

A NEW SPECIES OF *PTERISEMOPPA* GIRAULT, 1933 (CHALCIDOIDEA: PTEROMALIDAE) FROM THE PALAEARCTIC REGION

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Summary. A new species *Pterisemoppa leleji* sp. n. is described and illustrated from South Korea. The genus *Pterisemoppa* Girault, 1933 is recorded from the Palearctic region for the first time. An updated diagnosis of the genus is given. The genus *Pterisemoppa* has been transferred from Pteromalinae to Metasteninae subfamily.

Key words: Hymenoptera, Chalcidoidea, Pteromalidae, Metasteninae, taxonomy, new species, new records, Palearctic region.

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Резюме. Из Южной Кореи описан и проиллюстрирован новый вид *Pterisemoppa leleji* sp. n. Род *Pterisemoppa* Girault, 1933 впервые обнаружен в Палеарктическом регионе. Приведен обновленный диагноз для рода. Род *Pterisemoppa* перенесен из подсемейства Pteromalinae в подсемейство Metasteninae.

INTRODUCTION

In the last decade, a lot of papers have been devoted to the family Pteromalidae (Hymenoptera: Chalcidoidea) of the Eastern Palearctic region, including descriptions of new taxa from Korea and adjacent regions (Tselikh, 2019; Tselikh *et al.*, 2022, 2023, 2024, 2025a, 2025b, 2025c).

The pteromalid genus *Pterisemoppa* (type species *Sphegopterosema australiensis* Girault & Dodd, 1915) belongs to the family Pteromalidae, formerly belonging to the subfamily Pteromalinae (Burks *et al.* 2022). Up to now, it comprised only three species from the Australian region: *Pterisemoppa australiensis* (Girault *et al.* 1915), *P. malpighii* (Girault, 1939), and *P. poeta* Girault, 1933) (UCD Community 2026).

The biology of *Pterisemoppa* is unknown, but probably parasites of Diptera (Bouček 1988).

During our study of Pteromalidae in Asia (Tselikh *et al.*, 2022, 2023, 2024, 2025a, 2025b, 2025c), several specimens of a new *Pterisemoppa* species were collected in forested areas of South Korea. These specimens represent the first recorded occurrence of the genus in the Palaearctic region. Here, we describe this new species and provide a comparative diagnosis of this species with described species of *Pterisemoppa*. An updated diagnosis of the genus is given.

MATERIAL AND METHODS

The specimens examined in this study are deposited in the collections of the National Institute of Biological Resources (Incheon, Republic of Korea; NIBR), the Science Museum of Natural Enemies (Geochang, Republic of Korea; SMNE), the Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia; ZISP), the Natural History Museum (London, England; NHMUK), the Queensland Museum (Brisbane, Australia; QMBA).

Morphological terminology, including sculpture and wing venation, follows Bouček and Rasplus (1991), Gibson (1997), and Burks *et al.* (2022). The flagellum consists of two anelli, six funicular segments, and the four-segmented clava. The antennal formula includes the number of segments: scape, pedicel, anelli, funicular segments, claval segments. The mandibular formula indicates the number of teeth in the left and right mandibles. The following abbreviations are used: POL – posterior ocellar line, the minimum distance between the posterior ocelli; OOL – ocello-ocular line, the minimum distance between a posterior ocellus and compound eye; C1–C4 – claval segments; M – marginal vein; S – stigmal vein; PM – postmarginal vein; F1–F6 – funicular segments; Mt2–Mt8 – metasomal tergites.

