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# A NEW SPECIES OF THE GENUS *JAYA* NAVÁS, 1912 FROM SOMALIA
(Neuroptera: Myrmeleontidae: Acanthaclisinae)

**Abstract.** The authors describe a new species of Acanthaclisinae (Neuroptera; Planipennia) from Somalia: *Jaya stephaniae* n. sp.

**Riassunto.** *Una nuova specie del genere* Jaya *Navás, 1912 della Somalia (Neuroptera: Myrmeleontidae, Acanthaclisinae*). Gli autori danno qui la descrizione di una nuova specie di Acanthaclisinae (Neuroptera, Planipennia) della Somalia: *Jaya stephaniae* n. sp.

**Key words.** Acanthaclisinae, *Jaya*, Somalia.

## Introduction

During a revision of specimens of Neuroptera collected by Prof. A. Simonetta (University of Florence) in Somalia in 1978, we have observed the presence of several species of Acanthaclisinae. Among these, we examined a series of thirteen specimens which can not be attributed to any of the species described for Africa or only for East Africa.
In this paper the new species described below refers to the genus *Jaya* Navás 1912. PROST (1996) made the revision and ascribed to the genus *Jaya* the following species: *J. atrata* (Fabricius, 1781), *J. dasymalla* (Gerstaecker, 1863) and *J. waterloti* (Navás, 1914), in addition to the type species *J. rogeri* Navás 1912.
The specimens we examined have the tergite VII in the form of scale as *Jaya atrata* and *J. dasymalla*, but differ in the colour of tergite V-VII whose hind edges are straight and not indented or concave as in the above species, as well as for the gonarcus-paramere complex.

## Description of the new species

### *Jaya stephaniae* n. sp.

**Type material.** All specimens are from Somalia (Federal Republic of Somalia): Afgooye (2°06'N – 45°07'E), IV-VI.1978, legit A. Simonetta. Specimens were collected at light about at the middle of the main raining season. The area is characterized by consolidated dunes with dense, degraded bush, on red sand.
**Holotype** ♂: Somalia, Afgooye (2°06'N – 45°07'E), 15.V.1978, legit A. Simonetta [Length of body (LB): 48.0 mm; length of fore wing (LfW): 50.0 mm; width of fore wing (WfW): 11.5 mm; length of hinde wing (LhW): 41.5 mm; width of hinde wing (WhW): 10.0 mm; length of abdomen (LAbm): 35.0 mm.]. - **Allotype**: *ibidem,* 20.V.1978 [LB: 48.0 mm; LfW: 50.0 mm; WfW: 11.5 mm; LhW: 41.5 mm; WhW: 10.0 mm; LAbm: 35.0 mm.]. - **Paratypes**: *ibidem*, 1♀, 15.IV.1978; 1♂, 3♀♀, 10.V.1978; 2♂♂, 3♀♀, 20.V.1978; 1♀, 1.VI.1978. [♂♂ - LB: 47.0-52.0 mm; LfW: 49.5-53.0 mm; WfW: 11.5-12.0 mm; LhW: 41.5-49.0 mm; WhW: 10.0-11.0 mm; LAbm: 33.0-37.0 mm; ♀♀ - LB: 41.0-51.0 mm; LfW: 49.5-55.0 mm; WfW: 11.0-13.5 mm; LhW: 43.0-47.50 mm; WhW: 10.0-11.5 mm; LAbm: 28.0-35.0 mm].
Holotype ♂, allotype and paratypes (3♂♂ 7♀♀) are in E. Insom's collection.

