

Far Eastern Entomologist

Дальневосточный энтомолог

Journal published by Far East Branch
of the Russian Entomological Society
and Laboratory of Entomology, Federal
Scientific Center of the East Asia
Terrestrial Biodiversity, Vladivostok

Number 476: 1-7

ISSN 1026-051X (print edition)
ISSN 2713-2196 (online edition)

June 2023

<https://doi.org/10.25221/fee.476.1>

<https://elibrary.ru/aumkha>

<https://zoobank.org/References/CBBBC126-ED07-46FE-9090-A4DB53C90BBF>

DISCOVERY OF THE GENUS *ODONTOMUTILLA* ASHMEAD, 1899 (HYMENOPTERA: MUTILLIDAE) IN MYANMAR WITH DESCRIPTION OF A NEW SPECIES

A. S. Lelej

*Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far East Branch of
the Russian Academy of Sciences, Vladivostok, 690022, Russia. E-mail:
lelej@biosoil.ru*

Summary. *Odontomutilla listopadovi* sp. n. is described and illustrated from Myanmar (Mandalay Region). A female of new species (male unknown) strikingly differs from congeners by having two golden spots located transversely in the basal half of second metasomal tergum (lacking such spots or having 1(3) spots in other species of the genus). The genus *Odontomutilla* Ashmead, 1899 is newly recorded from Myanmar. Three wrongly recorded by me from Myanmar species: *Krombeinidia margheritae* (Hammer, 1962), *Trogaspidia fimbriata* Hammer, 1962, and *Odontomutilla familiaris trimaculata* Hammer, 1962, described K. Hammer from Margherita (India: Assam), are excluded from Myanmar fauna.

Key words: Odontomutillinae, velvet ants, taxonomy, new species, Oriental Region.

А. С. Лелей. Нахождение рода *Odontomutilla* Ashmead 1899 (Hymenoptera: Mutillidae) в Мьянме с описанием нового вида // Дальневосточный энтомолог. 2023. N 476. С. 1-7.

Резюме. Из Мьянмы (провинция Мандалай) описан *Odontomutilla listopadovi* sp. n. Самка нового вида (самец неизвестен) значительно отличается от других

видов рода наличием двух пятен из золотистых щетинок, расположенных поперечно в базальной половине второго метасомального тергума (такие пятна отсутствуют или имеются в числе 1(3) у других видов рода). Род *Odontomutilla* Ashmead, 1899 впервые указывается для Мьянмы. Ошибочно указанные мною из Мьянмы три вида: *Krombeinidia margheritae* (Hammer, 1962), *Trogaspidia fimbriata* Hammer, 1962 и *Odontomutilla familiaris trimaculata* Hammer, 1962, описанные К. Хаммером из Margherita (Индия: Ассам), исключены из фауны Мьянмы.

INTRODUCTION

The first data about Mutillidae of Myanmar belong to G. Gribodo (1884) – two species and P. Magretti (1892) – 34 species (26 of them are new). They studied the material collected by Mr. Leonardo Fea during his journey (1885–1889) in British Burma [currently Myanmar] and neighboring regions of the Catcin, Carin, Pegu, Tenasserim (the map with these sites see: Bolotov *et al.*, 2022). Currently mutillid fauna of Myanmar numbers 46 species in 19 genera (Lelej, 2005) without *Krombeinidia margheritae* (Hammer, 1962), *Trogaspidia fimbriata* Hammer, 1962, and *Odontomutilla familiaris trimaculata* Hammer, 1962, described K. Hammer (1962) from Margherita (India: Assam) and wrongly recorded from Myanmar (Lelej, 2005). The tribe Odontomutillini Lelej, 1983 recently was resurrected and updated to subfamily level (Waldren *et al.*, 2023). According to the previous classification of Brothers and Lelej (2017), the genus *Odontomutilla* belongs to the subtribe Ephutina Ashmead (=Odontomutillini) of the tribe Mutillini, along with *Yamanetilla* Lelej, 1996, *Cockerellidia* Lelej et Krombein, 1999 and *Karlidia* Lelej in Lelej & Krombein, 1999 which also occur in the Oriental region. Before the current paper subfamily Odontomutillinae was represented in Myanmar by *Yamanetilla* with two species: male of *Y. cariana* (Magretti, 1892) and female of *Y. cassiope* (Smith, 1857). In this paper the genus *Odontomutilla* is newly recorded from this country with the description of an unusual new species. The pale metasomal design of this species resembles that many Trogaspidiini species of the subfamily Mutillinae. Holotype of a new species is deposited in the Federal Scientific Center of the East Asia Terrestrial Biodiversity Vladivostok, Russia (IBSS).

