

A NEW *ORMISCODES* FROM CHILE

(LEPIDOPTERA: SATURNIIDAE: HEMILEUCINAE)

CLAUDE LEMAIRE¹ AND LUIS E. PARRA

La Croix des Baux, F-84220 Gordes, France

Departamento de Zoología, Universidad de Concepción, Casilla 2407-10, Concepción, Chile

ABSTRACT.— *Ormiscodes penai* n. sp. is endemic to Chile, known only from a restricted area between 30°S and 33°S. It is distinct from the other *Ormiscodes* (*sensu stricto* not *sensu* Michener, 1952) by the combination of several superficial characters which are indicated below. Male and female are illustrated, their genitalia are figured and taxonomic relationships are discussed.

RESUMEN.— *Ormiscodes penai* n. sp. es una especie endémica de Chile, sólo se conoce entre los 30° y los 33° S. Se distingue de las otras especies de *Ormiscodes*, *sensu stricto* (no *sensu* Michener, 1952) por la combinación de varios caracteres superficiales los cuales se indican más abajo. Se ilustran el macho y la hembra, la estructura de la armadura genital, y se discute su relación con otras especies.

KEY WORDS: Argentina, Chile, Colombia, *Dirphia*, distribution, *Ormiscodes penai* n. sp., South America, taxonomy.

Ormiscodes was described by Blanchard (1852) for *Bombyx cinnamomea* Feisthabel, 1839 (type species by monotypy). *Catocephala* Blanchard and *Thauma* H. Edwards, which were for a long time regarded in the literature as distinct genera (*e.g.*, Draudt, 1930; Schüssler, 1934) or subgenera (*e.g.*, Bouvier, 1935), were definitively synonymized with *Ormiscodes* by Michener (1952) in his major work on the Saturniidae of the Western Hemisphere. Michener then placed many species in *Ormiscodes* that had been previously included in *Dirphia* and several related genera, the large complex thus delimited being divided in nine subgenera, which were either raised or reinstated to full generic status in more recent literature (Lemaire and Venedictoff, 1989; Wolfe, 1994; Beutelspacher and Balcázar, 1994). As presently accepted, *Ormiscodes* contains twelve species, all neantarctic, except *O. shapirovi*, an inhabitant of the Cordillera de Santa Marta, in northern Colombia, whose inclusion in *Ormiscodes* is questionable.

Ormiscodes can be defined by the following combination of characters: antennae of male quadripectinate, terminal bristles of basal rami shorter than setae, antennae of female bidentate; tegulae usually with some long, lanceolate scales much extending rest of vestiture; epiphysis present in male only; tibial spurs number 0-2-4, tarsal spines usually present but scarce; vein M2 of hindwing arising from near middle of discal cell; abdomen with or without color bands on sterna. Antemedial line of forewing usually angulate, postmedial line broadly preapical, almost straight (*O. cinnamomea*, *O. cognata* Philippi) or angulate (other species); discal spot of the forewing simple (except in some females of *O. cinnamomea*), usually small but contrasting, that of the hindwing vague or absent.

Ormiscodes penai Lemaire & Parra, new sp.

Diagnosis.— *O. penai* is closely allied to *O. rufosignata* (Blanchard). It is characterized by its relatively small size, the large white areas on all

four wings, the strongly angulate antemedial line of the forewing and the white fringes of the wings above and below.

Description.— Wingspan: ♂ 43-45mm, ♀ 51mm.

MALE (Fig. 1): Antennae rusty yellow. Labial palpi and frons rusty-brown. Thorax dorsally dark brown, lanceolate scales light gray; tarsi black. Abdomen dorsally black, lateral bands and anal tuft yellow. **Forewing:** Length 22-23mm; ground color blackish-brown, suffused with white between the discal spot and the inner margin; antemedial area almost pure white; antemedial line dark brown, strongly dentate, the longest tooth greatly produced on the cubitus; postmedial line lunulate, slightly convex (not turning inward under the costa), dark brown, underlined proximally with yellow, distally with white; submarginal band scalloped, distally doubled with white; discal spot white, well prominent. Underside plain gray with the postmedian area abundantly suffused with whitish; postmedial line and submarginal band very contrasting; a tiny white discal spot. **Hindwing:** baso-median area whitish, postmedial line and submarginal band brown, the latter broadly bordered with white; discal spot white, quite prominent. Underside colored as on forewing below; discal spot absent, other markings contrasting. Fringes white on all four wings above and below. **Male genitalia** (Fig. 3): differ from those of *O. amphinome* (Fabricius) and *O. rufosignata* by the narrower and apically sharp ventral plate of the transtilla.

FEMALE (Fig. 2): Similar to male except for the usual sexual characters. First abdominal segments dorsally yellow, other segments dark brown, intermixed with a few yellow hairs, especially on the anal tuft. **Female genitalia** (Fig. 4): median, shield-like, postvulvar sclerotization not as large and heavily sclerotized as in *O. rufosignata*; corpus bursae very small.

Immature stages.— Unknown. Those of "*O. marginata*" (a junior subjective synonym of *O. amphinome*) were described by Weigert and Angulo (1974); those of the same species and *O. cinnamomea* by Parra *et al.* (1985).

Types.— **Holotype** ♂: CHILE.— Aconcagua, SE. of Zapallar, W. of Catapilco, 12/13 Mar 64 (L. E. Peña G.); **Allotype** ♀: same data as holotype (both specimens in BMNH); **Paratypes:** in BMNH 4♂, same data as holotype, 5♂, Chile, Coquimbo (registered 93-168); in Muséum National d'Histoire Naturelle, Paris, 2♂, same data as holotype; in Museo de Zoología de la Universidad de Concepción, Concepción, 1♂, Chile, Viña del Mar, 23 Apr 53 (L. E. Peña G.).

