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## NEW RECORDS OF THE GENUS *ACROPIMPLA* (HYMENOPTERA, ICHNEUMONIDAE, PIMPLINAE) FROM THE AFROTROPICAL REGION

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**New records of the genus *Acropimpla* (Hymenoptera, Ichneumonidae, Pimplinae) from the Afrotropical Region.** Varga, O. — *Acropimpla lutea* sp. n. is described from Uganda and illustrated. *Acropimpla alboscutellaris* (Szépligeti, 1908) is recorded from Kenya for the first time.

**Key words:** Pimpliformes, parasitoids, taxonomy, new species, Afrotropical Region.

### Introduction

*Acropimpla* Townes, 1960 is a medium-sized Darwin wasp genus of the subfamily Pimplinae containing 45 species, most of which are known from the Oriental Region (Yu et al., 2016; Varga & Reshchikov, 2015). Only two species are known from the Afrotropical Region, *Acropimpla alboscutellaris* (Szépligeti, 1908), described from Tanzania, and *A. lucifugus* (Seyrig, 1932), from Madagascar (Szépligeti, 1908; Seyrig, 1932).

The genus *Acropimpla* belongs to *Sericopimpla* genus-group together with the other gregarious parasitoids of large cocoons of Lepidoptera, namely *Gregopimpla* Momoi, 1965 and *Iseropus* Förster, 1869 (Gauld et al., 2002).

The representatives of the genus *Acropimpla* can be recognized by a combination of characters: clypeus more-or-less flat, notched apically, usually pale; face usually at least partly pale, eyes not strongly notched opposite the antennal sockets; oc-

capital carina weakly raised, sometimes very weak or obsolescent near midline, but then with upper end of lateral portion curved downwards; fore wing with vein 3rs-m present or absent, if present then areolet receiving 2m-cu at its outer corner or at most a little basad of its outer corner; hind wing with first abscissa of Cu usually distinctly longer than vein cu-a; second metasomal tergite with the basolateral grooves running rather transversely than longitudinally; and ovipositor compressed laterally, its lower valves with oblique ridges.

## Material and Methods

The voucher specimens used in this study are deposited in the collections of the International Centre of Insect Physiology and Ecology, Nairobi, Kenya (ICIPE) and the Natural History Museum of University of Tartu, Estonia (TUZ). The images of the type of *Acropimpla lucifugus* deposited in the National Museum of Natural History, Paris (MNHN) and holotype of *Acropimpla alboscuteellaris* deposited in the Swedish Museum of Natural History, Stockholm (NHRS) were also studied. Images of the recorded species were taken using a Leica Z16 APO microscope equipped with Leica FLEXACAM C1 camera and processed using LAS Core software at the I. I. Schmalhausen Institute of Zoology, NAS of Ukraine, Kyiv. Morphological terminology follows Broad et al. (2018).

### *Acropimpla alboscuteellaris* (Szépligeti, 1908) (Fig. 1, *a–b*)

Material examined. **Type.** Holotype ♀ of *Hemipimpla alboscuteellaris*, TANZANIA: “Kilimandj. [Kilimandjaro], Kibonoto, kulturz. [Kulturzone = cultural zone], 19 maj” [19.05. ?1905/1906] (Sjöstedt), designated by Townes, 1972, NHRS-HEVA000023062 (NHRS).

**Non-type.** KENYA: Coast Prov., Taita Hills, Chawia Forest, 3.47908° S, 38.34162° E, 1614 m, Malaise trap, next to small forest pond, 05–19.04.2012, 1 ♀ (R. Copeland) (ICIPE).

