Papéis Avulsos de Zoologia

Museu de Zoologia da Universidade de São Paulo

Volume 53(17):245-251, 2013 **www.mz.usp.br/publicacoes** **ISSN impresso: 0031-1049**
http://portal.revistasusp.sibi.usp.br **ISSN *on-line:* 1807-0205**
www.scielo.br/paz

Bolivian Rhinotragini VI: *Caprichasia* gen. nov. (Coleoptera, Cerambycidae)

Robin O.S. Clarke[1]

ABSTRACT

A new genus, Caprichasia, *is described with two species:* Caprichasia serjaniaphila *sp. nov. from Bolivia; and* Caprichasia tommyi *(Hovore, 1989) comb. nov. from central America, transferred from* Ecliptophanes *(Melzer 1935). The new species is illustrated, and host flower records are provided.*

Key-Words: Bolivia; Cerambycinae; Host flowers; New genus.

INTRODUCTION

The sixth paper on Bolivian Rhinotragini Thomson, 1861 describes a new genus, *Caprichasia,* related to *Ecliptophanes* (Melzer, 1935) and to *Parischasia* Tavakilian & Peñaherrera-Leiva, 2005.

Melzer (1934) described the subgenus *Ommata (Ecliptophanes)* to accommodate *Ommata (Ecliptophanes) bucki* Melzer, 1934, known from a single female collected in southern Brazil. He drew attention to the *"bastante aberrante"* form of the antennae of his new species, which is similar to, but even more strongly clubbed than *Ommata* ? *laticornis* Melzer, 1922. He stated his reluctance to establish a new genus for his new species, at least until such time that the male was known.

Zajciw (1958) described *Ommata (Ecliptophanes) silvai,* and included *Ommata (Eclipta) laticornis* in Melzer's subgenus, drawing attention to the expanded nature of the last two antennomeres shared by the three species. Zajciw (1965) added another species to the subgenus, *Ommata (Ecliptophanes) scopipes;* these three species from eastern Brazil.

Hovore (1989) described *Ommata (Ecliptophanes) tommyi* from Costa Rica, noting in his diagnosis the longer, truncated elytra of the other species in the subgenus.

Tavakilian & Peñaherrera-Leiva (2003) described *Ommata (Ecliptophanes) chacunfrancozi* from two female specimens collected in French Guyana, bringing the number of species in the subgenus to six.

Tavakilian & Peñaherrera-Leiva (2005) described the new genus *Parischasia* to accommodate two species; a new one from French Guyana, *Parischasia champeonoisi;* and a central Brazilian one, *Parischasia ligulatipennis* (Gounelle, 1911), transferred from the genus *Ischasia* Thomson, 1864.

With the transfer of the Central American species in Melzer's genus to *Parischasia,* the distribution of *Ecliptophanes* is now restricted to South America's eastern coast (French Guiana, and the Brazilian States of Paraíba, Sao Paulo, Rio de Janeiro, and Rio Grande do Sul). The distribution of *Parischasia* remains the same (French Guiana and western Brazilian states of Rondonia and Mato Grosso); and the distribution of *Caprichasia* being in Central America (Guatemala and Panama) and western South America (Bolivia).

1. Hotel Flora & Fauna, Casilla 2097, Santa Cruz de la Sierra, Bolivia. E-mail: hotelfandf@hotmail.com

Within the tribe Rhinotragini, the disjunctive distribution of the genus *Caprichasia* is unusual, and, according to Monné & Hovore (2006), is only shared with *Chariergodes* Zajciw, 1963 (Costa Rica and southern Brazil), *Pandrosus* Bates, 1867 (Panama and central Brazil), and *Stenopseustes* Bates, 1873 (Mexico, Guatemala and southern Brazil); as well as a few individual species (*e.g., Odontocera apicula* Bates 1885) from Panama, which the author can now confirm is a Bolivian species to be added to Wappes *et al.* (2006, 2011).

