

SHORT COMMUNICATIONS

MACROTHEMIS ABSIMILE SPEC. NOV., A REMARKABLE NEW SPECIES OF LIBELLULIDAE FROM BRAZIL (ANISOPTERA)

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M. absimile sp. n. of the *tesselata* group is described from Goiás, Minas Gerais and Paraná. It differs from other spp. of the *tesselata* group by the hind tarsus with asymmetric claws, the wings with golden yellow spot, the colour pattern of the pterothorax and the terminal ♂ appendages. Holotype ♂ and allotype ♀ from the state of Goiás (holotype ♂: Jataí, 12-X-1982; allotype ♀: Brasília, Rio São Bartolomeu, 26-XI-1962; both deposited in Museu Nacional, Rio de Janeiro).

INTRODUCTION

The discovery of this new species, here considered aberrant due to (1) hind tarsus with asymmetric claws; (2) triangle of hind wing crossed in some individuals; (3) two Ac in the hind wing in some individuals, like in *Macrothemis tenuis*; (4) quadrangular spines of hind femora ranging from 9 to 14 and (5) discoidal field slightly broadened in some individuals, raises again the question of *Macrothemis* and *Brechmorhoga*. These differ as follows (DONNELLY, 1984): *Macrothemis*: discoidal field parallel sided, narrowed or slightly widened distally; discoidal index less than 1.35 mm; Mspl absent in fore wing; inner tooth of tarsal claw elongated (except for *inequiunguis* and *aurimaculata*); — *Brechmorhoga*: discoidal field widened distally; discoidal index greater than 1.35 mm; Mspl present in fore wing; tarsal claws of "normal" aspect.

DONNELLY's (1984) proposal for the distinction of the two genera is applicable. There are, however, some species bridging the gap. *Brechmorhoga travassosi* Santos, possesses all the characters of this genus, except for the presence of a single row of post-triangle cells in the hind wing. On the other hand, *Macrothemis griseofrons* Calvert, shows some characters of *Brechmorhoga*: Mspl delineated, crossed sub-triangle and two rows of post-triangle cells in the

hind wing.

The species of the *tesselata* group possess the proximal tooth of the claws smaller than the distal; M_{sp} delineated and two rows of post-triangle cells in the hind wing as in *Brechmorhoga*.

Macrothemis absimile sp. n. fits perfectly well in the *tesselata* group by the proximal tooth of the claws smaller than the distal and by the quadrangular shape of the hind femora spines, differing from the other species of the group by the stoutness of the distal teeth of the claw, the asymmetry between the claws of the hind femora, the colour pattern of the pterothorax and the terminal male appendages.

MACROTHEMIS ABSIMILE SPEC. NOV.

Figures 1-12

Material. — **Holotype** ♂: Goiás, Jatai, 12-X-1982, L.F. Netto leg. — **Allotype** ♀: Goiás, Brasília, Rio São Bartolomeu, 26-XI-1969, N. Santos leg. — **Paratypes**: Goiás: 2 ♂, same data as holotype; — 2 ♂, 4 ♀, same data as allotype; — Planaltina, 1 ♂, 24-X-1980, N. Santos leg.; — Minas Gerais: Estrada Barbacena São João del Rei, Rio Inhabú, 1 ♀, no date, N. Santos leg.; — Paraná: Estrada Curitiba-Ponta Grossa (km 60), 2 ♂, 1 ♀, 22-II-1971, N. Santos leg. — All specimens are deposited in MNRJ.

Etymology. The name refers to the asymmetrical condition of the tarsal claws, which distinguishes it from all other known species of the *tesselata* group.

MALE (holotype). — Measurements (mm): length (without appendages) 33; — upper appendage 1.5; — lower appendage 1; — fore wing 24; — hind wing 22; — pterostigma 1; — abdomen 23.