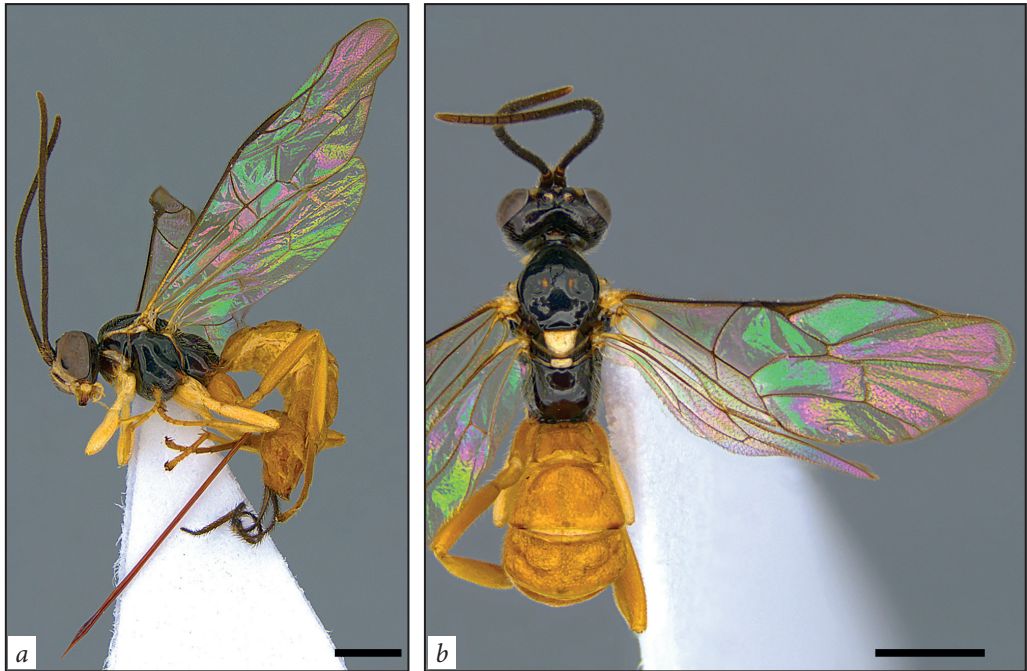
Diagnosis. Head and mesosoma black with clypeus, face (except narrowly black centrally), orbits, propleuron partly, pronotum narrowly dorsally and ventrally, subtegular ridge, two marks of mesoscutum, scutellum and postscutellum, fore and mid legs (except mid tarsus) ivory; metasoma and hind leg (except hind tarsus) reddish-orange, mid and hind tarsi dark orange. Antenna with 20–22 flagellomeres. Propodeum smooth and shiny, sparsely punctate laterally on anterior 0.5; lateral longitudinal carina present on posterior 0.5 of propodeum. Fore wing with vein 3rs-m absent; hind wing with first abscissa of Cu longer than vein cu-a (nervellus intercepted below the middle). First metasomal tergite as long as posterior width, densely punctate; latero-median carina present on anterior 0.3 of tergite; second tergite 0.8 × as long as posterior width, densely punctate; ovipositor about 2.9 × as long as hind tibia.

Distribution. Tanzania (Szépligeti, 1908), **first record from Kenya.**

### *Acropimpla lutea* Varga, **sp. n.** (Figs 2, *a–e*, 3, *a–f*)

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Material examined. **Type.** Holotype ♀ (one fore wing missing): **Uganda**, Kibale National Park, Kanyawara Biological Station, 00°33'55.6" N, 30°21'29.0" E, 1510 m, Malaise trap (2), 02–09.01.2011 (S. Katusabe and Co.), TUZ023023 (TUZ).



