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**REDESCRIPTION OF *PALEOSEPHARIA AZLANI*
(MOHAMEDSAID, 1998) (COLEOPTERA:
CHRYSOMELIDAE: GALERUCINAE)**

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ABSTRACT

Monolepta azlani Mohamedsaid 1998 is redescribed as a new combination to be *Paleosepharia azlani* (Mohamedsaid, 1998). A total of 125 specimens were examined. based on morphological and genital characters. Illustration and redescription including genital characters have been presented.

Keywords: Galerucinae, *Paleosepharia*, *Monolepta*, revision, redescription, new combination.

ABSTRAK

Monolepta azlani Mohamedsaid 1998 telah diperihalkan semula sebagai kombinasi baru menjadi *Paleosepharia azlani* (Mohamedsaid, 1998). Sejumlah 125 spesimen telah dikaji berdasarkan

ciri morfologi dan genitalia. Ilustrasi dan perihalan semula termasuk cirigenitalia turut disediakan.

Kata kunci: Galerucinae, *Paleosepharia*, *Monolepta*, penyemakan, perihalan kembali, kombinasi baru.

INTRODUCTION

The section '*Monoleptites*' is a subgroup of the Galerucinae with elongated basi-metatarsus and without clearly depression on the pronotum. This group includes a few genera namely *Calomicrus*, *Luperodes*, *Metroidea*, *Priapina*, *Arcastes*, *Neolepta*, *Nadrana*, *Candezea*, *Desbordesus*, *Trichosepharia*, *Paleosepharia* and *Monolepta*. Unfortunately, the taxonomic and systematic status of most of its species poorly known and many of the genera of the group still need to be revised (Wilcox, 1973). Most of the genera badly need a modern taxonomic revision since many species are known from only one or several specimens and localities (Bezdek, 2009). Previous authors only depended on external morphology and coloration pattern, but the coloration patterns are highly variable within species (Wagner, 2003).

Species delimitation by using genital characters was successfully shown by Wagner (1999, 2003) followed by Hazmi (2010 a,b,c). Recently, a comprehensive study on *Monolepta* Chevrolat was done by Hazmi (2012) and *Monolepta azlani* Mohamedsaid, 1998 was excluded from genus *Monolepta*. *Monolepta azlani* was described by Mohamedsaid in 1998 from Malaysia. This study aims to redescribe *Monolepta azlani* Mohamedsaid including genital characters of both sexes.

MATERIALS AND METHODS

A total of 125 specimens were examined from existing collections in the Centre for Insect Systematics, Universiti Kebangsaan Malaysia, Bangi (CIS-UKM). We also loaned specimens from a few repositories with abbreviations as follows: The Natural History Museum, London

(BMNH); Collection of Jan Bezdek (CJB); Nationaal Natuurhistorisch Museum, (NNML); and Swedish Museum of Natural History (NHRS).

External characters were measured by absolute and relative measurement. Absolute measurements are: total length from the clypeus to apex of the elytron, length of the elytron, maximal width of both elytra (usually in the middle or posterior third of the elytra), and width of the pronotum. Relative measurements are: length to width of the pronotum, maximal width of both elytra to length of the elytron, length of the second to third antennomeres, and length of the third to fourth antennomeres.

These include illustrations of the coloration (dorsal view), including the left antenna, where black coloration is indicated by black, yellow coloration by white, red coloration by light grey, and brown by dark grey shading. The antennomeres of males, dorsal, ventral and lateral view of the median lobe including the endophallic structures are figured.

All of the terminology used for this study were employed by Wagner (2004) and Hazmi (2012).

REDESCRIPTION

Paleosepharia azlani (Mohamedsaid, 1998)(Figs 1-6)
 =*Monolepta azlani* Mohamedsaid, 1998, *Serangga*, 3 (2): (Perak; UKM); 2000, *Serangga*, 5(2): 351 (UKM checklist)

Total length. 4.30-6.32 mm (mean: 5.27 mm, n= 10)

Head. Impunctate, entirely reddish brown. Labrum and mandible brownish. Antennae slender, extending to the middle of the elytra, with coloration on segments 1-3 brownish, 4-7 black, 8-11 yellowish. First antennomere club shaped, segment 2 shortest; twice as long as broad; segment 3 twice as long as 2; segment 4-7 each subequal in length, shorter than 3; segments 8-10 each subequal in length, shorter than 7, segment 11 slightly longer than 10, pointed. ratio length of second to third antennomere: 0.51–0.68 (mean: 0.61); ratio length of third to fourth antennomere: 0.56–0.76 (mean: 0.67).

Thorax. Pronotum finely punctuated, transverse, Pronotal width: 1.23–1.65mm (mean: 1.46), ratio length to width: 0.64–0.72 (mean: 0.66). Scutellum triangular, as broad as long. Scutellum, meso- and metathorax reddish brown. Ventral surfaces densely covered with golden hairs. Procoxal cavities closed posteriorly. Elytron black with two yellow spots in basal half. Elytra length 3.08–4.53 mm (mean: 3.88 mm), maximal width of both elytra together 2.10–2.90 mm (mean: 2.80 mm), ratio of maximal width of both elytra together to length of elytra 0.73–0.77 (mean: 0.76). Legs entirely black, only tarsi reddish brown.