Coloration. — Labrum yellow; labium dark brown; clypeus and frons yellow; clypeus frons and vertex densely covered with long dark bristles. — Pterothorax (Fig. 7): dark brown, with greenish stripes, distributed as follows: mesepisternum with longitudinal detached greenish stripe, pointed anteriorly, gradually widened backwards, covered with numerous and long light brown bristles, decreasing in size towards the dorsum; mesepimeron with greenish stripe, forming a sinuous curve, with two projections, the first more pointed; metepisternum with narrow stripe at the apex; metepimeron greenish; coxa, trochanter, femur and tibia yellowish brown; tarsus dark-brown; spines of femora and tibiae black; wings hyaline, with golden yellow spot, not surpassing 8th ax in the fore wing and not reaching the anterior margin in the hind wing; pterostigma light brown. — Abdomen: segments I-V ventro-laterally light brown with a dorsal black stripe widened at the two first segments; segments VI-IX with lateral black stripe, segment X light brown, with basal darker area; appendages light brown, covered with light brown bristles.

Venation (Fig. 1) Antenodals 12 in fore wing, 9 in hind wing; postnodals 6 in fore wing, 8 in hind wing; triangle free in both wings; subtriangle with 2 cells; R_{sp} with 8 cells in fore wing and 10 in hind wing; without extra Br; arculus situated at

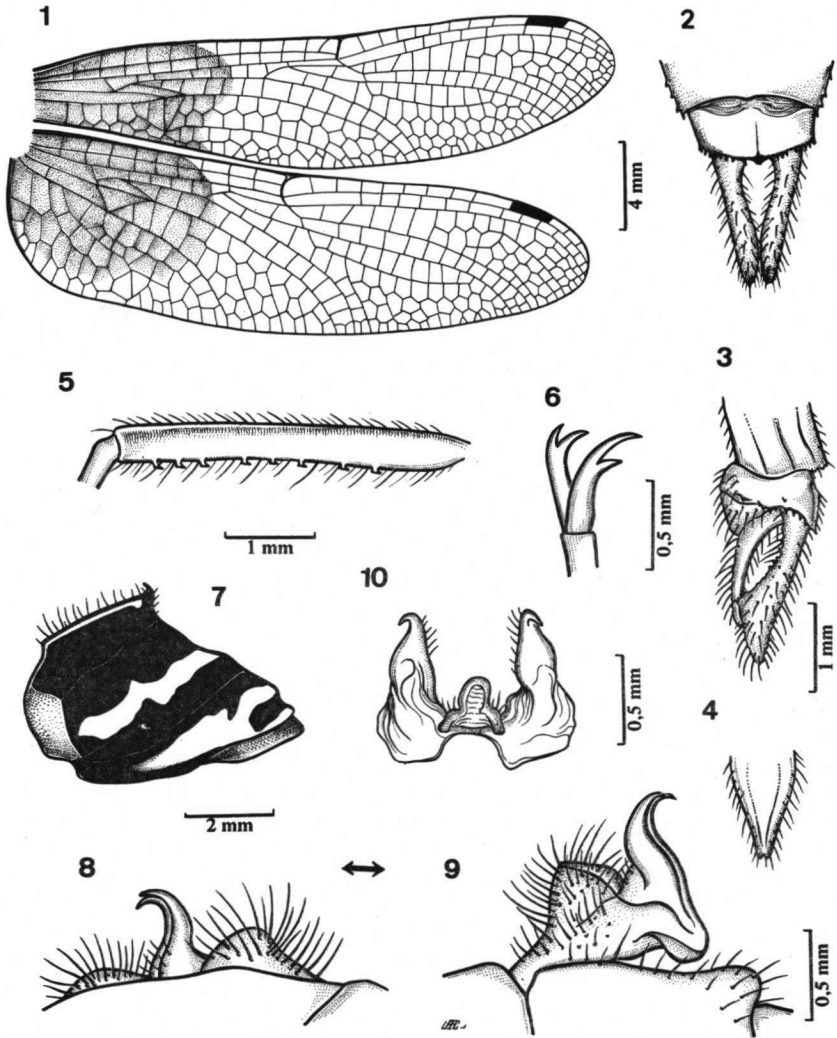
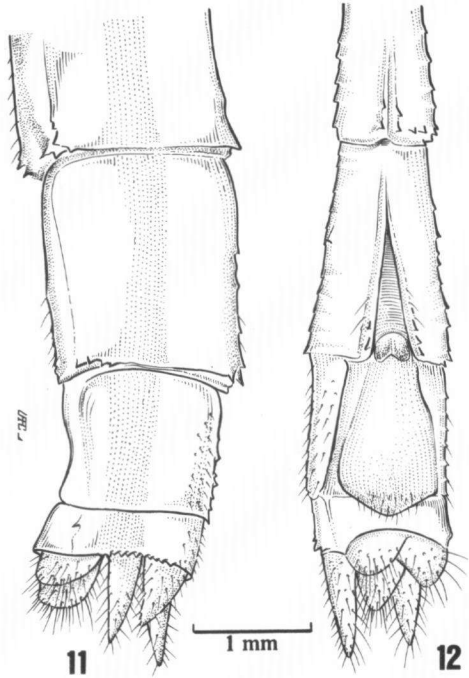


