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## NEW SPECIES OF THE GENUS *CLISTOPYGA* (HYMENOPTERA, ICHNEUMONIDAE, PIMPLINAE) FROM THE AFROTROPICAL REGION

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**New Species of the Genus *Clistopyga* (Hymenoptera, Ichneumonidae, Pimplinae) from the Afrotropical Region.** Varga, O. — *Clistopyga kenyensis* sp. n. from the Southeast of Kenya is described and illustrated. It is the second recorded species of the genus *Clistopyga* from the country, together with *C. incitator* (Fabricius, 1793), and the third known species from the Afrotropical Region.  
Key words: Ephialtini, Kenya, parasitoids, taxonomy.

### Introduction

The genus *Clistopyga* Gravenhorst, 1829 is a medium-sized group of ichneumonids belonging to the subfamily Pimplinae. This genus is currently represented by 65 known species worldwide, most of which (43 species) are distributed in the Neotropical Region, while the Afrotropical Region remains largely unstudied (Yu et al., 2016; Bordera et al., 2019). Up to now, the only two species of the genus were known from the Africa mainland: *Clistopyga africana* Benoit, 1956 from South Africa and *C. incitator* (Fabricius, 1793), a species with mainly Palaearctic distribution, from Kenya (Seyrig, 1935; Benoit, 1956).

Little is known on the biology of *Clistopyga* species as they are rarely observed. Some of the species are reported to be idiobiont (Gauld, 1991) or koinobiont ectoparasitoids (Gauld et al., 1998) of Lepidoptera or spiders (Yu et al., 2016), or parasitoids of spider egg sacs (Fitton et al., 1988; Gauld et al., 1998). In addition, at least one known Neotropical species, *C. caramba* Castillo & Sääksjärvi, 2015, has a highly modified metasoma, which hypothetically resembles an ant and could be mimetic (Sääksjärvi et al., 2015). The detailed behavior and functional morphology of the ovipositor tip of one European member of the genus, associated with a salticid spider egg nest, is described by Fritzen and Sääksjärvi (2016). It is most likely that *Clistopyga* can represent an evolutionary transition from idiobiont ectoparasitoid parasiting silken lepidopteran cocoons, through those laying eggs in silken egg sacs of spiders, to species groups acting like koinobiont ectoparasitoids on adult spiders (Townes, 1969; Fitton et al., 1988; Gauld & Dubois, 2006; Bordera et al., 2019).

### Material and methods

The specimens used in this study are deposited in the collections of the International Centre of Insect Physiology and Ecology, Nairobi, Kenya (ICIPE) and the Schmalhausen Institute of Zoology NAS of Ukraine, Kyiv (SIZK). Images were taken with a Leica Z16 APO microscope equipped with Leica DFC 450 camera and processed by LAS Core software at SIZK. Morphological terminology follows Gauld et al. (1991) and Broad et al. (2018).

***Clistopyga kenyensis* Varga, sp. n.** (fig. 1)

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Material examined. Holotype ♀: KENYA, Coast Province, Taita Hills, Chawia Forest, 3.47908° S, 38.34162° E, 1614 m, Malaise trap, next to small forest pond, 09–23.01.2012 (R. Copeland) (ICIPE). Paratypes: 1 ♂, same locality and date as holotype (ICIPE); 2 ♀, idem, 05–19.04.2012 (ICIPE); 1 ♀, idem, 26.12.2011–09.01.2012 (ICIPE); 1 ♀, idem, 22.02–08.03.2012 (SIZK).

**Diagnosis.** The new species is characterized by the following combination of characters: body brownish dorsally, creamy white ventrally; propodeum aciculate; metapleuron smooth, with few isolated setae; ovipositor weakly upcurved, the length from tip of hypopygium about 1.6× the length of hind tibia; hind wing with nervellus reclivous, distance between first abscissa of *M+Cu* about 1.3× longer than vein *cu-a*.

