

## A NEW SPECIES OF *OMIODES* GUENÉE FROM SOUTH AMERICA (PYRALOIDEA: CRAMBIDAE)

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**ABSTRACT.** *Omiodes pseudocuniculalis*, new species, is described from South America where it is recorded from Peru, Ecuador, and Bolivia. Five males were examined, and no females are yet known. The male and its genitalia are illustrated showing the diagnostic character of short, protruding lobes located along the medial edges of the ventral groove of the uncus. The new species is most similar to *O. cuniculalis* Guenée and externally resembles other members of the “*cuniculalis* group” of *Omiodes* by the cinnamon or brown color of the adults, the beige or brown color of the ventral surface of the head, neck, thorax, and abdomen, and legs, and the brown color of the anal tuft. The key to the “*cuniculalis* group” is revised to include the new species.

**Additional key words:** Fabaceae, Western Hemisphere, genitalia morphology, parategumenal sclerites.

The genus *Omiodes* Guenée (Crambidae) was recently redescribed within the context of a study of the Pyraloidea of Costa Rica, and a checklist and key to New World species were developed (Gentili & Solis 1998). It consists of 74 species worldwide, 33 species in the Western Hemisphere, and includes *Omiodes indicata* (F.), a worldwide pest on many crops in the Fabaceae. Externally, the adults of this genus are diverse: “brown and noctuid-like, bluish and arctiid-like, and yellow reddish and pyraloid-like”; the forewing lengths vary from 7 to 26 mm long; the forewing is elongated, the termen straight, but the hindwing is usually round, in some species triangular; the thorax and abdomen in some species with bright-yellow areas, but generally same background color as wings (Gentili & Solis 1998).

During the study of Costa Rican *Omiodes* we also discovered a new species from northern South America, which we describe in this paper. The diagnosis and description of the new species is based on a comparison with all *Omiodes* species of the Western Hemisphere. The new species, *Omiodes pseudocuniculalis*, belongs to a group of closely related species that Gentili and Solis (1998) called the “*cuniculalis* group”. This group includes *O. cuniculalis* Guenée, *O. fulvicauda* (Hampson), *O. anxiferalis* (Schaus), *O. alboanalis* Amsel, and *O. martini* Amsel. They are distinguished from species in other *Omiodes* groups by the cinnamon or brown color of the adults, the beige or brown color of the ventral surface of the head, neck, thorax, abdomen, and legs, the brown color of the anal

tuft, the uncus head with a crest with erect hairlike setae and scale or spines in patches and lateral lobes pendant.

### *Omiodes pseudocuniculalis* Solis and Gentili, new species (Figs. 1, 4–8)

**Diagnosis.** Lobes along medial edges of ventral groove of uncus neck short and protruding.

**Description.** *Male.* *Head:* light brown. Antenna light brown. Labial palpus cream at base changing gradually to light brown at tip. Patagium ventrally cream. *Thorax:* light brown. Tegula reaching abdominal tergum II. Legs light brown, gradually lighter brown toward and including tarsi. Forewing length: 16.7–18.3 mm ( $n = 5$ ). Forewing ground coloration light brown, slightly darker brown beyond postmedial line; wing pattern darker brown, postmedial line zigzag; fringe with proximal row of scales same as ground color and outer row lighter brown with area between 1A+2A and CuA<sub>1</sub> cream. Hindwing same ground color as forewing, darker beyond postmedial line; postmedial line zigzag with inner angles darker, giving impression of dots; fringe as in forewing, outer row of scales cream from apex to 1A+2A. *Abdomen:* light brown, ventrally lighter and shinier. Posterior margin of male tergum VI convex; anal tuft light brown. *Male genitalia:* uncus base slightly wider than neck; neck with ventral groove present medial edges of apical half with two well-delineated short, round, lobes with hairlike setae; head with crest, two tufts of erect scales; apical tip upturned with brush of hairlike setae; lateral lobes with hairlike setae. Ventral margin of valva at end of sacculus not swollen; hooklike process as long as sclerotized base along saccular margin; setose patch small. Transtilla continuous. Cornutus spine short, about half length of aedeagus; ductus ejaculatorius short. Parategumenal sclerites one-fourth surface area of valva [The term “coremata” was incorrectly used for this structure in Gentili & Solis (1998). To distinguish this structure from the “coremata” of the Arctiidae, Clavijo (1990) coined the term “parategumen sclerites” for these coremata-like structures in the Pyraustinae and defined them as: “. . . A pair of lateral sclerites located each in the basal region of the tegumen, typically containing long pencils or brushes of modified hair-like and/or

