

# TWO NEW *ENTHEUS* FROM ECUADOR AND PERU (LEPIDOPTERA: HESPERIIDAE: PYRGINAE)

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**ABSTRACT.**— Two new species of *Entheus* are described: *Entheus latebrosus* n. sp., from Ecuador and Peru, and *Entheus curvus* n. sp., from Peru.

**KEY WORDS:** Amazon, Brazil, *Entheus curvus* n. sp., *Entheus latebrosus* n. sp., Neotropical, South America, taxonomy.

As an aside to the preceding paper (Austin *et al.*, 1997), one male *Entheus* from Ecuador and two males from Peru were examined which are not of any known taxon. This opportunity is taken to describe them. The reader is referred to the aforementioned paper for general comments on the genus and characters of the genitalia.

## *Entheus latebrosus* Austin, n. sp.

(Fig. 1-3)

**Description.**— MALE: forewing length = 20.0mm (holotype); forewing apex pointed, produced, termen evenly curved; hindwing subquadrate, slightly angled at vein  $M_3$ ; dorsum very dark brown, nearly black; forewing with medium width, bright orange (Chrome Orange) discal band from vein Sc through distal half of discal cell nearly to outer margin in  $CuA_2-2A$ , extending to but not below vein 2A, proximal edge not perpendicular to anal margin in cell  $CuA_2-2A$ , band opaque; large, triangular-shaped, orange, macule in  $M_3-CuA_1$ , hyaline on distal edge, this extending from base of cell where joined with discal band and extending 2/3 distance from band to outer margin on vein  $CuA_1$ , angled away from margin anteriorly; series of four elongate, conjoined, orange (paler than discal band), hyaline, subapical macules from  $R_2-R_3$  to  $R_5-M_1$ , slightly separated distad from discal band anteriorly; these continuous with two similar but narrower and slightly offset distad, conjoined, submarginal macules in cells  $M_1-M_2$  and  $M_2-M_3$  which terminate about 1/2 distance from distal corner of macule in  $M_3-CuA_1$  and outer margin; subapical-submarginal macules divided by very narrowly dark veins; hindwing unmarked; fringes dark brown on both wings.

Ventral surface nearly identical to dorsum; forewing narrowly pale gray-brown along anal margin.

Head: black with orange macules above, pale yellow-orange beneath and behind eyes; palpi black, broadly pale orange beneath; antennae black, narrowly yellow distad beneath, nudum of 21 segments; thorax black above with a few orange scales in collar, black beneath with some yellow-orange scales on forecoxae; legs dark brown, first two pairs with yellow-orange at sides, hind legs with slight red-brown on posterior half of outer face of tibia, mid tibia with one pair of spurs of about equal length, hind tibia short, with one pair of spurs, inner about 2X length of outer, long brown tibial hair tuft fitting into groove on back of flattened and elongate first tarsal segment; abdomen dark brown, ochreous caudad beneath.

**Genitalia:** tegumen relatively long with narrow, proximate, sharply pointed pair of caudal processes, their caudal end far short of caudal end of uncus; uncus relatively long, caudally thin in lateral view and bent ventrad at middle, arms slightly divergent in ventral view; gnathos typical for genus, narrower than caudal end of uncus in ventral view; costa of valva with very long caudally directed and terminally hooked process extending as far as cephalad end of harpe; caudal end of harpe very broad, finely dentate, curved inward and twisted at ventro-caudal corner; penis somewhat bulbous, narrowing caudad where sharply upturned with very long and pointed lower lip; four long spike-like cornuti and series of 10 shorter cornuti.

**FEMALE:** unknown.

**Type.**— *Holotype* ♂ with the following labels: white, handprinted - 10 July 1983 / Limoncocha, Rio / Napo, Ecuador / leg. Jim P. Brock; white, printed and handprinted - Genitalia Vial / GTA-4412; red, printed - HOLOTYPE / *Entheus latebrosus* / Austin.

**Deposition of type.**— The holotype will be deposited at the Allyn Museum of Entomology, Sarasota, Florida.

**Type locality.**— ECUADOR: Limoncocha; Rio Napo.

**Etymology.**— The name means "hidden" referring to the habit of *Entheus* of perching on the lower surfaces of leaves and also points to the existence of taxa concealed within a general phenotype.

**Distribution and phenology.**— This species is known from the type locality in July and from another male which is identical in every respect, but smaller (18.5mm), from PERU: Dept. de Loreto, approx. 95 river miles NE of Iquitos, Explorama Camp near Napo River, 22-25 Oct 1990, leg. P. & S. Russell. Olaf Mielke (in litt.) has seen additional material from Peru (Iquitos; 100 km W Puerto Maldonado; Rio Perené) taken in January, July, and September to November.

