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**A NEW SPECIES OF *CAMPTOTYPUS*  
KRIECHBAUMER (HYMENOPTERA:  
ICHNEUMONIDAE: PIMPLINAE)  
FROM MALAYSIA**

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**ABSTRACT**

*Camptotypus pahangensis*, n. sp., a new species of Pimplinae is described from Pahang, Malaysia. It is close to *Camptotypus incisus* (Smith).

**ABSTRAK**

*Camptotypus pahangensis*, n. sp., satu spesies baru Pimplinae diperihalkan dari Pahang, Malaysia. Ianya bersaudara rapat kepada *Camptotypus incisus* (Smith).

**INTRODUCTION**

The *Camptotypus* Kriechbaumer is one of the genera of the tribe Ephialtini (Hymenoptera: Ichneumonidae: Pimplinae) (Gauld 1991, Gauld *et al.* 2002). Its monophyly was first recognized by Townes & Townes (1960), and it is easily separated from the other ephialtine genus groups by a marked reduction of the occipital

carina (Sääksjärvi *et al.* 2003). Among the Indo-Australian species, this group of species is characterized by the absence of the notauli, longer upper tooth of mandible, abdominal tergites with median longitudinal carina interrupted at places, and the first and the second (usually) abdominal tergites with a conspicuous flap-like median fold. This genus also easy to be distinguished with other genera in tribe Ephialtini, by its size and coloration. *Camptotypus* are relatively big in size which has yellow color and black or brown wings (Gupta & Tikar 1976). Because of these characters, *Camptotypus* species are conspicuous ichneumonids that can be observed flying in glaring in rain forest (Gauld 1991). In tropical rain forest *Camptotypus* has a great potential as a biological control agent. The members of this group parasitize hosts hidden within plant tissue or cocoons, principally the Lepidoptera. Few host records exist for the genus. One Taiwan species have been reared from *Hyblaea* sp. (Lepidoptera: Hyblaeidae) (Sonan 1930 *in* Gauld 1991), whilst one African species of subgenus *Hemipimpla* parasitizes an *Epicampoptera* (Lepidoptera: Drepanidae) (LePelley 1954 *in* Gauld 1991).

The genus *Camptotypus* which comprises 23 species, is distributed in tropics of the Oriental area. Recent study indicates that *Camptotypus* in Oriental had distribution in Indo-Malaya, Solomon Islands and Australia, and of these only two species were recorded in Malaysia (Gupta & Tikar 1976). The objective of this study is to describe and illustrate the new species of *Camptotypus* from Malaysia.

## MATERIALS AND METHODS

Specimens examined were obtained from existing specimens collections in the Centre for Insect Systematics and that of collected from National Park and Forest Reserve in Malaysia. Samplings were done by Malaise trapping, hand netting, light trapping, and yellow pan trapping. Morphological terminology used in this study largely refers to Gupta and Tikar (1976), Townes (1969), and the original description of species.

TAXONOMY

Key to *Camptotypus pahangensis* Alia & Idris, new species from Malaysia.

- 1 Median dorsal carinae of first abdominal tergite complete and distinctly strong up to the apex; propodeum strongly punctate dorsolaterally ..... 2
- Median dorsal carinae of first abdominal tergite strong up to the median hump, then weaker and merging with the sides of the raised median area of postpetiole; propodeum with only a few scattered minute punctures ..... 3
- 2(1) Dorsal humps on postpetiole of first tergite had an angled about 114°-120°, with strongly rugosopunctate (fig 5); propodeum with moderately and sparsely punctate (fig. 2) ..... ***pahangensis* Alia & Idris, n.sp**
- Dorsal humps on postpetiole of first tergite had an angled more than 120°, with rugose on sides (fig 8); propodeum with distinctly punctate dorsolaterally (fig. 7) ..... ***incisus* (Smith)**
- 3(1) Notauli shallow; upper tooth of mandible longer than the lower; first and second sternites with flap like median fold; propodeal spiracles elongate oval ..... ***rugosus* (De Geer)**
- Notauli distinct, deeply impressed; subequal mandibular teeth; propodeal spiracles small and roundish; first and second sternites without flap like median fold; tergite apical 0.2 of tergites punctate and the apicolateral corners of tergites produced into spines (especially in the female) ..... ***borneensis* Gupta dan Tikar**

*Camptotypus pahangensis* Alia & Idris, n. sp.

