

**A NEW SPECIES OF *AESCHNOSOMA* SELYS, 1871 FROM BRAZIL,
WITH NEW DISTRIBUTIONAL RECORDS AND NOTES ON
A. FORCIPULA SELYS, 1871 (ANISOPTERA: CORDULIIDAE)**

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A. marizae sp. n. (♂ holotype and 3 ♂ paratypes: Brasilia, D.F.) is described and illustrated. A comparison with *A. elegans* Selys, 1871 is made and new distributional records of *A. forcipula* are given along with illustrations of its penis.

INTRODUCTION

Although the Corduliidae are poorly represented in South America and very scanty in the collections, it was possible to recognize a new species of *Aeschnosoma* from Brasilia, D.F. The region where the specimens were collected, the Ecological Reserve of I.B.G.E., is a typical Brazilian cerrado (savanna) crossed by rivers and streams. According to Prof. Mariza Castello Branco Simões, who is doing an aquatic insect survey there, this species was seen on wings only during the month of November.

DESCRIPTION

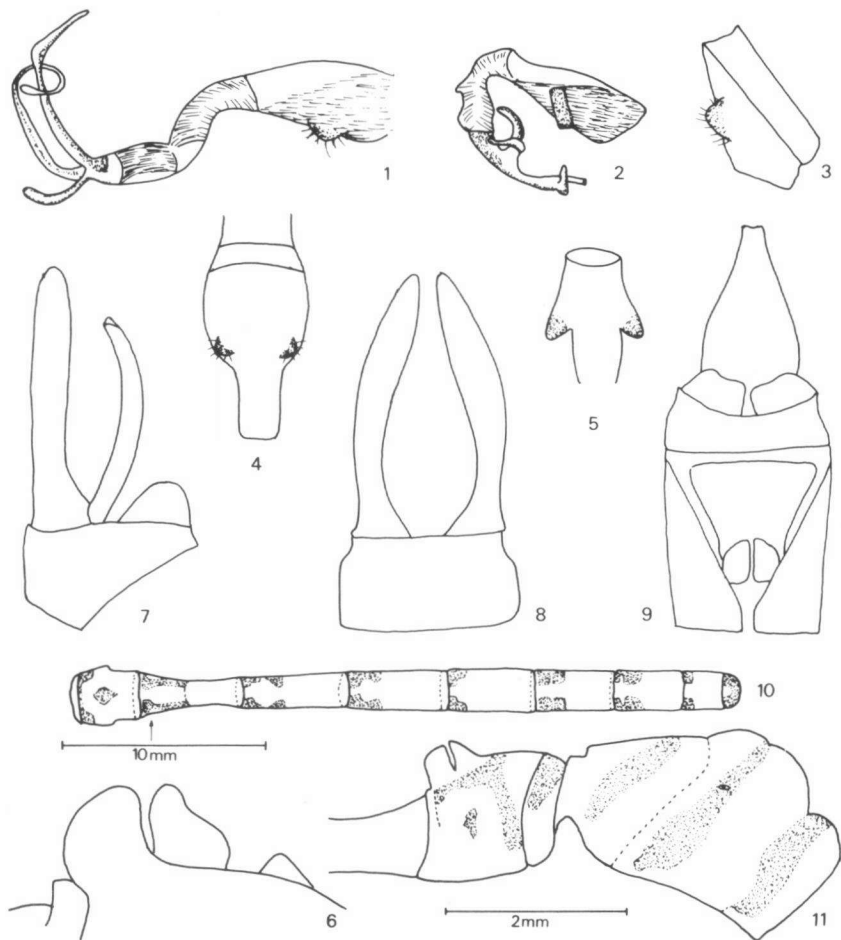
AESCHNOSOMA MARIZAE SPEC. NOV.

Figures 1, 3-4, 6-11

Material. — Brazil: Brasilia, D.F., ♂ holotype No. 1.167-3 and 3 ♂ paratypes, Mariza Simões leg. 9-XI-1979. — Holotype and one paratype preserved in the collection of Museu Nacional, Rio de Janeiro and 2 paratypes in the collection of IBGE.