The following abbreviations are used in the text: S1, S2, S3, etc., to denote the first, second, third, etc. metasomal sterna; T1, T2, T3, etc., to denote the first, second, third, etc. metasomal terga and F1, F2, F3, etc., denote the antennal flagellomeres.

TAXONOMY

Genus *Odontomutilla* Ashmead, 1899

Odontomutilla Ashmead, 1899: 55, 58, ♂, ♀.

Peringueya Ashmead, 1903: 327, 329, ♂, ♀ (type species *Mutilla erinnys* Péringuey, 1898, ♂, by original designation). Junior subjective synonym of *Odontomutilla* Ashmead, 1899, according to Bischoff, 1920: 245.

Radoszkowskius Ashmead, 1903: 327, 328, ♂, ♀ (type species *Mutilla simplicifascia* Sichel & Radoszkowski, 1869, ♀, ♂; lectotype ♀, designated by Lelej, 1996: 92) by original designation. Junior subjective synonym of *Odontomutilla* Ashmead, 1899, according to André, 1904: 36 and confirmed by Lelej & Brothers, 2008: 52.

Type species: *Odontomutilla abbottii* Ashmead, 1899 by original designation (= *Mutilla saussurei* Sichel et Radoszkowski, 1869, according to André 1901: 329), Afrotropical Region.

DIAGNOSIS. FEMALE. Mesonotum laterally expanded to tooth or tubercle. T1 broadly disciform. T2 with large deep anterolateral pubescent fovea. MALE. Mesoscutellum bidentate posteriorly. Propodeum with posterolateral corners angulate or dentate. T1 broadly disciform. Both sexes of *Odontomutilla* are larger-bodied (8–18 mm) than the structurally similar *Yamanetilla* Lelej, 1996 (6–9 mm).

SPECIES INCLUDED AND DISTRIBUTION. This genus is composed of 103 valid species and 20 valid subspecies distributed mainly in the Afrotropical and Oriental Regions, with a few species in the Australian and Palearctic Regions (Pagliano *et al.*, 2020); of these, 30 species and two subspecies were reported from the Oriental Region. The genus *Odontomutilla* was unknown from Myanmar and I describe an unusual species, resembles *Trogaspidiini*, from this country.

