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***XANTHOPIMPLA NULLUSIS* (HYMENOPTERA:
ICHNEUMONIDAE: PIMPLINAE),
A NEW SPECIES FROM MALAYSIA**

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ABSTRACT

A new species of Pimplinae is described from Bukit Berangkai, Kampar, Perak and Kuala Lompat Forest Reserve, Pahang; *Xanthopimpla nullusis*, n.sp. A complete description and illustrations of the species are provided.

Key words: *Xanthopimpla*, Ichneumonidae, Pimplinae, new species, Malaysia

ABSTRAK

Spesies baru dari subfamili Pimplinae telah ditemui dari Bukit Berangkai, Kampar, Perak dan Hutan Simpan Kuala Lompat, Pahang; *Xanthopimpla nullusis*, n.sp. Perihalannya lengkap dan gambarajah disertakan bagi spesies tersebut.

Kata kunci: *Xanthopimpla*, Ichneumonidae, Pimplinae, spesies baru, Malaysia

INTRODUCTION

This paper presents description and illustrations of a new species from the genus *Xanthopimpla* which belongs to the subfamily Pimplinae. *Xanthopimpla* is one of the larger genera under Ichneumonidae (Hymenoptera). Adults of *Xanthopimpla* are abundant in the Oriental Region and the tropical parts of the Australian Region. *Xanthopimpla* can be easily distinguished due to their stout body, yellow body colour, with black spots or band on it. The species are all internal parasites of Lepidopteran pupae. *Xanthopimpla* occurs to be important biological control agent due to their abundance. For example, *Xanthopimpla punctata* is parasite of rice stem borers and valuable for the protection of cultivated crops (Townes & Chiu 1970). Due to their importance as parasitoid, extensive study should be conducted especially in taxonomic aspects. However, studies on *Xanthopimpla* are still lacking (Idris 1996; Idris & Kee 2002; Idris et al. 2003; Idris & Izfa Riza 2005).

Gupta (1986) listed 224 species of *Xanthopimpla* from Indo-Australian region and 54 species of them are recorded in Malaysia (Idris 1999). Ng et al. (2003, 2004) described two new species which are *Xanthopimpla pasohensis* and *Xanthopimpla nanasiensis*. Izfa Riza & Idris (2006) had described another new species, namely *Xanthopimpla mardiensis*.

MATERIALS AND METHODS

Xanthopimpla collections from Centre for Insect Systematics at Universiti Kebangsaan Malaysia (CIS-UKM) from previous and latest fieldworks were examined. Pertinent literatures by Townes & Chiu (1970) were used as reference.

Xanthopimpla nullusis, new species (Fig. 1a-g; Fig. 2a-e)

Female. Clypeus flat; punctures on clypeus fine, moderately dense, moderate smooth, punctures separated more than 2x their diameters; hairs on clypeus dense, short, hair sockets closer than length of hairs. Face strongly convex; punctures on face small, dense, rough, punctures separated more than 2x their diameters; hairs on face dense, short, hair sockets closer than length of hairs. Face about 1.86x more longer than its length. Eyes parallel. Eye about 1.85x more longer than width. Frons with weak pit or groove below median ocellus. Ocellocular distance 0.23 mm. Malar space 0.1 mm. Antennae with 27 flagellar segments. Submarginal carina complete. Mesoscutum 1.07x more wider than its length; punctures on mesoscutum small, dense, moderate smooth, punctures separated about 2x their diameters; hairs on mesoscutum dense, short, hair sockets separated closer than their length. Mesoscutal crest present and small in size. Notauli long, deep, parallel, reaches less than half of mesoscutum, extends behind a line connecting centres of tegulae. Scutellum weakly convex. Lateral flange reaching apex of scutellum. Anterior lower corner of pronotum broad. Sternaulus distinct. Subtegular ridge rounded; outer profile in dorsal view strongly convex. Postpectal carina in high flange, median notch present. Punctures on mesopleuron minute, sparse, smooth, randomly distributed; latero-ventral with small punctures, moderate dense, moderate smooth, punctures separated more than 2x their diameters. No hairs on mesopleuron; hairs on lateroventral mesopleuron moderate dense, moderately sized, hair sockets separated more than length of hairs. Submetapleural carina present and complete. Tubercle absent. Propodeal carina absent. Pleural

