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TELEBASIS MILLERI SPEC. NOV., A NEW DAMSELFLY FROM PERU, WITH COMMENTS ON THE STATUS OF *T. FLUVIATILIS* ST. QUENTIN (ZYGOPTERA: COENAGRIONIDAE)

R.W. GARRISON
Research Associate, Natural History Museum of Los Angeles County, 900 Exposition Blvd., Los Angeles, CA, 90007, United States.

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The new sp. is described from Peru (holotype ♂: Madre de Dios Dept., Pakitza Reserved Zone, palm swamp at stake 28, near Troncal Castañal, 11° 56' S, 71° 18'W., 6-VII-1993; allotype ♀: Pakitza Reserved Zone, T2 S19, 11° 56' S, 71° 18'W., 8-IX--1989; held in trust at National Museum of Natural History, Washington, D.C. pending repatriation per agreement with the Ministerio de Agricultura, Instituto Nacional de Recursos Naturales, Peru) and compared with similar spp. The holotype of *T. fluviatilis* St. Quentin, 1960 is found to be a junior synonym of *T. demararum* (Williamson, 1917).

INTRODUCTION

Over the past five years, Drs Jerry Louton, Oliver S. Flint, Jr, and Rosser Garrison have conducted biodiversity surveys of the Odonata of the Pakitza Biological Station in Parque Nacional Manu. An analysis of the composition of the Odonata of the station was reported by LOUTON et al. (1997), and at least one recently described species, *Polythore manua* Bick & Bick (BICK & BICK, 1990) is thus far known only from this site. Among the more interesting Odonata collected by Drs Jerry Louton and Oliver S. Flint, Jr of the Smithsonian Institution during 1988 and 1989 was a small series of a medium sized red *Telebasis* which did not fit any of the species treated by BICK & BICK (1995, 1996). Garrison collected a small series of this species at a palm swamp near the station during the 1993 collecting season. In order to supplement the review papers of BICK & BICK (1995, 1996), I describe, illustrate, and compare it with similar species.

TELEBASIS MILLERI SPEC. NOV.

Figures 1-9

M a t e r i a l. – **Holotype** ♂. PERU: Madre de Dios Dept.: Pakitza Reserved Zone, palm swamp at stake 28, near Troncal Castañal approx. 11°56' S, 71°18'W, 6-VII-1993 (Rosser Garrison); — **allotype** ♀: same data as holotype but T[roncal] S[take] 19, 8-IX-1989 (Jerry A. Louton). Both held in trust at National Museum of Natural History, Washington, D.C. pending repatriation per agreement with the Ministerio de Agricultura, Instituto Nacional de Recursos Naturales, Peru. – A d d i t i o n a l m a t e r i a l (18 ♂, 7 ♀ **paratypes**): all same data as holo- and allotype but with following data: – small Quebrada near forest zone 1, 6-X-1987 (J. Louton), 1 ♀; – base camp, dining tent, 24-X-1987 (Terry L. Erwin), 1 ♀; – Trail 2, 250m., 17-IX-1988 (Oliver S. Flint, Jr), 1 ♂; –Trail 2, 250m., 20 -IX--1988 (Oliver S. Flint, Jr), 1 ♂, 1 ♀; – Trail 1, 250m., 21-IX-1988 (O. S. Flint, Jr), 1 ♂; – Seeps in plot 1, Trocha Dos, 21-IX-1988 (J. Louton), 1 ♂; – Trail 2, 250m., 22-IX-1988 (O. S. Flint, Jr), 4 ♂ 1 ♀; – T2 to R2 to T1 to basecamp, 17-IX-1989 (J. Louton), 5 ♂; – T2 to R2 to T1, 18-IX-1989 (J. Louton), 2 ♂, 3 ♀; – same data as holotype, 3 ♂. Paratypes to be placed in National Museum of Natural History, Washington, D.C.; R. W. Garrison collection; and British Museum (Natural History).

