

Far Eastern Entomologist

Number 414: 11-15

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

September 2020

<https://doi.org/10.25221/fee.414.2>
<http://zoobank.org/References/E5C72500-25A6-4853-AA1B-B91DDDA702AF>

DISCOVERY OF THE SUBGENUS *STIGMATODIPOGON* ISHIKAWA (HYMENOPTERA: POMPILIDAE: *DIPOGON* FOX) IN THE PHILIPPINES, WITH DESCRIPTION OF A NEW SPECIES

V. M. Loktionov

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

Summary. The subgenus *Stigmatodipogon* Ishikawa of the genus *Dipogon* Fox is newly recorded from the Philippines. A new species, *Dipogon (Stigmatodipogon) luzon* Loktionov, sp. n., is described and illustrated based on female from the Philippines (Luzon).

Key words: spider wasps, Pepsinae, taxonomy, new species, new record, Oriental region.

В. М. Локтионов. Новая находка подрода *Stigmatodipogon* Ishikawa (Hymenoptera: Pompilidae: *Dipogon* Fox) с Филиппин с описанием нового вида // Дальневосточный энтомолог. 2020. N 414. С. 11-15.

Резюме. Подрод *Stigmatodipogon* Ishikawa рода *Dipogon* Fox впервые указывается для Филиппин на основе нового вида, *Dipogon (Stigmatodipogon) luzon* Loktionov, sp. n., описываемого по самке с острова Лусон.

INTRODUCTION

At present, the subgenus *Stigmatodipogon* Ishikawa, 1965 of the genus *Dipogon* Fox, 1897 (Pepsinae: Deuterageniini) comprises 11 species distributed in Russia (Eastern Siberia and Far East) (Lelej & Loktionov, 2012; Loktionov & Lelej, 2017; Kochetkov & Loktionov, 2019), Japan (Hokkaido and Honshū), Laos (Shimizu *et al.*, 2018), Thailand (Loktionov & Lelej, 2019), and India (Loktionov, 2020). *Stigmatodipogon* was revised by Shimizu *et al.* (2018), and an updated key to the females was done by Loktionov (2020).

The examination of the Pompilidae collection deposited in the Biologiezentrum des Oberösterreichischen Landesmuseums (Linz, Austria) [OLL] has revealed unknown species of the subgenus *Stigmatodipogon* from the Philippines. Herein it is described and illustrated.

MATERIAL

The terminology for morphology is mostly based on the glossary provided by the Hymenoptera Anatomy Consortium (2013). The terminology of wing venation and cells follows Day (1988). The following abbreviations are used for morphological terms: UID – the upper interocular distance; MID – the middle interocular distance; LID, the lower interocular distance; OOD – the distance between posterior ocellus and compound eye which is measured from above; POD – the postocellar distance which is measured from above.

Photographs were taken with the stereomicroscope Olympus SZX16 and digital camera Olympus DP74, and stacked using Helicon Focus software. The final illustrations were post-processed for contrast and brightness using Adobe® Photoshop® software. Material treated in this paper is deposited in OLL.

TAXONOMY

Genus *Dipogon* Fox, 1897

Subgenus *Stigmatodipogon* Ishikawa, 1965

Type species: *Dipogon (Deuteragenia) macrostigmatus* Ishikawa, 1959, by original designation.

Dipogon (Stigmatodipogon) luzon Loktionov, sp. n.

<http://zoobank.org/NomenclaturalActs/FC073F1D-3D1D-4C6C-9098-CF0D35BE4376>

Figs 1–8

TYPE MATERIAL. Holotype – ♀, **the Philippines**: "N LUZON; KALINGA-AP./ABRA pr. boundary; Cordillera Centr.; around Pass at 1600±100m; 17°30'N, 121°00'E; 26–28.III 2000, leg. L. Dembicky" [OLL].

DESCRIPTION. Female. Length: body 6.1 mm; fore wing 5.2 mm. Body black (Figs 1, 2), with fore tarsi dark-brown. Body with sparse gray micropubescent. Upper frons with one short gray erect setae. Gena with few gray setae. Clypeus apically and mandible with long pale bristles. Propleura with 8 long pale setae. Propodeum postero-laterally with few short pale erect setae. Tergum 1 and sternum 1 with sparse short pale erect setae. Sternum 2 with few pale erect setae. Tergum 5 with many long brown bristles. Brush of setae on inner face of hind tibia is brown.

Head and mesosoma punctate and matte, metasoma micropunctate and somewhat polished. Frons densely punctate, intervals of punctures weakly polished. Clypeus apically with fine transverse striae distinctly impressed at median portion. Metapostnotum with inconspicuous transverse striae.

