea*, new species

**Plate 4**

Antenna fuscous. Labial palpus pale brownish gray, speckled with dark fuscous. Head fuscous touched with gray. Thorax grayish brown. Abdomen brownish gray with a dark brown transverse line on caudal edge of eighth abdominal tergite. Legs ocherus. Forewing fuscous with indistinct, somewhat olive-brownish or gray-brownish markings apparently consisting of two diffuse, very broad transverse bands inclined basad; cilia dark brownish gray (as seen under magnification, with scales white checked). Underside of forewing grayish ocherus. Length of forewing 11 mm. Hindwing yellowish white, mottled with pale olive brown; an olive-brownish hair brush at base of veins $A_2$ and $A_3$; cilia whitish.

Male genitalia: Uncus rather long; socii dilated externally. Fultura superior dilated laterally; fultura inferior triangular, moderately high. Valva elongate with apex directed upward and external margin rather vertical, in lower portion; sacculus rather broad, moderately long, with tip slightly tapering and slightly protruding beyond lower margin of valva. Aedeagus thickened, with a long and broad lower distal portion and a sclerotized margin around orificium; cornuti arranged in two groups: upper of eleven long cornuti, and lower of three cornuti about half as long as upper ones.

Female genitalia: Lamella antevaginalis shaped as a semicircular band dilated toward antrum; lamella postvaginalis weakly sclerotized, forming dorsal surface of funnel of ostium bursae. Antrum large, membranous. Corpus bursae elongate, sclerotized, covered with stronger sclerotized, longitudinal lines and, in caudal portion, with fine scobination; cestum in form of a long, digitate projection arising from a large basal disc located cephalad from cervix bursae. Weak sclerotization around ostium oviductus.

Types: Holotype, male (genitalia on slide, 17-Obr., 1962), La Obra, Santiago, Chile, October 1902 (L. E. Peña), USNM (type no. 66830). Allotype, female (genitalia on slide 6699), Valparaiso, Chile, Sept. 30–Oct. 8, 1883 (Walker, 3080), British Museum (Natural History).

Remarks: This species differs from the remaining known members of the genus in having very indistinct and poorly defined markings on the forewing. The shape of the aedeagus, the set of the cornuti, and the characters of the female genitalia are unique in the genus *Proeulia*. The name of this species is derived from the Greek *aethaleos*, meaning "smoky."
Proeulia triquetra, new species

Plate 5

Antenna more or less dark brown. Labial palpus ocherous, more or less strongly mixed with brown, dark brown, somewhat ferruginous brown, or gray brown, occasionally with slight grayish suffusion; on inside pale ocherous, at least at base. Head and thorax brownish ocherous, hazel brown, mahogany brown, or ferruginous brown, often somewhat grayish suffused; posterior scale tuft occasionally more intensively colored. Abdomen fuscous with occasional touch of pale grayish or ocherous; ventral surface usually somewhat paler, occasionally grayish ocherous. Legs hazel grayish, on inside pale ocherous. Forewing brownish ocherous, testaceous, bay, or of some approximate shade, with more or less distinct, brown reticulation; dorsum with a paler, whitish-ocherous, longitudinal streak slightly suffused with brownish ocherous, testaceous, or bay; it originates at wing base and is dilated into a large triangle before tornus; upper margin of this streak is outlined by a narrow, white line, occasionally missing in some places, but constant at inner side of dorsal triangle and accompanied there by a more or less distinct, brownish-ocherous to dark-gray line (or merely a shadow) from inside of triangle; occasionally dorsal streak and its triangle are strongly darkened, and indicated only by above-mentioned white line along their upper margins; area, bordering dorsal streak and reaching discal cell, usually darker than adjacent ground; a brownish or blackish more or less distinct line originating at middle of costa, directed to, or to slightly below, apex of dorsal triangle, then turning toward wing apex; external portion of this line occasionally dilated, outlining poorly defined costal triangle before wing apex; some occasional, minute, blackish strigulae perpendicular to costa and/or dorsum; cilia concolorous with wing ground, occasionally dark grayish checked, or darker tornad, rarely paler at tips; underside of forewing dark brownish gray, at margins brownish ocherous or testaceous; occasionally entire central area somewhat lightened, grayish testaceous. Length of forewing 9-11 mm. Hindwing hazel grayish to lead gray; cilia concolorous or slightly paler, with a fine, more or less dark gray line.

