

## A new *Taygetis* from Subandean Eastern Peru and Western Brazil (Lepidoptera: Nymphalidae, Satyrinae)

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### SUMMARY

MILLER LD, LAMAS G. 1999. A new *Taygetis* from Subandean Eastern Peru and Western Brazil (Lepidoptera: Nymphalidae, Satyrinae). Rev. per. Ent. 41.- *Taygetis inambari*, new species, is named from the Inambari region of Peru and Brazil. It is compared with congeners and placed within the genus.

Key words: Brazil, new species, Peru, taxonomy, *Taygetis*.

### RESUMEN

MILLER LD, LAMAS G. 1999. Una nueva especie de *Taygetis* del este de Perú y oeste de Brasil (Lepidoptera: Nymphalidae, Satyrinae). Rev. per. Ent. 41.- Se describe *Taygetis inambari* como nueva especie de la región Inambari del Perú y Brasil. Se la compara con especies relacionadas y se la ubica en el género.

Palabras clave: Brasil, especie nueva, Perú, taxonomía, *Taygetis*.

In 1976, C. J. Callaghan sent the senior author an example of a *Taygetis* that was unique in its relatively small size, its squared forewing margin with a falcate tip, its general color pattern and its genitalia. This specimen remained for these many years in the AME collection while the senior author sought additional specimens. At last, another specimen was located in the Staudinger collection at the Zoologisches Museum der Humboldt-Universität (ZMHU), Berlin, Germany, more than ten years later, that was identical in all respects to the specimen already at hand. It was over a blank label and was obviously an insect that Staudinger had proposed to name. It is rather surprising that the insect was not named by WEYMER (1910-1912), who worked with the Staudinger collection and adopted some of that worker's manuscript names when he described new taxa in the Neotropical Satyrinae. This Staudinger specimen was duly photographed and its genitalia dissected, and there the matter rested awaiting the senior author's forthcoming revision of the genus. That revision is still some time in the future because of fiscal constraints on its publication. In the meantime, the junior author (LA-

MAS *et al.* 1991) mentioned a «*Taygetis* species» in the list of the butterflies of the Manu National Park, Madre de Dios, Peru. Conversation between the authors ascertained that this taxon was indeed the same as that diagnosed as new nearly 20 years ago, and we proposed to jointly describe this entity. The result is the description given below.

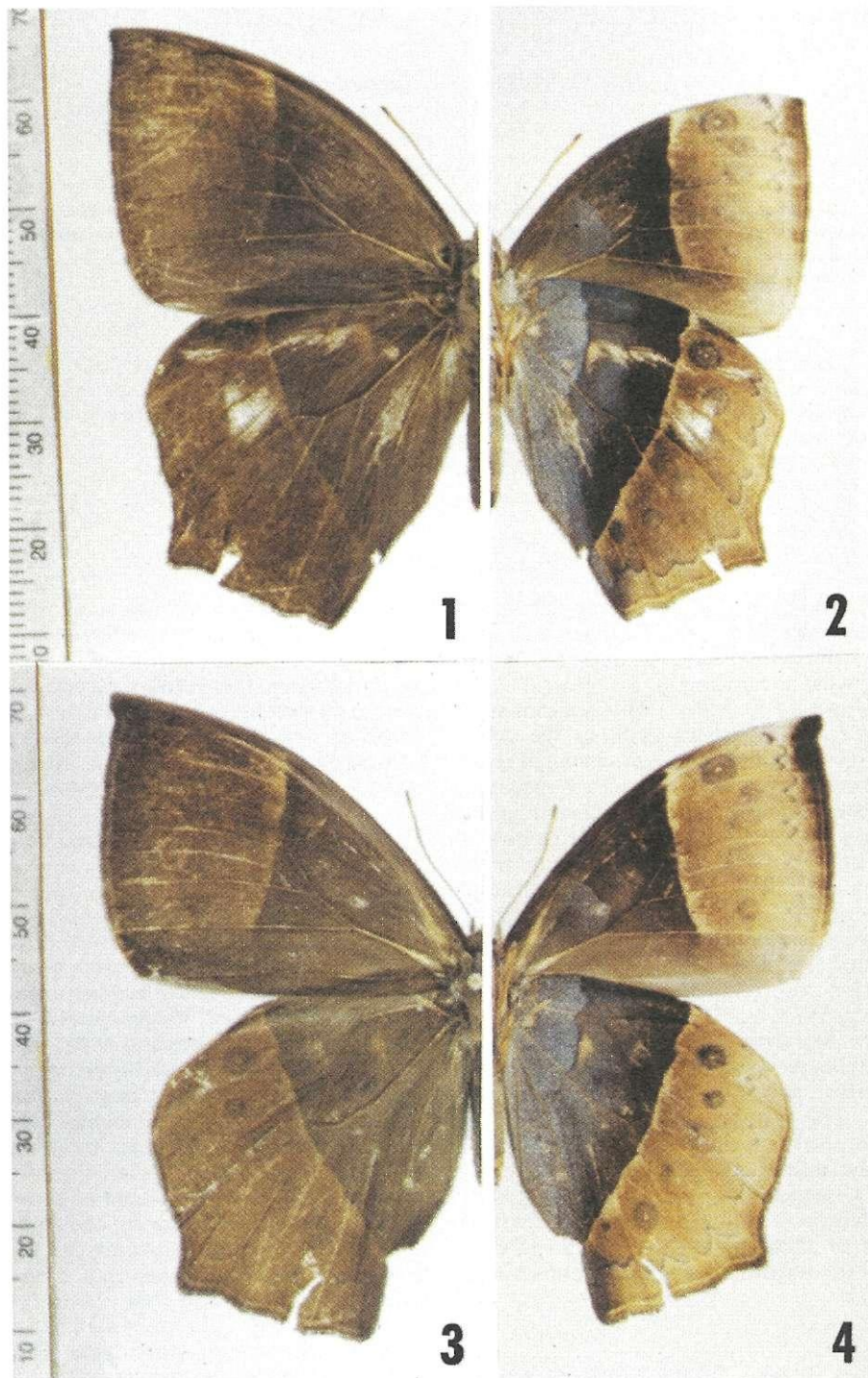
***Taygetis inambari* L.D. Miller and G. Lamas, new species**

