TELAGRION BOLIVIENSIS SPEC. NOV. FROM BOLIVIA (ZYGOPTERA: COENAGRIONIDAE)

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The new sp. is described and illustrated (holotype & and allotype P: Bolivia, Beni Department, Cercado prov., forest around Lago Los Lagartos, 2 km N of Loma Suarez, 22-VIII-2003). The flavescent/brownish wings will separate the new sp. from all other *Telagrion* sp., which have hyaline wings. The holotype and allotype are deposited in Universidad Autonoma "Gabriel Rene Moreno" (UAGRM) in Santa Cruz, Bolivia.

INTRODUCTION

LENCIONI (2004) listed nine species of *Telagrion*, seven from Brazil, when he described *T. nathaliae*. The new species described herein brings the total described species to 10. The larva is unknown as with all species of *Telagrion*. The genus *Telagrion* is recorded from Bolivia for the first time.

TELAGRION BOLIVIENSIS SP. NOV.

Figures 1-7

M a t e r i a l. — Holotype & and allotype $\mathfrak P:$ BOLIVIA, Beni Department, Cercado prov., forest trails 2 kms N of Loma Suarez, 12 km N of Trinidad, 22-VIII-2003, Jerrell J. Daigle leg.; — Paratypes (5 &, 5 $\mathfrak P$): Same data but forest 12 km NW of Trinidad, 2 km N of Loma Suarez, 14°45'02" S, 64°57'21"W, 1 & $\mathfrak P$ Jim T. Johnson leg.; — same data but 1 & $\mathfrak P$ Ken J. Tennessen leg.; — same data but 5 km N of Loma Suarez, Lago Los Lagartos, forest, 14.42°53.7'S, 64.56°34'W, 1 & $\mathfrak P$ Bill Mauffray leg.; — same data but 21-VIII-2003, 1 & (No. 3674), 1 $\mathfrak P$ (No. 3686) F.A.A. Lencioni leg.; PERU, Madre de Dios, Tambopata Nature Reserve, 30 km SW Puerto Maldonado, 26-II-1983, 1 & $\mathfrak P$, M.P. Frisbie leg. (D.R. Paulson Collection).

The holotype and allotype are deposited in Universidad Autonoma "Gabriel Rene Moreno" (UA-GRM) in Santa Cruz, Bolivia. The remaining paratypes are in UAGRM, the Florida State Collection of Arthropods (FSCA) in Gainesville, Florida, USA and in the collections of Ken J. Tennessen, Jer-

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rell J. Daigle, Bill Mauffray, Jim T. Johnson, F. A. A. Lencioni, Dennis R. Paulson, and the National Museum of Natural History (NMNH) in Washington, D.C., USA.

Etymology. - The species is named for the country of Bolivia where it was first found by the author.

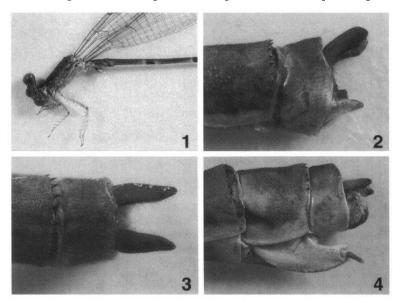
MALE (holotype). — He a d. — Eyes in life brown dorsally, pale brown ventrally with a dark lateral stripe separating the two color zones. Labrum, mandible, and genae light brown with a faint bluish tinge. Face, vertex, and epicranium brown with golden reflections. Antennae light brown with top of segment 3 black. Remaining segments missing in both antennae. Rear of head brown.

Thor ax. — Pronotum brown, propleuron light brown. Middorsal thoracic carina brown. Thorax uniformly brown, lighter towards pale venter (Fig. 1). Mesopleural and metapleural fossae blackish-brown. Interpleural and metapleural sutures with a brown spot basally.

Legs. – Armature black; coxae and legs pale brown.

Wings. – Flavescent/tawny with brown venation. 15/16 postnodal crossveins in forewings, 14/15 hindwings. Brown pterostigma overlies 1 cell with the proximal side oblique.