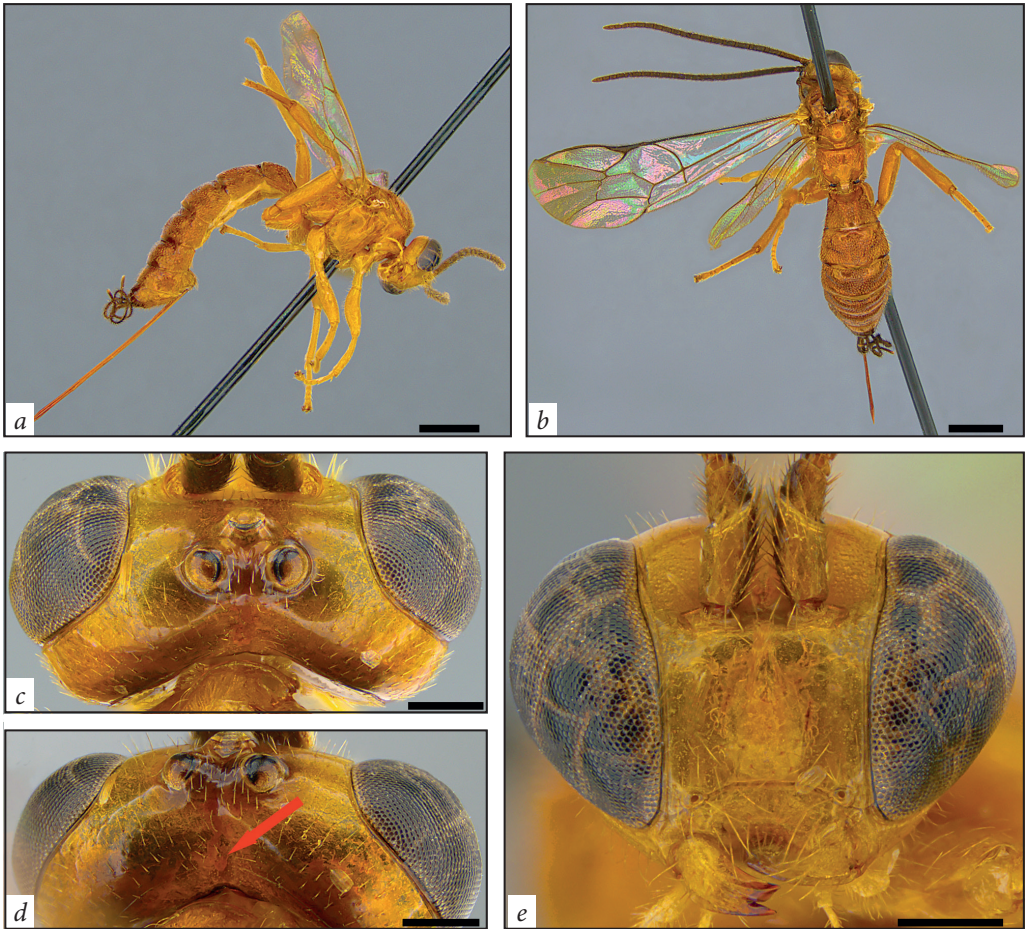
**Fig. 1.** *Acropimpla alboscutellaris*, female: *a* — habitus in lateral view; *b* — habitus in dorsal view. Scale bar 1.0 mm

**Diagnosis.** Body orange. Antenna with 18 flagellomeres. Propodeum smooth, densely punctate on anterior half; lateral longitudinal carina present on posterior 0.4 of propodeum (Fig. 3, *e*). Fore wing with vein 2rs-m about  $0.4 \times$  distance between 2rs-m and 2m-cu; vein 3rs-m absent (Fig. 3, *b*); hind wing with first abscissa of Cu as long as vein cu-a (nervellus intercepted in middle) (Fig. 3, *c*). First metasomal tergite  $0.8 \times$  as long as posterior width, densely punctate; latero-median carina present on anterior 0.5 (Fig. 3, *e*). Second tergite  $0.6 \times$  as long as posterior width, densely punctate (Fig. 3, *f*). Ovipositor about  $1.7 \times$  as long as hind tibia.

*Acropimpla lutea* sp. n. differs from *A. lucifugus* by the densely punctate swellings on the metasomal tergites (smooth in *A. lucifugus*); from both known Afrotropical species by the orange body (head and mesosoma black with ivory marks in *A. alboscutellaris*; head black and mesosoma largely red in *A. lucifugus*); the propodeum densely punctate in the anterior half (sparsely punctate in *A. alboscutellaris* and *A. lucifugus*); the nervellus intercepted in the middle (intercepted strongly below the middle in *A. alboscutellaris* and *A. lucifugus*); and the shorter ovipositor, about  $1.7 \times$  as long as hind tibia ( $2.9 \times$  in *A. alboscutellaris* and  $2.3 \times$  in *A. lucifugus*).