**Etymology** – The species is dedicated to the memory of Mrs. Stefania Simonetta, wife of Prof. A. Simonetta.

**Description of Male (Holotypus)**

**Head** (Fig. 1) – Frons, clypeus, labrum and gene pale yellow. Clypeus with long, sparse black bristles, labrum with sparse yellowish hairs. Vertex brown (Fig. 2) with a lateral oblique yellow band directed to each eye; between the antennal scapes and the vertex there is a transverse brown band that includes two yellow spots; posteriorly at the vertex two yellow spots. Behind each eye there is a fan-shaped tuft of white hairs directed outwards. Antennae with scapes and pedicel light brown, flagellar segments proximally brown and distally yellow. Labial palps (Fig. 3) brown with the last article club-shaped, apex yellow; sensory organ slit-shaped. Maxillary palps yellow.
**Thorax** (Fig. 2) – Pronotum quadrangular, yellow sand in colour, with three dark brown stripes and sparse black hairs. The central stripe is wide with a thin yellow line front and rear, the latter ends in a more or less triangular yellow spot on the posterior edge of the pronotum. The lateral stripes are narrowed and reaching the posterior transverse groove. – Mesothorax mainly yellow sand in colour with a wide central dark brown band continuing that of the pronotum and enclosing on prescuto a thin yellow line and on the rear edge a yellow rhombus-shape; on the sides of the middle band two brown streaks. Along the suture prescuto-scuto, on each side there is a dark line directed obliquely forward, which bends back to the sides of mesothorax describing an inverted V. – Metathorax with two brown spots, the front rhombus-shaped and the posterior triangular, each enclosing an oval yellow spot; dorsally long yellow hair. The ventral side of the thorax is yellowish.
**Wings** (Fig. 4) – Membrane hyaline, longitudinal veins with alternate dark and yellow segments; pterostigma proximally dark brown and distally white cream. – Forewing: costal field occupied for about 1/3 of its length by cross veins bifurcated before pterostigma; radial field with eight cross veins before first sector of the radius (Rs); cubital internal field with a cell divided in two part at the anterior cubital (Cua) bifurcation; membrane with small brown shadows along the gradates veins. – Hindwing: costal field without bifurcated cross veins; radial field with five cross veins before Rs; only the longitudinal veins subcostal (Sc), Rs and median posterior (Mp2) with alternating dark and yellow lengths.
**Legs** – Anterior (Fa), median (Fm) and posterior femora (Fp) light brown, distally yellow; on the lateral side dense hairiness white bristles mixed with black ones. Fa with two sensory hairs at the base; Fm ventrally with dense hairiness white and some black bristle, at the base one sensory hair; Fp without sensory hair at the base, with long ventral white hair and strong black bristles arranged in two rows. Anterior, median and posterior tibiae dark brown with three bright yellow spots outside, the central spot is half-ring shaped, hairiness black and white. Tarsal segments (t1-t5) of anterior legs are black with white and black hairs; t1-t5 of median legs are light brown, t1 with a fan of white hairs; tarsal segments of the posterior legs: t1-t2 light brown with a fan of white hairs, t3-t4 brown, t5 dark brown with a yellow stripe outside (Fig. 5).
**Abdomen** (Fig. 6) – Tergites II-IV brown; on tergite II two yellow spots; tergites III and IV with a yellow moth-shaped drawing; tergite V yellow with a brown funnel shaped stain and with long black setae along posterior margin; tergite VI completely yellow with strong and short dark bristles along lateral sides, pleural margin with a narrow brown line; tergite VII scale-like coloured of brown with a yellow central line and two lateral yellow stripes that do not reach the posterior margin; tergite VIII brown with a central narrow yellow line, two broad yellow patches posteriorly and laterally. – Sternites yellowish with very fine whitish hairiness. – Ectoprocts (Fig. 7) yellow, moderatly long, the medial side brown with dense black bristles. – Sternite IX (Fig. 8) (subgenital plate) brown with very long setae apically. – Gonarcus-parameres complex (Figs 9-10): gonarcus arcuate, sclerotized; mediuncus flat with a small hooked process, sclerotized; parameres in dorsal view have a horizontal trend and ending with a vertical small processes; lamina subterminalis (INSOM & CARFÌ, 1992) delimits ventrally and caudally the apical part of the pseudoedeagus and ends with a big process directed upward. – Hypandrium internum small, narrow, sublenticular (Fig. 11).