Male genitalia: Uncus rather long; socii strongly dilated and rounded. Fultura superior rather broad; fultura inferior moderately high. Valva elongate, directed obliquely upward; sacculus broad, short, not free pointed. Aedeagus thickened; three long cornuti, and a separate group of 11-12 very short ones.

Female genitalia: Lamella antevaginalis bandlike, narrowed laterally; lamella postvaginalis weakly sclerotized. Antrum wide and short.
Corpus bursae pyriform; scobination chiefly developed at its left side; cestum shaped as a rather narrow, digitate projection on a weakly sclerotized base; cervix bursae broad, tubular. Sclerotization around ostium oviductus well developed.

Types: Holotype, male (genitalia on slide, 7-Obr., 1962), and allo-type, female (genitalia on slide, 10-Obr., 1962), Chillán, Nuble, Chile, Nov. 10, 1961 (H. Lister). Paratypes: one female (genitalia on slide, 9-Obr., 1962), San Ignacio, Nuble, Chile, February 1892 (V. Izquierdo); four males (genitalia of one on slide, 5-Obr., 1962), Concepción, Chile, March 3, 16, and 30, 1961 (Trampas); one female, Araucania [Arauco], Chile, March 1, 1892 (V. Izquierdo); three females (genitalia of one on slide, 8-Obr., 1962), Chile (V. Izquierdo; Silva). All specimens are deposited in USNM (type no. 66831).

Remarks: This is the only known Proeulia species with a broad dorsal streak on the forewing. In other species, the dorsal triangle is not connected by a streak with the wing base. The genitalia of both sexes of P. triqueta have many characters distinguishing it from other species of the genus.

Proeulia inconspicua, new species

Plate 6 (Figs. 4–6)

Male: Antenna ocherous with brown annulation. Labial palpus ocherous with slight ferruginous tinge, on inside pale ocherous. Head pale ocherous. Thorax (badly damaged) ferruginous ocherous; tip of tegula ocherous. Abdomen pale ocherous, slightly brownish dorsally. Legs ocherous. Forewing ocherous, irregularly, densely sprinkled with ferruginous; at middle of dorsum a short, broad, ferruginous brown streak inclined basad; an inconspicuous, ferruginous fascia running from middle of costa to tornus; transverse rows of minute, ferruginous dots, in external wing portion; some inconspicuous, minute, ferruginous costal streaks, darker of them located apically; a fine, ferruginous terminal line, gradually becoming obsolete tornad; cilia pale ferruginous ocherous, slightly darker at tornus; underside of forewing ocherous, somewhat ferruginous costad, with transverse rows of inconspicuous, minute, brownish-ferruginous dots. Length of forewing 11 mm. Hindwing very pale fuscous white, almost white, sprinkled with gray; hair tuft on wing base pale gray; cilia concolorous with wing surface.

Female: Unknown.