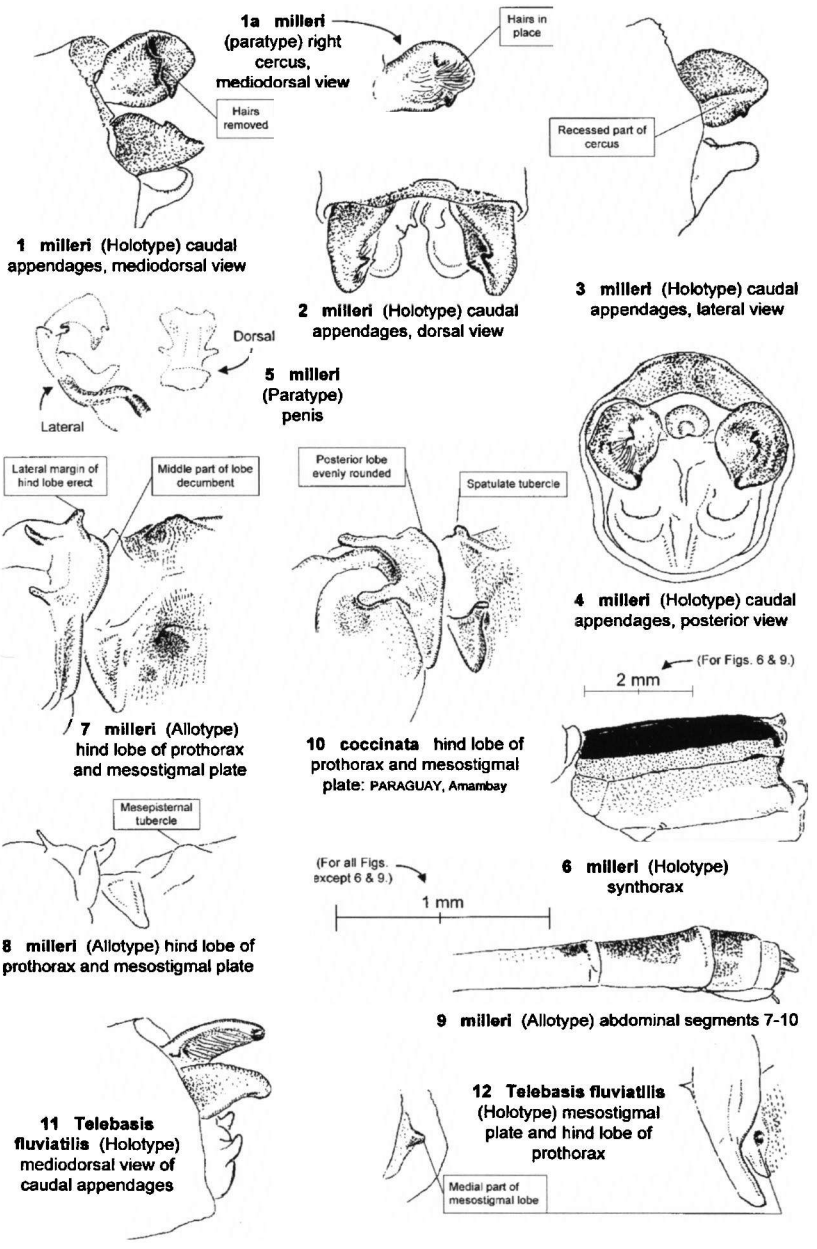
E t y m o l o g y. – Dedicated to the memory of the late odonatologist, Dr Peter J. M i l l e r, whose excellent writings contributed so much to the knowledge of mating systems within the Order.

MALE (**Holotype**). – Labium pale ochre, labrum red; clypeus, frons and occiput dull orange brown with following dark metallic black: ocellar triangle with diagonal arm extending to base of antenna, transverse spot posterior to angulate area of frons; rear of head pale ochre. Prothorax dull orange, darkened with brown medially at base of frontal lobe; medial half of mesepisternum dark metallic brown, remainder of mesepisternum and anterior half of mesepimeron dull orange brown, remainder of synthorax including metasternum and base of coxae pale ochre (Fig. 6). Legs pale orange with washes of brown on posterior margins of femora and tibiae, tarsi pale, dark at extremities, armature black.

Wings hyaline, postnodal crossveins: fore wing - left 12, right 12; hind wing - left 10, right 10; R_3 originating at sixth postnodal in fore wings, at fifth in hind wings; pterostigma orange brown, rhomboidal, surmounting one cell; wings stalked to Ac.

