

A New Species of Genus *Dryinus* (Hymenoptera: Dryinidae) from Korea

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ABSTRACT

A new species of parasitoid wasp, *Dryinus baegamensis* n. sp. of the family Dryinidae, is described from Korea. A Key to the *Dryinus* species of Eastern Palaearctic region, description and photographs of diagnostic characters are provided.

Keywords: *Dryinus baegamensis* n. sp., Dryininae, Dryinidae, Korea

INTRODUCTION

The Genus *Dryinus* (Hymenoptera: Dryinidae) is a parasitoid of Auchenorrhyncha (Fulgoromorpha) (Guglielmino and Olmi, 1997, 2006, 2007). It is one of the largest genus within the subfamily Dryininae, with 242 extant species (Olmi, 1999).

The *Dryinus* Latreille is cosmopolitan, but mainly from the tropical and subtropical regions (Olmi, 2008). 51 *Dryinus* species have been recorded in Oriental Region, 12 species in the Eastern Palaearctic Region (Olmi, 1984, 2009; Mita, 2009) and only one species, *Dryinus koreanus* (Moczar) is recognized in Korea so far.

The members of *Dryinus* are small to moderate sized wasps and distinguished from species belonging to other dryininae genera by the following combination of morphological characters: 1) mandible with four teeth that getting larger from anterior one to posterior, 2) lateral regions of the prothorax not continuous with the mesopleura, and prospectus visible, 3) tibial spurs formula usually 1-1-2, but occasionally 1-1-1 (Olmi, 1984).

In this study, we report one new species, *Dryinus baegamensis* n. sp. from Korea. A key to the *Dryinus* species of Eastern Palaearctic region, description and photographs of diagnostic characters are provided.

The terminologies for morphological characters follow Olmi (1984, 1994, 1999) and He and Xu (2002). Photographs are captured with AxioCam MRC5 camera through a stereomicroscope (Stemi SV 11 Apo; Carl Zeiss, Göttingen, Germany), produced with AxioVision40AC software (Carl Zeiss, Göttingen, Germany) and optimized with an *i*-delta imaging system. Materials used in this study have been collected by sweeping.

Abbreviations as follows: TS, Type species. POL, distance between the inner edges of the two lateral ocelli; OL, distance between the inner edges of a lateral ocellus and median ocellus; OOL, distance from the outer edge of a lateral ocellus to the compound eye; OPL, distance from the posterior edge of a lateral ocellus to the occipital carina.

SYSTEMATIC ACCOUNTS

Order Hymenoptera

Superfamily Chrysidoidea Day, 1977

Family Dryinidae Latreille, 1804

Subfamily Dryininae Kieffer, 1906

Genus *Dryinus* Latreille, 1804

Dryinus Latreille, 1804: 176. TS: *Sphex collaris* Linnaeus, 1767.

Campylonyx Westwood, 1835: 52. TS: *Campylonyx ampuliciformis* Westwood, 1835.

Mesodryinus Kieffer, 1906: 497. TS: *Dryinus niger* Kieffer, 1904: 352.

Leptodryinus Kieffer, 1911: 108. TS: *Sphex cillaris* Linnaeus, 1767 (new name for *Dryinus* Latreille).

Diagnosis. Female: Fully winged; Antennae with no tufts of long hair; Maxillary palps 6 segmented. Labial palps 3 segmented; mandible with four teeth that getting larger from anterior one to posterior; lateral regions of the prothorax not continuous with the mesopleura, and prospectus visible; Notaulices at least partly visible; Enlarged claw as long as, or shorter than fore tibia, much longer than arolium with one subapical tooth (rarely two) and some lamellae; tibial spurs formula usually 1-1-2, but occasionally 1-1-1.

A key to the *Dryinus* species of Eastern Palaearctic region

1. Body testaceous, only petiole black 2

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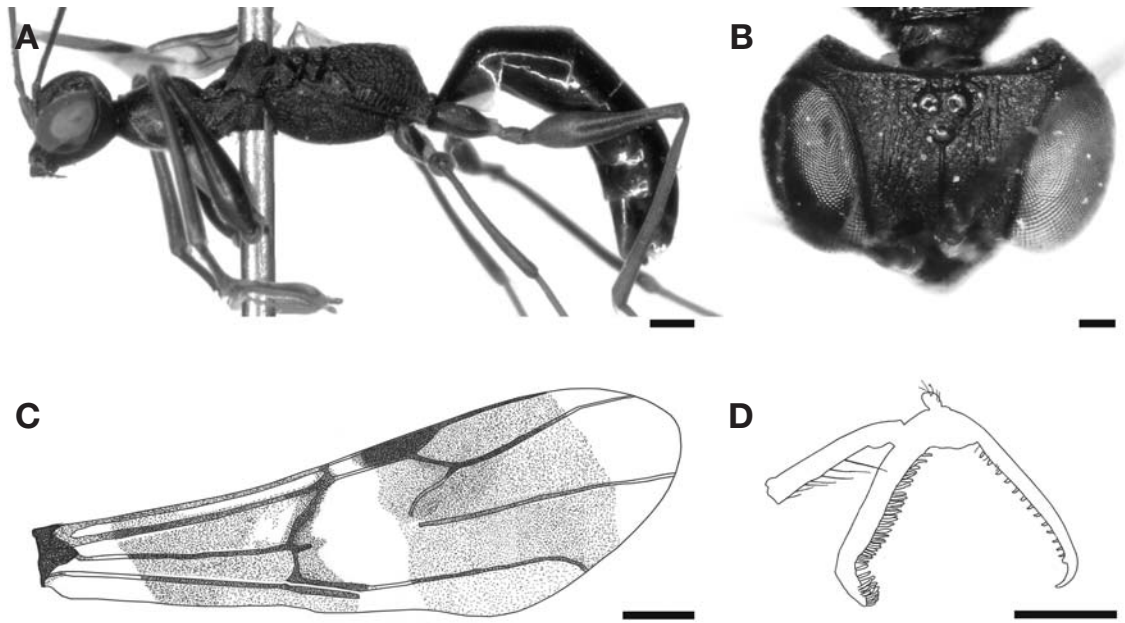