**Description.** Holotype. Female (Figs 2, *a-e*, 3, *a-f*). Body length approximately 7 mm, fore wing 5.5 mm.

Head (Figs 2, *c-e*, 3, *a*) generally smooth and sparsely pubescent. Antenna with 18 flagellomeres, first flagellomere  $3.9 \times$  as long as wide. Face about  $0.7 \times$  as long as wide, weakly swollen, with a small vertical central keel, smooth; eyes parallel. Malar space  $0.4 \times$  basal width of mandible; subocular sulcus absent. Clypeus  $0.4 \times$  as long as wide, weakly flattened in apical half; apical margin strongly notched. Mandible bidentate; upper tooth wider and longer than lower tooth. Temples short and strongly narrowed be-



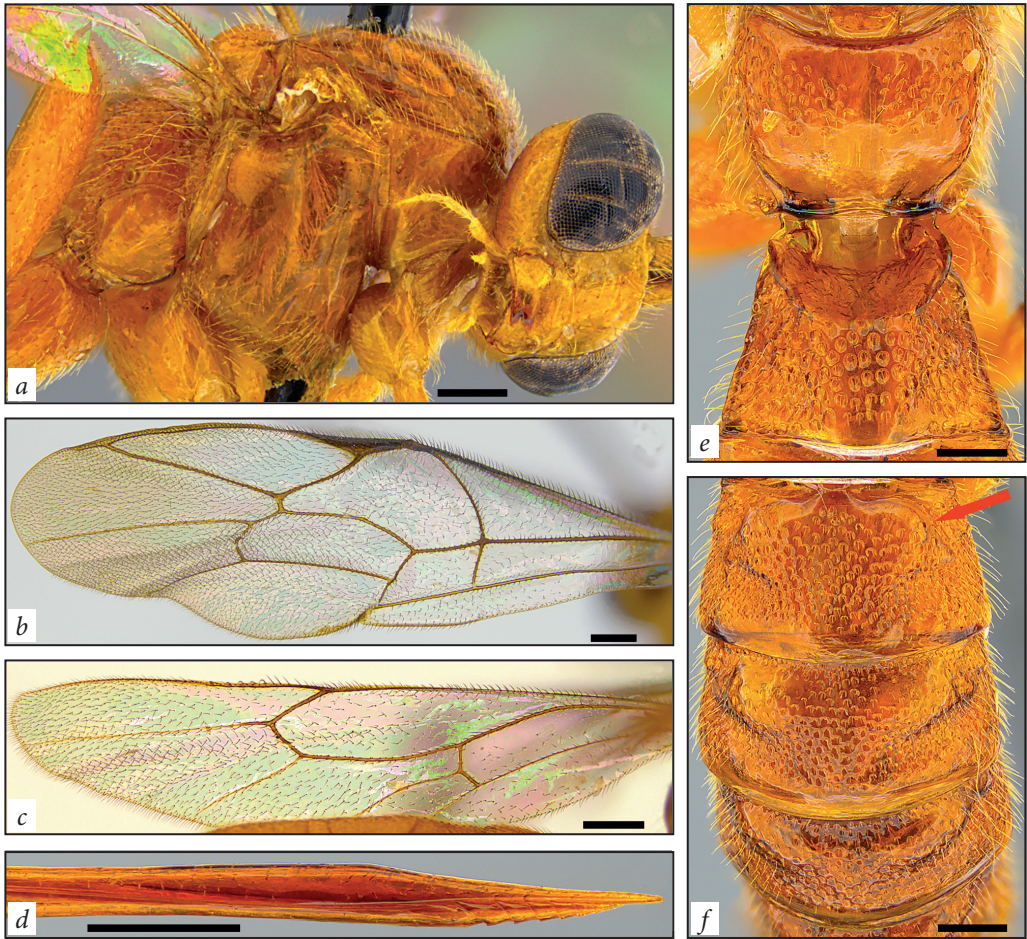
**Fig. 2.** *Acropimpla lutea* sp. n., holotype female: *a* — habitus in lateral view; *b* — habitus in dorsal view; *c* — head in dorsal view; *d* — occiput in dorsal view (obsolescent dorsal portion of the occipital carina arrowed with red); *e* — face in frontal view. Scale bars 1.0 mm (*a*–*b*), 0.25 mm (*c*–*e*)

hind eyes (dorsal view). Frons and vertex smooth; length of ocellar-ocular distance about  $1.2 \times$  maximum diameter of lateral ocellus; occipital carina dorsally obsolescent.