**Male** (figs. 1-2): Head, thorax and abdomen clothed with dark, dull brown dorsal and tan ventral scaling. Eyes reddish brown, not hirsute. Antenna uniform reddish brown; tip very slightly darkened. Palpus clothed throughout with short tan scales and with longer dull brown ventral ones, these latter being about the width of the palpus. Legs clothed with short tan scales. Forewing slightly falcate at tip. Upper surface of wings dull, uniform, dark brown with pale median line of under surface barely showing through and most noticeable near end of forewing cell from costa to  $M_3$ . In and behind forewing cell there are some long, whiplike setae that may be of androconial nature and that obscure median line on this wing. No marginal lines are apparent on this surface, and fringes only slightly paler than ground color of wing.

Under surface of both wings rich, dark chocolate brown proximally and tan distally. Basal half of proximal dark brown portion rather heavily overscaled with pale gray setae

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FIGURES 1-4.- *Taygetis inambari*, new species. 1-2, holotype male, upper (1) and under (2) surfaces; 3-4, paratype female, upper (3) and under (4) surfaces (all specimens in collection MUSM).

enclosed by a thin, dark brown-black post-discal line, the gray scaling further elaborated along inner margin of hindwing; a small, rounded tan spot is placed in middle of hindwing cell and another is situated at the base of the cell. Between contrasting halves of both wings is a creamy-gray line, slightly concave on forewing and more or less straight on hindwing just distad of cells and complete except posteriad of  $Cu_2$  on forewing. Distal tan portion of wings with forewing margin dark brown stain from apex to  $Cu_2$  and some narrow darkening along margin of hindwing  $M_1$  to  $Cu_1$ ; a single crenulate brown submarginal line adjacent to a single tan marginal line on both wings; in postmedian area rather faint dark brown rings replace ocelli, five on forewing from  $Rs-M_1$  to  $Cu_1-Cu_2$  and six on hindwing from  $Sc+R_1-Rs$  to  $Cu_1-Cu_2$ . Fringes dark brown on forewing from apex to  $Cu_2$  and on hindwing from  $M_1$  to  $Cu_2$ ; otherwise light brown, not checkered.

Length of forewing of holotype male 34 mm; those of the seven male paratypes range from 33 to 36 mm, averaging 35.0 mm.

Male genitalia (fig. 5) show little relationship with other *Taygetis* examined. There is slight congruence with the genitalia of *T. elegia* Weymer, but the dorsal process on the valva arises more proximad than in that species. The penis is narrow, as in that species, and about as long, but the resemblance is not prepossessing. Similar arguments may be made for relationships with *T. echo* (Cramer) and its relatives within the genus, but the resemblance again is not overly impressive.

**Female** (figs. 3-4): Very similar to male, but upper surface duller and lighter, probably because of lack of putative androconial scales on forewing, and white median line showing through to upper surface throughout; under surface «ocelli» slightly better developed than in male. Lengths of forewing of the two female paratypes are 38 and 39 mm.

Described from nine specimens, seven males and two females from southeastern Peru and westernmost Brasil.

