

## A new *Visca* sp. from Madagascar (Neuroptera: Myrmeleontidae)

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ÁBRAHÁM, L. DOBOSZ, R. & TRÝZNA, M.: *A new Visca sp. from Madagascar (Neuroptera: Myrmeleontidae)*.

**Abstract:** *Visca silvaticus* sp. n. is described from Madagascar and compared to other Malgassan endemic *Visca* Navás, 1927 species. A key for *Visca* species is also given. With 7 figs.

**Keywords:** new species, *Visca*, ant-lion, Myrmeleontidae, Madagascar

### Introduction

Madagascar with many endemic taxa is a diversity hotspot all over the Earth since it was separated from the African continent many millions years ago. Its geographical position, the diversity of the habitats, the climate and long time isolation resulted rapid speciation of organisms.

It is also true for the ant-lion fauna: approximately half of the known species are endemic. There are also several endemic genera such as: *Doblina* Navás, 1927, *Visca* Navás, 1927 and *Voltor* Navás, 1935 in Madagascar.

Last year, ÁBRAHÁM and DOBOSZ (2011) published a paper on the ant-lion and owl-fly fauna in which two new *Visca* species were described. Up to that time, two valid *Visca* species (*V. mutila* Auber, 1955, *V. venustus* Navás, 1927) were known and listed by Stange (2004) in his ant-lion world systematic catalogue. In the latest time, many zoological expeditions visited to Madagascar to survey the natural values. These results of neuropterological research works were published in some papers (NAVÁS 1927, AUBER 1955, PENNY 2003) and recently, some websites with the data of neuropterans were compiled (PENNY 2006, HOŠEK ?)

One of the authors, namely Miloš Trýzna regularly visited to Madagascar to study the endemic insect fauna. After publishing the paper (ÁBRAHÁM and DOBOSZ 2011) on Madagascan ant-lion fauna, a new *Visca* sp. n. was captured during his late expedition in 2011. Now we describe it below.

## Taxonomical part

*Visca silvaticus* Ábrahám & Dobosz sp. n. (Fig. 1)*Material examined:*

Holotype female: Madagascar CE 2011, border of Andasibe NP 916m, „Parc de Orchidées, 27.xi. S18°55'59.9" E048°24'46.5" at light M. Trýzna & loc. coll. lgt.

Holotype is deposited in the entomological collection of Upper Silesian Museum, Bytom, Poland.

*Head:* Vertex arched, yellow with two transversal bands (Fig. 2). Anterior band black, posterior band light brown on top of vertex. Yellowish epicranal suture visible. Short sparse black hairs on top of vertex otherwise hairless. Indistinct light brown area above scapes. Frons shining light brown, hairless (Fig. 3). Part of gena next to frons shining brown other part of gena next to eye yellow and hairless. Clypeus wrinkled transversally, yellow with sparse pale hairs. Labrum yellow with sparse shining and pale hairs curved to mouthpart. Mandible yellow with brown apices and black inner margin. Maxillar and labial palpi yellow with black hairs. Eye large. Scape with wide shining black basal half ring on ventral side but dominantly yellow on dorsal side and with short sparse and black hairs. Pedicel with wide shining black basal ring and narrow yellow distal margin. Flagellar segments dominantly black ventrally, yellow dorsally. Club light brown. Segments with sparse black hairs.

*Thorax:* Pronotum 2.5 times longer than wide, light brown with yellow lateral margin (Fig. 2). Two dark brown marks on each side along transversal sutures. Pronotum with sparse moderately long and brown pubescence but pale hairs on lateral margin. Mesonotum, prescutum light brown with black anterior margin and medium long sparse and pale hairs. Scutum yellow with distinct black lateral mark, scutellum also yellow with black spot anteriorly. Metanotum yellow with black pattern laterally. Meso- and metanotum with short sparse and pale hairs, almost bare. Sides yellow with triangular-shaped black mark right under fore wing and with short pale hairs.

*Legs:* Very long. Coxae yellow with white hairs. Trochanter yellow. Femora yellow with numerous brown dots and short black hairs. Tibiae slightly shorter than femora, yellow with wide black ring proximally and also numerous brown dots (some brown suffusion on middle leg distally) and with short sparse brown hairs. Tibial spurs absent. Length of tarsal segment 1-4 unequal, gradually decreasing. Tarsal segment 1 somewhat shorter than segment 5. Tarsus yellow with short brown hairs, tarsal segment 3-4 with black distal ring. Tarsal segment 5 with ventral setal brush. Claws opposable, shining light reddish-brown.

*Wings:* Fore wing 35 mm long and 9 mm wide. Hind wing 35 mm long and 8 mm wide.