TAXONOMY

Family Pteromalidae

Subfamily Metasteninae

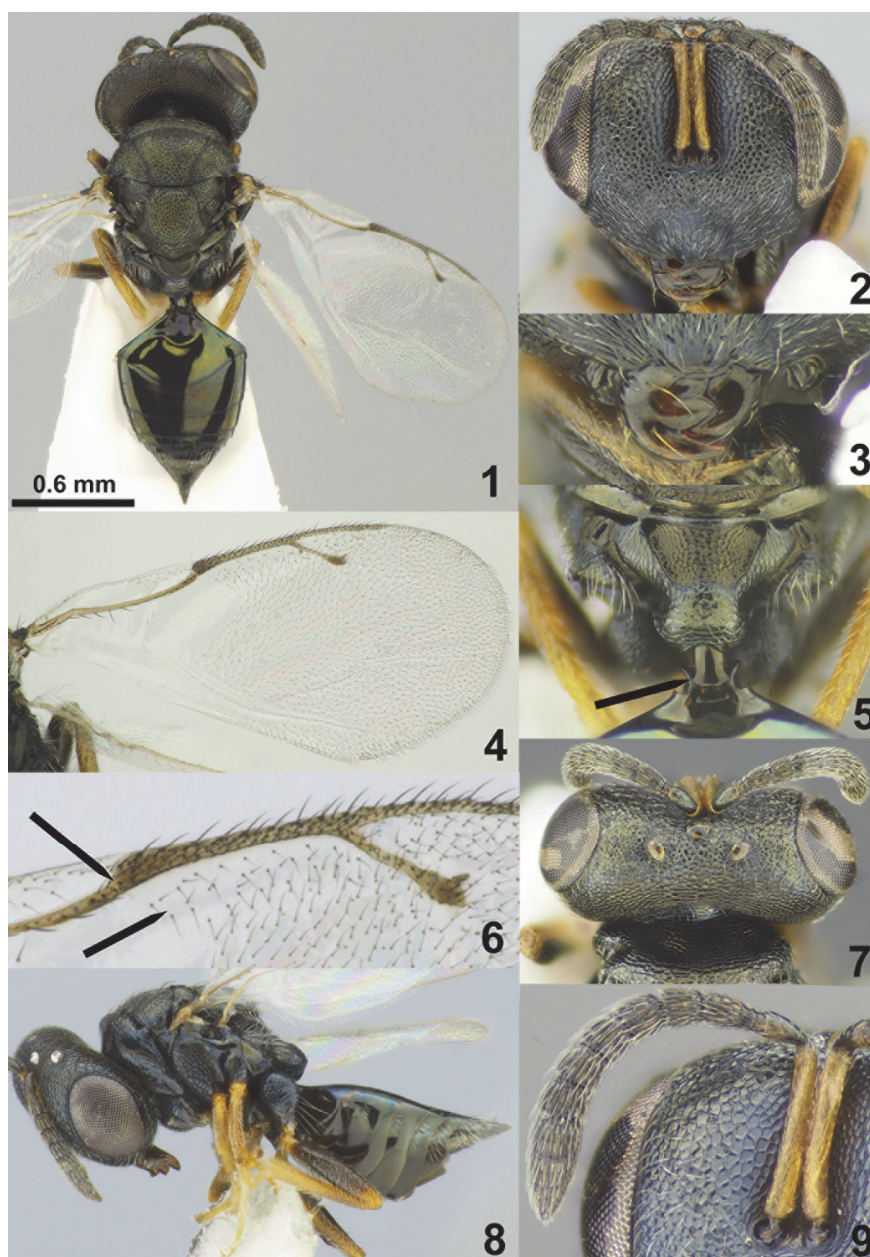
Genus *Pterisemoppa* Girault, 1933

Pterisemoppa Girault, 1933: 1. Type species *Sphegipterosema australiensis* Girault *et* Dodd, 1915, by original designation.

Lincolnanna Girault, 1939: 325; synonymized by Bouček (1988: 461).

DIAGNOSIS. Head without occipital carina (Fig. 1). Lower margin of clypeus in middle part weak (Fig. 3) or deeply emarginate (Fig. 12). Antennal formula 11264; anelli small, microsetose area large (Figs 9, 13). Antennal toruli situated above level of lower edges of eyes; antennal scrobes not deep (Figs 2, 11). Mandibles large and falcate, mandibular formula 3:4.

Mesosoma short, arched (Figs 8, 10). Pronotal collar margin without carinate (Figs 7, 16). Notauli distinctly complete (Fig. 1) or indistinct posteriorly (Fig. 16). Axilla not strongly advanced; axillula not enlarged. Scutellum arched, without conspicuous sublateral grooves, with not distinct frenal area and without frenal groove (Figs 1, 14, 16). Propodeum reticulate, without costula and median carina, plicae strong, nucha large, propodeal spiracles near to front margin of sclerite (Figs 5, 14). Fore wing hyaline; marginal vein abruptly thickened at parastigmal break relative to submarginal vein thickness (Figs 4, 6, 15), below marginal vein 2–3 rows long setae (Figs 6, 15). Hind coxa dorsally bare; hind tibia with one spur.



Figs 1–9. *Pterisemoppa leleji* **sp. n.**, holotype, female: 1 – habitus, dorsal view; 2 – head, frontal view; 3 – clypeus; 4 – fore wing; 5 – propodeum and petiole, dorsal view; 6 – part of fore wing; 7 – head and pronotum, dorsal view; 8 – habitus, lateral view; 9 – antenna.

Metasoma shorter than combined length of mesosoma and head. Petiole distinct, antero-ventrally either braced by a flange extending from the 1st gastral sternum that reaches anteriorly under the petiolar attachment (Figs 5, 14). Cerci with setae subequal in length. Ovipositor not strongly protruding (Figs 1, 17).

COMMENTS. The genus *Pterisemoppa* has been transferred from Pteromalinae to Metasteninae, as it shares the primary characteristics of this subfamily: mandibles large and falcate (Fig. 3); fore wing with marginal vein abruptly thickened at parastigmal break relative to submarginal vein thickness (Figs 6, 15); axilla not strongly advanced; axillula not enlarged; petiole distinct, anteroventrally either braced by a flange extending from the 1st gastral sternum that reaches anteriorly under the petiolar attachment (Figs 5, 14).

DISTRIBUTION. Palaearctic and Australian regions.