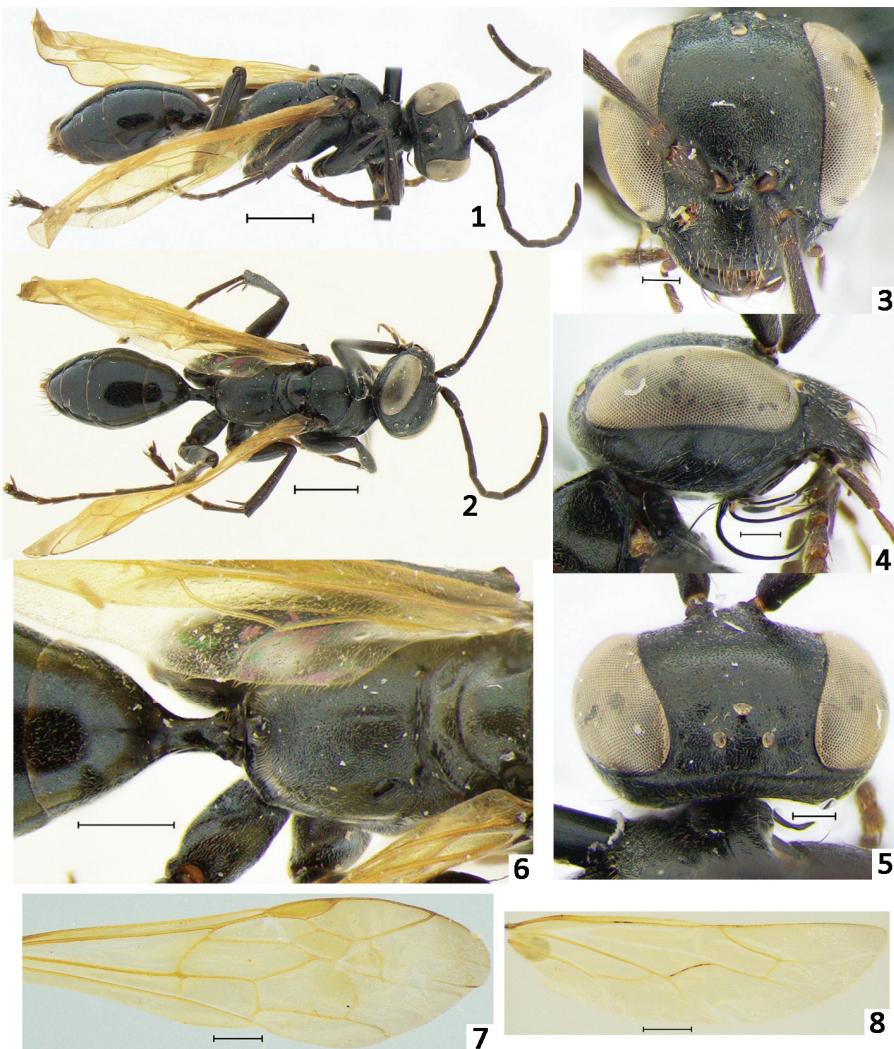
Head width $1.1 \times$ its length in frontal view. Vertex in frontal view barely convex (Fig. 3), its posterior margin barely arcuate in dorsal view (Fig. 5). Inner orbits slightly convergent above and subparallel below (Fig. 3). UID:MID:LID = 28:35:33. Frons in profile barely convex (Fig. 4); frontal line indistinct. MID 0.56 × head width in frontal view. Gena width medially $0.67 \times$ eye width in lateral view (Fig. 4). Ocelli raised forming barely acute-angled triangle (Fig. 5). POD:OOD = 0.8. Clypeus width $2.3 \times$ its length, convex medially, depressed laterally; apicolateral corner rounded; apical margin straight (Fig. 3). Labrum not exposed. Malar space short and linear. Flagellomere 1 length $5.0 \times$ its width, $1.3 \times$ flagellomere 2 length, and $0.83 \times$ UID.

Pronotum with anterior declivity not differentiated from its dorsum. Discs of mesonotum, mesoscutellum and metanotum barely convex. Metapostnotum length $0.27 \times$ metanotum length medially. Propodeum evenly convex in profile, with antero-median groove. Tergum 1 with long petiole basally, sides of which subparallel in dorsal view (Fig. 6).

Legs mostly without spines; mid and hind tibia with few very short rudimentary spines dorso-apically; longer spur of hind tibia $0.4 \times$ hind tarsomere 1 length. Tarsal claws dentate, with stout acute tooth preapically.

Wings (Figs 7, 8) yellow, without distinct fasciae, except fore wing with more intensive yellow on SMC2, SMC3, and distal part of 2M. Fore wing (Fig. 7) with pterostigma length

$1.64 \times$ SMC2 length (on vein M). SMC2 narrowed on vein Rs by $0.82 \times$ its own length on vein M , receiving crossvein $1m-cu$ at basal 0.6. SMC3 length $1.2 \times$ SMC2 length on vein M , and $0.54 \times$ on vein Rs , narrowed on vein Rs by $0.37 \times$ its own length on vein M , receiving crossvein $2m-cu$ at basal 0.33. Crossvein $2rs-m$ barely arcuate. Crossvein $3rs-m$ curved at middle. Hind wing (Fig. 8).