Fore wing elongated with rounded apex, anal area slightly concave obtuse. Costal area wide. Membrane transparent with brownish shadow (Fig. 1) and with long setae. C, M, and anal veins yellow, other longitudinal veins yellow interrupted with black at intersections of cross veins. Most cross-veins yellow. Pterostigma distinct yellowish white with 6-8 cross-veins. 8-9 radial cross-veins in front of origin of Rs. CuP+A1 parallel with hind margin. Membrane with brown shadow at meeting point of Cua2 and CuP+A1 as well as along gradient veins and along cross-veins beyond pterostigma.

Hind wing with small light shadows along cross-veins in apical sector. Pterostigma distinct yellowish white with 3-4 cross-veins. Most longitudinal and cross-veins yellow. 2 radial cross-veins in front of origin of Rs. Two rows of cells between CuP2 and hind margin.

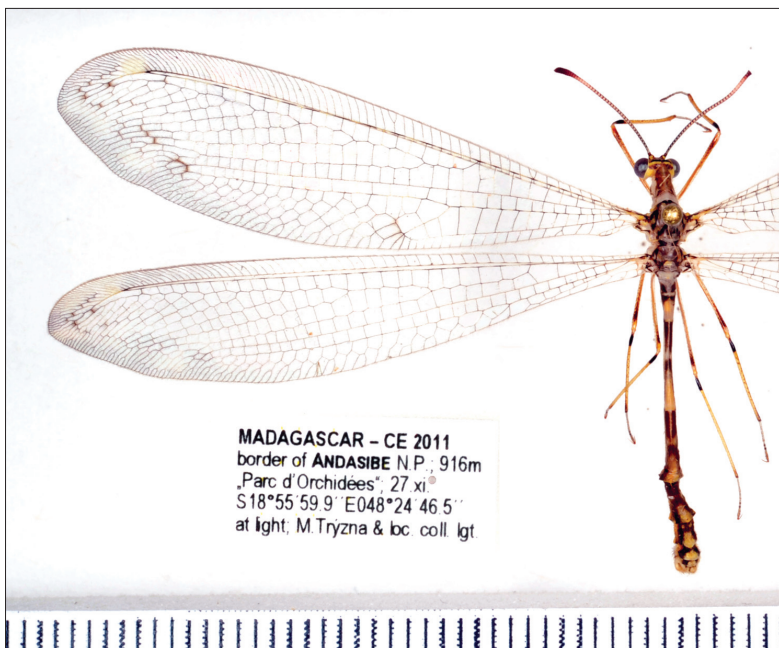


Fig. 1: Habitus of *Visca silvaticus* sp. n.



Fig. 2: Vertex and pronotum of *Visca silvaticus* sp. n. in dorsal view



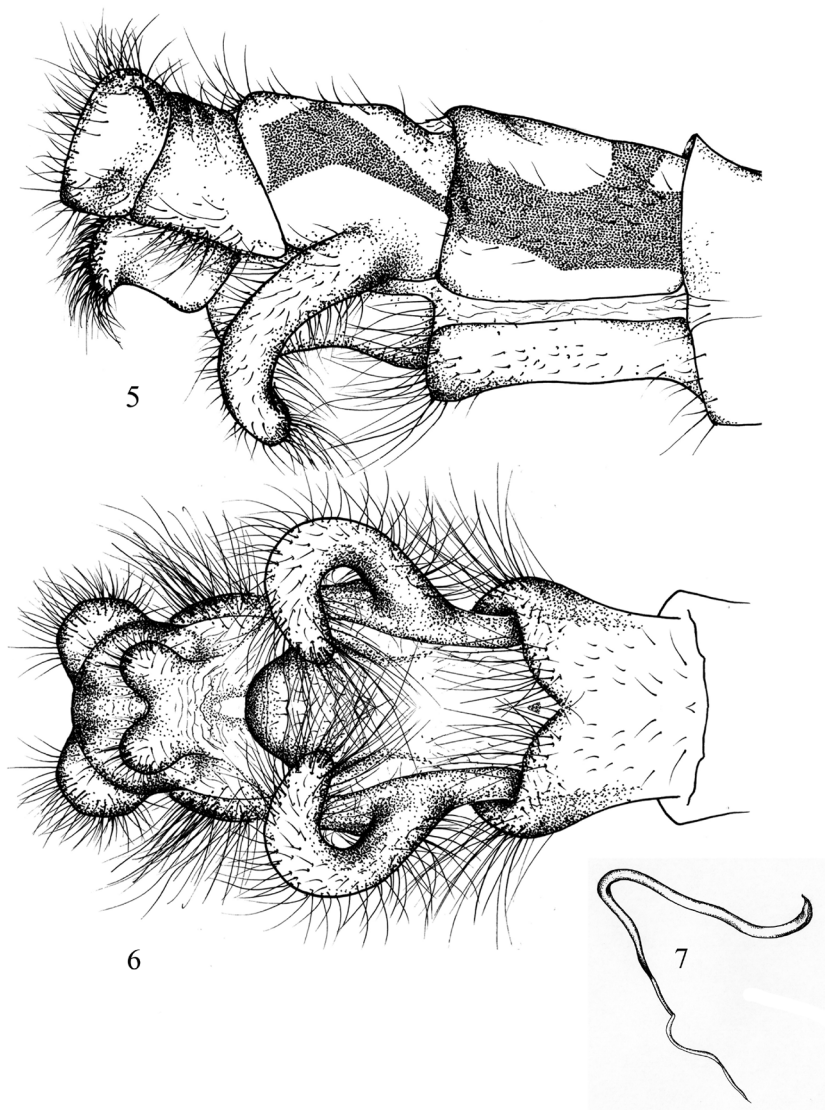
Fig. 3: Head of *Visca silvaticus* sp. n. in frontal view