Name — This species is named after Profa. Mariza Simões.

Measurements — Total length 50 mm; abdomen (caudal ap-



Figs. 1-11. Structural characters of *Aeschnosoma marizae* sp. n. (Figs. 1, 3-4, 6-11) and *A. forcipula* Sel. (Figs. 2, 5): (1-2) penis, lateral view; — (3) first penile segment, oblique view; — (4-5) first penile segment, ventral view; — (6) second segment, lateral view; — (7) anal appendages, lateral view; — (8) anal appendages, dorsal view; — (9) ninth and tenth segments, ventral view; — (10) abdomen, dorsal view; — (11) synthorax and first and second abdominal segments, lateral view. — (10 mm bar for Fig. 10 only).

pendages not included) 33 mm; hind wing 33 mm; pterostigma 2.2 mm.

Coloration — **Holotype**: Head with eyes brown; face yellowish except the mentum, a median spot on the base of the labrum, the furca of the frons, the occiput and the vertex which are near black; rear of the head black. Synthorax brown with the dorsal carina and the three lateral stripes

yellow, with an elliptical yellow spot dorsally between the fore wings and a larger, heart-shaped one, between the hind wings; metasternum brown with two yellow spots converging anteriorly; legs black except for the coxa, trochanter and internal face of the femur of the first leg; posterior face of the second and third coxae yellowish dark; wings hyaline with a trace of golden yellow at extreme base; veins and pterostigma black; membranula grey. Abdomen almost black with basal latero-dorsal yellow spots from the second to the tenth segment (fused dorsally in this segment); three of these spots reach the ventral carina on the segments 5 to 7; anal appendages black.

Venation — holotype (H) and paratypes: arculus between 1st and 2nd ax, nearer to the 2nd; sectors of the arculus contiguous at origin; ax in the fore wings, first row, 13 (12.5%)^H, 14 (75%)^H, or 15 (12.5%); second row, 13 (12.5%), 14 (75%)^H or 15 (12.5%); in the hind wings, first row, 9 (37.5%)^H, 10 (50%) or 11 (12.5%)^H; second row, 9 (50%)^H, or 10 (50%)^H; px in the fore wings 6 (50%)^H, 7 (37.5%) or 8 (12.5%); in the hind wings 8 (75%)^H, or 9 (25%); ac in the fore wings 3 (87.5%)^H or 4 (12.5%); in the hind wings 2 (37.5%) or 3 (62.5%)^H; accessory Br in the fore wings 2 (25%)^H or absent (75%); in the hind wings absent (87.5%) or 1 (12.5%)^H; cells in the triangle, fore wings 2 (75%) or 3 (25%)^H; in the hind wings 2 (100%)^H; proximal side of triangle at arculus; crossveins in the fore supratrangles 2 (25%)^H or 3 (75%)^H; in the hind wings 1 (100%); cells in the fore subtriangles 2 (12.5%) or 3 (75%)^H or one incomplete (12.5%); discoidal field in the fore wings parallel and with two rows of cells at the level of the nodus, increasing towards the wing margin to 6-8 cells; in the hind wings starting with one row of two cells against triangle, then two rows of cells four cells long, enlarging towards the wing margin to 10-11 cells; anal loop footshaped, sole with 5 cells distal of the anal angle of the triangle with intercalary cell at heel and with no intercalary cell at anal angle of the triangle (75%)^H or 1 (25%); cells of proximal half of the anal loop 9 (62.5%) or 10 (37.5%)^H; cells of the distal half 8 (12.5%), 9 (25%), 10 (25%)^H, 11 (25%)^H or 12 (12.5%); Rspl in the fore wings with one row of 8 (37.5%), 9 (37.5%)^H or 10 (25%) cells long; in the hind wings with 9 (25%)^H, 10 (37.5%)^H, 11 (12.5%) or 12 (12.5%) cells long; Mspl not well defined, in the fore wings with one row of 6 (12%), 7 (37.5%) or 8 (50%)^H cells long; in the hind wings with 7 (50%), 8 (12.5%)^H or 9 (37.5%)^H cells long; between anal loop and hind margin two rows of cells.