MATERIAL AND METHODS

All the Bolivian specimens were collected near Buena Vista in the Department of Santa Cruz; nearly all of them at the Hotel Flora & Fauna, 420-440 m, 5 km SE of Buena Vista (17°30'S/63°39'W).

Measurements: total length = tip of mandibles to apex of abdomen. Forebody length (estimated with head straight, not deflexed) = apex of gena to middle of posterior margin of metasternum. Length of abdomen = base of urosternite I (apex of abdominal process) to apex of urosternite V. Length of rostrum = genal length (from apex of side to where it meets inferior lobe of eye). Length of inferior lobe of eye (viewed from above with the scale along side of gena): from the lobes most forward position to its hind margin (adjacent to, and slightly to the side of, antennal insertion). Width of inferior lobe of eye (with head horizontal and level viewed from directly above) = width of head with eyes at its widest point, minus width of interocular space, and divided by two. Interocular space between inferior lobes = its width at the narrowest point (including smooth lateral margins). References to antennal length in relation to body parts are made, as far as is possible, with head planar to dorsad and antenna straightened. Length of leg (does not include coxae) = length of femur (from base of femoral peduncle to apex of clave) + length of tibia + length of tarsus (does not include claws).

The acronyms used in the text are as follows: American Coleoptera Museum, San Antonio, Texas, USA (ACMT); Florida State Collection of Arthropods, Gainesville, Florida, USA (FSCA); Museo Noel Kempff Mercado, Universidad Autónoma Gabriel René Moreno, Santa Cruz de la Sierra, Bolivia (MNKM); Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil (MNRJ); Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil (MZUSP); Robin Clarke/Sonia Zamalloa private collection, Hotel Flora & Fauna, Buena Vista, Santa Cruz, Bolivia (RCSZ).

The bibliographic references for each taxon correspond to the original description, citation of the catalogue by Monné (2005), and additions to this catalogue.

RESULTS AND DISCUSSION

Caprichasia gen. nov.

Type species: Caprichasia serjaniaphila sp. nov., hereby designated.

Diagnosis: separation of the genus *Caprichasia* from species of *Ecliptophanes* is readily made by comparing the following characters: elytra short, just passing middle of urosternite I in females, reaching apical third of II in males (in *Ecliptophanes* elytra reach urosternites III-IV); elytral contracted before lobed apex, and apical margin well rounded (in *Ecliptophanes* apex of elytra is not lobed, and apical margin transversely to obliquely truncate).

Examination of photographs available on the internet indicate species of *Caprichasia* to be decidedly slimmer and more graceful than the two known species of *Parischasia.* Separation of the genus *Caprichasia* from *Parischasia* (whose species share short, lobed elytra) is readily made by comparing the following characters: antennae (except in a few females) and metafemora long, both passing apex of abdomen; and metafemoral peduncles very narrow (in *Parischasia* apex of antennae and legs fall well short of abdominal apex; and metafemoral peduncles comparatively robust); antennae with abrupt, 2-segmented club (in *Parischasia* club is less abrupt, and 4-segmented); in males inferior lobes of eyes moderately contiguous (in both sexes of *Parischasia* inferior lobes of eyes well separated).

Description: moderately small (5.2-9.5 mm); narrow, subcylindrical and graceful, with long antennae and legs. Elytra short and lobed. Head with eyes distinctly wider than pronotum in male (moderately wider than pronotum in female); rostrum short in male (longer in female). Mandibles acute at apex, cutting edges with tooth. Apical palpomeres fusiform, truncate at tip. Eyes finely faceted, large, obliquely placed in male (smaller and less oblique in female); distal margin of inferior lobes lying on frons, proximal margins transverse in male (slightly oblique in female). Inferior lobes of male moderately contiguous (those of female