***Pterisemoppa leleji* Tselikh, Lee et Ku, sp. n.**

<https://zoobank.org/NomenclaturalActs/9C8389B9-D6AD-476C-ACE6-55793D8362C4>

Figs 1–9

TYPE MATERIAL. Holotype: ♀, **South Korea**: S. Korea: [GN], Geochang-gun, Geochang-eup, SMNE, 27–29.VI 023, coll. E.V. Tselikh (NIBR). Paratypes: 1♀, South Korea: [GN], Hapcheon-gun, Yaro-myeon, Haeinsa-gil, 132–13, Malaise Trap, 4.IX–4.X 2024, coll. J.H. Lee (ZISP); 1♀, [CB], Boeun-gun, Songnisan-myeon, Beopjusa-ro, 40S, Malaise Trap, 28.IV–26.V 2025, coll. J.H. Lee (SMNE).

DESCRIPTION. FEMALE. Body length 2.0–2.5 mm; fore wing length 1.5–1.8 mm.

Coloration. Head and mesosoma dark with diffuse metallic green and coppery lustre; antenna with scape yellowish brown; pedicel basally brown, apically yellowish brown; anelli, F1–F6 and clava brown. All coxae black, femora brown, tibiae yellowish brown, all tarsi yellow. Fore wing hyaline, venation brown. Petiole dark with diffuse green and coppery lustre; gaster dorsally dark brown with metallic green and coppery lustre; ovipositor sheaths dark brown.

Sculpture. Head and mesosoma reticulate; clypeus striate; scutellum strongly reticulate; propodeum finely reticulate, nucha reticulate; petiole smooth; metasoma smooth and shiny.

Head. Head in dorsal view 2.19–2.3 times as broad as long and 1.28–1.3 times as broad as mesoscutum; in frontal view 1.24–1.28 times as broad as high. POL 1.3–1.5 times as long as OOL. Eye height 1.25–1.35 times eye length and 2.5–2.67 times malar space. Distance between antennal toruli and lower margin of clypeus 1.06–1.1 times distance between antennal toruli and median ocellus. Antenna with scape 0.67–0.7 times as long as eye height and 0.89–0.92 times as long as eye length; pedicel 1.9–2.1 times as long as broad and 1.14–1.3 times as long as F1; combined length of pedicel and flagellum 0.74–0.82 times breadth of head; F1 longer than broad, F2–F3 subsquare, F4–F6 transverse. F1–F6 with 1–2 rows of sensilla; clava 1.96–2.13 times as long as broad, with larger microsetose area on C2–C4. Lower margin of clypeus in middle part emarginate. Mandibular formula 3:4.

Mesosoma. Mesosoma 1.45–1.47 times as long as broad. Scutellum moderately arched, as long as broad, frenal area differentiated by a change in sculpture. Propodeum 0.55–0.7 times as long as scutellum, without costula and median carina, plicae strong and converging, nucha larger. Fore wing 2.2–2.25 times as long as its maximum width; basal cell bare; basal vein with 0–3 setae; speculum larger and open below; M 1.17–1.21 times as long as PM and 1.7–1.75 times as long as S, stigma small.

Metasoma. Metasoma 1.6–1.72 times as long as broad, 1.0–1.05 times as long as mesosoma, 0.77–0.81 times as long as mesosoma and head. Petiole 1.25–1.4 times as long as broad. Ovipositor sheaths projecting slightly beyond apex of metasoma.

MALE. Unknown.



Figs 10–18. *Pterisemoppa australiensis* (Girault et Dodd, 1915), not type, female 10–13 (photos from NHMUK), holotype, female 14–18 (photos from QMBA): 10 – habitus, lateral view; 11 – head, frontal view; 12 – clypeus; 13 – antenna; 14 – scutellum, propodeum and petiole, dorsal view; 15 – fore wing; 16 – mesosoma, dorsal view; 17 – metasoma, dorsal view; 18 – type labels.

DIAGNOSIS. *Pterisemoppa leleji* **sp. n.** is similar to *P. australiensis* (Girault et Dodd, 1915) (Figs 10–18) in having a head in frontal view near 1.2–1.3 times as broad as high; fore wing with bare basal vein and M 1.55–1.75 times as long as S; propodeum 0.55–0.7 times as long as scutellum. However, females of *P. leleji* differ in having a F1 longer than broad, pedicel 1.14–1.3 as long as F1 (Fig. 9), vs F1 subsquare or transverse, pedicel 3.0 as long as F1 in *P. australiensis* (Fig. 13); lower margin of clypeus in middle part emarginate (Fig. 3), vs deeply emarginate, almost with two teeth (Fig. 12); petiole dark with diffuse green and coppery lustre (Fig. 5); vs yellowish brown (Fig. 14).

DISTRIBUTION. South Korea.

BIOLOGY. Unknown.

ETYMOLOGY. The species is named in honor of the prominent entomologist Prof. A.S. Lelej, an expert on Mutillidae (Hymenoptera).

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