Other characters — Frons divided in the middle by a wide groove; tibial keels extending all along tibia III, along about the distal half of the tibia II and along a little more than the distal half of tibia I; abdomen with the first two segments and the proximal end of the third a little swollen; last three abdominal segments not depressed; stiff hairs present along ventral carina of the 8th segment; for the 2nd genital segment, caudal

appendages and penis see figures.

DISCUSSION

According to the description and figures of GEIJSKES (1970) the new species is near to *Aeschnosoma elegans* Selys, 1871, from which it differs by the following characters:

- (a) size smaller, abdomen 33 mm and hind wing 33 mm (against 41 and 44 mm, resp. for *A. elegans*),
- (b) smaller number of antenodal crossveins in the fore wings, 13-15 (versus 18-19) and in the hind wings, 9-11 (versus 12-14),
- (c) smaller number of postnodal crossveins in the fore wings, 6-8 (versus 10) and 8-9 (versus 12-14) in the hind wings,
- (d) smaller number of accessory bridge crossveins in the fore wings, absent (75%) or 2 (25%) (versus 2) and absent (87.5%) or 1 (12.5%) (versus 1) in the hind wings,
- (e) smaller number of crossveins in the fore supratriangle, 2-3 (versus 3-4), and 1 (versus 2-3) in the hind wings,
- (f) smaller number of cells in the fore triangles, 2-3 (versus 3) and 2 (versus 3-4) in the hind wings,
- (g) smaller number of cubital crossveins in the fore wings, 3 (87.5%) or 4 (12.5%) (versus 4-5) and 2 (37.5%) or 3 (62.5%) (versus 4) in the hind wings,
- (h) smaller total number of cells in the anal loop, 17-21 (versus 28-30),
- (i) anal inferior appendage clearly smaller than superior, about 3/4 (versus equal in *A. elegans*),
- (j) genital lobe with the hind border more slowly curved,
- (k) synthorax with three yellow side stripes (versus four),
- (l) laterodorsal yellow spots on the segments 2-10 (versus absent on 7-10).

In the key of GEIJSKES (1970) this new species may run as: 3c — intermediate size, abdomen and hind wing 33 m, 14-18 antenodals in fore wing, 3 cubital crossveins in hind wing and 18-23 cells in the anal loop. Last three abdominal segments in male not depressed; male inferior anal appendage 3/4 of the superior *A. marizae* sp. n.

ADDITIONAL EVIDENCE ON *AESCHNOSOMA FORCIPULA*

AESCHNOSOMA FORCIPULA SELYS, 1871

Figures 2, 5

Material. — Brazil: Espírito Santo, Conceição da Barra, road to S. Mateus, km 8 (forest): 5 ♂, 3 ♀, Elias leg., XI-1968, 1 ♂, I-1969; — Conceição da Barra, José Campista's farm

(forest): 1 ♂, 1 ♀, XI-1969; 4 ♂, 1 ♀, XII-1969, Elias leg.; — Córrego do Linhares, km 9 (forest): 1 ♂, 24-I-1970; — Conceição da Barra, 1 ♂, IX-1968; idem, road to Itauna, km 18 (forest): 1 ♂, II-1969, Elias leg.; — Amazonas, Manaus, Reserva Duque: 1 ♂, XI-1961; — Igarapê do Mariano: 1 ♂, XI-1959, Elias leg.; — Manaus: 1 ♂, N. Santos leg.; — Manaus, Poraquequara: 1 ♂, I-1973, N. Tangerini leg.

Measurements — ♂: abdomen 32, hind wing 33-34; ♀: abdomen 34-36, hind wing 35-37 (from Espírito Santo).

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