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**CORRECTIONS ON THE NOTES OF THE GROUP-  
GENUS *THERONIA* (HYMENOPTERA:  
ICHNEUMONIDAE: PIMPLINAE) OF MALAYSIA**

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**ABSTRACT**

A preliminary taxonomic study of the group-genus of *Theronia* (Hymenoptera: Ichneumonidae: Pimplinae) from Malaysia was conducted in 2008 and a total of five subgenera and 19 species were identified then. However, after a thorough study was done in 2009, we found that there are some misidentifications of species. Five species were misidentified and corrected giving a total of five genera and 13 species instead of 19 species. Hence, only two new records for Malaysia are recognized instead of eight as written in *Serangga* 13(1-2): 19-37.

**Key words:** Malaysia, Hymenoptera, Ichneumonidae, Pimplinae, *Theronia*

**ABSTRAK**

Kajian awal taksonomi ke atas kumpulan-genus *Theronia* (Hymenoptera: Ichneumonidae: Pimplinae) di Malaysia telah dijalankan pada 2008 dengan lima subgenera dan 19 spesies

direkodkan. Walaubagaimanapun, setelah kajian yang lebih mendalam dilakukan pada 2009, kami dapati beberapa kesilapan dalam pengecaman spesies. Lima spesies yang tersilap pengecaman telah dibetulkan memberikan jumlah keseluruhan spesies yang ditemui di Malaysia adalah 13 spesies sahaja dan bukannya 19 spesies. Oleh yang demikian, hanya terdapat dua spesies rekod baru dan bukannya lapan spesies rekod baru seperti yang telah diterbitkan pada Serangga 13(1-2): 19-37.

**Kata kunci:** Malaysia, Hymenoptera, Ichneumonidae, Pimplinae, *Theronia*

## INTRODUCTION

The genus *Theronia* was described by Holmgren in 1859 with *Pimpla flavicans* Fabricius as the only included species. Kriechbaumer in 1892 described *Pseudocoenites moravicus* Kriechbaumer and include it in this genus. Krieger in 1898 described *Neotheronia*, including the South American species which have a strong transverse carina across the propodeum, but otherwise similar to *Theronia*. Later in 1905 and 1906, he revised the species in *Neotheronia* and *Theronia* respectively and described many new species. In 1900, Ashmead described another new genus, *Epimecoideus*, for South American species having a transverse carina across the propodeum. He placed this genus in the tribe Lissonotini because of the polished abdomen and mentioned *Neotheronia* under the tribe Pimplini. Ashmead, perhaps did not know the genus *Neotheronia* and therefore failed to recognize that *Epimecoideus* was the same as *Neotheronia*. In 1903 and 1905, Cameron described *Poecilopimpla* and *Erythrotheronia* for the Oriental species having a banded abdomen with black and yellow markings. These two proposed genera differed structurally from typical *Theronia* only in the propodeal carinae. Morley in 1913 described a genus called *Orientotheronia* and was differentiated from *Theronia* by being black marked and having the underside of the femur sulcate. Later in the same year he synonymized both genus. However, Townes

in 1940, 1944 and 1960 synonymized these various genera with *Theronia* (Gupta 1962).

Gupta in 1962 mentioned all the generic names above belong to the subgenus *Theronia* and described four new subgenera which are *Parema*, *Nomosphecia*, *Augerella* and *Epitheronia*. Gupta (1962) studied the taxonomy, zoogeography and evolution of Indo-Australian *Theronia*. From his studies, he described 33 new species, thus bringing the total number of Indo-Australian species of *Theronia* to 57. Gupta has placed the genus *Theronia* under the tribe Theroniini and subfamily Ephialtini. However, in 1969, Townes and Gupta (1987) change the hierarchy of the subgenera to genera and place them all in a genus group called *Theronia* genus-group. Gauld (1991) has studied this genus again and placed this genus under the tribe Pimplinii.

## MATERIALS AND METHODS

All specimens examined were from the collection of The Centre of Insect Systematics, UKM (CIS) and field samplings from various forest reserved areas and national parks throughout Malaysia. An identification of the species was based on key and descriptions by Gupta (1962) and type specimens loaned from the British Museum (Natural History), Cromwell Road, London, UK.

## RESULTS AND DISCUSSION

A total of 13 species from five genera namely the *Theronia*, *Parema*, *Nomosphecia*, *Augerella* and *Epitheronia* was recorded. This is a correction from the previous publication in Serangga 13(1-2): 19-37. Five species was misidentified making it only 13 species found in Malaysia (Table 1) instead of 19 species and only two newly recorded species instead of eight. The species that were misidentified are *Theronia maculosa*, *Theronia arrosor*, *Theronia clathrata flavoneata*, *Theronia frontella fasciata* and *Theronia punctata incompleta*. Table 2 shows the corrected species.

