

# A NEW GENUS OF CERATOCAMPINAE FROM BRAZIL

## (LEPIDOPTERA: SATURNIIDAE)

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**ABSTRACT.**— *Jaiba* Lemaire, Tangerini & Mielke, n. gen., is described for one new species, *Jaiba kesselringi* Lemaire, Tangerini & Mielke, n. sp., recently discovered in the state of Minas Gerais in eastern central Brazil. The phylogenetic relationships of *Jaiba* are discussed and the new species is described; adults and genitalia of both sexes are illustrated.

**RESUME.**— *Jaiba* Lemaire, Tangerini & Mielke, gen. nov., est un genre nouveau, décrit pour une espèce nouvelle, *Jaiba kesselringi* Lemaire, Tangerini & Mielke, sp. nov., récemment découverte dans l'état de Minas Gerais, au Brésil central oriental. La position systématique du genre nouveau est discutée, le mâle et la femelle de l'espèce nouvelle et leurs armures génitales sont figurés.

**KEY WORDS:** *Adelowalkeria*, Brazil, *Cicia*, *Jaiba* n. gen., *Jaiba kesselringi* n. sp., *Mielkesia*, Minas Gerais, Neotropical, *Oiticella*, South America, taxonomy.

### *JAIBA* Lemaire, Tangerini & Mielke, new genus

**Type species:** *Jaiba kesselringi* Lemaire, Tangerini & Mielke, new sp.

**Diagnosis.**— The new genus differs from the most closely related genera by the uniformly grayish brown ground color, the arrangement of the markings on the forewing, and by the structure of the male and female genitalia. Although some of these structures are similar in *Jaiba* and in several genera such as *Cicia* Oiticica, *Mielkesia* Lemaire, *Oiticella* Travassos & Noronha, and *Adelowalkeria* Travassos, there is no evidence of closer relationship with any of these genera and *Jaiba*.

**Description.**— Antennae as long as thorax, flagellum not scaled. Male antennae with about basal three fifths of the flagellum quadripectinate and the apical two-fifths simple; rami of the quadripectinate segments very long, nearly straight, proximally and distally subequal; apical rami of each segment only slightly shorter than corresponding basal rami; antennal cones limited to the non-pectinate part of the antenna, each segment of the latter part with several dorsal setae similar to those of rami. Antennae of female simple, apical third with a very small ventral cone on each segment. Labial palpi two-segmented. Frontal protuberance narrow, apically rounded. Foretibiae subequal to tarsi; tibial spines absent, epiphysis of male about two-thirds as long as foretibia, epiphysis of female more slender and about one-half as long as foretibia; tibial spurs number 0-2-2, tarsal spines absent, except for the usual apical pair on penultimate foretarsal segment of female; arolium and pulvilli present. Venation typical of Ceratocampinae with Rs and M1 of forewing stalked and M2 arising in front of middle of apex of discal cell. Forewing elongate with outer margin convex, hindwing with anal angle not at all produced. Female only slightly larger than male with a more rounded appearance; sexual dimorphism otherwise reduced. Habitus described under *J. kesselringi*.

**Male genitalia** (Fig. 5). Tegumen broad, posteriorly bearing a pair of low, rounded hairy protuberances. Uncus much shorter than the tegumen, apically trifid and strongly sclerotized. Median plate of the gnathos bilobed as shown on Fig. 5, laterally connected with the uncus by two broad lateral arms. Valves very short, laterally fused with the tegumen, each giving rise anteriorly to a long and slender inner spine. Juxta U-shaped, free from the vinculum. Saccus broad, rounded, moderately