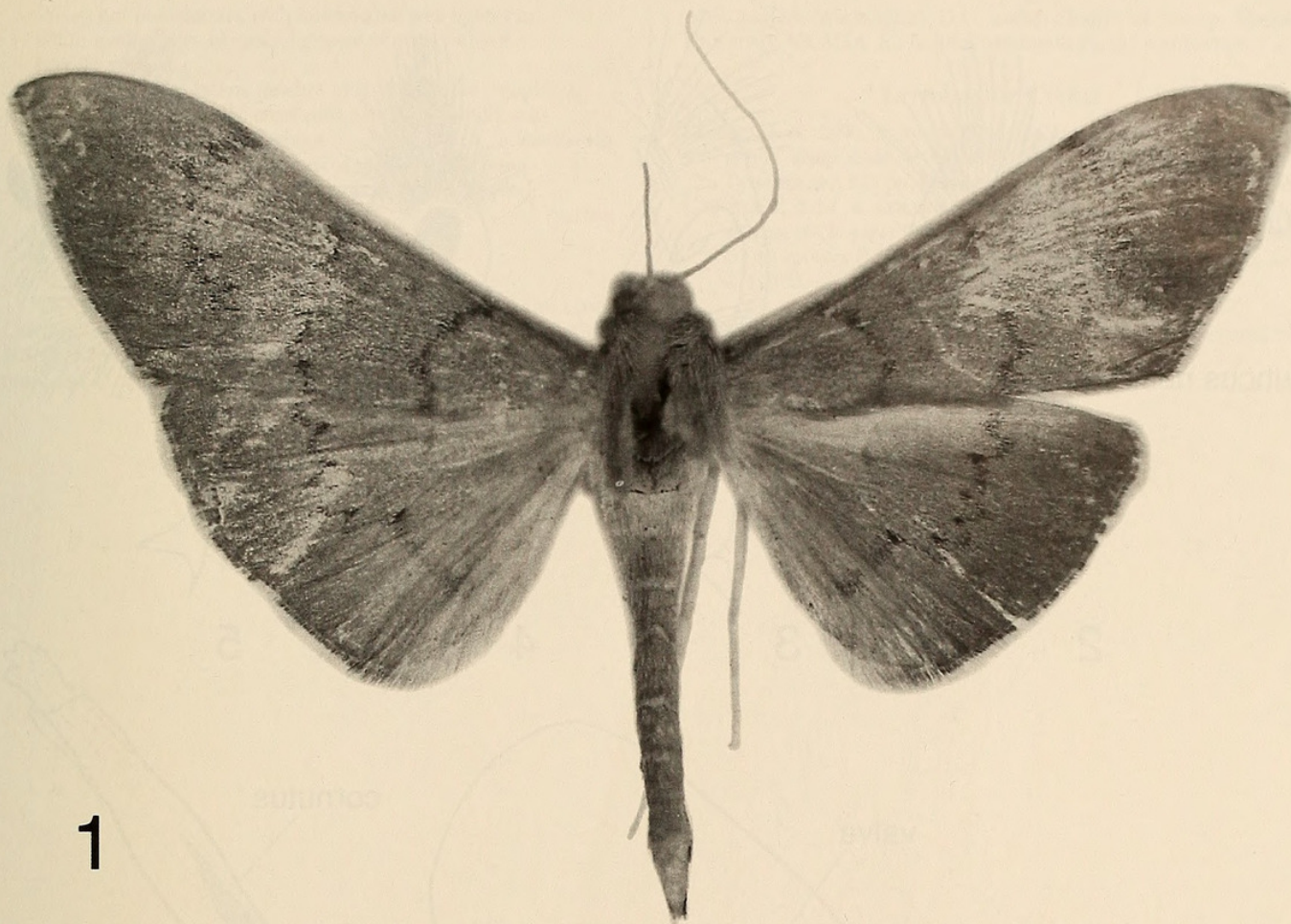


FIG. 1. Paratype adult male of *Omiodes pseudocuniculalis*, Ecuador, Environs de Loja. Wing length = 16 mm.

spatulate scale, presumably for scent production and/or distribution." ] *Female*: unknown.