Fig. 1-10. *Macrothemis absimile* sp. n., holotype ♂: (1) Fore and hind wings; — (2) Dorsal view of terminal appendages; — (3) Lateral view of terminal appendages; — (4) Inferior appendage; — (5) Hind femur; — (6) Hind tarsal claws; — (7) Pterothorax; — (8) Lateral view of second segment; — (9) Extended hamule; — (10) Apical view of hamule.

base of 2ax in fore wing, between 2ax and 3ax in hind wing; discoidal field parallel in fore wing, with 2 rows of cells from the triangle to subterminal area, ending at margin with 6 cells; in hind wing broadening from fourth cell with a double row of cells followed by a row of 3 cells, changing to 4 and ending at margin with 8 cells; 1

Ac in hind wing; anal loop foot-shaped, with its distal part about 3 cells beyond the triangle level; sole of anal loop with 2 cells; Cup of hind wing arising from apex of triangle, between anal loop and margin of wing, one and a half cells at triangle level and two and a half cells at Ac level.

Other characters. — Hind femora (Fig. 5) with 8 quadrangular sharply pointed recurved spines; mid femora with 2 rows of distally acute spines; hind tarsus (Fig. 6) with asymmetric claws, the posterior much larger than the anterior one; distal teeth of posterior claw twice as long as proximal teeth; proximal teeth of anterior claw equal or slightly larger than distal teeth; hamule narrowed at base with slightly curved terminal hook; distal portion (Fig. 8) slightly larger at its base (Fig. 10); genital lobe rounded (Fig. 9); superior appendage slightly flattened at base (Fig. 2), cylindrical and distally truncated beyond, with proximal portion of margins convergent; ventral region swollen (Fig. 3) with a dense group of denticles; inferior appendage triangular (Fig. 4), reaching the subterminal extremity of upper appendage, bearing two small denticles at apex; abdomen cylindrical in median portion, segments VIII-IX swollen.



Figs 11-12. *Macrothemis absimile* sp. n., allotype ♀: (11) Abdominal segment 10 and caudal appendages, lateral view; — (12) Same, ventral view.

FEMALE (allotype). — Similar to holotype, differing by 2 Ac in hind wing, sole of anal loop with 3 cells, hind femora with a short spine on outer angle, the ultimate distal spine about twice as long as the penultimate spine, fore wing with 12 antenodals and 7 postnodals, hind wing with 9 antenodals and 8 postnodals. Vulvar lamina (Fig. 12) very short, with a small median excision; lamina supra-analis (Fig. 11-12) well developed and about two-thirds the length of superior caudal appendages; superior surface of segment 10 (Fig. 11) and that of lamina supra-analis with hairs.

Measurements (mm): total length 32; — abdomen 23; — fore wing 26; — hind wing 25; — pterostigma 1.5.

VARIATION IN PARATYPES. — Paratypes similar to holotype and allotype. Antenodals of fore wing 12-13; postnodals of fore wing 6-8; postnodals of hind wing 8-9; triangle of hind wing free or crossed; subtriangle with 1-2 cells; Rspl of fore wing with 8-9 cells; arculus of fore wing at or near the base of 2ax; discoidal field of fore wing parallel or slightly broadened distally, ending at margin with 5-6 cells; hind wing with 1-2 Ac; sole of anal loop with 2-3 cells; total length (mm) 30-34.5; abdomen 20-23; fore wing 22-24.

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