Abdomen. Reddish brown.

Male genitalia.

Median lobe parallel-sided, and becomes narrow towards apex. Tectum long, but not reaching the apex of median lobe, broad at basal and becomes narrow towards apex with deep incision. Two types of spiculae visibly clear (lateral and median), while ventral spiculae weakly sclerotized. Median spiculae long and slender filamentous-like. The characteristic of median lobe similar with genus type *P. truncata* that have deep incision on the tectum as important genital characters of genus *Paleosepharia* (Alia Rizki *et. al.* 2014) (unpublished data)

Female genitalia. Spermatheca with big and rounded nodulus, cornu short and slightly curved, and middle part short.

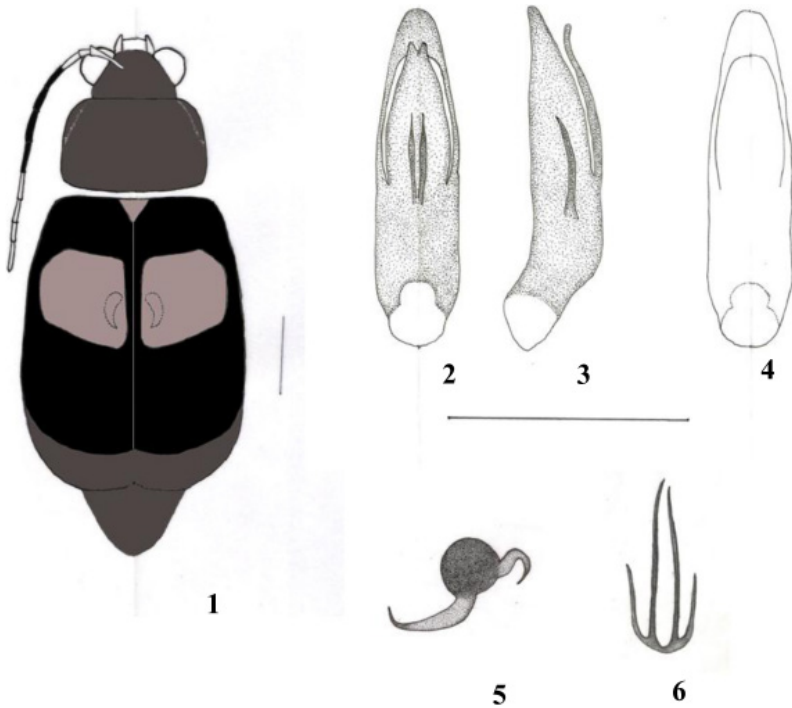
Distribution. Malay Peninsula

PARATYPE. MALAYSIA, **Perak:** Temengor Ekspedisi MNS-Belum, 5°72'N, 101°E, 15-20 xi. 1993, Salleh, Ismail, Sham, 1 male, 6 females (CIS-UKM); 29.xi-5.xii 1993; Ismail, Yusof, Bidi, Saiful, 1 male, 2 females (CIS-UKM); Banding, 5°55'N, 101°33'E, 2.xi.1991, Ismail, Ruslan, J'din, 1 male (CIS-UKM); Pangkalan Hulu, 5°72'N, 101°E, 3.xi. 1991, Ismail, Ruslan, J'din, 1 female (CIS-UKM); 20.vii.1994, Salleh, Ismail, Ruslan, 1 male, 1 female (CIS-UKM).

Specimens examined.