(Figs. 1-6)

**Female:**

## Head

Face (Fig 1) with very minute setiferous punctures on side; clypeus broadly emarginated apically, bilobed, minutely and sparsely punctate; malar space shiny, 0.6-0.8x the basal width of mandible, with subocular sulcus; eyes weakly emarginated above antennal sockets; frons polished, weakly depressed above antennal sockets, more than wider than long, shallow; frontal orbit smooth; labial palp with three segmen; maxillary palp with four segmen; mandible moderately large, but evenly tapered so apex is  $< 0.5$  base; upper tooth longer than lower and weakly twisted 20-40°; antennae 35-37 segmen; pedicel conspicuously smaller than scape; occipital notch absent; ocelli raised above the common platform; vertex smooth and shiny, narrow, sloping behind ocelli; occipital carina absent above.

## Thorax

Pronotum smooth, shiny and hairy, collar shiny; mesoscutum shiny with minute hairs; notauli very shallow only a half of mesoscutum, not too impressed; mesopleurum with minute scattered punctures and setiferous; metapleurum smooth and shiny with minute punctures posteriorly; propodeum (Fig 2) shiny with scattered punctures dorsolaterally, spiracle elongate, somewhat kidney-shaped (0.02 x 0.09 mm); hind femur 5x as long as wide, its areolet sessile or subpetiolate, almost quadrate with longer sides more or less parallel; first intercubitus 0.5 – 0.6x the second; nervellus broken at its lower 0.3 to 0.4.

## Wings

Arolet present (Fig 3); moderately in size; sessile or subpetiolate, receiving second recurrent vein slightly basad of its second intercubitus vein ; nervulus opposite basal vein; discoidela present; nervelus broken at its lower the middle (fig 4).

**Abdomen**

First tergite (fig 5) with very high hump, apex of pyramidal elevation as seen in profile forming an angle of 114-120°, as seen posteriorly with a median depression, its median carinae getting weaker apically, its dorsolateral carina complete, sometimes weak basally; postpetiole rugosopunctate, first to fourth sternites with median longitudinal fold-like flaps; abdominal tergites strongly punctate; second tergites 1.2 – 1.5x as wide as long; punctures on third and fourth tergites almost of the same intensity, larger, sparsely and shallowly punctate subapically, their apicolateral angles rounded; sixth tergite moderately punctate, third-sixth tergite with tubercle lateromedially; seventh tergite very scattered punctures.

**Ovipositor**

Ovipositor sheath densely hairy; ovipositor long, longer than abdomen and nearly as long as fore wing; lower valve apically very slightly enclosing the upper, teeth with sharp pointed end (fig 6).

Colour pattern: Antennae, wings, hind femur, hind coxa, and ovipositor sheath black, stigma blackish brown. Head, thorax, fore and middle legs reddish-yellow; hind femur reddish laterally, hind tibia and tarsi brownish, middle leg reddish brown/infuscate partly black, fore leg reddish yellow, propodeum black apico-posteriorly, reddish anteriorly.

**Male:** No specimens examined

**Length :** ♀, 12-17 mm; fore wing 10-12 mm; ovipositor 9-13 mm

**Holotype:** 1 ♀, Pahang, Kuala Lompat, 13 vii 1999, Ruslan, A. Nizar. Specimen deposited at CIS-UKM

**Paratype:** PAHANG : H.S Kuala, 1 ♀, 28 viii 1998, Hasnah, Azura & Ruslan; H.S.Kuala Lompat, 1 ♀, 20 vi 2000, Ruslan & A. Nizar; H.S. Kuala Lompat, 1 ♀, 5 iii 2001, Ruslan; H.S. Kuala

Lompat, 1 ♀, 28 viii 1998, Hasnah, Azura & Ruslan. JOHOR : Endau Rompin Peta, 14-20 viii 2004, Izfa, Roslan, Fauzi.