**Discussion.**— *Entheus latebrosus* is similar to *Entheus telemus* Mabille, 1897. It differs by its apparent larger size, more produced forewings, narrower discal band, and subapical-submarginal macules not conjoined with the discal band or macule in  $M_3-CuA_1$ . The male genitalia with their short processes from the tegumen and thin uncus in lateral view indicate that *E. latebrosus* is closer to *E. telemus* than to others assigned by Evans (1952) to the "*priassus*" group of species (see also Austin *et al.*, 1997). The genitalia of *E. latebrosus*, however, differ in several respects from





Fig. 1. New species of *Entheus* (dorsal surface): left - *E. latebrosus*, holotype; right - *E. curvus*, holotype (ca. 2X).

Fig. 2. New species of *Entheus* (ventral surface): same specimens as Fig. 1.

those of *E. telemus*. The uncus is sharply bent ventrad and the arms are shorter, the gnathos is thinner and narrower, the valvae are broader especially caudad, the penis is less robust, and there are more cornuti. An unplaced male sent by O. Mielke from Brazil (Amazonas, Vila Nova; Mar) has genitalia nearly identical to *E. latebrosus* but is smaller and superficially more similar to *E. telemus*.

***Entheus curvus* Austin n. sp.**

(Fig. 1-3)

**Description.**— MALE: forewing length = 18.6mm (holotype); forewing apex pointed, not produced, termen evenly curved; hindwing subquadrate, slightly angled at vein  $M_3$ ; dorsum nearly black; forewing with narrow, bright orange (Chrome Orange) discal band from vein Sc through distal half of discal cell nearly to outer margin in  $CuA_2-2A$ , extending to but not below vein 2A, proximal edge not perpendicular to anal margin in cell  $CuA_2-2A$ , band opaque; large, triangular-shaped, much paler orange, hyaline macule in  $M_3-CuA_1$ , this extending from base of cell where joined with discal band to 2/3 distance to outer margin on vein  $CuA_1$ , angled away from margin anteriorly; series of four elongate, conjoined, pale orange, hyaline, subapical macules from  $R_2-R_3$  to  $R_5-M_1$ , separate from discal band anteriorly; these continuous with two similar,

conjoined but slightly offset distad, submarginal macules in cells  $M_1-M_2$  and  $M_2-M_3$  which terminate about 1/2 distance from distal corner of macule in  $M_3-CuA_1$  and outer margin; subapical-submarginal macules crossed by narrowly bright orange veins; hindwing unmarked; fringes dark brown on both wings.

Ventral surface nearly identical to dorsum; forewing narrowly pale gray-brown along anal margin.

Head black with orange macules above, pale yellow-orange beneath and behind eyes; palpi black, broadly yellow-orange beneath; antennae black, narrowly yellow distad beneath, nudum of 20 segments; thorax black above with a few orange scales in collar, black beneath with numerous yellow-orange scales on forecoxae; legs dark brown, first two pairs with yellow-orange on sides, hind legs with yellow-orange on posterior 1/3 of outer face of tibia, mid tibia with one pair of spurs, outer somewhat shorter than inner, hind tibia short, with one pair of spurs, inner about 2X length of outer, long pale yellow-brown tibial hair tuft fitting into groove on back of flattened and elongate first tarsal segment; abdomen black with vague ochreous caudad beneath.

**Genitalia:** tegumen long with narrow, proximate, sharply pointed pair of caudal processes, their caudal end nearly reaching caudal end of uncus; uncus relatively long, moderately broad and bent sharply ventrad at middle in lateral view, arms widely divergent in ventral view; gnathos typical for genus, relatively thin in lateral view, narrower than caudal