area not divided. Costula absent. Lateral longitudinal carina present only as stub. Areola and second lateral and petiolar area confluent. Forewing about 1.64 mm long, 5.65 mm width. Areolet of forewings partly close. Second recurrent vein near or at outer corner of areolet. Nervulus directly opposite of basal vein. Discoidella reaching wing margin. Brachiella not reaching wing margin. Second intercubitus vein partially present. Cubitus and subdiscoides vein reaching wing margin. Distal hamuli 5. Apical bristles 0. Preapical bristles 0. Apical hair on the inner side of tarsal claws near base wide, curve and blackened at tip. Length of hind tibia about 1.22 mm. Hind tibia about 2.39x longer than ovipositor sheath. First tergite about 1.04x more wider than length. Dorso-lateral carina of first tergite reaching behind spiracle, complete towards apex of tergite 1. Median-dorsal carina long reaching behind spiracle, incomplete towards apex of tergite 1. Punctures on tergite 1 fine, sparse, smooth, randomly distributed. Punctures on gastral tergites 2 to 6 moderate sized, dense, coarse, punctures separated more than 2x their diameters. Punctures on gastral tergites 7 and 8 large, dense, coarse, punctures separated less than 2x their diameters. Hairs on tergite 1 sparse, long, randomly distributed. Hairs on tergites 2 to 8 dense, short, their sockets are closer than length of hairs. Ovipositor tip straight; dorsal valve longer than ventral valve. Dorsal valve with 4 tooth. Ventral valve with 5 tooth. Nodes on valves indistinct. Length of ovipositor sheath is about 0.51 mm.

Color Pattern. Dorsal base of antennae brown, middle brown, apical dark brown. Ventral of antennae base, middle and apical are dark brown. Scape dorsal and brown. Pedicel dorsal and ventral brown. Frons yellow; without black spots. Ocelli brown blackish; ocellar area black. Occiput and post occiput yellow. Pronotum yellow. Mesopleurum yellow. Mesoscutum with pair of big lateral spots elongated posteriorly; single black spot at the front end of scutellum. Axillary trough of mesonotum yellow. Basal and apical of tegulae yellow. Axillary trough of metanotum yellow. Propodeum yellow with a pair of black spots. Hind coxa yellow. Trochanter yellow; dark brown at basal. Trochantellus yellow. Hind femur black at apical tip. Hind femur yellow; dark brown marking apically and extends towards dorsal. Hind tibia yellow; basal and

apical dark brown. Tarsal segments 1–2 yellow; segment 3 brown; basal of segment 1, segments 4 and 5 black. Forewing and hind wing hyaline. Stigma and wing veins black. Gastral tergites 1 to 8 yellow; tergite 1 with black transverse band; tergites 2 and 8 without spots or band; tergites 3 and 4 with pair of black, moderate size spots; tergites 5 and 6 with pair of black, small spots; tergite 7 with pair of black, large spots that is connected.

Specimens examined (2).

HOLOTYPE, female, West Malaysia: Perak, Kampar, Bukit Berangkai, Malaise trap, vi. 2012, Ruslan, Fauzi and Nicholas, CIS-UKM. **PARATYPE**, 1 female, West Malaysia: Pahang, Kuala Lompat, Malaise trap, iv. 2002, Ruslan, Fauzi, and Nicholas, CIS-UKM.

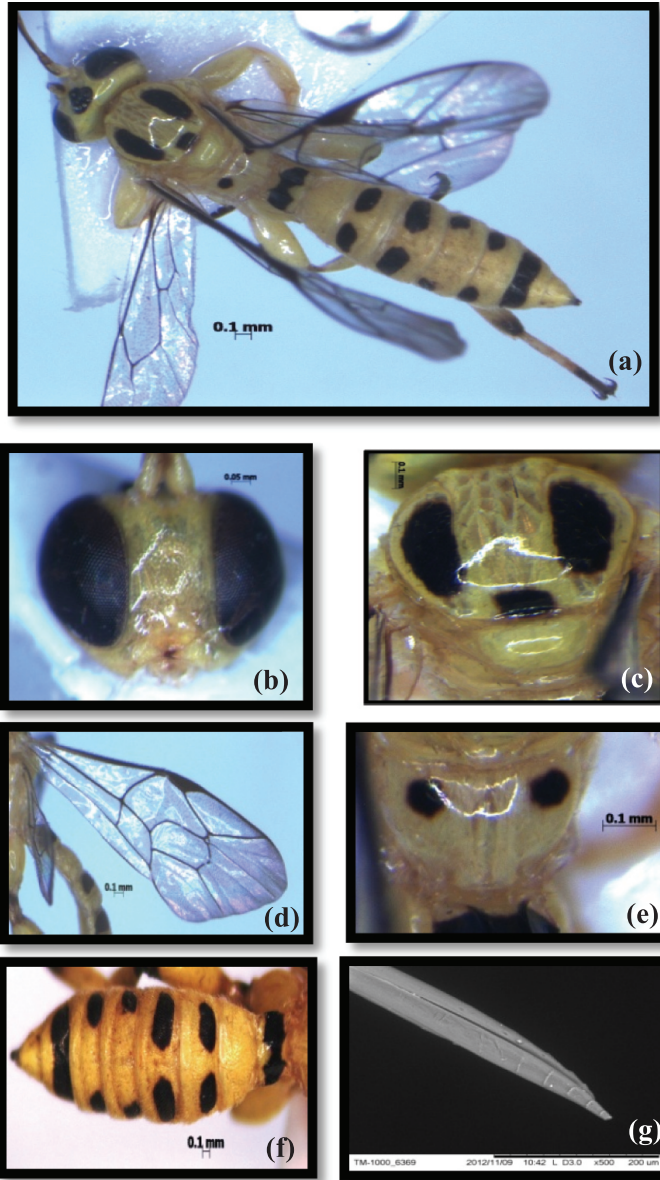
Etymology.

