

**TELEBASIS BOOMSMAE SPEC. NOV., A NEW DAMSELFLY
FROM BELIZE
(ZYGOPTERA: COENAGRIONIDAE)**

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The adult and ♀ ultimate instar larva of the new sp. are described and illustrated (holotype ♂, allotype ♀: Orange Walk Distr., Gallon Jug, 15-X-1992; deposited at USNM, Washington D.C.) and compared with the closest relative, *T. collopistes* Calv.

INTRODUCTION

CALVERT (1902, 1907), in his treatment of the genus *Telebasis* of Middle America, described *T. collopistes* from two males and one female from Teapa, state of Tabasco, Mexico. It is the only member of the genus from Middle America whose males possess cerci which are wider than long (Figs 1-2). Mrs Tineke Boomsma of Orange Walk, Belize, kindly sent me some *Telebasis* which she thought were *T. collopistes*, but which differ from Calvert's description and from a pair in my collection. Closer examination showed these specimens to represent a similar, but distinct species. Mrs Boomsma later supplemented the original specimens with additional adults and larvae of the new species and adults of *T. collopistes*.

TELEBASIS BOOMSMAE SPEC. NOV.

Figures 1, 3, 5-10

Material. – Holotype ♂: BELIZE, Orange Walk Distr., Gallon Jug, approx. 17°34'N, 89°03'W, alt. 120 m, 15-X-1992, T. Boomsma leg.; – allotype ♀: in tandem with holotype. Both in USNM, Washington, D.C.

Additional adult material (16 ♂, 12 ♀ paratypes): MEXICO, Tabasco, ponds 35 mi W Cardenas, 2-VII-1965, 1 ♂, D.R. Paulson & M.L. Paulson leg. (FSCA); – BELIZE, Orange Walk Distr., same

data as holotype, 1 ♂, — same locality, 6-V-1993, 1 ♀, — same locality, 7-V-1993, 1 ♀, — same locality, 8-V-1993, 2 ♂ (one teneral), 1 ♀ T. Boomsma leg. (RWG coll.); — Cayo Distr., aguada at Caracol, approx. 16°45'N, 89°09'W, 15-X-1993, 7 ♂, 3 ♀ (3 pairs in tandem), T. Boomsma & R.W. Garrison leg. (BMNH, UNAM), — same locality, 16-X-1993, 2 ♂, 3 ♀, T. Boomsma leg., — same locality, 19-X-1993, 2 ♂, 2 ♀, T. Boomsma leg.; — Retiro, Chiclero camp ca 5 km S of Caracol, approx. 16°44'N, 89°09'W, 19-X-1993, 2 ♂, 2 ♀ (in tandem), T. Boomsma leg.

Larvae: 2 ♀ (freshly emerged) with skins, 3 ♀ larvae with swollen wing pads. All: BELIZE, Cayo Distr., aguada at Caracol, 16-X-1993, T. Boomsma leg. (TB, RWG).

E t y m o l o g y. — Named for its discoverer, Mrs Tineke B o o m s m a, who kindly made available specimens of this species and *T. collopistes* for comparison.

MALE (holotype). — Labium pale ochre, labrum red; clypeus, frons and occiput dull orange with following dark metallic green marks: ocellar triangle with diagonal arm extending to base of antenna, most of occiput except for large, dull orange postocular spots; rear of head pale ochre. Prothorax dull orange, darkened with brown medially at base of frontal lobe; synthorax dull orange, pale toward sides, becoming pale ochre on metepimeron, metasternum, and at base of coxae, a fine dark metallic green line on middorsal thoracic carina only. 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 11, right 11; R₃ originating at sixth postnodal in fore wings, at fifth in hind wings; pterostigma orange brown, rhomboidal, surmounting one cell; wings stalked to Ac.

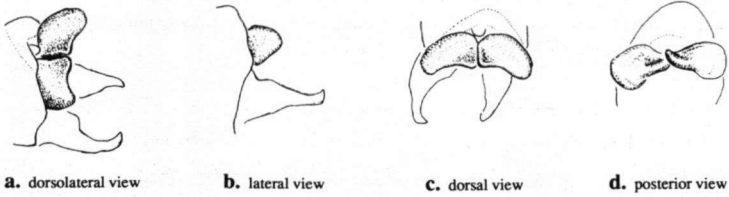
Abdominal segments 1-3 red dorsally, paler ventrally, with distal 0.20 of segment 3 becoming black, segments 4-6 black, each segment slightly paler medially; segment 7 with black extending to 0.75 of segment, remainder of segment red; segments 8-10 red. Anal appendages orange brown except for black tooth of cercus and tip of paraproct. Cercus (Fig. 1, paratype) shorter than paraproct, wider than long, bluntly triangular in lateral view, contiguous with its fellow medially, terminating mediolaterally in a large, obtuse, blunt tooth, viewed posteriorly (Fig. 1d, paratype); each cercus widening distally, medial tooth curved slightly dorsally. Paraproct about twice as long as cercus, narrowing distally into a slightly upturned point.

