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**A NEW SPECIES OF *XANTHOPIMPLA* SUASSURE  
(HYMENOPTERA: ICHNEUMONIDAE:  
PIMPLINAE) FROM PASOH FOREST RESERVE,  
NEGERI SEMBILAN. MALAYSIA**

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**ABSTRACT**

A *Xanthopimpla pasohensis* n. sp. from Pasoh Forest Reserve, Negeri Sembilan, Malaysia was described and illustrated.

**ABSTRAK**

Satu spesies baru *Xanthopimpla pasohensis* n. sp. dari Hutan Simpan Pasoh, Negeri Sembilan, Malaysia telah diperihal dan diilutasi.

**INTRODUCTION**

The genus *Xanthopimpla* Saussure falls into the subfamily of Pimplinae. This genus is easy to distinguish with other genera by yellow colors through out its body and black spot on its gastral tergites. *Xanthopimpla* are moderate in size parasitic wasps, which

is range from 0.5 cm to 2.0 cm of its body length. To enable them to deposit eggs on their host that conceal in the tunnel in stems of herbs, grasses or leaf roll, in cocoons and from naked pupae, the female *Xanthopimpla* bears an additional organ so called ovipositor. Ovipositor of *Xanthopimpla* presenting different characteristics in term of ridges arrangement that gives great taxonomy value. Its ovipositor is ordinary in their length of an average 1.5x as long as the hind tibia (Gauld 1984). From it superficially resembles, the *Xanthopimpla* are similar to those parasitic wasps from the genus *Theronia* Holmgren (Hymenoptera: Pimplinae). However, they can be distinguished by several characters such as the labrum of *Xanthopimpla* is exposed and plate-like, while that of *Theronia* is concealed when the mandibles are closed. Both genera have different mandible character; the mandibles of *Xanthopimpla* are narrowed at its tip and twisted so that the lower tooth of its mandible is concealed under their mouth, while that of *Theronia* is broad and the lower tooth and upper tooth are exhibited conspicuously (Gupta 1962).

The genus *Xanthopimpla* is a dominant group of Pimplinae especially in the region of Southeast Asia. Gupta (1986) listed a number of 224 species of *Xanthopimpla* from Indo-Australian region, of these only 37 species were recorded in Malaysia (Idris 1999). Recently, a comprehensive study of Malaysia's *Xanthopimpla* was conducted by Anthony (2003); he had successfully recorded 47 species of *Xanthopimpla* from Peninsular Malaysia. Thirteen of these were new record to the Peninsular of Malaysia and three species were new to science. The *Xanthopimpla* study conducted by Ng et al. (2003) from Centre for Insect Systematics, University Kebangsaan Malaysia surprisingly found and described a new species, *X. nanasensis* from a fragmented area of Bukit Nanas Forest Reserve in the centre of Kuala Lumpur city.

## TAXONOMY

*Xanthopimpla pasohensis* Ng & Idris 2004, new species  
(Figs. 1-8)

**Female:** Clypeus strong convex. Face weakly convex; with small punctures and about 1.38 as high as wide. Antennae have 33 flagellar segments. Anterior lower corner of pronotum sharp, making an angle 90° to 100°. Mesoscutum with small punctures; hair on part of mesoscutum between tegulae moderately dense, the hairs sockets arranged in distances closer than the length of the hairs; mesoscutum about 1.0x as wide as high. Notauli present, but short that not passed the line between the hind margin of tegulae. Prepectal carina present. Mesoscutal crest present. Submarginal carina complete. Subtegular ridge sharp with its outer profile in dorsal view evenly broad. Scutellum weakly convex. Lateral flange reaching the apex of Scutellum. Mesopleurum with small punctures and sparsely arranged; moderately smooth in texture. Sternaulus absent. Metapleurum lower and upper divisions smooth. Sub-metapleural carina present but not completely extended until hind coxa. Postpectal carina not complete with medially present in the form of the high flange that is triangularly widened medially. Fore wing about 15.9 mm long. Areolet of forewings small and completely closed, receiving second recurrent vein near its outer corner. Nervulus directly opposite basal vein. Nervulus intercepted near its upper 0.33. Discoidella reaching the wing margin. Brachiella present and long, reaching the wing margin. Areola absent. First lateral areas of propodeum completely closed by carinae and smooth in texture. Second lateral areas of propodeum not completely closed by carinae and smooth in texture. Apical carina present as a stub attached to each lateral longitudinal carinae, in small species, is entirely absent. Lateral longitudinal carina bounded about 0.57 at outer side of first lateral areas. Pleural area without subdivided by a carina. Apical bristle 4. Preapical bristles 5. Apical hair on the inner side of tarsal claws near base wide, straight and blacked at tip. First tergite about 0.75 as wide as long. Dorso-lateral carina of first tergite present and completely reach apex. Median-dorsal carina present, reaching the

spiracle of first tergite. Gastral tergites 2 to 6 rough. Ovipositor tip straight, upper valve slender and without ridges, lower valve with 8 ridges. Ovipositor sheath about 1.0x length of hind tibia.

**Color Patten.** Frons yellow. Ocellar, occiput and post occiput black. Antenna black. Scape dorsal black, ventral yellow. Pedicel dorsal black, ventral light brown. Pronotum yellow. Mesopleurum yellow. Mesoscutum basal with three large black spots, joined in a band, apical part of mesoscutum with a transverse black band. Tegulae 0.5 apical black. Mesosternum yellow. Forewing weakly infuscate. Stigma and wing veins black. Propodeum at basal with a transverse black band. Hind coxa entirely yellow. Tronchanter circled black. Hind femur yellow in front view and with a black elongate black spot that reaching its apical on back view. Hind tibia black at apical of front and back view. Tarsal first segment black near its basal and dark brown for the remaining part. Segment 2 and 3 entirely brown; 4-5 black. Hind tarsal claws black at tip. Gastral tergites 1 with a black band at medial part, tergite 2, 4 and 6 with two small to moderate large black spots, tergite 3, 5 and 7 with two large black spots that joined to form a band. Ovipositor sheath black.