Abdominal segments 1-10 red dorsally, paler ventrally. Cerci black, paraprocts dull orange. Cercus (Fig. 1) slightly longer than paraproct, about as high as long, bluntly diamond shaped in lateral view (Fig. 3) with lighter ventral half recessed medially so that an incomplete longitudinal seam occupies basal 0.80 of cercus, a dark swelling at vicinity of ventral tooth; medial margin concave with a small dorsal anteriorly directed tooth and a similar tooth at ventral margin with a series of closely appressed cephalically directed golden hairs (Fig. 1a [paratype]) obscuring vertical ridge. Paraproct blunt with dorsal surface concave typical of the genus.

Penis (Fig. 5 [paratype]) long, broadened distally with two pairs of short, triangular, backwardly directed lobes, the second larger than the first; a pair of small accessory digit-like lobes at middle of third segment.


1a milleri (paratype) right cercus, mediodorsal view
Hairs in place
Hairs removed
Recessed part of cercus
1 milleri (Holotype) caudal appendages, mediodorsal view
2 milleri (Holotype) caudal appendages, dorsal view
3 milleri (Holotype) caudal appendages, lateral view
Dorsal
Lateral
5 milleri (Paratype) penis
Lateral margin of hind lobe erect
Middle part of lobe decumbent
Posterior lobe evenly rounded
Spatulate tubercle
4 milleri (Holotype) caudal appendages, posterior view
(For Figs. 6 & 9.)
2 mm
7 milleri (Allotype) hind lobe of prothorax and mesostigmal plate
10 coccinata hind lobe of prothorax and mesostigmal plate: PARAGUAY, Amambay
Mesepisternal tubercle
6 milleri (Holotype) synthorax
(For all Figs. except 6 & 9.)
1 mm
8 milleri (Allotype) hind lobe of prothorax and mesostigmal plate
9 milleri (Allotype) abdominal segments 7-10
11 Telebasis fluviatilis (Holotype) mediodorsal view of caudal appendages
12 Telebasis fluviatilis (Holotype) mesostigmal plate and hind lobe of prothorax
Medial part of mesostigmal lobe

Measurements (in mm). – Hind wing 18, abdomen 28.

FEMALE (**Allotype**). – Head and thorax similar to male but pale color entirely ochreous brown, metallic markings on epicranium less extensive than in holotype; middle lobe of prothorax with a pair of small anterodorsally directed horns (Figs 7, 8); posterior lobe with middle part semicircular, decumbent posteriorly, lateral margin strongly erect (Figs 7, 8); mesostigmal plates triangular, bordered on three sides by a costate rim; anterolateral margin of mesepisternum with a longitudinal tubercle and with a slight depression anterodistal to tubercle (Fig. 7). Lateral half of mesepisternum pale blue, remainder of synthorax as in male, but with yellow ochre replacing orange.

Wings as in male, postnodal crossveins: fore wing - left 13, right 13; hind wing - left 11, right 11; R_3 originating at sixth postnodal in fore wings, at fifth in hind wings.

Abdomen entirely ochre, paler below; with dorsal dark brown at distal 0.10 of segment 7, and all of segments 8 and 9 (Fig. 9); dorsal black markings on these segments interrupted by pale annuli; on segments 8 and 9, dark brown extends laterally but abruptly narrows at distal 0.20; cerci black.

Measurements (in mm). – Hind wing 19, abdomen 30.

REMARKS. – Little variation is expressed among the paratype males and females. Size range among paratype males is as follows: postnodal crossveins: fore wing 12-14, hind wing 10-12; origin of R_3 in fore wing 6-7, hind wing 4-6; hind wing 17.5-20 mm; abdomen 27-30 mm. For females: postnodal crossveins: fore wing 13-14, hind wing 11-12; origin of R_3 in fore wing 6-7, hind wing 5-6; hind wing 18.5-20 mm; abdomen 27.5-30.5 mm. All but two males (18 Sept. 1989) collected in September do not appear to be as old as the paratypes collected in July. These younger males have the posterolateral area of the propleuron and the outer half of the mesepisternum pale blue and the dorsum of abdominal segments bright orange. One female (20 Sept. 1988) has the metallic black area of the posterior margin of the epicranium reduced as an inverted "V" so that the head appears to have a vestige of a pale postocular spot.