**HOLOTYPE** male: PERU: M[adre] de Dios: Parque Manu, Pakitza 340 m, 11°55'48" S, 71°15'18" W; 1 Oct[ober] 1991; leg. O. Mielke.

**PARATYPES**: same locality as holotype, but 16 Oct[ober] 1991; leg. G. Lamas; female genitalia preparation M-7281 (Lee D. Miller) (1 female); PERU: [Huánuco]: [Río] Pachitea, no further data; male genitalia preparation M-9211 (Lee D. Miller) (1 male); Madre de Dios: Quebrada Agua Negra, 200 m, 12°53' S/69°17' W, 16.ix.1995; H. Baynes; Expedition

Cambridge Peru '95 (1 male); **BRAZIL**: Rondônia: Jaru; 9.viii.1976; C. Callaghan; male genitalia preparation M-3753 (Lee D. Miller) (1 male); 6.ix.1976; K. S. Brown, Jr. (2 males); 11.ix.1976; K. S. Brown, Jr. (1 male, 1 female).

*Disposition of type-series*: Holotype male and one male and one female paratypes in MUSM; one male and one female paratypes in AME; one male paratype in ZMHU; three male paratypes in K. S. Brown, Jr., collection for eventual distribution to Brazilian museums.

*Etymology*: The name is a reflection of the possible biogeographical "refugium", Inambari, to which the insect is largely restricted, as defined by BROWN (1979).

*Discussion*: This butterfly apparently is restricted to deep, primary forest throughout its range. The Río Pachitea locality has long since been somewhat degraded, and we understand that the Jaru location has been destroyed since the specimens of *T. inambari* were collected (K. S. BROWN JR. pers. com.). Significantly, despite the concerted collecting done by G. Austin and others at Fazenda Rancho Grande, in the undisturbed rainforest of Rondônia, *T. inambari* has not been discovered and may well not occur there. The butterfly may have been extirpated from Brazil, hence the restriction of the type-locality to the relatively safe Manu Park in Peru. Evidently this species is a very good indicator of pristine conditions in the wet forest, but it is not present in all such habitats. We expect that *T. inambari* may occur in suitable habitats in Madre de Dios, Bolivia and, in fact, a specimen might have accounted for the Bolivian record of *T. xanthippe* Butler cited by FORSTER (1964: 65). The Butler species was described from Brazil and is usually considered to be a form of *T. ypthima* Hübner. FORSTER's illustration (1964: fig. 12) of the male genitalia of "*xanthippe (sic)*" from "Bolivia" looks suspiciously like *T. inambari*, but the putative Garlepp *xanthippe* could not be located at ZMHU, only the Peruvian paratype cited above. The association with the Inambari "refugium" may be accidental, perhaps even spurious. The association is better explained by one involving the mid-Tertiary subandean forest that was cut off from the main Amazonian forest by the sea's encroachment of Amazonia, as documented by WEBB (1995) and RÄSÄNEN *et al.* (1995). In this scenario, a rather small remnant of the forest was present in the area now inhabited by the butterfly bounded by the sea and the Andean front. This area, rather small as it was, provided an