Male genitalia: Uncus rather long; socii elongate, dilated at middle. Fultura superior moderately and equally broad; fultura inferior almost triangular, moderately high. Valva elongate, directed upward; its external margin vertical, in lower portion; saeculus broad, rounded
Plate 1.—Proculia leonina (Butler). Lectotype, male: 1, right wings (image reversed); 2, ventral aspect of genitalia with aedeagus removed; 3, lateral aspect of aedeagus. Lectoallotype, female: 4, ventral aspect of genitalia; 5, detail of bursa copulatrix. Female genitalia of other specimen (slide 6711): 6, ventral aspect of genitalia; 7, detail of bursa copulatrix.
Plate 5.—*Proculia triqueta*, new species. Holotype, male: 1, left wings; 2, ventral aspect of genitalia with aedeagus removed; 3, lateral aspect of aedeagus; 4, detail of aedeagus. Allotype, female: 5, left wings; 6, ventral aspect of genitalia; 7, detail of bursa copulatrix.
Plate 6.—*Proculia apospasta*, new species, holotype, female: 1, right wings (image reversed); 2, ventral aspect of genitalia; 3, detail of bursa copulatrix. *P. inconspicua*, new species, holotype, male: 4, left wings; 5, ventral aspect of genitalia with aedeagus removed; 6, lateral aspect of aedeagus.
Plate 7.—Proculia tenontias (Meyrick), female (genitalia on slide, 19-Obr., 1962): 1, left wings; 2, ventral aspect of genitalia; 3, detail of ostium bursae; 4, cestum. *P. cneca*, new species, holotype, male: 5, left wings; 6, ventral aspect of genitalia with aedeagus removed; 7, lateral aspect of aedeagus.
Plate 8. *Proculia chrysopteris* (Butler), males

1. Holotype: 1, left wings; 2, ventral aspect of genitalia with aedeagus removed; 3, lateral aspect of aedeagus; 4, detail of aedeagus. Specimen from Chile Centro-Austral (genitalia on slide, 11-Obr., 1962): 5, left wings; 6, ventral aspect of genitalia with aedeagus removed; 7, lateral aspect of aedeagus; 8, detail of aedeagus. Specimen from Chile (genitalia on slide, 16-Obr., 1962): 9, right wings (image reversed).
externally. Aedeagus rather thick, with lower tip acute and upper with a slightly elevated carina; two long cornuti, one short, slightly longer than one-half length of long ones.

Type: Holotype, male (genitalia on slide, 3-Obr., 1962), La Obra, Santiago, Chile, October 1952 (L. E. Peña), USNM (type no. 66832).

Remarks: Somewhat similar to Proeulia apospasta, new species, but the markings of the forewing are more indistinct; no distinct triangular spot on the dorsum of forewing. Very typical of the species is a carina in the upper distal portion of the aedeagus.

Proeulia apospasta, new species

Plate 6 (Figs. 1-3)

Female: Antenna ocherous, slightly brownish annulated. Labial palpus ocherous, mixed with ferruginous, paler from inside. Head, thorax, and abdomen concolorous with labial palpus. Legs pale ferruginous ocherous. Forewing ocherous, slightly ferruginous ocherous in external portion, and strongly so colored at wing base; a broad, ferruginous, longitudinal blotch, originating at wing base, tapering basad and externad, and not reaching end of discal cell; a narrow, oblique, brownish-ferruginous streak from lower angle of discal cell to middle of dorsum; a narrow, whitish line separating this streak from external, oblique edge of above-mentioned ferruginous blotch, and connected to pale ocherous, dorsal area below this blotch; a narrow, oblique, slightly undulate, brownish-ferruginous band shaded externally by ferruginous, running costotornal from about middle of costa but not reaching tornus, and with its middle touching upper end of above-mentioned brownish-ferruginous oblique streak almost under right angle; a triangular, pale ocherous dorsal spot separated by that streak and lower portion of mentioned costotornal band; some indistinct, pale ferruginous, minute streaks in costal area, and fine, concolorous dots and lines in area externad from costotornal band; a minute, brownish-ferruginous dot at dorsum before tornus; cilia pale ferruginous, becoming pale ocherous tornad; underside of forewing pale ferruginous, abruptly becoming darker before a pale ocherous, subterminal line. Length of forewing 10 mm. Hindwing light fuscous with slightly brassy hue; a concolorous tuft of hairs at base of veins A2 and A3; cilia whitish with a fine, greyish basal line.

Male: Unknown.

Female genitalia: Lamella antevaginalis band-shaped, narrowed laterally; lamella postvaginalis weakly sclerotized. No separate antrum. Corpus bursae rotundate-pyriform, in most of caudal por-
tion scobinate; cestum located in cervix portion and consisting of a
very short, rotundate projection on a bilobate, sclerotized base; cervix
bursae rather broad. Sclerotization around ostium oviductus well
developed.