well separated). Superior lobes moderately wide. Antenna long and narrow with antennomeres III-VIII filiform, IX conical, X and XI subovate, strongly incrassate to form abrupt, 2-segmented club; in male passing apex of abdomen at middle of X (in female just reaching apex of abdomen, or shorter); scape cylindrical, much shorter than antennomere III; III the longest in *C. serjaniaphila,* 1.2-1.4 longer than IV; V slightly longer than IV, shorter than VI in male (equal to VI in female); X the longest in *C. tommyi.* Prothorax cylindrical, 1.3-1.4 longer than wide; sides weakly rounded with or without feeble tubercle; apical constriction almost absent, basal constriction shallow. Surface of pronotum almost regularly convex to feebly callose. Prosternal process flat, base laminar, apex trapezoidal with raised sides. Procoxal cavities plugged at sides and closed behind. Procoxae not obliquely placed. Mesosternal declivity not abrupt, sloping; width of process about one third the width of coxal cavity (half width in female), apex cordiform; side of coxal cavity open to epimerum. Scutellum small and scutate. Elytra short, 2.5-3.0 longer than width of humeri; apical quarter to apical third lobed (lobes shorter in *C. serjaniaphila*), and elevated (more strongly in males), reaching middle to apical third of urosternite II in males (just reaching apical third of I in females of *C. serjaniaphila*); in both sexes weakly dehiscent from base of lobe; humeri wider than base of pronotum, covering sides of mesosternum and base of metepisternum; but sides of elytra from just behind humerus strongly narrowing to base of lobe, exposing rest of metepisternum; humero-apical costa rather weak and incomplete (especially in females). Metasternum strongly convex in male (somewhat flattened in female), longitudinal suture reaching middle of metasternum, narrow, deeply impressed posteriorly in male; metepisternum rectangular, narrow, base not widened (narrower than middle), apex only modestly acuminate.

Abdomen in male narrow, cylindrical and convex throughout; widest at apex of urosternite III; urosternite I slightly narrower and longer than the rest, the latter progressively shorter; urosternite V very slightly narrower than II-IV, strongly transverse, almost rectangular, sides slightly rounded, apical margin slightly emarginate, sides of central two-thirds distinctly tumid, surrounding a moderately deep, semicircular depression; abdominal process intimately inserted between metacoxae, long (0.2 mm), basal portion strongly inclined to abdomen (flatter in females), apical two-thirds re-curved and horizontal, narrow and acuminate. Abdomen in female fusiform, convex, widest at apex of urosternite II, V undifferentiated.

Legs long and slender; distinctly pedunculate-clavate; meso- and metafemoral peduncles narrow (the latter more than twice as long as claves); claves fusiform and sub-abrupt. Hind leg much longer than middle leg, both longer than front leg (which itself is longer than usual). Middle of metafemoral club reaching apex of abdomen. Apex of protibiae truncate, not at all excavate laterally. Tarsi short, incrementally longer from front leg to back leg; metatarsomere I slightly longer than II+III in male, equal in female.

General colour: Antennomere IX yellowish.

Surface ornamentation: Body and elytra almost entirely pubescent, legs with relatively sparse, but long setae.

Species included in Caprichasia: Caprichasia serjaniaphila sp. nov., and *Caprichasia tommyi* (Hovore, 1989) comb. nov.

Discussion: Hovore (1989) provides a useful diagnosis of his species within the genus *Ecliptophanes,* which begins with the following: "Within the subgenus *Ecliptophanes* Melzer, [*O. (E.) tommyi*] appears most similar to *O. bucki* Melzer and *O. silvai* Zajciw …"; presumably, and primarily, with reference to the strongly, incrassate, two-segmented club present in these three species. Future revision of *Ecliptophanes* might indicate the inclusion of *E. silvai* in the genus *Caprichasia,* even though its truncate elytra and relatively short metafemora (which do not reach the abdominal apex) mitigate against this move; nor would its placement in *Parischasia* (characterised by, among others, short lobed elytra, incrassate 4-segmented antennal club, and short metafemora) seem better.

Etymology: combination of *capri* = from the Italian *caprice,* meaning unpredictable (or "different"), and *chasia* to indicate its relationship to *Parischasia* (as outlined below); furthermore *Caprichasia* is almost an anagram of the latter.