***Odontomutilla listopadovi* Lelej, sp. n.**

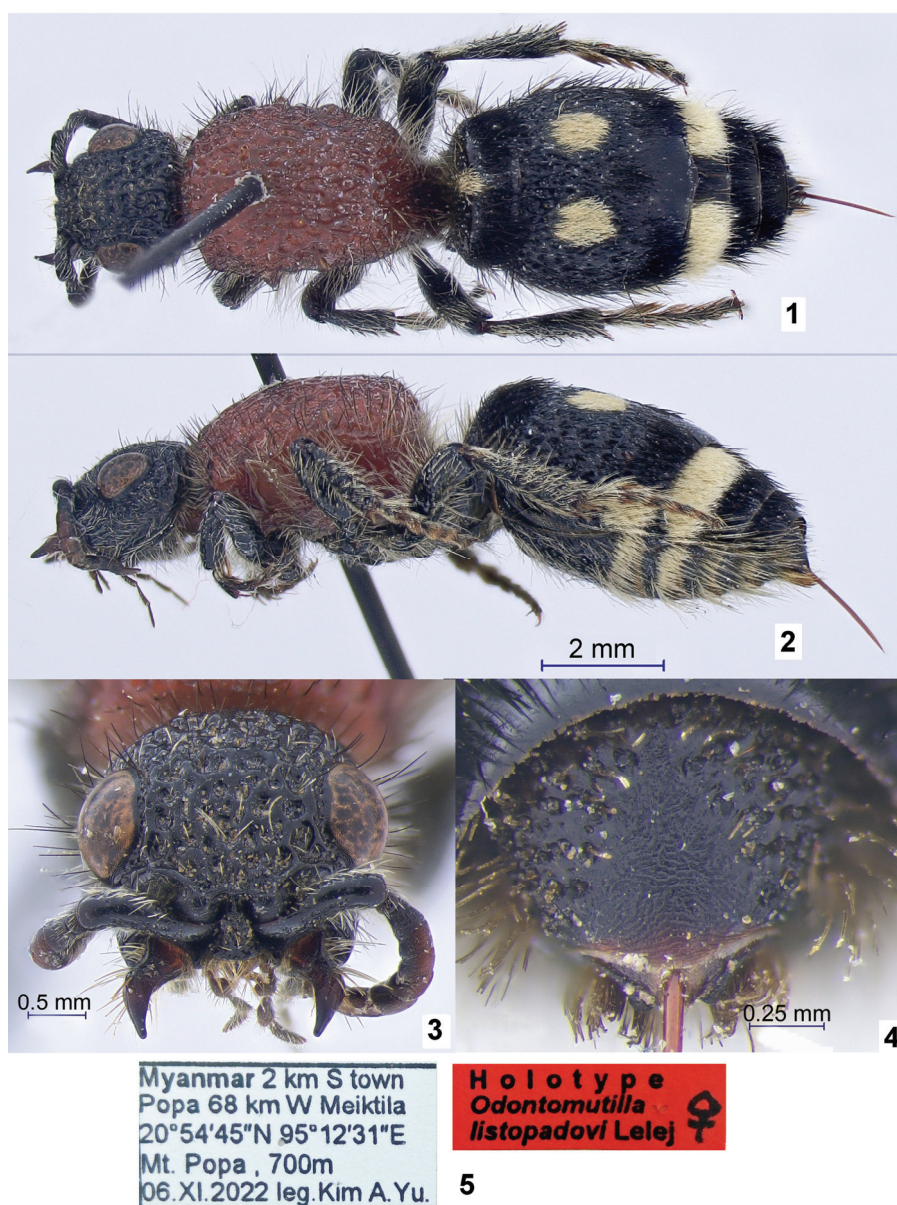
<https://zoobank.org/NomenclaturalActs/A2572C38-257C-4744-805A-9C847FD6B79B>

Figs 1–5

TYPE MATERIAL. Holotype – ♀, **Myanmar**, Mandalay Region, 2 km south of town Popa (68 km west of Meiktila), 20°54'45"N 95°12'31"E, Mt. Popa, 700 m, 6.XI 2022, leg. A. Kim [IBSS].

DIAGNOSIS. FEMALE. Genal carina strong, forming tooth at hypostomal carina and extending posteriorly to occipital carina where distinctly angulate. Hypostomal bridge medially widened with projection. Head and metasoma black, mesosoma ferruginous-red. T1 dorsally with medial small spot of golden setae. T2 in basal half with two pale spots located transversely and apicolateral spot of golden setae. T3 with widely interrupted band of golden setae. MALE. Unknown.

DESCRIPTION. FEMALE. Body length 12.1 mm. *Colouration and setation.* Head and metasoma black, mesosoma ferruginous-red. Head with sparse whitish setae mixed on frons, occiput and genae with sparse sub-erect black setae. Legs black, palps pale brown. Body setae generally sparse and black, except posterior propodeal face and anterior face of T1 with long dense erect whitish setae; frons, vertex, and mesosomal dorsum laterally with short sparse sub-erect black setae. Mesopleural vertical carina with long erect whitish setae. Legs, especially meso- and metatibia with long dense recumbent yellowish setae. T1 dorsally with medial small spot of golden setae, laterad of it with dense recumbent black setae. T2 in basal half with two spots of golden setae located transversely, distance between spots equal its diameter, posterolaterally with spot of golden setae. T3 with widely interrupted band of golden setae. T6 except pygidial plate with whitish setae. S2–5 with sparse sub-erect long golden setae, S2 and S3 apically with fringe of dense golden setae, S6 with dense golden setae oriented backward.