Type: Holotype, female (genitalia on slide, 18-Obr., 1962), Concepcion, Chile, October 1902 (E. C. Reed), USNM (type no. 66833).

Remarks: Somewhat similar to *Proeulia chrysopastis* (Butler), but differing from it in some details of the markings of the forewing, especially in the presence of a ferruginous blotch in the basal portion of the wing, a whitish line based from the brownish outline of the dor-sal triangular spot, and in having the hindwing unicolorous. The
genitalic differences of *P. apospasta* consist of a flat sinus vaginalis,
absence of the antrum, and especially of a bilobate base of the cestum,
known only in this *Proeulia* species. The name of the species is
derived from the Greek *ατοσπαστος*, meaning “separated.”

*Proeulia tenontias* (Meyrick), new combination

**PLATE 7 (Figs. 1–4)**


*Eulia tenontias*, Clarke, 1958, Catalogue of the type specimens of Microlepidoptera in the British Museum described by Edward Meyrick, vol. 3, p. 139, pl. 69, figs. 4–4b.

Male genitalia: Uncus moderately long; socii short. Fultura
superior moderately broad; fultura inferior rather low. Valva with
apex directed straight upward; its external margin vertical, in lower
portion slightly incurved; sacculus narrow, long, free pointed. Aedeagonus moderately thickened, slightly bent; four inequally sized cornuti.

Female genitalia: Lamella antevaginalis band shaped with lateral
portions directed caudal and outlining ostium bursae like a bracket;
lamella postvaginalis membranous, not defined. Antrum large, sub-rectangular. Corpus bursae irregularly subovate; scobination occupy-
ing most of surface; cestum shaped as a digitate, slightly curved
projection on a broad, swollen base; cervix bursae tubular, distinctly
narrower than corpus bursae.

Type: Holotype, male (genitalia on slide, 6344, J.F.G.C.), Chile (“R. 05”); deposited in the British Museum (Natural History).

Other specimens examined: Two females, Chile (V. Izquerdo); one female (genitalia on slide, 19-Obr., 1962), Chile Centro-Austral,
January–March 1898 (V. Izquerdo); one female (genitalia on slide,
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20-Obr., 1962), Quilpué, Valparaíso, Chile, November 1897 (V. Izquerdo); all specimens are deposited in USNM.

Remarks: This species has hitherto been known as a unique male specimen. The holotype of *P. tenontias* and its genitalia were figured by Clarke (1958). The female specimens examined by the present author are very similar to the holotype, and there is no doubt that they are conspecific with it.

*Proeulia cneca*, new species

Plate 7 (Figs. 5–7)

Male: Antenna grayish ocheron, in basal portion with a slight ferruginous tinge. Labial palpus brownish gray, on outer surface; separate scales dark gray basally, and whitish ocheron at tips; inner surface white ocheron. Head concolorous with outer surface of labial palpus, differing in color of separate scales, brownish gray at their middles, and whitish ocheron basally and at tips. Thorax brown with some scales long, orange ocheron; tegula orange ocheron. Abdomen slightly paler than thorax. Legs ocheron. Forewing ocheron with slight silvery shine and some areas covered with yellow scales especially dense in basal third of wing, along discal cell, costal and dorsal portions, and on external veins; minute, blackish dots on disc and in external wing portion; cilia pale ocheron, here and there slightly ferruginous, especially at tornus; underside of forewing ferruginous ocheron, whitish ocheron externally and dorsally. Length of forewing 11 mm. Hindwing white; basal tuft of hairs white.

Female: Unknown.

Male genitalia: Uncus rather long; socii long, almost equally broad. Fultura superior very narrow at middle, dilated and strongly sclerotized laterally; fultura inferior high. Valva elongate, not turned upward; its external margin rather short; sacculus long with a pointed tip protruding far beyond valva. Aedeagus moderately thickened, with tip rotundate; one rather thick and long cornutus with infundibuliform envelope at base.

Type: Holotype, male (genitalia on slide, 23-Obr., 1962), Guayacán, Santiago, Chile, 1100 m., October 1952 (L. E. Peña), USNM (type no. 66834).