**Types:** *Holotype*: ♂, ECUADOR: "Environs de Loja," "Equateur," "89-" "Dognin Collection," genitalia slide number 105,812 [USNM]. *Paratypes*: 4 paratypes: ECUADOR: 1 ♂, "Environs de Loja," "Equateur," "Dognin Collection," genitalia slide number 106,832 [BMNH]. PERU: 1 ♂, no label data, "Peru," "Collection Wm. Schaus," genitalia slide number 105,811 [USNM]. BOLIVIA: 1 ♂, "Charuplaya," "Juin 1901," "Bolivie," "Saison sèche," "Dognin Collection," genitalia slide number 105,809 [USNM]. UNKNOWN LOCALITY: 1 ♂, "Dognin Collection," genitalia slide number 105,810, head slide number 106,735, wings slide number 106,737, legs slide number 106,736 [USNM]. Paratypes deposited in The Natural History Museum, London, England [BMNH] and The National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA [USNM].

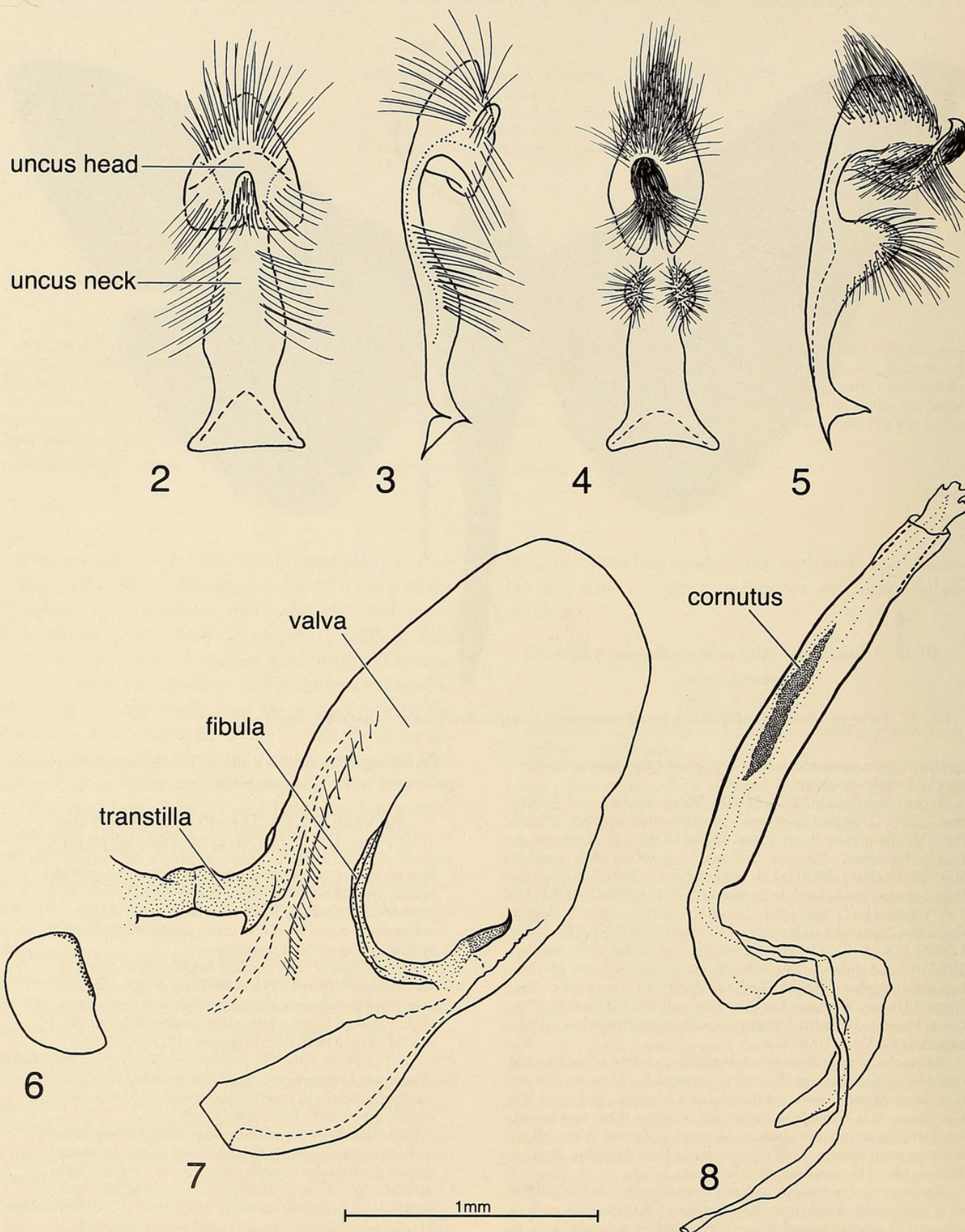
**Remarks.** *Omiodes pseudocuniculalis* is closely related to and could be confused externally with *O. cuniculalis*, a species that occurs from Mexico south to Brazil and Colombia, including the Caribbean; it is difficult to determine whether these species are sympatric because these areas are so poorly collected. Although we have not seen specimens of *O. cuniculalis* from Ecuador, Peru, or Bolivia, where *O. pseudocuniculalis* occurs.