**Description of Female (Allotypus)**

**Head and thorax** as in male.
**Wings** – Hyaline, venation and pterostigma as in the male, but with spots in the intersections of the veins that give the wing a flecked appearance. This pattern is not a standard feature in the paratype females. – Forewings: radial field with 8 presectorial veins two of which are bifurcated (in paratypes ♀♀ can be even more), cubital internal field with 2-3 cells divided in two parts at the anterior cubital (Cua) bifurcation. – Hindewings: 5 cross-veins as in male.
**Legs** – Anterior, middle and posterior legs are as in male; the hind tibiae with distal yellow spot greater than in male; tarsi of all legs have the lower part yellowish in the majority of specimens.
**Abdomen** (Figs 12-14) – Dorsally brown with yellow marks, ventrally yellow. Tergite II on each side with two yellow spots, more or less merged. Tergite III-VI with a yellow butterfly-shaped drawing and posteriorly in lateral side a yellow elongated oblique spot. Pregenital plate large, sclerotized, with a central relief. Anterior gonapophisis: sclerotized, brown and large, covered by small black setae. Lateral gonapophisis: brown with strong black bristles. Ectoprocts with posterioventral margin projecting. Spermatheca: sclerotized, light brown, shaped as in Fig. 15.

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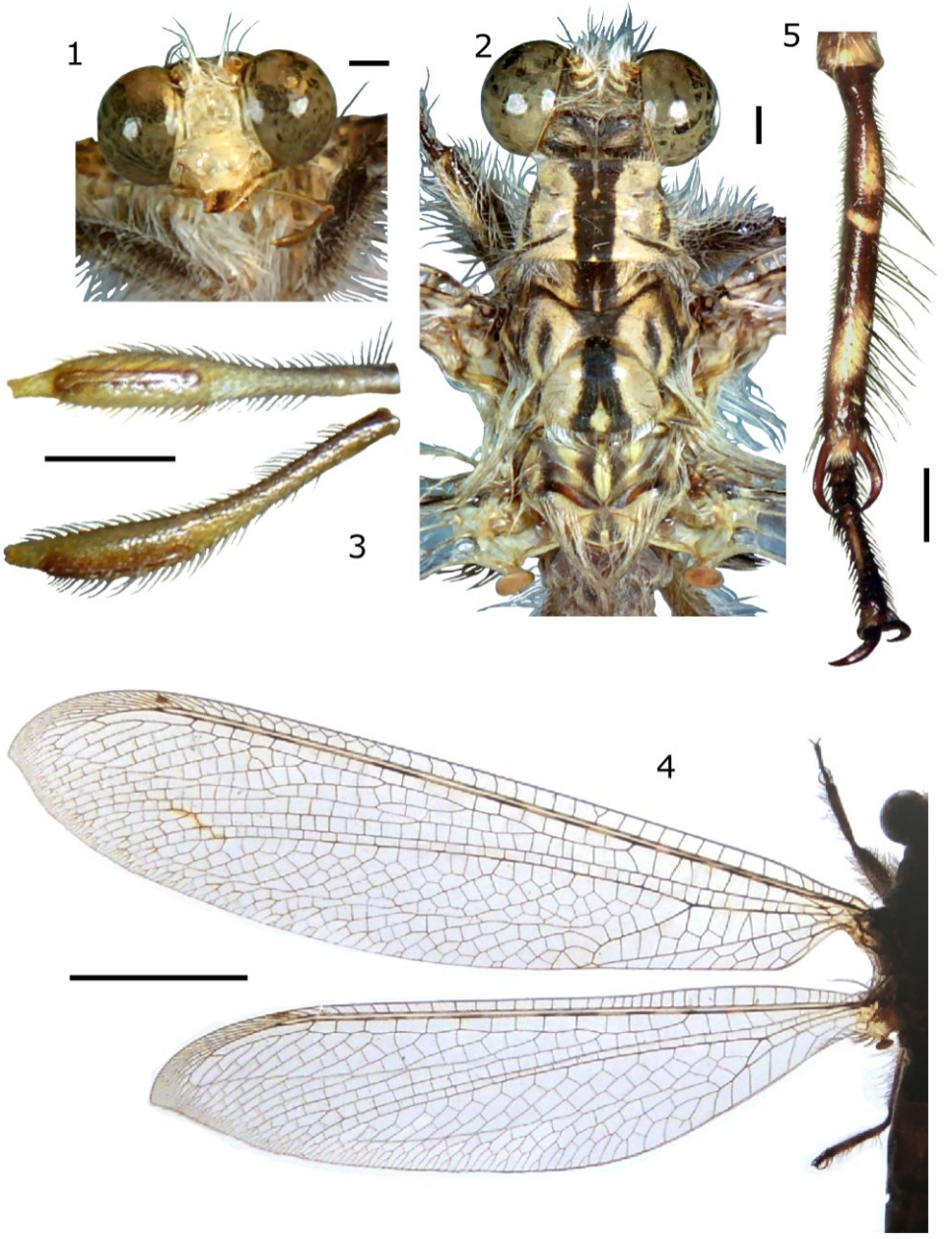
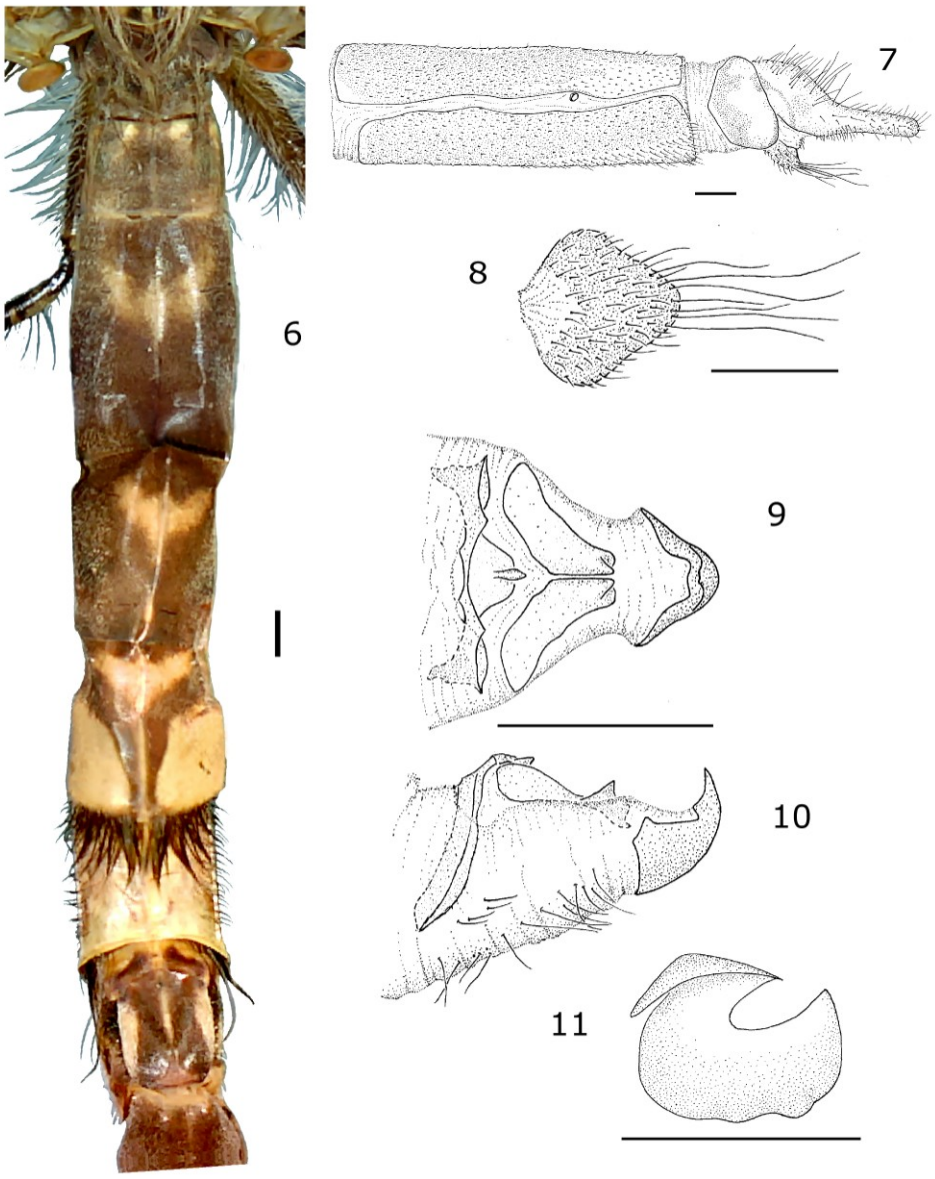
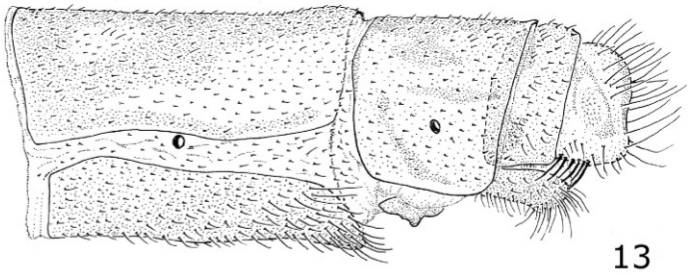