Fig. 4: Apex of female abdomen of *Visca silvaticus* sp. n. in lateral view

*Abdomen*: 22 mm long, shorter than wings. Tergite 1-2 short, brown, other tergites dominantly yellow with large brown marks and with very short pale and brown hairs. Sternites yellow with very short dominantly pale hairs.





**Figs. 5-7: Female genitalia in lateral (Fig. 5), ventral view (Fig. 6) and spermatecha in lateral view (Fig. 7)**

*Genitalia:* Female genitalia as in Fig. 4 and 5 in lateral view and the same as in Fig. 6 in ventral view. Tergite 9 semicircle-shaped, yellow with brown mark, sparse brown hairs dorsally and dense pale hairs ventrally in lateral view. Ectoproct rather rectangular shaped, yellow with dense pale hairs on ventral and caudal margins. Posterior gonapophysis well developed curved inwardly with long dense pale hairs. In ventral view sternite 7 with two lateral rounded lobes and with long pale hairs on caudal margin. Pregenital plate small, weakly chitinised. Spermatecha as in Fig. 7. in lateral view.



**Fig. 8:** Habitat of *Visca silvaticus* sp. n., the edge of the rainforest in Andasibe National Park, Central East Madagascar; photo: Petr Baňář

*Male:* Unknown.

*Diagnosis:* The new species is a medium sized *Visca* sp. *Visca magnus* Ábrahám, 2011 is considerably larger (the length of fore wing 44 mm) while *Visca murzini* Ábrahám, 2011 is smaller (the length of fore wing 20 mm) than the new species. There are three medium sized *Visca* species live in Madagascar. It is easily distinguished from *V. venustulus* which has only one row of cells between CuP2 and hind margin in the hind wing while *V. mutila* and *V. silvaticus* have two rows. However, *V. mutila* has different pronotal pattern than that of the new species (Fig. 2).

*Remarks:* The specimen was captured on a small open area (ca. 60x100m) surrounded with a semideciduous rainforest where the dominant trees were Lauraceae and Rubiaceae. The vegetation was very diverse and rich in species especially at the edge of the forest (Fig. 8). The new species was recorded at light (160 W mercury bulb, HLMI type) during evening period (from 8 to 11 pm) when the temperature was about 25 °C and no rain at all.

### Key for *Visca* species

Abbreviations: FW – Fore wing, HW – Hind wing, CuP – Cubitus posterior

1. Large species, length of FW larger than 40 mm; 3 radial cross-veins before origin of Rs, usually 3 rows of cells between CuP2 and hind margin in HW.....***V. magnus***
- Smaller species, length of FW less considerably, between 20-36 mm.....2
2. Small species, length of FW about 20 mm, membrane of FW with three dark rounded spots, 1 radial cross-veins before origin of Rs in HW.....***V. murzini***
- Medium sized species, length of FW between 25-36 mm .....3
3. Length of FW about 32-36 mm, usually 2 rows of cells between CuP2 and hind margin in HW.....4
- Smaller, length of FW about 28 mm, only one row of cells between CuP2 and hind margin in HW.....***V. venustus***
4. Length of FW about 35 mm, pronotum dominantly brown with two lateral yellow bands.....***V. silvaticus*** sp.n.
- Length of FW about 33 mm, pronotum dominantly yellow with brown lateral bands.....***V. mutila***

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*Appendix*

In the paper “ÁBRAHÁM, L., DOBOSZ, D. 2011: Contribution to the ant-lion and owl-fly fauna of Madagascar with description new taxa (Neuroptera: Myrmeleontidae, Ascalaphidae). - Natura Somogyiensis 19: 109-138.” the legend of Fig. 5. (125 p.) is wrong but it is correctly: Fig. 5. Habitus of *Visca mutila* Navás, 1927.

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