We compared specimens with the types deposited at the BMNH of *O. cuniculalis*, a male from French Guiana. Externally *O. cuniculalis* and *O. pseudocuniculalis* are very similar in color and size. In both species the lobes on the medial edges of the ventral groove are round with hairlike setae, but in *O. cuniculalis* they occur on the basal half and are not well delineated while in *O. pseudocuniculalis* they occur on the apical half, are short, well delineated, and protruding.

**Etymology.** This species is named in reference to the close external resemblance to *O. cuniculalis*.

#### REVISED KEY TO SPECIES OF THE "CUNICULALIS GROUP" OF *OMIODES*

1. Ventral surface of body and legs light brown, never bright yellow, general body coloration cinnamon or brown, wing pattern darker brown, postmedial line zigzag, fringe ochraceous; uncus head with crest, medial edge of neck ventral groove without serrate area ..... 2
- Ventral surface of body and legs bright yellow, some specimens with terga VII and VIII yellow, general body coloration dark brown, postmedial line not zigzag, lines slightly darker, fringe white; uncus head without crest, medial edge of neck ventral groove with serrate area ..... *fulvicauda*
2. Cinnamon, homogeneous; uncus head with central patch of two tufts of erect scales, medial edge of neck ventral groove with lobes along edges ..... 3
- Light to dark brown, sometimes forewing intermedial area cinnamon; uncus head with two lateral patches of short spines, medial edge of neck ventral groove without lobes .... 4
3. Medial edges of uncus neck ventral groove lacking well-delineated lobes along basal half (Figs. 2, 3) ..... *cuniculalis*
- Medial edges of uncus neck ventral groove with well-delineated lobes along apical half (Figs. 4, 5) ..... *pseudocuniculalis*
4. Wings unicolorous; medial edge of neck ventral groove with hairlike setae ..... *alboanalis*



FIGS. 2-8. Male genitalia of *O. cunicularis* and *O. pseudocunicularis*. Scale line = 1.0 mm; 2, ventral view of *O. cunicularis* uncus, USNM slide 104,743; 3, lateral view of *O. cunicularis* uncus, USNM slide 108,814; 4, ventral view of *O. pseudocunicularis* uncus, USNM slide 106,832; 5, lateral view of *O. pseudocunicularis* uncus, USNM slide 106,832; 6, parategumenal sclerite of *O. pseudocunicularis*, USNM slide 106,832; 7, valva and transtilla of *O. pseudocunicularis*, USNM slide 106,832; 8, aedeagus of *O. pseudocunicularis*, USNM slide 106,832.

- Wings not unicolorous, with intermedial area lighter in color; medial edge of ventral groove of neck without hairlike setae ..... 5
5. Uncus head with lateral patches of spines almost completely meeting dorsomedially, crest conspicuous; transtilla continuous, same width throughout ..... *anxiferalis*
- Uncus head with lateral patches of spines not meeting dorsomedially, crest not conspicuous; transtilla divided, broad medially. .... *martini*

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