***Caprichasia serjaniaphila* sp. nov.**
Figs. 1, 2

Holotype male: 5.5 mm. Deposited at MNKM.

Diagnosis: Caprichasia serjaniaphila sp. nov. is most readily separated from *Caprichasia tommyi* (Hovore, 1989) by the shape of the elytra; in the former the narrow part of the elytron is much shorter (elytra

measured from base to hind margin of metacoxae *ca.* 1.5 mm, and from hind margin of metacoxae to apex of elytra *ca.* 0.75 mm; *i.e.* basal portion twice the length of apical portion). In the latter the narrow part of the elytron is much longer (elytra measured from base to hind margin of metacoxae *ca.* 1.25 mm, and from hind margin of metacoxae to apex of elytra *ca.* 1.10 mm; *i.e.* basal portion 1.14 longer than apical portion).

Description of holotype: general colour opaque. Dorsad: head (including mouthparts), pronotum and scutellum dark chestnut, elytra translucent ochraceous, basal margin slightly chestnut. Underside (including head and abdomen) black, except the following chestnut: front margin of pro- and mesosternum, apex of prosternal process, proepimera, midline of urosternite I and most of II and III. Antennal scape orange-yellow, dusky below; antennomeres III-VIII yellowish at base, darkening at apices; IX entirely yellow; X and XI entirely chestnut. Legs orange-yellow, with paler peduncles and uniformly darker claves (especially metafemoral claves); apices of tibiae and tarsomeres dusky, onychiae blackish.

General pubescence: the following with rather short, sparse setae: underside of antennomeres III-V, and all of them with 3-4 longer setae at apex; mesofemora, apex of mesofemoral clave, tibiae; basal half of elytra and metatibial setae denser and longer.

The following clothed with short, white, recumbent pubescence, becoming dense laterally, the exceptions more or less glabrous: upper surface of head and narrow area of dense hairs below inferior lobes; prothorax except front half of prosternum and prosternal process; mesothorax and metathorax except centres; and abdomen except narrow midline towards which all the hairs are obliquely directed.

Surface ornamentation: area of mentum-submentum multicarinate (these arced and disorderly), with scattered large punctures, becoming denser laterally. Front half of prosternum sparsely punctured. The following appear to be densely punctate, the punctures contiguous (but dense pubescence hides most of surface detail): upper surface of head; prosternum adjacent to process, and all of pronotum confusedly punctured with very small dense punctures and large, scattered, *sequin*-shaped punctures; sides of pronotum with large patch of small, very dense punctures (representing sexual puncturation). Base of elytra densely punctured, some of these punctures confluent; disc with widely spaced larger and smaller punctures, becoming denser at sides; lobes minutely granulate. Elytra anterior to lobe transversely multicarinate.

Structure: forebody (3.00 mm) 1.3 longer than abdomen. Rostrum (0.15 mm) about 1/3 length of inferior lobes. Mentum-submentum divided by strong declivity, the area of submentum multicarinate, these arced and disorderly, with scattered large punctures, becoming denser laterally. Labrum small and short. Clypeus and frons almost planar. Interocular distance 7.0 narrower than width of one inferior lobe. Interocular shallow V-shaped (the details obscured by pubescence). Superior lobes moderately large (with nine to ten rows of ommatidia); widened mesally, narrow laterally; interocular distance (0.50 mm) 2.5 width of lobe. Antennae: scape (0.45 mm), antennomere III (0.75 mm), IV (0.55 mm), V (0.65 mm). VI (0.70 mm), VII (0.60 mm), VIII (0.55 mm), IX (0.60 mm), X (0.70 mm), XI (0.75 mm) with acute apical cone. Prothorax 1.4 longer (1.15 mm) than wide (0.80 mm); sides without tubercle; pronotum convex, slightly more across centre, without further protuberances, apical and basal margins subequal (1.30 mm), the former with narrow smooth border. Mesosternal process wide (0.15 mm). Elytra flat (2.20 mm long) 2.4 longer than width of humeri (0.90 mm); outer angle of humeri slightly rounded; epipleur almost vertical for basal half of elytra; disc, to inside of sutural margin, slightly depressed, this depression running from base of elytra (where it is narrow), to pre-lobal constriction (where it is broad), but always separated from sutural margin, and always shallow; sutural margins bordered, slightly raised, dehiscence weak, lobes short (0.90 mm), widest at middle, moderately thickened and convex, apices evenly rounded. Legs: ratio of length front/middle/hind leg 1.0:1.7:2.8: hind leg (5.8 mm) slightly longer than body (metafemora 3.0 mm, passing apex of abdomen at middle of clave; metatibia 2.8 mm). Metatibia subcylindrical (gradually thickening to apex); slightly curved; with long setae throughout (but almost without pubescence). Length of tarsi increasing proportionally from front to hind leg (0.50, 0.60, 0.80 mm). Metatarsomere I (0.30 mm), II+III (0.28 mm), onychium (0.25 mm).