Xanthopimpla nullusis was derived from the Latin word ‘nullus’ which means ‘no’. It refers to the absentism of any carina on its propodeum.

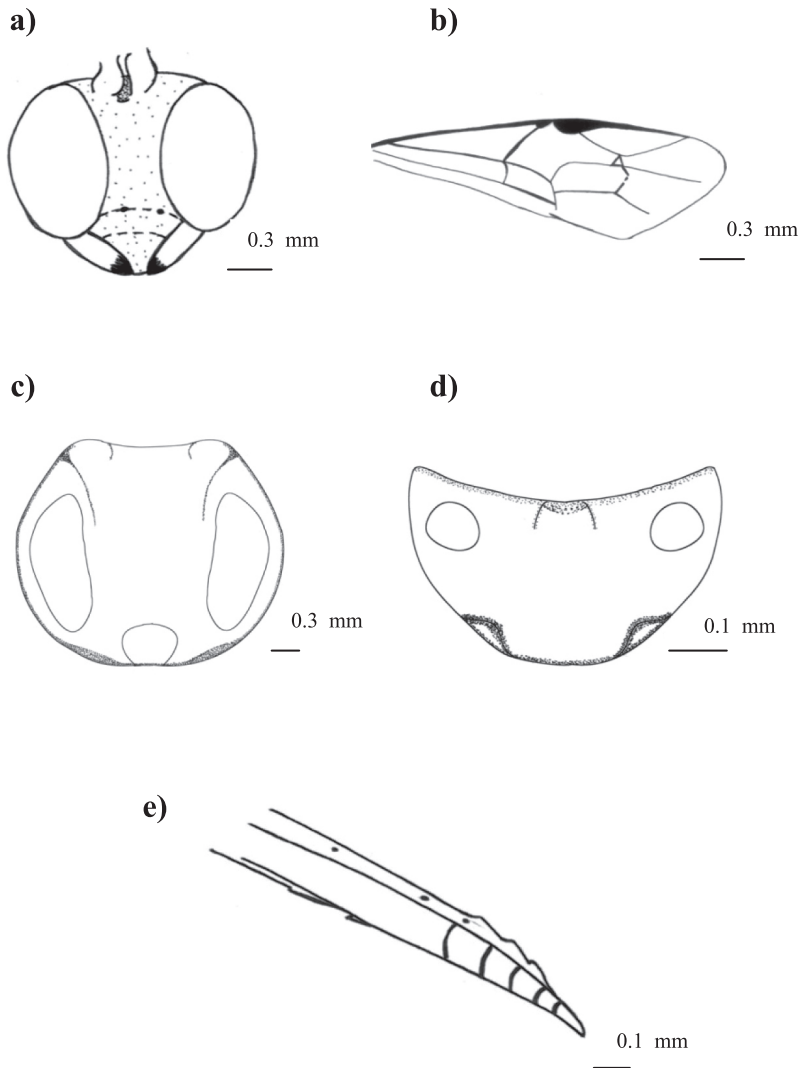
Distribution in Malaysia.

PERAK: Kampar, Bukit Berangkai; PAHANG: Kuala Lompat Forest Reserve.

Host(s) recorded: none.



Figures 1. *Xanthopimpla nullusis*, new sp. (a) habitus from dorsal view; (b) head; (c) mesoscutum; (d) front wing; (e) propodeum; (f) tergites; (g) ovipositor.



Figures 2. *Xanthopimpla nullus*, new sp. (a) head; (b) front wing; (c) mesoscutum; (d) propodeum; (e) ovipositor.

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