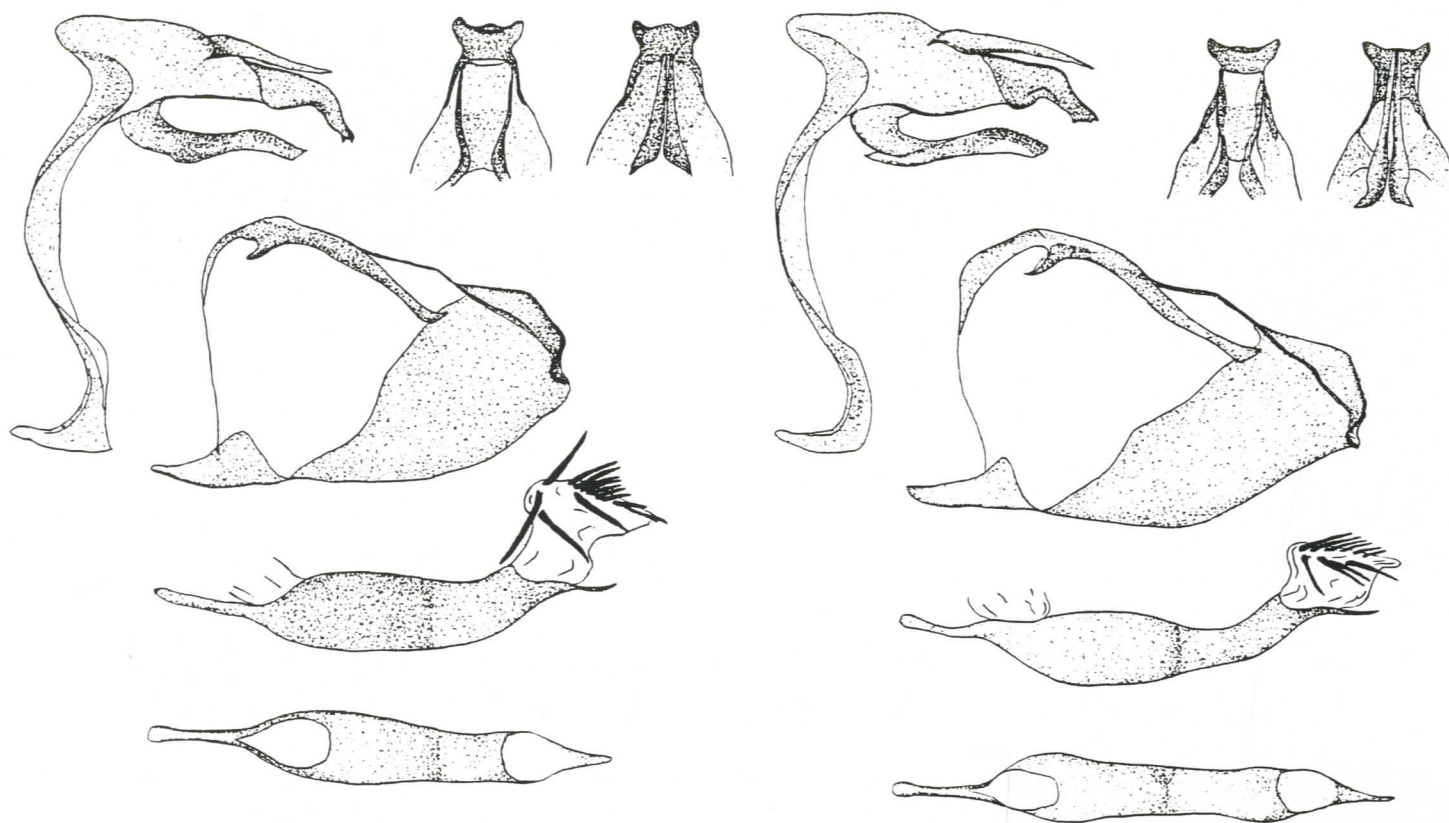


Fig. 3. Male genitalia of new species of *Entheus*, lateral view of tegumen, gnathos, uncus, and associated structures; dorsal and ventral views of uncus, gnathos, and anterior tegumen; interior view of right valva; left lateral view of penis; and dorsal view of penis (latter without vesica and cornutus): left - *E. latebrosus*, holotype; right - *E. curvus*, holotype.

end of uncus in ventral view; costa of valva with very long caudally directed and terminally hooked process extending as far as cephalad end of harpe; caudal end of harpe relatively narrow, finely dentate, curved inward and twisted at ventro-caudal corner; penis somewhat bulbous cephalad, much narrower caudad where upturned with long and pointed lower lip; four long spike-like cornuti and series of six shorter ones.

FEMALE: unknown.

**Type.**— Holotype ♂ with the following labels: white, printed - PERU: Dpt. de LORETO / app. 50 mi. N.E. of Iquitos / Explorama Lodge, nr. Amazon R. / 18-21 October 1990; el. 125m / leg. Paul & Sandy Russell; white, printed and handprinted - Genitalia Vial / GTA-3372; red, printed - HOLOTYPE / *Entheus curvus* / Austin.

**Deposition of type.**— The holotype will be deposited at the Allyn Museum of Entomology, Sarasota, Florida.

**Type locality.**— PERU: Departamento de Loreto; approximately 50 miles northeast of Iquitos, Explorama Lodge, near Amazon River, elevation 125m.

**Etymology.**— The name means "bent" and refers to the shape of the uncus in lateral view.

**Distribution and phenology.**— Only the holotype has been seen for this species. Olaf Mielke reported (*in litt.*) material in his collection from Iquitos, Peru (Jan) and Cruzeiro do Sul, Acre, Brazil (Sep).

**Discussion.**— *Entheus curvus* is most similar to *Entheus priassus pralina* Evans, 1952. It is smaller than *E. p. pralina* (forewing length = 19.9mm, one male from Espírito Santo, Brazil) with less produced forewings, has a narrower and more deeply orange discal band, and submarginal macules partially offset distad from

the subapical macules. The male genitalia of *E. curvus* have a more sharply bent uncus than *E. p. pralina*, the gnathos is narrower in lateral view, and the penis is much thinner. *Entheus curvus* differs from a new species of the "priassus" group from Rondônia, Brazil (Austin *et al.*, 1997), much as it does from *E. p. pralina*.

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