A b d o m e n. — Mostly brown with faint reddish tinges dorsally becoming lighter ventrally with tiny pale basal rings and complete darker apical rings. Segments 1 and 2 brown. Segments 3-6 with pale basal ring and wider dark apical ring. A small



Figs 1-4. Telagrion boliviensis sp. n., holotype δ (1-3), and allotype \mathcal{D} (4): (1) lateral view of head, prothorax, and thorax; – (2) lateral view of caudal appendages; – (3) dorsal view of caudal appendages; – (4) lateral view of ovipositor.

pale area precedes the apical ring. Segments 7-9 brown, darker ventrally. Segment 10 brown. Appendages brown with reddish reflections. In lateral view, cercus broad narrowing slightly to rounded apex (Fig. 2). Cercus roundly curved basally into small blunt projection. Paraproct about half as long as cercus. In dorsal view, cercus fairly uniformly straight and narrowing slightly to apex (Fig. 3).

Measurements (mm). - Total length including appendages 43.5, abdomen 36.3, forewing 22.5 and hindwing 22.5.

FEMALE (allotype). - Homochromatic, almost identical to holotype male. H e a d. - Similar to male. Both blackish-brown antennae intact.

Thorax. - Similar to male. The four thoracic suture spots slightly darker. Hind lobe of prothorax and left mesostigmal plate similar to a paratype female (Fig. 7).

Wings. - Tawny, light brown

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Figs 5-7. Telagrion boliviensis sp. n., paratype & (5-6) and 9 (7): (5) oblique-posterior view of caudal appendages; - (6) lateral view of caudal appendages; - (7) hind lobe of prothorax and left mesostigmal plate of female.

wings similar to holotype but 16 postnodal crossveins in forewing and 14/15 postnodal crossveins in hindwings.

A b d o m e n. - Light brown. Segment 8 without ventral spine. Ovipositor pale brown, genital valve with minute, even dentition (Fig. 4). Stylus light brown with yellow tip. Brown cercus darker at apex.

Measurements (mm). - Total length including appendages 38.0, abdomen 31.0, forewing 24.5 and hindwing 24.0.

VARIATION AMONG PARATYPES. — Paratypes similar to holotype and allotype. Total length (mm) of δ ranges from 43-48, 9 45-50; abdomen δ 35-39, 9 36-40; forewing ♂ 22-26, ♀ 25-29; hindwing ♂ 21-25 and ♀ 24-28. Postnodal crossveins in forewing ♂ 15-16, ♀ 14-17 and hindwing ♂ 13-15, ♀ 13-14. Lateral and oblique-posterior views of a paratype male as in Figures 5-6.

DIAGNOSIS

The flavescent/brownish wings will immediately separate Telagrion boliviensis males and females from all known Telagrion species as they have hyaline wings.

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Also, the short cercus and paraproct are almost the same length in *T. oreas* Ris (Colombia) and *T. quadricolor* Ris (Peru), whereas the cerci are almost twice as long as the paraprocts in *T. boliviensis*. The straight and parallel-sided cerci will separate *T. boliviensis* from *T. cornicauda* Calvert, *T. macilentum* Rambur, *T. nathaliae* Lencioni, *T. mourei* Santos, and *T. longum* Selys which have decurved cerci. *T. diceras* Selys has mesothoracic horns, which are lacking in *T. boliviensis* and all other *Telagrion* species. A single female in IRSNB in poor condition represents the poorly known *T. fulvellum* Selys species. Photos of this specimen by Jérôme Constant show that it appears to be much smaller in size than *T. boliviensis* females and that it is not conspecific.

Telebasis boliviensis commonly inhabits lakes in grassland and open pastures that are mostly surrounded by marginal forest. Immature adults remain in the forest underbrush during the dry season. The darker mature adults return to the lakes at the advent of the rainy season to breed. Odonate species collected with T. boliviensis include Telebasis gigantea Daigle, and Lestes jurzitzai Muzon. At least one of three specimens that have been taken at the Tambopata Reserve in Peru was in the middle of primary forest, a long way from any open area. They were collected there only during the rainy season, and none was found during a month-long visit in the dry season (D. R. Paulson, pers. comm.).

T. boliviensis shows a behavior described by LENCIONI (2006, p. 30), "... open and close their wings once or twice after alighting", and as stated by him, as far as he knows, this behavioral characteristic is shared only with Argia species.

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