Fig. 13. Distribution of *Telebasis milleri* sp.n.

ECOLOGY. – The holotype and three allotype males were collected at a shallow palm swamp with many partly submerged dead tree trunks and snags along the margin. *Telebasis milleri* was not common and were taken just above the water's surface as they flew in and out among the dead branches. They were found with the following species of Odonata: *Anatya guttata* (Erichson), *Brechmorhoga nubecula* (Rambur), *Dasythemis esmeralda* Ris, *Elga leptostyla* Ris, *Erythemis attala* (Selys), *Erythrodiplax anatoidea* Borror, *Micrathyria*

laevigata Calvert, and *Micrathyria* sp. n. (*didyma* group). According to O. S. Flint and J. Louton, the other paratypes of *T. milleri* were found along trails within primary rainforest. One male was collected near the dining hall at the station. Although known thus far only from Pakitza (Fig. 13), *T. milleri* most likely occurs in other areas of southeastern Peru.

DIAGNOSIS. – *Telebasis milleri* will key out to couplet 9 (In lateral view, cercus [having] an elongate seam, appearing two parted...) in BICK & BICK (1995). However, the cercus of *T. milleri* is diamond shaped and slightly surpasses the paraproct. In *T. carmesina* Calvert, *T. corallina* (Selys), and *T. sanguinalis* Calvert, the cercus extends well beyond the level of the paraproct and the cercus in lateral view is linear. Couplet 9 of Bick & Bick (1995) can be modified as follows:

9 In lateral view cercus shows an elongate seam, appearing 2-parted 10
10 In lateral view, cercus diamond shaped, slightly longer than paraproct ..... ***milleri***
10' In lateral view, cercus linear, extending well beyond paraproct .....
..... [to ***T. carmesina***, ***T. corallina***, and ***T. sanguinalis***]

Females of *T. milleri* will key to *T. coccinata* Calvert (Carina dark) in BICK & BICK (1996). Through the kindness of Dr G. Bick, I was able to examine one of two females of *T. coccinata* (part of mated pair: Paraguay: Dept Amambay, Cerro Cora, 30 Nov. 1973, collected by L. A. Bulla, in FSCA) briefly described by BICK & BICK (1995, 1996). Couplet 12 may be modified as follows to accept *T. milleri*:

12 Carina dark **12.5**
12' Carina pale .....
..... [to ***T. incolumis***, ***T. salva***, ***T. carminita***, ***T. theodori***, ***T. corallina***, and ***T. carmesina***]
12.5 Larger species (hind wing 18.5-20 mm, abdomen 27.7-30.5 mm); mesepisternum with a longitudinally directed tubercle just posterior to mesostigmal plate; posteromedial border of mesostigmal plate unmodified; posterior lobe of prothorax with middle part decumbent, lateral part strongly erect (Figs 7, 8) ..... ***milleri***
12.5' Smaller species (hind wing 16 mm, abdomen 19 mm); mesepisternum lacking a tubercle just posterior to mesostigmal plate; posteromedial border of mesostigmal plate with an erect spatulate tubercle; posterior lobe of prothorax evenly rounded (Fig. 10) ..... ***coccinata***

THE STATUS OF *TELEBASIS FLUVIATILIS* ST. QUENTIN

Telebasis fluviatilis was described by ST. QUENTIN (1960) from three males and two females all from "Taperinha bei Santarem, am unteren Amazonas, Brasilien". He illustrated the forcipate appendages of the holotype male. BICK & BICK (1995) included *T. fluviatilis* in their key based on St. Quentin's description and illustration. The species has not been collected since its original description.

Through the kindness of Dr Ulrike Aspöck, of the Naturhistorisches Museum Wien, I was able to borrow the holotype male of *T. fluviatilis* in hopes of establishing its identity. This specimen proved to be a partially crushed, very young male of *T. demararum* (Williamson). I illustrate the appendages (Fig. 11) and the left mesostigmal plate (Fig. 12) all of which are consistent with males of *T. demararum* in my collection. The posterior margin of the mesostigmal plate is elevated later-

ally so that it forms a blunt spine.

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