Figs 1–8. *Dipogon (Stigmatodipogon) luzon* Loktionov, sp. n., holotype, female: habitus, lateral view; 2 – habitus, dorsal view; 3 – head, frontal view; 4 – head, lateral view; 5 – head, dorsal view; 6 – mesoscutellum, metanotum, metapostnotum, propodeum, and tergum 1, dorsal view; 7 – fore wing; 8 – hind wing. Scale bar: 1 mm for 1 and 2; 0.5 mm for 6, 7, and 8; 0.2 mm for 3–5.

Male is unknown.

DIAGNOSIS. The female of this new species can be easily separated from those of all congeners by the fore wing yellow, without fasciae (Fig. 7). Other characters of importance are: clypeus and legs black (Figs 1–3); frons densely punctate (Fig. 3); tergum 1 with long petiole basally, sides of which subparallel in dorsal view (Fig. 6).

DISTRIBUTION. The Philippines (Luzon).

BIOLOGY. Inhabits mountain forests at the altitude 1600 m.

ETHYMOLOGY. The new species is named after the type locality, Island of Luzon of the Philippines. Treat as a noun in apposition.

DISCUSSION

The female of *Dipogon (Stigmatodipogon) luzon* Loktionov, sp. n. is clearly distinguished from those of all known congeners by the wings, veins and pterostigma are distinctly yellow (Figs 7, 8) vs the wings are hyaline and iridescent (at most slightly yellowish-brown), with veins and pterostigma are brown or dark brown. Lack of fascia on the fore wing is also a diagnostic character of the female of a new species (Fig. 7), which is also known for the female of *D. (S.) himalayensis* Loktionov, 2020 described from North-eastern India. Female of a new species differs from the latter by the body integument densely punctate and matte vs smooth and strongly polished in *D. (S.) himalayensis*.

D. (S.) luzon Loktionov, sp. n. is the first species of the subgenus known from the Philippines, as well as, from Islands of the Oriental region, it represents the new south-easternmost distribution record of this subgenus (Luzon, the Philippines). Like other congeners, known from a tropical area, a new species occur in mountain forests at altitudes between 700 and 1600 m. Currently, the subgenus comprises 12 species, five of them occur in the Oriental Region, and seven ones – in the Eastern Palaearctic Region.

AKNOWLEGMENTS

I thank Esther Ockermüller (Biologiezentrum des Oberösterreichischen Landesmuseums, Linz, Austria) for allowing me to study and loan the material, and Prof. Arkady Lelej (FSC Biodiversity FEB RAS, Vladivostok, Russia) for funding my business trips to Austria.

REFERENCES

- Day, M.C. 1988. *Handbooks for the Identification of British Insects. Vol. 6, Part 4. Spider wasps. Hymenoptera: Pompilidae*. Royal Entomological Society, London. 60 pp.
- Fox, W.J. 1897. Contributions to a knowledge of the Hymenoptera of Brazil, No 2. Pompilidae. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 49: 229–283.
- Hymenoptera Anatomy Consortium. 2013. *Hymenoptera Glossary*. Available from: <http://glossary.hymao.org> (accessed 10 January 2019)
- Ishikawa, R. 1959. Two new species of Pompilidae from Japan (Hymenoptera). *Kontyū*, 27(4): 253–256.
- Ishikawa, R. 1965. A preliminary revision of the Japanese species of the genus *Dipogon* Fox (I) (Hymenoptera, Pompilidae). *Mushi*, 38(11): 87–100.
- Kochetkov, D.N. & Loktionov, V.M. 2019. New and little known species of spider wasps (Hymenoptera: Pompilidae) from the Russian Far East. *Far Eastern Entomologist*, 382: 1–9. DOI: <https://doi.org/10.25221/fee.382.1>

- Lelej, A.S. & Loktionov, V.M. 2012. Phylogeny and classification of the tribe Deuterageniini (Hymenoptera, Pompilidae: Pepsinae). *Far Eastern Entomologist*, 254: 1–15.
- Loktionov, V.M. 2020. New remarkable species of the subgenus *Stigmatodipogon* Ishikawa, 1965 of the genus *Dipogon* Fox, 1897 (Hymenoptera: Pompilidae) from Thailand and India. *Zootaxa*, 4755(2): 294–300. DOI: <https://doi.org/10.11646/zootaxa.4755.2.5>
- Loktionov V.M. & Lelej A.S. 2017. An annotated catalogue of the spider wasps (Hymenoptera: Pompilidae) of Russia. *Zootaxa*, 4280: 1–95.
- Loktionov, V.M. & Lelej, A.S. 2019. Contribution to the knowledge of the subgenus *Stigmatodipogon* Ishikawa, 1965 of the genus *Dipogon* Fox, 1897 (Hymenoptera: Pompilidae). *Zootaxa*, 4613(2): 363–368. DOI: <https://doi.org/10.11646/zootaxa.4613.2.9>
- Shimizu, A., Lelej, A.S., Loktionov, V.M., Nishimoto, Y. & Endo, T. 2018. Revision of the subgenus *Stigmatodipogon* Ishikawa of the genus *Dipogon* Fox (Hymenoptera: Pompilidae: Pepsinae). *Zootaxa*, 4514(1): 1–22. DOI: <https://doi.org/10.11646/zootaxa.4514.1.1>