Figs 1-5. *Jaya stephaniae* n. sp. (Holotypus ♂): 1, head; 2, vertex and thorax (dorsal view); 3, labial palps (ventral and lateral view) - [scale bar = 1 mm]; 4, forewing and hindwing - [scale bar = 10 mm]; 5, tibia and tarsi of left hindleg - [scale bar = 1 mm].




Figs 6-11. *Jaya stephaniae* n. sp. (Holotypus ♂): 6, I-VII abdominal segments (dorsal view). - [scale bar = 1 mm]; 7, distal part of the abdomen; 8, subgenital plate; 9, gonarcus-parameres complex (dorsal view); 10, id. (lateral view); 11, hypandrium internum - [scale bar = 1 mm].



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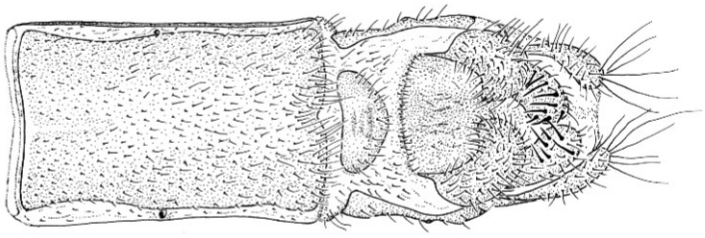

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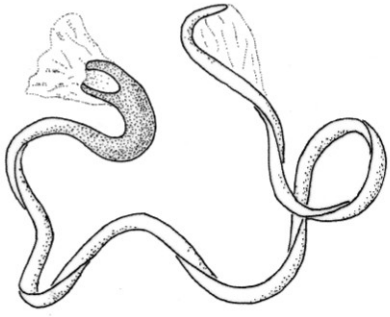

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Figs 12-15. *Jaya stephaniae* n. sp. (Allotypus): 12, abdomen (dorsal view) - [scale bar = 2 mm]; 13, distal part of the abdomen (lateral view); 14, id. (ventral view); 15, spermatheca. - [scale bar = 1 mm].