**HOLOTYPE.** 1 ♀. Malaysia, Negeri Sembilan, Pasoh Forest Reserve. 28. x. 2002. Ng, Y.F.& Ruslan.

**PARATYPES.** 6 ♀. Malaysia, Negeri Sembilan, Pasoh Forest Reserve. 28. x. 2002. Ng, Y.F.& Ruslan.

**Etymology.** The species name 'pasohensis' is derived from the word 'Pasoh' the name of place (forest) from which it was collected.

**Remarks.** *Xanthopimpla pasohensis* is belongs to the *elegans* group which have been erected by Town & Chiu (1970). Members of *Xanthopimpla* that belongs to *elegans* group have small areolet and receiving second recurrent vein near its outer corner. Species of *elegans* group have a sharp lower corner of pronotum that making an angle between 90° to 100°. In key to species of the

*elegans*, *X. pasohensis* comes near to *X. apendicularis* and *X. hiatus*. However, they are different in several characters as indicated in Table 1.

**Table 1** Differences in character of *X. apendicularis*, *X. pasohensis* sp. nov. and *X hiatus*.

<i>X. apendicularis</i> <i>apendicularis</i> Cameron 1899	<i>X. pasohensis</i> Ng & Idris 2004	<i>X. hiatus</i> Townes & Chiu 1970
– Its ovipositor is about 1.5 as long as hind tibia.	– Its ovipositor is about 1.0 as long as hind tibia.	– Its ovipositor is about 1.0 as long as hind tibia.
– Apical transverse carina of propodeum not completes that medially 0.2-0.5 lacking.	– Apical transverse carina of propodeum not completes that medially 0.6-0.9 lacking.	– Apical transverse carina of propodeum complete.
– Notauli short not passed the line between hinds margin of tegulae.	– Notauli short not passed the line between hind margins of tegulae.	– Notauli long passed the line between hind margins of tegulae.
– Occiput and post occiput entirely yellow.	– Occiput and post occiput entirely black	– Not mentioned in Townes & Chiu (1969) and Gauld (1984).
– Mesoscutum basal with a thin black band.	– Mesoscutum basal with three large black spots that joined in a band.	– Not mentioned in Townes & Chiu (1969) and Gauld (1984).
– Distribution: India	– Distribution: Malaysia	– Distribution: Australia

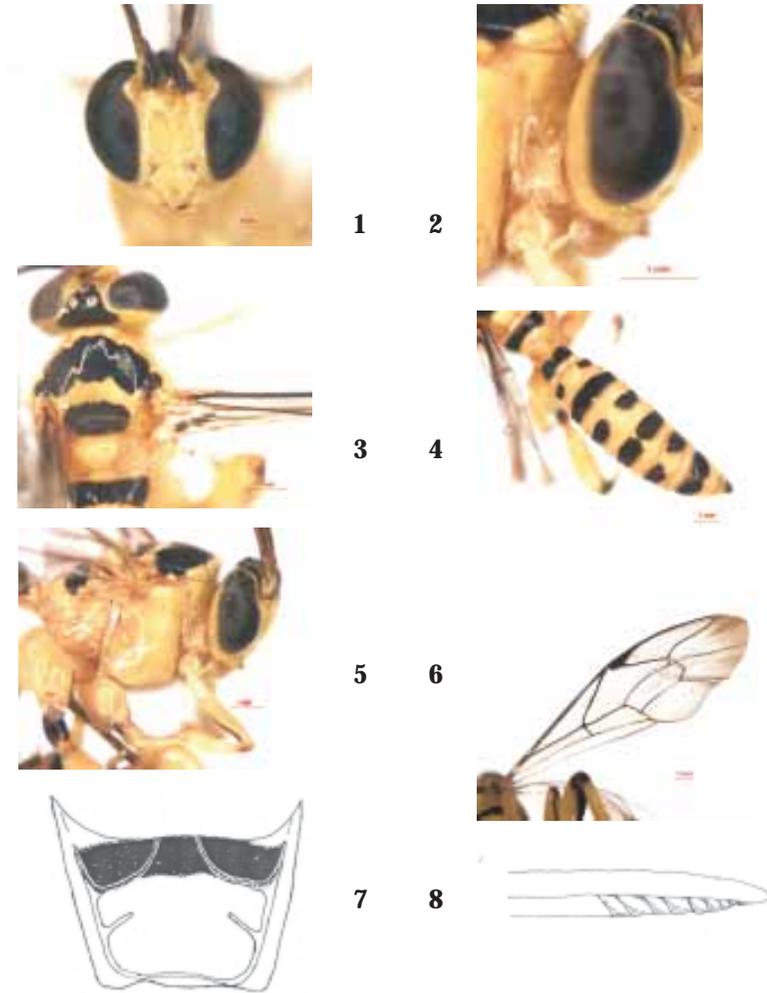
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**Figs. 1-8.** *Xanthopimpla pasohensis*, new species. 1, face; 2, pronotum; 3, mesoscutum; 4, fore wing; 5, mesopleurum; 6, gastral tergites, 7, propodeum; 8, ovipositor.