Penis (Fig. 5, paratype) long, trowel-like with a pair of short, triangular, posteriorly directed lobes at middle of segment 3.

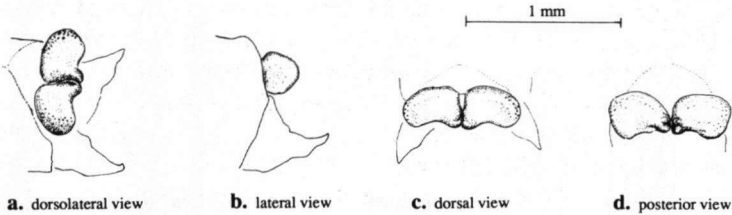
M e a s u r e m e n t s (in mm). — Hind wing 17, abdomen 27.

FEMALE (allotype). — Head and thorax similar to male, but pale color entirely ochreous brown, metallic markings on epicranium less extensive than in holotype, prothorax with middle lobe lacking horns, basal portion of posterior lobe becoming black, medial margin broadly emarginate; mesostigmal plates planar, their hind margins meeting medially at an obtuse angle; anteromedial margin of mesepisternum with a semicircular pit (Fig. 3), so that middorsal thoracic carina is a narrow

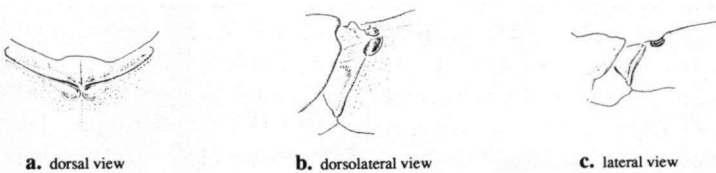
sinus separating the two pits; this area slightly concave when viewed laterally (Fig. 3c). Remainder of synthorax as in male, but with yellow ochre replacing pale orange, and with washes of ivory along humeral, obscure first lateral, and second (metapleural) sutures.



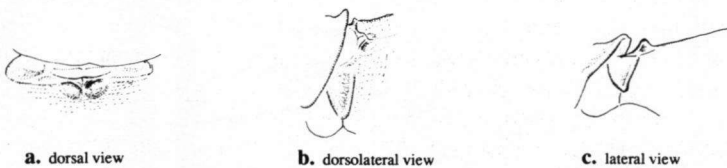
1. *boomsmæ* Caudal appendages of paratype male: BELIZE: Gallon Jug



2. *collopistes* Caudal appendages of male: MEX.: Tabasco State



3. *boomsmæ* Prothorax of paratype female: BELIZE: Gallon Jug



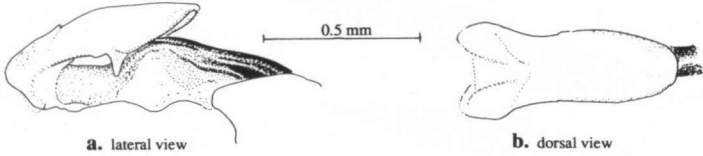
4. *collopistes* Prothorax of female: MEX.: Tabasco State

Abdomen with segment 1 ochre; segment 2 brown ochre dorsally, becoming ochreous laterally; segments 3-10 black dorsally, pale ochre laterally, with narrow incomplete ring at base of each segment; dorsal black extending laterally at

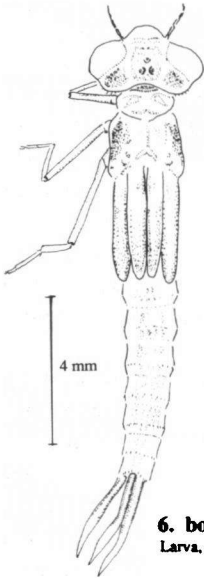
posterior 0.10 of segments 3-6; cerci black.

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

LARVA (full-grown female with swollen wing pads, Fig. 6). - Head (Fig. 7) tan with light brown markings as shown, posterolateral margin broadly convex



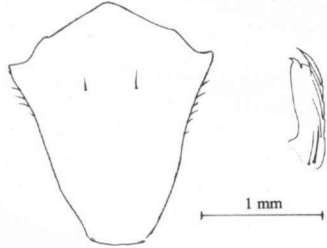
5. boomsmæ Penis of paratype male: BELIZE: Gallon Jug