Mesosoma (Fig. 2, *a*–*c*) generally smooth and densely pubescent. Propleuron smooth. Pronotum smooth and glabrous; epomia present. Mesoscutum smooth, densely pubescent; notauli present, but weak. Scutellum and postscutellum smooth, densely pubescent, with carinae present only on basal 0.1. Mesopleuron smooth, densely pubescent ventrally; epicnemial carina present laterally and ventrally, not reaching anterior edge of mesopleuron. Metapleuron smooth and glabrous; pleural and submetapleural carinae present. Propodeum smooth, densely punctate on anterior half; lateral longitudinal carina present on posterior 0.4 of propodeum.

Legs relatively stout; hind femur  $4.1 \times$  as long as wide, third tarsomere of hind tarsus about  $0.7 \times$  as long as fifth tarsomere; tarsal claws with a basal lobe.

Wings (Fig. 3, *b*–*c*): fore wing with vein 2rs-m about  $0.4 \times$  distance between 2rs-m and 2m-cu; vein 3rs-m absent; vein 1cu-a opposite M&Rs; hind wing with first abscissa of Cu as long as vein cu-a (nervellus intercepted in middle), second abscissa of Cu present.



**Fig. 3.** *Acropimpla lutea* sp. n., holotype female: *a* — head and mesosoma in lateral view; *b* — fore wing in lateral view; *c* — hind wing in lateral view; *d* — ovipositor tip in lateral view; *e* — propodeum and first metasomal tergite in dorsal view; *f* — metasomal tergites 2–4 in dorsal view (basolateral groove arrowed with red). Scale bar 0.25 mm

Metasoma (Fig. 3, *d–f*) generally densely punctate. First tergite  $0.8 \times$  as long as posterior width, densely punctate; latero-median carina present on anterior half. Second tergite  $0.6 \times$  as long as posterior width, densely punctate, with basolateral grooves forming two central swellings. Rest of metasoma densely punctate. Ovipositor about  $1.7 \times$  as long as hind tibia, lower valve with oblique ridges.

Colour. Body generally orange except antenna, mandible apically, pterostigma and ovipositor sheaths black; eye orbit seems to be weakly paler (? ivory/yellow) and metasoma weakly darker than head and mesosoma.

Male. Unknown.

Distribution. Uganda.

Etymology. This species is named after the colour of the body.

Remarks. The generic placement of *Acropimpla lutea* sp. n. causes some difficulties due to the shape of the occipital carina and the hind wing venation. The newly described species probably supports the suggestion of Gauld et al. (2002) in their

placement of *Acropimpla* in the *Sericopimpla* genus-group. *Acropimpla lutea* **sp. n.** has the occipital carina obsolescent near the midline (as in the *Ephialtes* genus-group) (Townes, 1969), but with the upper end of the lateral portions not curved downwards (Fig. 2, *d*), which seems to be closer to member of the *Sericopimpla* genus-group, characterized by the straight occipital carina, always distinct near the midline). *Acropimpla lutea* **sp. n.** has the hind wing with the first abscissa of Cu as long as vein cu-a (Fig. 3, *c*), which I never found before in *Acropimpla* (first abscissa of Cu usually distinctly longer than vein cu-a). Nevertheless, there are several examples of an unusual position of the nervellus in other Ephialtini genera: e.g., most *Scambus* species have the nervellus intercepted distinctly below the middle (as in typical members of *Acropimpla*), but at least one Palearctic species, *S. nigricans* (Thomson, 1877), has it broken in the middle. The newly described species has similar hind wing venation to *Gregopimpla* but differs by the relatively flat clypeus (strongly swollen basally in *Gregopimpla*). *Acropimpla lutea* **sp. n.** is also habitually similar to *Sericopimpla* Kriechbaumer, 1895, but the eyes are not strongly notched opposite the antennal sockets (Fig. 2, *e*).

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