*Clistopyga kenyensis* **sp. n.** differs from both recorded Afrotropical species by the colouration: mesopleuron almost entirely creamy white (from black to red in *C. incitator* and orange with a central yellow stripe in *C. africana*); metasomal tergites brownish, creamy white subapically (in both *C. incitator* and *C. africana* metasoma is more-or-less unicolour). In addition, it differs from *C. incitator* by the smooth and almost glabrous metapleuron (densely pubescent distally in *C. incitator*) and the aciculate first metasomal tergite (punctate in *C. incitator*). The newly described species differs from *C. africana* by the thinner and longer ovipositor (about 1.6× the length of hind tibia in *C. kenyensis* **sp. n.** comparing to 1.3 × in *C. africana*), and the longer legs (hind femur 4.7× longer than wide in *C. kenyensis* **sp. n.** comparing to 4.0× in *C. africana*).

**Description.** Holotype. Female (fig. 1, A, C–G). Body length approximately 8 mm, fore wing 5.5 mm.

**Head** (fig. 1, C) generally smooth and sparsely pubescent. Antenna with 25 flagellomeres, first flagellomere 1.5× as long as second flagellomere. Maximum diameter of lateral ocellus 0.9 × as long as ocellar-ocular distance. Inner margins of eyes weakly emarginated opposite antennal sockets. Face about 0.7× as long as wide, smooth, sparsely pubescent. Clypeus strongly convex, about 0.4× as long as wide, distinctly separated from face and with the same sculpture, its apical margin concave and weakly notched. Malar space about as long as the basal width of mandible, subocular sulcus distinct. Upper tooth of mandible weakly longer than lower tooth. Occipital carina distinct, concave downwards dorsally. Temple strongly narrowed behind eye, gently rounded.

**Mesosoma** (fig. 1, D, F). Propleuron smooth, sparsely pubescent. Pronotum smooth, epomia present, but short. Mesoscutum smooth and densely pubescent, with notauli strong, reaching the middle of mesoscutum, central lobe aciculate. Scutellum convex, smooth, sparsely pubescent, with lateral carina present basally. Mesopleuron smooth, sparsely pubescent, epicnemial carina present on lower 0.7 of mesopleuron. Metapleuron smooth, with few isolated setae, submetapleural carina distinct, pleural carina distinct before spiracles, weakly defined after spirales, almost indistinct (fig. 1, D). Propodeum aciculate, with only lateromedian longitudinal carinae present on apical 0.1. Legs slender, hind femur 4.7× longer than wide, fifth tarsomere about as long as third tarsomere. Fore wing with areolet opened (vein *3rs-m* absent); vein *2rs-m* short, about 0.3× the distance between *2rs-m* and *2m-cu*; vein *cu-a* opposite to *Rs* & *M*. Hind wing with nervellus reclivous, distance between first abscissa of *M+Cu* 1.3× longer than vein *cu-a*.

**Metasoma** (fig. 1, E, G) generally strongly sculptured and densely pubescent. First tergite about 1.3× as long as apical width, aciculate, with lateromedian oblique grooves weak, almost indistinct; dorsolateral carina distinct on basal 0.2 of the tergite; median longitudinal carina distinct and strong, reaching the apex of the tergite; glymma present. Second tergite about as long as apical width, rugulo-punctate, with basal and apical oblique grooves forming a rhombic convex area. Tergites 3–5 densely punctate, but punctures with scattered margins, with two lateromedian swellings; the remaining tergites weaker sculptured. Ovipositor (fig. 1, G) upcurved and thin, the length from tip of hypopygium about 1.6× the length of hind tibia.