**Etymology :** The species name ‘pahangensis’ is derived from the word ‘Pahang’ the state of place which it was collected.

**Remarks :** *Camptotypus pahangensis* is close to *Camptotypus rugosus* and *Camptotypus incisus* (Figs. 7-8) but different in several characters such as apex of pyramidal elevation on postpetiole, surface of postpetiole, propodeum, and second tergites. The differences provided in Table 1.

**Table 1** Differences in characters of *C. rugosus*, *C. pahangensis* Alia & Idris sp. nov. and *C. incisus*.

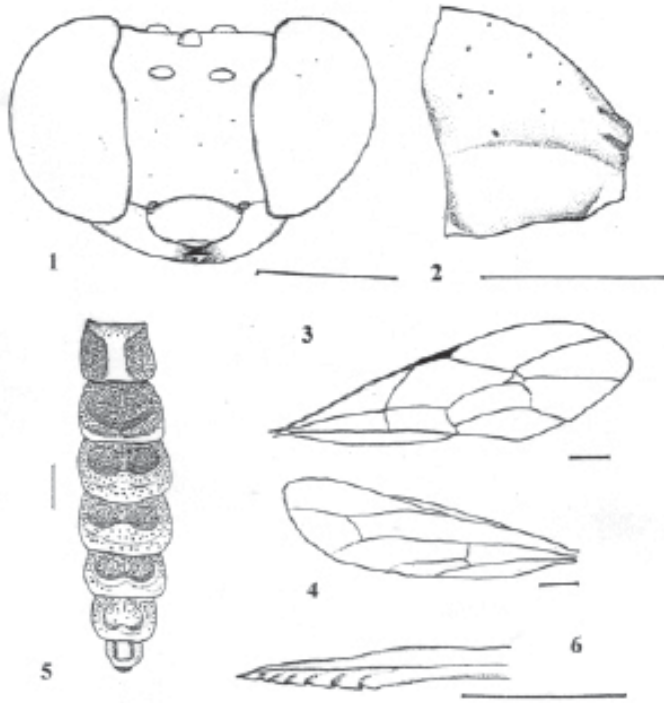
Characters	<i>C. rugosus</i> (De Geer)	<i>C. pahangensis</i> Alia & Idris sp. nov	<i>C. incisus</i> (Smith)
Propodeum	shiny, hairy laterally with very sparse setiferous punctures dorsolaterally	shiny with scattered punctures dorsolaterally	distinctly punctate dorsolaterally
Angle of pyramidal elevation on postpetiole	at an angle 95°	at an angle 114°-120°	at an angle >120°
Postpetiole	smooth and shiny	rugosopunctate	rugose laterally
Second tergite	rugosopunctate	strongly and closely punctate	closely punctate

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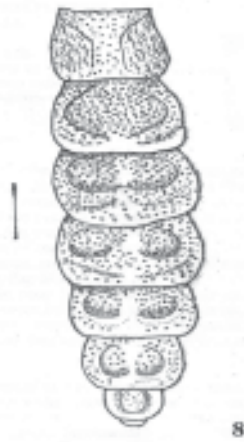
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**Figs. 1-6** *Camptotypus pahangensis*, Alia & Idris sp. nov. 1, head; 2, lateral view propodeum; 3, forewing; 4, hindwing; 5, dorsal view abdominal tergite; 6, lateral view ovipositor (scale: 1 mm).





**Figs. 7-8** *Camptotypus incisus* (Smith). 7, lateral view propodeum; 8, dorsal view abdominal tergite (scale: 1 mm).