anteriorly produced. Aedeagus with a strong apical spur and laterally ornamented with a pair of subapical spines; there are two lateral, preapical holes, each giving way to a short, finger-like evagination of the inner portion of the vesica; posterior portion of the latter very large and apically armed with a strong spine-like cornutus. **Female genitalia** (Fig. 6). Genital plate circumvaginal; lamellae ante- and postvaginales heavily sclerotized, laterally fused together and connected with the sclerotization of the eighth tergum. Ductus bursae relatively short, spirally twisted and heavily sclerotized; corpus bursae membranous, very large with a pair of thumbtack-looking signa, anterior and posterior respectively; ductus seminalis arising middorsally from base of bursa. Anapophyses absent; postapophyses normal. Sclerotization of the eighth tergum a very narrow semicircular ribbon. Lobes of the oviporus relatively narrow; they are preceded on the ninth sternum by an opaque, subsclerotized medially notched area.

**Immature stages.**— Unknown.

**Etymology.**— The generic name refers to the type locality of the type species.

**Remarks.**— As indicated above, the position of *Jaiba* within the family-group is difficult to establish, based on the currently available data. More or less similar bilobed median plate of the gnathos is encountered in several genera (Michener, 1952; Lemaire, 1988; Balcázar-L. and Wolfe, 1997), especially *Cicia*, *Mielkesia*, *Oiticella*, and *Ceropoda*, but other structures, such as the valves (very short with a long and slender inner spine), are quite distinct from their homologues in the same genera. *Jaiba* otherwise shares the unusual lateral holes of the aedeagus, described above, with *Adelowalkeria* that is also apparently totally unrelated, based on the other genitalic structures and on the habitus. The complete absence of the anapophyses in the female genitalia is so far as known, an exceptional or unique feature in Ceratocampinae, although an extreme reduction of these apodemes was noted (Lemaire 1988:218) in *Psilopygoides*, another unrelated genus.

*Jaiba kesselringi* Lemaire, Tangerini & Mielke, new sp.

**Diagnosis.**— See the description of the genus.

**Description.**— MALE (Fig. 1-2): wingspan: 47mm; forewing length: 27mm. Antennae yellow (about 38 segments, 23 quadripectinate, 15

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Fig. 1-4. *Jaiba kesselringi* Lemaire, Tangerini & Mielke, new sp.: 1) holotype ♂ (wingspan: 46.5mm), dorsum. 2) Same, venter. 3) allotype ♀ (wingspan: 59mm), dorsum. 4) Same, venter. (all figures enlarged 1.6x).

simple). Frons brown; thorax dorsally brown interspersed with a few yellowish gray hairs on the tegulae, thorax ventrally and legs brown; abdomen dorsally brown intermixed with yellow, ventrally brown with a dull purplish tinge. Forewing grayish brown, suffused with dull white on the antemedial area and the discal cell; antemedial line dark brown, very narrow, slightly angulate; postmedial line dull white, broad, preapical, subparallel to the outer margin; there is a small, brown, rounded discal spot. Hindwing lighter grayish brown than the forewing, with only marking a vague, whitish, slightly convex postmedial line. Underside similar to the upperside with a lighter grayish brown coloration. Venation conspicuous on all four wings above and below. *Genitalia*. See description of the genus.

**FEMALE** (Fig. 3-4): wingspan: 53-59mm; forewing length: 27-30mm. Antennae dull yellow. Only slightly larger than male with a more rounded wing pattern; ground color on the hindwing, unlike in the male, as dark as on forewing above and below; markings very soft. *Genitalia*. See description of the genus.

**Types**.—*Holotype* ♂: Brazil, Minas Gerais, Jaíba, Mocambinho, 7/17 Mar 1997 (N. Tangerini leg.). *Allotype* ♀: same locality and collector, 7/17 Jan 1997 (Dept. de Zoologia, Univ. Federal do Paraná, Curitiba, Brazil). *Paratypes* (all same locality and collector as holotype): In the same collection as holotype and allotype, 4 ♂, 7/17 Mar 1997, 1 ♂, Feb 1998. In the collection of N. Tangerini, Rio de Janeiro, Brazil, 3 ♂, 1 ♀, 7/17 Jan 1997, 1 ♂, 7/17 Mar 1997, 3 ♂, 1 ♀, 8/18 Mar 1997, 1 ♂, 8/18 May 1997, 3 ♂, 3/10 Feb 1998. In the collection of Jorge Kesselring, João Pessoa, Paraíba, Brazil, 2 ♂, 7/17 Jan 1997. In the collection of C. Lemaire, Muséum national d'Histoire naturelle, Paris, France, 2 ♂, 3/10 Feb 1998, 1 ♀, 8/18 Jun 1997.