Figs 1–5. *Odontomutilla listopadovi* sp. n., holotype; 1 – habitus, dorsal view, 2 – habitus, lateral view, 3 – head, face view, 4 – pygidial plate, 5 – labels.

Head. Width behind eye $0.86 \times$ humeral mesosomal width. Frons, vertex, and gena with large confluent punctures. Mandible with dorsal carina extending from base to apex, apex unidentate. Clypeus apically not dentate, basomedial portion coarsely sculptured.. Antennal scrobe with arcuate lateral carina. Genal carina strong, forming large tooth at hypostomal carina and extending posteriorly to occipital carina where distinctly angulate. Hypostomal bridge medially widened with projection. F1 $1.25 \times$ F2 and $2.0 \times$ pedicel length, F2 $1.8 \times$ pedicel length.

Mesosoma. Length $1.3 \times$ maximum width. Dorsum of mesosoma with large coarse punctures; mesopleuron convex, punctured, vertical carina ending dorsally to strong tooth. Humeral carina well developed with oblique carina posterad. Ratio of width of humeral angle, anterior spiracle, lateral mesonotal tooth, propodeal spiracle, and posterolateral propodeal angle 90:95:110:95:80. Scutellar scale lacking. Posterior propodeal face abrupt, lateral propodeal face with shallow sparse punctures.



Fig. 6. Type locality of *Odontomutilla listopadovi* sp. n., Taung Kalat, a Buddhist monastery and temple complex located on the Mount Popa in the Mandalay Region, Myanmar. Photograph by A. Kim.

Metasoma. T1 broad with distinct anterior and dorsal faces, dorsally with small dense punctures. T2 with large coarse punctures, posteromedially with small dense ones. T4–5 and S3–5 with small dense punctures. S1 with simple longitudinal lamella. S2 with dense large punctures. T2 anterolaterally with deep elongated pubescent fovea. T6 basally and laterally coarsely punctate, setose, apical half with medial part without setae, pygidial plate not carinated laterad even apically, considerably convergent basally, with weak transverse striae.

MALE unknown.

REMARKS. A female of new species (male unknown) is strikingly differs from congeners by having two golden spots located transversely in basal half of T2 (lacking such spots or having 1(3) spots in other species of the genus) and much resembles the females of *Trogaspidiini* species. Possibly this species may be the opposite sex of the male *Odontomutilla miranda* (Smith, 1855) described from Northwestern India, which also has an unique character among the male species of the genus: T2 with two pale spots located transversely near the middle.

NATURAL HISTORY. The wasp was found near the top of the temple complex of Mount Popa, 700 m altitude, on the concrete fence of the viewing platform (Fig. 6).

ETYMOLOGY. The specific name is dedicated to Nikolai Alexandrovich Lissopadov, the author of two splendid books about the Buddha's lands: “На землях Будды” (In the lands of the Buddha, 2006) and “По стопам Будды” (In the footsteps of the Buddha, 2005).

ACKNOWLEDGMENTS

Many thanks to Alexandr Yurievich Kim, who collected the holotype and made the photograph of the type locality. The research was carried out within the state assignment of Ministry of Science and Higher Education of the Russian Federation (theme No. 121031000151-3).

