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***Sychnostigma striatum*, NEW SPECIES FOR GENUS  
*SYCHNOSTIGMA* BALTAZAR (HYMENOPTERA:  
ICHNEUMONIDAE: PIMPLINAE)  
FROM MALAYSIA**

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**ABSTRACT**

A new species, *Sychnostigma striatum* has been discovered from Pahang, Malaysia. This is the 16th of species of the genus recorded in Malaysia. A descriptions and illustrations of the species are provided.

**ABSTRAK**

Spesies baru *Sychnostigma striatum* telah diperihalkan dari Pahang, Malaysia. Spesies ini adalah rekod ke-16 genus *Sychnostigma* di Malaysia. Keperihalan dan ilustrasi spesies ini telah disediakan.

**INTRODUCTION**

The genus *Sychnostigma* is one of ichneumonid wasps and could be found abundantly in "Old World Tropics" and Japan (Baltazar 1961). *Sychnostigma* Baltazar is a tribe under Rhyssini. Its

importance in biological control is very crucial since it control the population of pests for *Pinus* sp. The last study on this genus been conducted by Wang and Hu in 1995 and since then, no such a study has been done (Yu & Horstmann 1997). The genus *Sychnostigma* is closely related with the *Triancyra* Baltazar. The differences between those two genera occurred on which *Sychnostigma* having a widened upper teeth compared to lower teeth and hamuli having a pair of hook at the basal part, while *Triancyra* having those characteristic: lower teeth having a narrowed teeth compared to upper teeth and hamuli having three hook at the basal (Kamath & Gupta 1972). Gupta (1987) listed 15 species of *Sychnostigma* Baltazar from Malaysia which are *S. asperum* Kamath & Gupta, *S. bimaculatum* (Cameron), *S. binarium binarium* Kamath & Gupta, *S. cruciatum cruciatum* (Cameron), *S. flavopictum flavopictum* (Smith), *S. gephyrum* Kamath & Gupta, *S. kerrichi* Kamath & Gupta, *S. maai* Kamath & Gupta, *S. maculiceps* (Cameron), *S. malayanum* Kamath & Gupta, *S. nigrobalteatum* (Cameron), *S. sarawakense* Kamath & Gupta, *S. silvaticum silvaticum* Kamath & Gupta, *S. spilopectera spilopectera* (Cameron) and *S. vulgare vulgare* Baltazar. This study aimed to work on the systematic of genus *Sychnostigma* in Malaysia and hope to provide more knowledge on systematic and taxonomy aspect of *Sychnostigma* in Malaysia.

## MATERIALS & METHODS

Specimens were obtained from Centre for Insect Systematic UKM, also from field sampling that been conducted around Malaysia. Beside, the specimens were also loan from the following institutions: Museum Fur Naturkunde der Humboldt, Universitat zu Berlin, DDR-104 Berlin, Invalidinstarsse 43, DDR Germany (Berlin), American Entomological Institute, 3000S. 56<sup>th</sup> Avenue, Gainesville, Florida 32608, U.S.A (Gainesville), Bernice P. Bishop Museum, Department of Entomology, Honolulu, Hawaii 96819, U.S.A (Honolulu), Rijksmuseum van Natuurlijke Historie, Postbus 9517, 2300 RA Leiden, The Netherlands (Leiden), Department of Entomology, British Museum (Natural History), Cromwell Road, London SW7, 5BD, England (London), and Hope Entomological

Collections, University Museum, Oxford, OX1 3PW, England (Oxford). Identifying of specimens referred to the Kamath & Gupta (1972), Baltazar (1961), Townes (1969) and original description of each specimen. Identifying were also done based on the holotype specimens that been loaned from the above institutions stated before.

## RESULTS & DISCUSSION

### *Sychnostigma striatum* Khairiza & Idris, n. sp.

(Figs. 1a-d)

#### Descriptions

**Female:** antennae with 34-36 flagellar segments; face punctate with hair; clypeus convex and tubercle in the middle part and lateral part not distinct; frons with longitudinal median carina; vertex punctate; occipital carina broadly interrupted medially above; scutellum striato-punctate, having a crowded white hair; metascutellum smooth and polished; propodeum closely punctate and striate, semicircularly smooth and polished, having a median longitudinal groove 0.5; metapleurum coarsely punctate; pronotum smooth and polished, with lateral part punctate and striate, dorsal punctate; mesopleurum punctate, having transverse striate at middle part, posterior part smooth, lower part of subtegular tubercle rugose, prepectal carina 0.3; subtegular tubercle hollowed at the posterior end; mesosternum coarsely punctate; first and second tergite scattered punctate; first sternit having a pair of tubercle; third tergite punctate interspaces less than diameter, punctate to the apical; fourth tergite striate and punctate; fifth tergite striate and punctate more than fourth tergite, having a white hair; sixth tergite and seventh tergite striate and hairy; wing without areolet, second recurrent vein distad from intercubitus, nervellus opposite of basal vein.

**Male:** head and thorax having the same characteristic with female, except the abdomen having a little difference as: first tergite to third tergite scattered punctate, fourth tergite to seventh tergite

smooth and polished with interspaces less than diameter at the basal part.