Variation: Antennomeres X and XI may be blacker (sometimes blacker on one antenna, chestnut on the other). In some males lobes of elytra almost flat; abdomen widest at apex of urosternite IV.

Description of female: forebody (3.35 mm) and abdomen equal in length; rostrum (0.25 mm) slightly more than half length of inferior lobes; distance between lobes (0.35 mm) slightly more than width of

FIGURES 1-2: *Caprichasia serjaniaphila* sp. nov.: **1,** male holotype (5.5 mm); **2,** female paratype (7.3 mm).

lobe; interocular slightly depressed; superior lobes: interocular distance (0.75 mm) more than three times width of lobe. Prothorax: male equivalent of sexual puncturation represented by similar sized, densely reticulate, patch. Elytra 2.4 mm long, twice width of humeri; more pubescent than male, especially adjacent to suture, and particularly dense on lobes. Ratio of length front/middle/hind leg 1.0:1.8:3.1; hind leg longer than in male, but only as long as body; metatibia as long as metafemora, and more strongly thickened than in male.

Measurements (mm), 21 males/11 females respectively: total length 5.2-7.2/6.5-8.2, length of pronotum 1.0-1.3/1.2-1.6, width of pronotum 0.7-1.0/0.8-1.1, length of elytra 1.9-2.4/2.2-2.7, width at humeri 0.8-1.1/1.0-1.3.

Type material: holotype male, BOLIVIA, Santa Cruz: Hotel Flora & Fauna, 5 km SSE of Buena Vista, 17°29'96"S/63°39'13"W, 430 m, 17.IX.2005, on/flying to flowers of "Barbasquillo" vine, R. Clarke & S. Zamalloa col. (MNKM).

Paratypes with same data as holotype: 6 males, 2 females, 02.VIII.2005 (RCSZ); 1 male, 3 females, 03.VIII.2005 (MNRJ); 1 male, 1 female, 03-04. VIII.2005 (ACMT); 1 female, 14.VIII.2005 (MNKM); 2 males, 2 females, 15.VIII.2005 (MZUSP); 1 male, 1 female, 16.VIII.2005 (FSCA).

Paratypes with same data as holotype different host-plants: on/flying to flowers of "Laguno", 1 male, 02.VIII.2005 (RCSZ); 2 males, 21.IX.2005 (RCSZ); 1 male 22.IX.2005 (RCSZ), 1 female, 03.X.2005

(RCSZ); on/flying to flowers of *Mangifera indica* 2 males, 16.VII.2007 (RCSZ); on/flying to flowers of "Ramoneo", 1 male, 12.VIII.2008, and 1 male, 13.VIII.2008 (RCSZ); on/flying to flowers of "Palta", 1 male 15.IX.2009 (RCSZ).

Paratypes with different data from holotype: Road to El Cairo-Cafetal, 6 km W of Buena Vista, on/flying to flowers of *Gomphrena vaga* Mart., 2 males, 10.VIII.2007 and 1 male, 20.VII.2008, R. Clarke & S. Zamalloa col. (RCSZ).