REFERENCES

- André, E. 1901–1902. Matériaux pour servir à la connaissance des Mutillides d'Afrique. *Zeitschrift für Systematische Hymenopterologie und Dipterologie*, (1901) 1: 279–288, 305–352; (1902)2: 17–48.
- André, E. 1904. Examen critique d'uen nouvelle classification proposée par M. le Dr. W.H. Ashmead pour la famille des Mutillidae. *Revue d'Entomologie*, 23(1): 27–41.
- Ashmead, W.H. 1899. Superfamilies in the Hymenoptera and generic synopses of the families Thynnidae, Myrmosidae, and Mutillidae. *Journal of the New York Entomological Society*, 7: 45–60.
- Ashmead, W.H. 1900–1904. Classification of the fossorial, predaceous and parasitic wasps, or the superfamily Vespoidea. *The Canadian Entomologist*, (1900)32: 145–155, 185–188, 295–296; (1902)34: 79–88, 131–137, 163–166, 203–210, 219–231, 268–273, 287–291; (1903)35: 3–8, 39–44, 95–107, 155–158, 199–205, 303–310, 323–332; (1904)36: 5–9.
- Bischoff, H. 1920–1921. Monographie der Mutilliden Afrikas. *Archiv für Naturgeschichte*, (1920)86A(1–3): 1–480; (1921)86A(4–5): 481–830.
- Bolotov, I.N., Konopleva, E.S., Vikhrev, I.V., Win, T., Lunn, Z., Chan, N., Gofarov, M.Yu., Kondakov, A.V., Tomilova, A.A., Pasupuleti, R., & Subba Rao, N.V. 2022. Follow the Footsteps of Leonardo Fea: An Example of an Integrative Revision of Freshwater Mussel Taxa Described from the Former British Burma (Myanmar). *Journal of Zoological Systematics and Evolutionary Research*. 1–33. DOI: <https://doi.org/10.1155/2022/6600359>.
- Brothers, D.J. & Lelej, A.S. 2017. Phylogeny and higher classification of Mutillidae (Hymenoptera) based on morphological reanalyses. *Journal of Hymenoptera Research*, 60: 1–97. DOI: 10.3897/jhr.60.20091.

- Gribodo, G. 1884. Sopra alcuni Imenotteri raccolti a Minhla nel regno di Birmania dal cap. G.B. Comotto. *Annali del Museo civico di Storia naturale di Genova*, 21, 349–368.
- Hammer, K. 1962 [„1960“]. Mutilliden (Insecta: Hymenoptera) aus dem Indischen Museum in Calcutta. *Records of the Indian Museum*, 58 (1): 1–51.
- Lelej, A.S. 1996. Mutillid wasps collected in Malaysia and Indonesia by Dr. Sk. Yamane (Hymenoptera, Mutillidae). *Tropics*, 6(1/2): 91–104.
- Lelej, A.S. 2005. *Catalogue of the Mutillidae (Hymenoptera) of the Oriental Region*. Dalnauka, Vladivostok. 252 pp.
- Lelej, A.S. & Brothers, D.J. 2008. The genus-group names of Mutillidae (Hymenoptera) and their type species, with a new genus, new name, new synonymies, new combinations and lectotypifications. *Zootaxa*, 1889, 1–79.
- Magretti, P. 1892. Viaggio di Leonardo Fea in Birmania e regioni vicine. XLIII. Imenotteri. Parte prima. Mutillidei, Scoliidei, Tifiidei, Tinnidei colla descrizione di parecchie nuove specie. *Annali del Museo civico di Storia naturale di Genova*, 2(12), 32: 197–266 + pl. 5.
- Pagliano, G., Brothers, D.J., Cambra, R., Lelej, A.S., Lo Cascio, P., Matteini Palmerini, M., Scaramozzino, P.L., Williams, K.A. & Romano, M. 2020. Checklist of names in Mutillidae (Hymenoptera), with illustrations of selected species. *Bollettino del Museo Regionale di Scienze Naturali di Torino*, 36(1–2): 5–425.
- Waldren, G.C., Sadler, E.A., Murray, E.A., Bossert, S., Danforth, B.N. & Pitts, J.P. 2023. Phylogenomic inference of the higher classification of velvet ants (Hymenoptera: Mutillidae). *Systematic Entomology*. 1–25. DOI: 10.1111/syen.12588.