**Table 1.** *Theronia* species recorded in Malaysia

<b>Genus</b>	<b>Spesies</b>	<b>Locality</b>
<i>Theronia</i>	<i>Theronia zebra</i> <i>zebra</i> Vollenhoven	<b>Pahang:</b> Hutan Kuala Lompat; <b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Selangor:</b> Hutan Simpan Bangi.
	<i>Theronia pseudozebra</i> <i>pseudozebra</i> Gupta	<b>Pahang:</b> Hutan Simpan Kuala Lompat, Taman Negara Merapoh; <b>Sabah:</b> Lembah Danum; <b>Negeri Sembilan;</b> Hutan Simpan Pasoh; <b>Selangor:</b> Hutan Simpan Bangi; <b>Perak:</b> Hutan Simpan Sungkai, Hutan Simpan Belum; <b>Johor:</b> Gunung Ledang; <b>Sarawak:</b> Stesen MARDI Sessang.
	<i>Theronia lucida</i> Cameron	<b>Selangor:</b> Hutan Simpan Kuala Langat; <b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Pahang:</b> Hutan Simpan Kuala Lompat, Taman Negara Merapoh; <b>Perak:</b> Hutan Simpan Belum.
	<i>Theronia nigrivertex</i> Gupta	<b>Johor:</b> Taman Negara Endau-Rompin Peta; <b>Kelantan:</b> Gunung Stong; <b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Perak:</b> Hutan Simpan Belum; <b>Pahang:</b> Hutan Kuala Lompat.
	<i>Theronia clathrata</i> <i>malayensis</i> Gupta	<b>Pahang:</b> Kuala Lompat; Taman Negara Merapoh; <b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Selangor:</b> Hutan UKM Bangi; <b>Perak:</b> Hutan Simpan Sungkai

<i>Parema</i>	<i>Parema nigrobalteata callida</i> Tosquinet	<b>Pahang:</b> Hutan Simpan Kuala Lompat, Taman Negara Merapoh; <b>Kelantan:</b> Gunung Stong; <b>Selangor:</b> Hutan Simpan Air Hitam UPM, Hutan Simpan Bangi, Hutan Simpan Kuala Langat, Banting; <b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Perak:</b> Hutan Simpan Belum; <b>Sabah:</b> Jalan Nukakatan; <b>Sarawak:</b> Betong; <b>Johor:</b> Gunung Ledang.
<i>Nomosphaecia</i>	<i>Nomosphaecia zebroides zebroides</i> Krieger	<b>Pahang:</b> Hutan Simpan Kuala Lompat, Taman Negara Merapoh; <b>Kelantan:</b> Gunung Stong; <b>Selangor:</b> Hutan Simpan Air Hitam UPM, Hutan Simpan Bangi, Hutan Simpan Kuala Langat, Banting; <b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Perak:</b> Hutan Simpan Belum; <b>Sabah:</b> Jalan Nukakatan; <b>Sarawak:</b> Betong; <b>Johor:</b> Gunung Ledang.
	<i>Nomosphaecia pyramida pyramida</i> Gupta	<b>Perak:</b> Hutan Simpan Belum, Hutan Simpan Sungkai.
	<i>Nomosphaecia scutellata scutellata</i> Gupta	<b>Pahang:</b> Hutan Kuala Lompat; <b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Sarawak:</b> Betong.
	<i>Nomosphaecia insolens ambona</i> Gupta*	<b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Pahang:</b> Hutan Kuala Lompat.
<i>Augerella</i>	<i>Augerella orientalis borneensis</i> Gupta	<b>Perak:</b> Hutan Simpan Sungkai; <b>Pahang:</b> Hutan Kuala Lompat.

	<i>Augerella inserta</i> Gupta*	<b>Negeri Sembilan:</b> Hutan Simpan Pasoh.
<i>Epitheronia</i>	<i>Epitheronia</i> <i>tomeus</i> Gupta	<b>Negeri Sembilan:</b> Hutan Simpan Pasoh; <b>Sabah:</b> Lembah Danum; <b>Perak:</b> Hutan Simpan Belum; <b>Kelantan:</b> Gunung Stong; <b>Pahang:</b> Hutan Simpan Kuala Lompat.

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\*newly recorded species in Malaysia

**Table 2.** Correction of species from the group-genus *Theronia* of Malaysia

Species Misidentified	Actual species name
<i>Theronia maculosa</i> Krieger	<i>Theronia lucida</i> Cameron
<i>Theronia arrosor</i> Tosquinet	<i>Parema nigrobalteata callida</i> Tosquinet
<i>Theronia clathrata flavoneata</i> Cameron	<i>Theronia clathrata malayensis</i> Gupta
<i>Theronia frontella fasciata</i> Gupta	<i>Theronia clathrata malayensis</i> Gupta
<i>Theronia punctata incompleta</i> Gupta	<i>Parema nigrobalteata callida</i> Tosquinet

## CONCLUSION

We regret for the misidentification on our previous findings. There were few characters in the specimens that we then considered as variation among species because it is a male species. Male species can be easily misidentified, as *Theronia* genus-group's most distinct difference amongst genera is its ovipositor that only appears in female species, hence, the misidentification. However, more research is needed especially through molecular

phylogenetic analysis that could gather more information on *Theronia* group-genus in Malaysia.

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