Color pattern:

**Female:** antennae blackish brown. Face yellow; clypeus and orbit frontal yellow; frons, vertex and mandible black, malar space dark brown. Thorax; mesoscutum black with anterior part reddish brown. Scutellum, propodeum, pronotum, mesepimeron, mesopleurum, subtegular tubercle and metapleurum yellowish, except for the apical part of scutellum, basal and cemiculation area of propodeum, from the middle part of pronotum, mesopleurum and anterior, posterior and lower part of metapleurum blackish; mesosternum blackish. Abdomen: blackish brown with yellow band; first tergite having a triangular band at the apical to the basal area; second tergite having a shape band at the subapical area; third tergite to fifth tergite having transverse band at the subapical area; sixth tergite and seventh tergite having an interrupted transverse band at the subapical area. Eighth tergite having a band at the lateral area. Legs; fore legs yellowish except for the apical part of femur, basal of tibia, fifth segment of tarsus dark brown; mid legs yellowish except for the posterior part of coxa black, dorsolateral of femur and tibia having an extended dark brown band, tarsus dark brown; hind legs yellowish except for the ventral part black, dorsolateral of femur and tibia having an extended reddish brown band, trochanterullus brown yellowish, tarsus dark brown. Wing hialin with a brown yellowish spot at the apical, stigma yellowish brown, vein dark brown.

**Male:** Head and thorax having the same colour with female except for the legs part having a differences in colour. Legs; fore legs with yellow colour at the coxa, trochanter, trochanterullus, femur, tibia and tarsus, and at the dorsolateral part of femur and tibia having a reddish brown band. Mid legs yellowish at the coxa, trochanter, trochanterullus, femur and tibia and dorsolateral part of tarsus reddish brown. Hind legs, coxa blackish, reddish brown at the trochanter, trochanterullus, femur and tibia, and tarsus dark brown.

**Length:** ♀; body: 18-20 mm; fore wing: 12-15 mm; ovipositor: 23 mm. ♂; body: 15 mm; fore wing: 12 mm.

**Holotype:** MALAYSIA: PAHANG: Hutan Kuala Lompat, 1 ♀, 6 vi 2000, Ruslan (CIS-UKM).

**Paratype:** SESABAH: nr Danum Valley, 1 ♀, Field C, WON 1, c 150 m, 20 vi-12 vii 1987, Mal trap 5, C. v. Achterberg & D. Kennedy (LEIDEN); SE SABAH: nr Danum Valley, 1 ♀, Field C, WON 0, c 150 m, 19 iv-22v 1988, Mal trap 5, C. V. Achterberg & T. Burghouts (LEIDEN); SE SABAH: nr Danum Valley, 1 ♂, Field C, WON 1, c 150 m, 2-23 viii 1987, Mal trap 5, C. v. Achterberg & D. Kennedy (LEIDEN).

**Remarks:** This species is recorded as new species in Malaysia. This species is closely related with the *Sychnostigma simile* Baltazar and *Sychnostigma binarium* Kamath & Gupta, but having a differences as indicated in the Table 1.

**Host:** Not known.

**Etymology:** The new species, *striatum* is named based on the character of the scutellum.

**Distribution in Malaysia:** **Sabah:** Danum Valley; **Pahang:** Kuala Lompat forest.

**Distribution worldwide:** no record.

**Table 1** Differences between *S. striatum* Khairiza & Idris, n. sp. with *S. binarium* Kamath & Gupta and *S. simile* Baltazar.

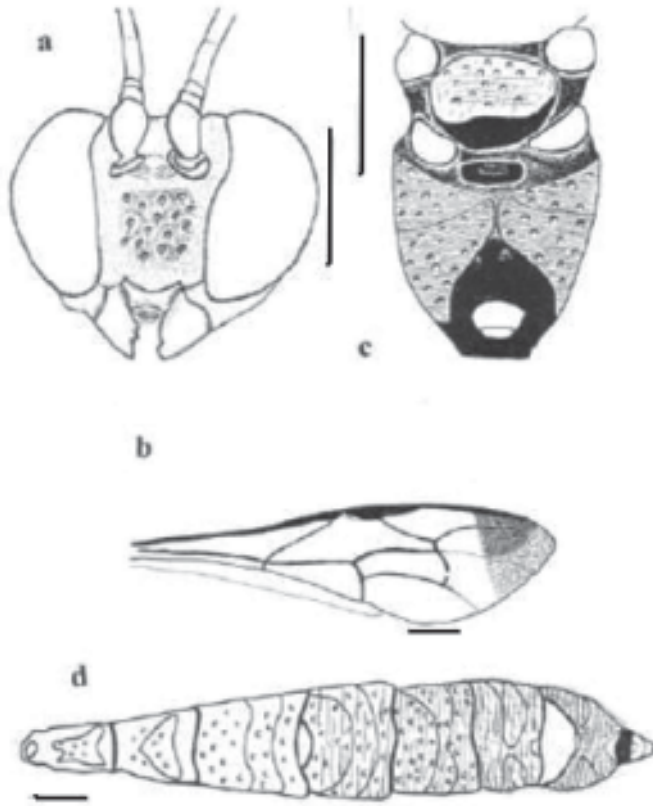
Characters	<i>S. binarium</i> Kamath & Gupta	<i>S. striatum</i> Khairiza & Idris, n. sp.	<i>S. simile</i> Baltazar
Clypeus	Truncate at the apical margin with a strong tubercle at the middle	Concave at the apical margin without tubercle	Concave at apical margin with weak tubercle at the middle
Anterior of mesoscutum	Black	Reddish brown	Reddish brown
Scutellum	Striate dan punctate, strongly transverse striate	Striate and punctate, weakly transverse striate	Rugose and punctate. Yellowish at the basal.
Mesosternum	Strongly punctate	Coarsely punctate	Rugose and punctate
Fourth tergite to sixth tergite	Strongly and coarsely punctate	Striate and punctate	Closely punctate

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**Fig 1** *Sychnostigma striatum* Khairiza & Idris, n. sp. (a) head (b) front wing (c) propodeum (d) tergite.