1. Correspondant du Muséum national d'Histoire naturelle, Paris, France.



Fig. 1-2. *Ormiscodes penai* n. sp.: 1) Holotype ♂, 44mm (above). 2) Allotype ♀, 61mm (below).

Etymology.— This species is named in honor of Dr. Luis E. Peña Guzman, who collected most of the specimens in the type series.

Distribution.— As indicated above, this species is known only from Chile, in a restricted area between 30°S and 33°S, a distance of only 300 air km between the northernmost locality (Coquimbo) and the southernmost (Viña del Mar).

Flight period.— September to April/May.

Variation.— Very little variation in size and ground color was observed in the specimens examined; sexual dimorphism reduced.

Remarks.— *O. penai* is closely related to *O. rufosignata* and to *O. amphinome*, especially by the structure of male and female genitalia. It is very likely sympatric with *O. rufosignata* in the northernmost of the range of the latter, but not with *O. amphinome* which is very widely distributed in Chile from the province of Talca (35°S) to Magallanes, as far south as Ushuaia (55°S) (Madsen *et al.*, 1980) and at about the same latitudes in Argentina.

ACKNOWLEDGMENTS

We thank Martin R. Honey and David T. Goodger (Department of Entomology, The Natural History Museum (BMNH), London) for the loan of type material; Dr. Luis E. Peña G. (Universidad de Chile, Santiago), for providing specimens; and Kirby L. Wolfe (Escondido, California), for constructive suggestions and reviewing the manuscript.

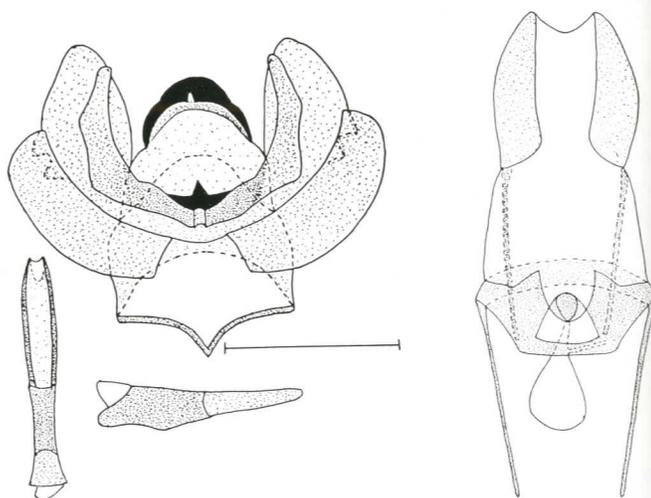


Fig. 3-4. *Ormiscodes penai* n. sp.: 3) ♂ genitalia (ventral view, aedeagus shown to left in ventral view and below in lateral view). 4) ♀ genitalia (scales = 1mm).

LITERATURE CITED

Beutelspacher-B., C. R., and M. A. Balcázar-L.

1994. Catálogo de la familia Saturniidae de México. *Trop. Lep.* (Gainesville), 5 (Suppl. 1):1-28.

Blanchard, E.

1852. *Fauna Chilena. Insectos. Orden VI Lepidópteros.* In C. Gay (ed.), *Historia física y política de Chile, Zoología Vol. 7.* Paris, Santiago de Chile. 112 pp. *Id.*, *Laminas, Zoología, Lepidópteros.* Paris: E. Thunot & Cie. 7 pls.

Bouvier, E.-L.

1935. Etude des Saturnioides normaux. Famille des Hémileucidés, deuxième partie. *Ann. Sci. Nat., Zool.* (Paris) (10) 18 (vol. du Centenaire, 2ème vol.):217-418.

Draudt, M.

1929-30. 12 Familie Saturnidae [sic]. In A. Seitz (ed.), *Die Gross-Schmetterlinge der Erde 6 (Die amerikanischen Spinner und Schwärmer).* Stuttgart: A. Kernen. Pp. 713-827, pl. 101-137.

Lemaire, C., and N. Venedictoff

1989. Catalogue and Biogeography of the Lepidoptera of Ecuador. I. Saturniidae with a description of a new species of *Meroleuca* Packard. *Bull. Allyn Mus.* (Sarasota). 29:1-60.

Madsen, H. B., E. S. Nielsen, and S. Odum

1980. The Danish Scientific Expedition to Patagonia and Tierra del Fuego 1978-1979. *Geogr. Tidskr.* (Copenhagen) 80:1-28.

Michener, C. D.

1952. The Saturniidae (Lepidoptera) of the Western Hemisphere. Morphology, Phylogeny, and Classification. *Bull. Amer. Mus. Nat. Hist.* (New York) 98:335-502.

Parra, L. E., A. O. Angulo, and C. Jana-Sáenz

1985. Biología y estados inmaduros de dos mariposas Saturnidas chilenas (Lepidoptera: Saturniidae): caracteres diagnósticos diferenciales específicos. *Bol. Soc. Biol. Concepción*, 56:131-139.

Schüssler, H.

1934. *Saturniidae: 2 Subfam. Saturniinae II et 3. Subfam. Ludiinae I.* In E. Strand (ed.), *Lepidopterorum Catalogus, Pars 58.* Berlin: W. Junk. Pp. 325-484.

Weigert, G. T., and A. O. Angulo

1974. Estados nepiónicos y neánicos de *Catocephala marginata* (Philippi) (Lepidoptera: Saturniidae). *Bol. Soc. Biol. Concepción*, 48:485-489.

Wolfe, K. L.

1994. A new *Paradirphia* from Central America (Lepidoptera: Saturniidae: Hemileucinae). *Trop. Lepid.* (Gainesville), 5:103-104.