Etymology: combination of *Serjania* the species' preferred host flower genus, and *phila* from the Latin to like, or be attracted to.

RESUMO

Rhinotragini bolivianos VI: Caprichasia *gen. nov. (Coleoptera, Cerambycidae). Um novo gênero,* Caprichasia, *é descrito com duas espécies:* Caprichasia serjaniaphila *sp. nov. da Bolívia e* Caprichasia tommyi *(Hovore, 1989) comb. nov. da America Central, transferida de* Ecliptophanes *(Melzer 1935). A espécie nova é ilustrada e as flores-hospedeiras são fornecidas.*

Palavras-Chave: Bolívia; Cerambycinae; flores-hospedeiras; novo gênero.

ACKNOWLEDGEMENTS

Dr. Ubirajara Martins for his steady encouragement and help. Dr. Antonio Santos-Silva for examining paratypes of *C. tommyi* on the author's behalf. Jim Wappes for a copy of Hovore's 1989 paper. Two plant experts: Dr. Michael Nee, Curator of the New York Botanical Gardens for identifying the plants, and Mr. Ruperto Vargas for providing their local names. My wife, Sonia Zamalloa, for the many hours of help I have received from her in the field.

REFERENCES

Hovore, F.T. 1989. Records and descriptions of Costa Rican Cerambycidae, Part I: the Turrialba Valley. *Insecta Mundi,* 3(4):249-260.

Melzer, J. 1934. Longicórneos americanos, principalmente do Brasil, novos ou pouco conhecidos. *Archivos do Instituto Biologico,* 5:213-244.

Monné, M.A. 2005. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part I. Subfamily Cerambycinae. *Zootaxa,* 946:1-765.

Monné, M.A. & Hovore, F.T. 2006. *Checklist of the Cerambycidae, or longhorned wood-boring beetles, of the Western Hemisphere.* Rancho Dominguez, BioQuip. 394 p.

Tavakilian, G.L. & Peñaherrera-Leiva, A.Y. 2003. Nouvelles espécies et nouveaux genres de Rhinotragini, II. *Coléoptères,* 9(21):275-314.

Tavakilian, G.L. & Peñaherrera-Leiva, A.Y. 2005. Nouvelles espécies et nouveaux genres de Rhinotragini, IV. *Coléoptères,* 11(5):27-50.

Wappes, J.E.; Lingafelter, S.W. & Perger, R. 2011. Additions and Deletions to the Known Cerambycidae (Coleoptera) of Bolivia. *Insecta Mundi,* 150:1-8.

Wappes, J.E.; Morris, R.F.; Nearns, E.H. & Thomas, M.C. 2006. Preliminary checklist of Bolivian Cerambycidae (Coleoptera). *Insecta Mundi,* 20(1-2):1-46.

Zajciw, D. 1958. Novos Longicórneos neotrópicos. *Revista Brasileira de Entomologia,* 8:233-262.

Zajciw, D. 1965. Novos longicórneos neotrópicos da tribo Rhinotragini II. *Anais da Academia Brasileira de Ciências,* 37(1):121-129.

Aceito em: 22/02/2013
Impresso em: 30/06/2013

Publicado com o apoio financeiro do Programa de Apoio às Publicações Científicas Periódicas da USP

APPENDIX

Host flowers visited by *Caprichasia serjaniaphila* sp. nov.

Local Name	**Scientific Name**	**Family**
Barbasquillo	*Serjania lethalis* St. Hilaire	SAPINDACEAE
Gomphrena	*Gomphrena varga* Martian	AMARANTHACEAE
Laguno	*Ilex* indet sp.	AQUIFOLIACEAE
Mango	*Mangifera indica* Linnaeus	ANACARDIACEAE
Palta (Avocado)	*Persea americana* Miller	LAURACEAE
Ramoneo	*Iresine diffusa* Willd.	AMARANTHACEAE