MALAYSIA: Negeri Sembilan: Pasoh, Hutan FRIM, 2°56'N, 102°18'E 23-25.x.1989, Ruslan, Razali, Soed, 1 male (CIS-UKM); 29-31.vii.1994, Ismail, Ruslan, Saiful, 4 females (CIS-UKM); 18-19.iii.1995, Ismail & Ruslan, 2 females (CIS-UKM); 20-22.vi.1995, Ismail & Ruslan, 11 males, 9 females (CIS-UKM); 16-18.viii.1995, Ismail & Ruslan, 1 female (CIS-UKM); 4-6.vi.1996, Ismail & Muzammil, 2 females, 1 male (CIS-UKM); **Perak:** Royal Belum, 5°3'N, 101°1'E, 8-11.ix.2007 BH. Izfa, 7 males, 12 females (CIS-UKM); Perak, 4°75'N, 101°00' E, Doherty, 2 males, 3 (BMNH (Fry Coll.)); **Pahang:** Cameron Highlands, Tanah Rata, 1600m, 4°50'N, 101°50'E, 27.ii.2011, J. Horak 1 female (BEZDEK); T. Bera, 3°08'N, 102°63'E, 1-3.xi.1990, Ruslan, 1 male (CIS-UKM); 4-8.v.1993, Sham, Razali, Saiful, 1 female (CIS-UKM); Kuala Lompat, 3°71'N, 102°29'E 18-20.viii.1990, Zaidi & Ruslan, 1 male (CIS-UKM); 27.viii.1990, Fog Malathion, Mahbob, 1 male (CIS-UKM); Ekspedisi Endau Rompin, 2°44'N, 103°27'E, 25-27.vii.1989, Salleh, Ismail & Nor, 2 females (CIS-UKM); 30 km NE Raub, Lata Lembik, 3°56'N, 101°38'E, 200-400m, 22.iv-15.v.2002, E.Jendek & O. Sausa, 1 female (BEZDEK); **Terengganu:** Taman Rekreasi Sekayu, 4°96'N, 102°95'E, 23.ix.1991, Ismail, Yusof, J'din, 1 female (CIS-UKM); 5.viii.1991, Zaidi & S. Abin, 1 female (CIS-UKM); Setiu, Lata Tembakah, 5°41'N, 102°42'E 27.v.1994, Ismail & Zabidi, 1 male (CIS-UKM); **Kelantan:** Jeram Linang, 5°75'N, 102°33'E 20.vi.1992, Ismail, Yusof, Sham, Razali, 1 male (CIS-UKM); **Selangor:** MARDI, Jalan Kebun, 3°03'N, 101°45'E 28.ix.1989, Ismail & Ruslan, 1 male (CIS-UKM); Hutan Kanching, 3°18'N, 101°37'E, 10.i.1993, Soon, 1 male (CIS-UKM); **Sabah:** Bettotan, N.R. Sandakan, 5°83'N, 118°12'E, 29.vii.1927, FMS, 1 male (BMNH) (ex FMS museum); **Sarawak:** Mt. Matang, 3°04'N, 113°78' E, xii.1913, G.E Bryant, 1 female (BMNH (G. Bryant Coll.)); **INDONESIA: Atjeh,** Kota Tjane, Mjoberg, 1 male (NHRS); **N.E. Sumatra,** Deli, Kuala Simpang Lowland forest 4°27'N, 98°06'E, viii. 1953, A. Sollsart, 2 females (NNML); ix. 1953, A. Sollsart, 2 males, 1 females (NNML); xii. 1953, A. Sollsart, 2 males, 2 females (NNML); **N.E. Sumatra,** Deli, Seleleh, Kuala Limpang, Medang Ara Estate Lowland forest 3°34'N, 98°40'E; i. 1954, A. Sollsart, 7 males, 4 female (NNML); iii. 1954, A.

Sollarsart, 1 male (NNML); iv. 1953, A. Sollarsart, 2 males, 2 females (NNML); v. 1954, A. Sollarsart, 1 female (NNML); **N.E. Sumatra**, Deli, Bukit Pandjang Est, Langsa Lowlandforest 04°31'N, 97°58'E; xi. 1954, A. Sollarsart, 4 males, 2 females (NNML); N. Sumatra, Bivouac One, Mt. Bandahara, ca 810 m 3° 43'N, 97° 41' E, 25.vi-5.vii 1972, J. Krikken, 1 male 1 female (NNML); N. Sumatra, Bivouac Two, Mt. Bandahara, ca 1430 m 3° 44'N, 97° 43' E, 25.vi-5.vii 1972, J. Krikken, 1 male (NNML). **East Borneo**, Pengaron 3°17' N, 115°5' E, Doherty, male (BMNH (Fry Coll.)). **THAILAND: Siam Renong**, 9° 58' N, 98° 38' E, Doherty, 2 females (BMNH (Fry Coll.))



Figs. 1-6. *Paleosepharia azlani* (Mohamedsaid, 1998) – 1. habitus; 2. median lobe (dorsal); 3. median lobe (lateral); 4. median lobe (ventral); 5. spermatheca; 6. modified VIII sternite

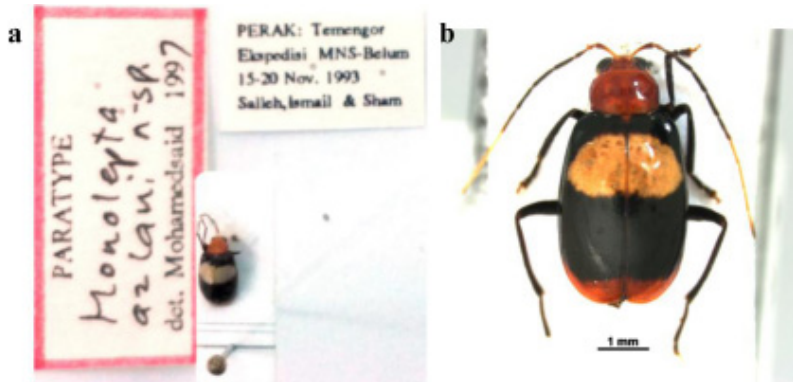


Fig. 7. Photographs of the paratype of *Paleosepharia azlani* (Mohamedsaid), 1998; a. with labels, b. detail

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