Remarks: This species is very similar to *Proeulia leonina* (Butler) and differs from it in having no black dots on the discocellulars of the forewing and in having the hindwing shiny white. The genitalia are distinct in the two species. The name of this species is derived from the Greek *κυτικός*, meaning "pale yellow."
Proeulia chrysopteris (Butler), new combination

Plates 8, 9


Originally described from a single male specimen, this species has become known as being widely distributed in Central Chile. It is rather variable, having the forewings ocherus, golden ocherus, testaceus, or hessian brown with a more or less intensive, ferruginous-ocherus reticulation and/or incomplete, oblique rows of blackish or grayish dots in the apical wing portion and occasionally basad from it. The upper basal angle of the forewing generally stands out as a triangle of a different color from the remaining wing surface and is gray or whitish, concolorous with the thorax. On the dorsum, slightly before tornus, there is a large, more or less distinct, white to grayish-yellow or brownish-yellow triangular spot rather broadly outlined by brown and checked by short, gray, or brownish streaks along the dorsum. A slight, ferruginous-ocherus line sometimes connects the apex of this triangle with the middle of costa. The length of the forewing is from 10 to 13 mm. Hindwing whitish yellow to ocherus, becoming gray basad in most specimens. The head is generally concolorous with the thorax.

Male genitalia: Uncus moderately long; socii long, equally broad. Fultura superior rather broad; fultura inferior high. Valva with apex directed upward; sacculus broad, sharp pointed at tip, protruding valva. Aedeagus moderately thickened; two or three long, variously thick cornuti; a minute, sclerotized plate in external portion of vesica.

Female genitalia: Lamella antevaginalis bracket shaped, with lateral portions directed caudad and bearing angulate prominences toward ostium bursae. Antrum large, semirotundate. Corpus bursae pyriform, densely scobinate; signum located close to its middle, rather small, situated on a swollen base; cervix bursae rather broad.

Type: Holotype, male (genitalia on slide 8587), Chile (“82–107”); deposited in the British Museum (Natural History).

Other specimens examined: One female, Chile (V. Izquierdo); one male and two females (genitalia on slides, 16-Obr., 13-Obr., and 14-Obr., 1962), Chile Centro-Austral, January-March 1898 (V. Izquierdo); in USNM. Two males (genitalia on slides 6695, 6698), Quillota, Valparaiso, Chile, 1886 (Paulson, 68011, 68012), in the British Museum (Natural History). One female, Santiago, Chile, June 1955, reared from apricot fruit (G. Olalquiaga); one female (genitalia on slide, 4-Obr., 1962), Guayacán, Santiago, 1100 m., Jan. 25, 1951 (L. E. Peña);
one male (genitalia on slide, 11-Obr., 1962), Concepción, Chile, October 1902 (E. C. Reed); in USNM. One male (genitalia on slide 6696), Talcahuano, Concepción, Chile, Feb. 20–March 5, 1884 (Walker, 3197); in the British Museum (Natural History). One male (genitalia on slide, 12-Obr., 1962), Araucania [Arauco], Chile, March 1, 1892 (V. Izquerdo), USNM. One male (genitalia on slide 6697), Valdivia, Chile, 1901 (A. von Lossberg); in the British Museum (Natural History).

Remarks: On the slide of the genitalia of the holotype in the British Museum (Natural History), the valvae are folded and the sacculi turned inward, crossing the inner surface of the valvae. The folding of the lower margin of the valva causes a slight change of shape in the latter, and the apex of the valva becomes less acute as demonstrated by other specimens placed in the same position as the holotype. The extreme shapes of the genitalia (as illustrated on plate 8, figs. 2 and 6) do not represent structural differences but only indicate differences that result from the preparation of the genitalia. The number of the cornuti varies between two (in the holotype and on slide 6698) and three (on six additional slides).

Literature Cited

Clarke, J. F. Gates

1958. Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, vol. 3, (2) + 600 pp., 298 pls.


Kusnezov, N. J.