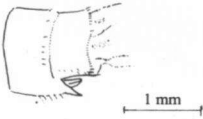
6. boomsmæ Larva, dorsal view



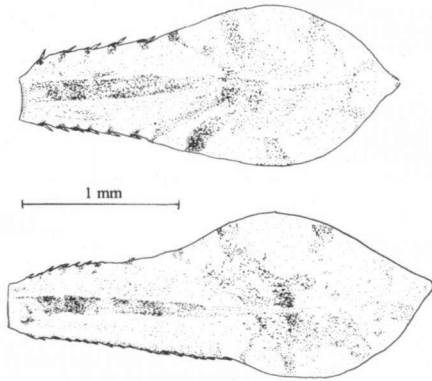
7. boomsmæ Head, left side



8. boomsmæ Prementum and right palpal lobe



9. boomsmæ Abdominal segments 9 and 10



10. boomsmæ Median caudal lamella and lateral lamella

with a small patch of setae. Antennae a little longer than half the width of head, with 7 segments, segment 3 the longest; prementum (Fig. 8) when appressed extending to metathoracic coxae, premental setae 1, marginal setae 4-6, palpal

setae 6, apical ends of palpal lobes gently convex with divided cleft followed ventrally by large, prominent tooth. Thorax tan, light brown on sides, legs tan. Wing pads extending to middle of abdominal segment 4. Abdomen pale with slight medial area of light brown on segment 4, gradually becoming darker to segment 8; dorsum of segments 9-10 tan; lateral gonapophysis (Fig. 9) not extending beyond segment 10. Caudal lamellae (Fig. 10) short, abruptly widened at distal 0.33, with irregular patterns of dark gray; median lamella: dorsal series of antenodal setae 5, ventral series 6; ventral lamella: dorsal series 6, ventral series 20; length of median lamella 3.1 mm, ventral lamella 3.5 mm. Total length of larva excluding lamellae 11.6 mm.

REMARKS. — Little variation is expressed among the paratype males and females. Size range among paratype males is as follows: postnodal crossveins: fore wing 11-13, hind wing 9-11; origin of R_3 in fore wing 5-7, hind wing 4 to just below sixth crossvein; hind wing 16-18 mm; abdomen 24-28 mm. For females: postnodal crossveins: fore wing 11-13, hind wing 9-11; origin of R_3 in fore wing 6-7, hind wing 5; hind wing 17-19 mm; abdomen 26-28 mm. A teneral male from the type locality has pale orange on abdominal segments 1 and 2 followed by red on segment 3. Three males and one female from Caracol and Retiro have slightly amber wings which may be due to age.

The closely related *T. collopistes* was collected with *T. boomsmae* sp.n. at the type locality and in Mexico. Stephen Brooks, of the British Museum (Natural History) confirmed my illustrations of *T. collopistes* with Calvert's holotype in the British Museum.

ECOLOGY. — According to notes kindly supplied by Mrs T. Boomsma, *T. boomsmae* sp.n. is a pond species. The paratypes from Caracol were taken at an aguada of the main camp of the archaeological site, and along the northeastern causeway. The aguada is about 25 m in diameter, totally covered with *Pistia* and duckweed. The larvae were found among roots of *Pistia* along shaded areas. Retiro is a chiclero camp about 5 km south of Caracol. *Telebasis* was found at a natural, permanent pond of about 100 m in diameter. No *Pistia* was present.

AFFINITIES

Telebasis boomsmae sp.n. is most similar in appendage morphology to *T. collopistes* Calv., although from MAY's (1992) treatment of *Telebasis* of Middle America, the former species will key to couplet 9 (includes *T. incolumis* Wllmsn & Wllmsn and *T. salva* [Hag.]) based on pale condition of the rear of the head. However, *T. boomsmae* and *T. collopistes* are similar in morphology, and both sexes may be separated by the following couplets:

- 1 Males 2
- 1' Females 3
- 2(1) Cercus in posterior view with medial margin narrow; medial tooth narrow, its tip curving dorsomedially (Fig. 1d); rear of head pale; front of synthorax with a narrow black line less

- than 0.15 width of mesepisternum. Belize *boomsmae*
- 2' Cercus in posterior view with medial margin robust, almost as thick as distal part of cercus; medial tooth robust, its tip gently curving ventromedially (Fig. 2d); rear of head black; front of synthorax with middorsal black stripe occupying about 0.5 of each mesepisternum. Southern Mexico, Belize, Guatemala, Honduras *collopiastes*
- 3(1') Anterior margin of middorsal thoracic carina, though abruptly narrowed, forming a sinus not visible in lateral view (Fig. 3c); rear of head pale; black middorsal stripe less than 0.15 as wide as mesepisternum *boomsmae*
- 3' Anterior margin of middorsal thoracic carina forming an abrupt, narrow, raised semicircular tubercle whose sides form a sinus visible in lateral view (Fig. 4c); rear of head black; black middorsal stripe about 0.5 as wide as mesepisternum *collopiastes*

ACKNOWLEDGEMENTS

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