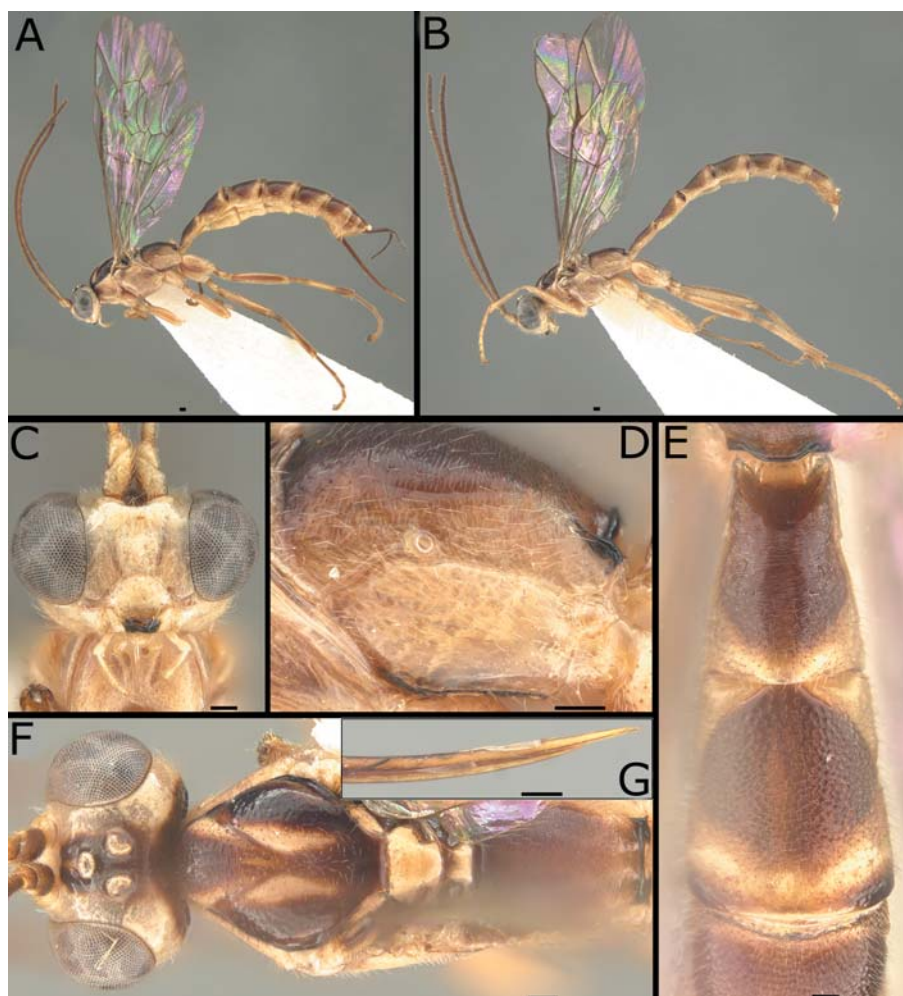


Fig. 1. *Clistopyga kenyensis* sp. n.: A, C–G — holotype female; B — paratype male; A–B — lateral view of habitus; C — frontal view of head; D — lateral view of metapleuron; E — dorsal view of metasomal tergites 1–3; F — dorsal view of head and mesosoma; G — lateral view of the ovipositor tip. Scale bar 0.1 mm.

**Colouration.** Body generally brownish dorsally, creamy white ventrally. Head creamy white except apex of mandible, frons centrally, occiput brownish and flagellum orange. Mesosoma creamy white except mesoscutum partly and propodeum dorsally brownish. Legs creamy white except stripes on hind coxa and hind femur, hind tibia subbasally and apically and tarsus entirely brownish. Metasoma orange with central areas brownish; all tergites creamy white subapically, tergites 1–3 with lateroapical stripes black. Pterostigma and veins brown. Ovipositor orange.

**Male** (fig. 1, B) generally resembles female, but has smaller body (length approximately 7.0 mm, fore wing 5.0 mm), and some differences in colouration: metasoma with first tergite entirely and tergites 2–4 apicolaterally black; hind tibia with indistinct bands.

**Variability.** Paratype female has largely yellow head contrasting with creamy white meso- and metasoma.

**Distribution.** Currently known only from Kenya.

**Etymology.** This species is named after the country, where it was collected.

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