**Etymology**.— The new species is named in honor of Jorge Kesselring, a very active collector of Brazilian butterflies and generous donor of specimens to the Departamento de Zoologia of the Universidade Federal do Paraná.

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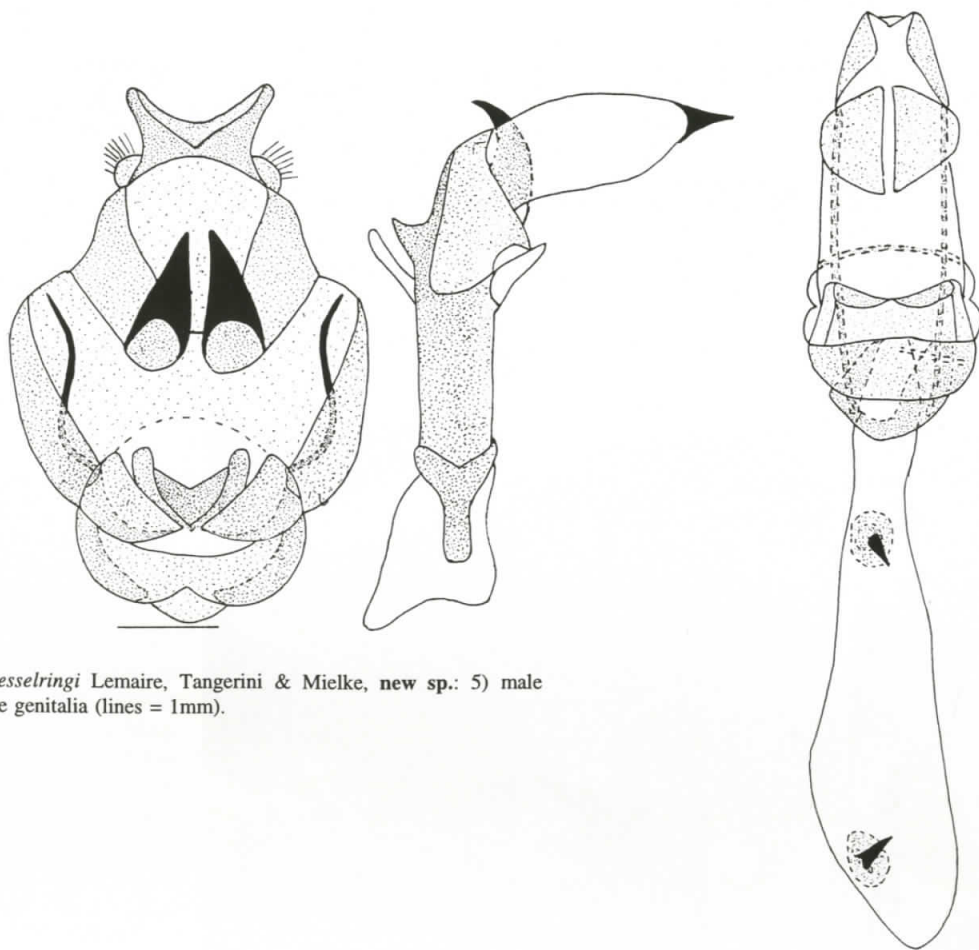


Fig. 5-6. *Jaiba kesselringi* Lemaire, Tangerini & Mielke, new sp.: 5) male genitalia. 6) female genitalia (lines = 1mm).