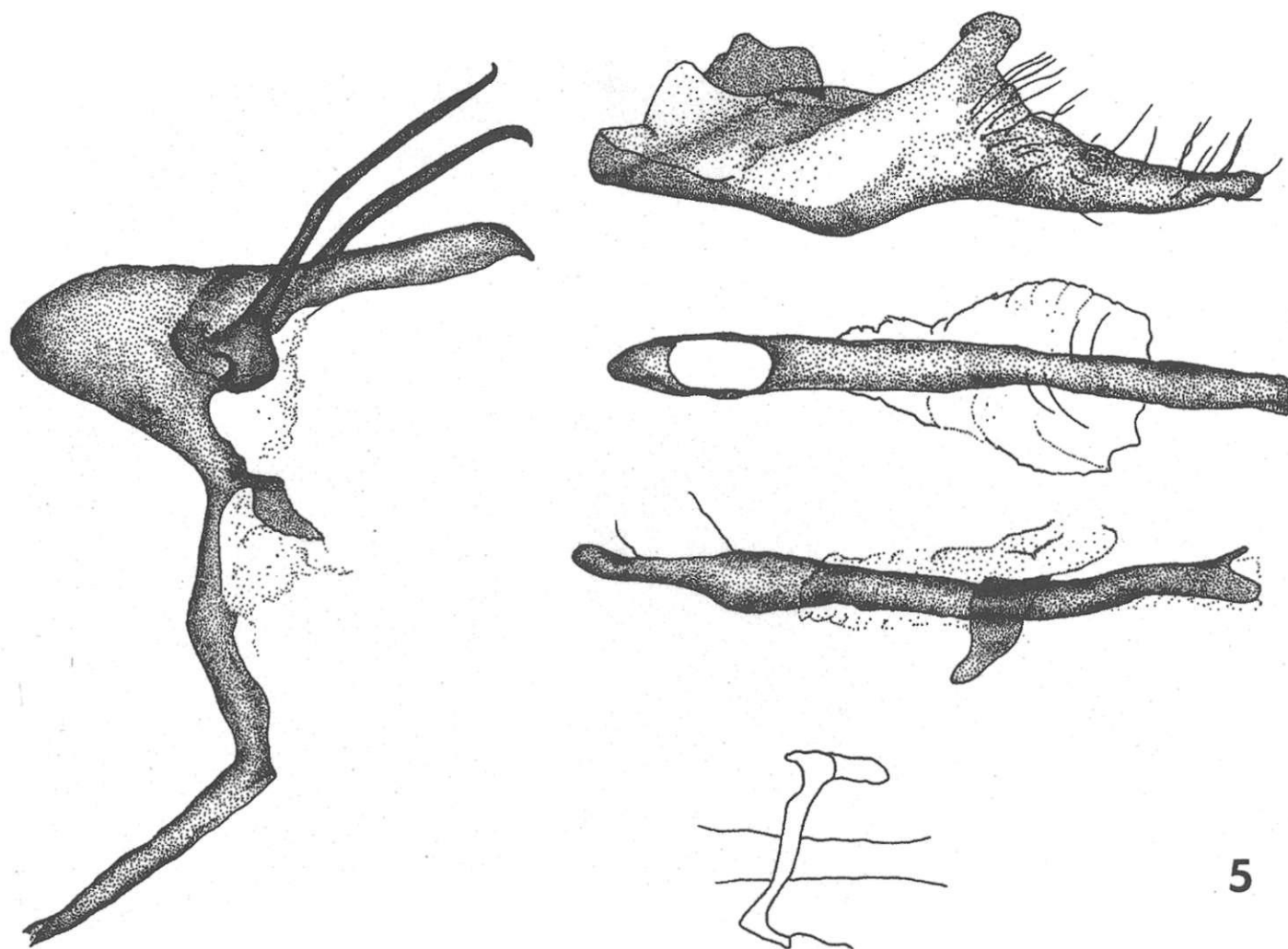


FIGURE 5.- Male genitalia of paratype male of *Taygetis inambari*, new species: genitalia preparation M-9211 (L. D. Miller; specimen in collection ZMHU).

ideal site for the evolution of new taxa. After the uplift of the western Amazonian forest, the butterfly spread at least as far as western Rondônia, Brazil.

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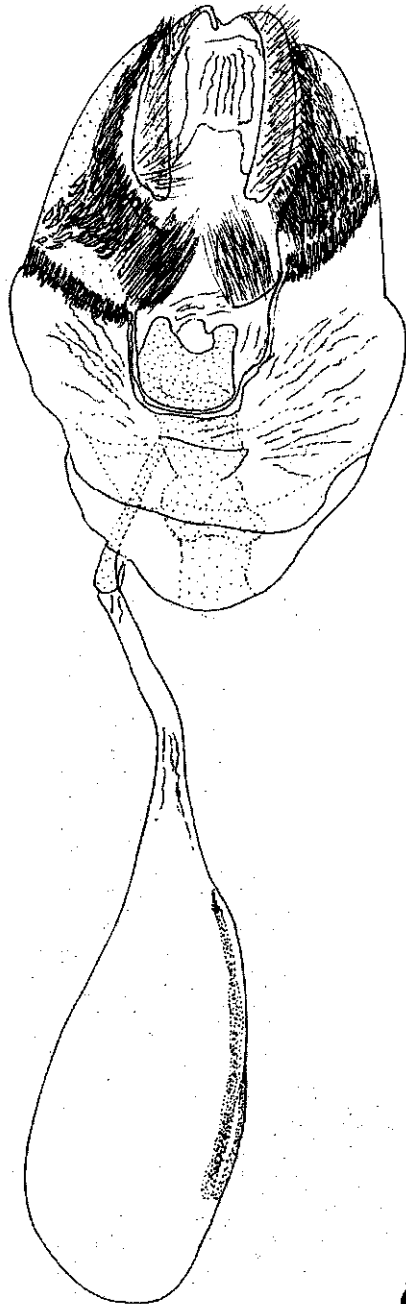


FIGURE 6.- Female genitalia of paratype female of *Taygetis inambari*, new species: genitalia preparation M-7281 (L. D. Miller; specimen in MUSM).