Fig. 1. *Dryinus baegamensis* n. sp. A, Body in lateral view; B, Head in Dorsal view; C, Forewing; D, Chele. Scale bars=0.5 mm (A, C), 0.2 mm (B), 500 μ m (D).

- Body mostly black 3
- 2. Notaulices reaching 0.65 length of scutum *koreanus*
- Notaulices reaching 0.5 length of scutum *indicus*
- 3. Head light brown *masneri*
- Head black 4
- 4. Frons strongly reticulated or rugose *chenae*
- Frons smooth or granulated 5
- 5. Forewing with 2 dark transversal bands 6
- Forewing with 3 dark transversal bands 7
- 6. Head with POL longer than OL, Enlarged claw with a row of 16 lamellae *sinicus*
- Head with OL longer than POL, Enlarged claw with a row of 13 lamellae *baegamensis* n. sp.
- 7. Frons narrower than scutellum *bellicus*
- Frons broader than scutellum 8
- 8. Notaulices incomplete *latus*
- Notaulices complete 9
- 9. Temple distance longer than diameter of anterior ocellus 10
- Temple distance shorter than diameter of anterior ocellus 11
- 10. Frons strongly granulated *pyrillae*
- Frons weakly or not granulated *pyrillivorus*
- 11. Antennal segment 3 more than six times as long as segment 2 *browni*
- Antennal segment 3 less than six times as long as segment 2 12

- 12. Notaulices complete (posteriorly separated), Metanotum with anterior half reticulate rugose *expolitus*
- Notaulices almost complete, Metanotum granulated *krombeini*

***Dryinus baegamensis* n. sp.**

Type material. Holotype, 1 ♀, Korea: Gyeongsangbuk-do, Yeongyang-gun, sub-myeon, Mt. Baegam, 10 July 1999 (J.W. Lee). Paratype, 1 ♀, same data as holotype. The types are deposited in the Animal systematic laboratory of the Yeungnam University (YNUE).

Description. Female. Fully winged. Body length 8.1 mm. Head and body black. Clypeus black, with anterior margin testaceous. Mandible testaceous, teeth of mandible reddish-brown. Antennae reddish-brown, 1-2 segments testaceous, 7-10 segments yellow. Legs testaceous, with coxae and femora reddish-brown partly black. Dorsal surface of abdomen black and ventral surface redish-brown (partly black). Antennae filiform; antennal segments in following proportions: 9 : 6 : 41 : 19 : 14 : 13 : 8 : 8 : 8 : 9. Head weakly granulated. Frons and vertex with some tracks of longitudinal keels, covered with short hair, frontal line visible. Occipital carina complete, laterally not reaching the compound eyes, two lateral ocelli with irregular keels joining the occipital carina; POL: 1; OL: 1.5; OOL: 8.5; OPL: 2. Pronotum which is crossed by 2 transversal impressions (anterior impression

very weakly visible) and covered with short hairs, shining with many longitudinal striate around the disc. Scutum, sutellum and metanotum granulated. Notauli reaching to apical margin. Mesopleura rugose. Metapleura strongly striate. Propodeum shining, dorsal and posterior surface reticulate rugose, covered with very short hair. Forewing with 2 dark transverse bands; distal part of stigmal vein about 4.0 as long as proximal part. Enlarged claw as in Fig. 1D with a subapical tooth and a row of 13 lamellae. Fifth segments of fore tarsus spatulate with two rows of lamellae in inner margin. Fore and mid tibia with 1 spur; hind tibia with 2 spurs, inner spur longer than outer spur. Abdomen smooth and shiny, with some short hairs.

Male. Unknown.

Distribution. Korea.

Host records. Unknown.

Remarks. *Dryinus baegamensis* n. sp. can be easily distinguished from *Dryinus koreanus* which is another known Korean species by the following characteristics: Body length. *D. koreanus* body length (3.84 mm), much shorter than *Dryinus baegamensis* n. sp.

Etymology. The species is named after its collecting site, Mt. Baegam.

ACKNOWLEDGEMENTS

We thank to Mr. Seung-Ho Oh for preparing figures and useful comments on earlier draft. Also thank Dr. Jong-Chul Jeong for useful comments on this paper. This study was supported by the Korean Institute of Environmental Science and Technology, Ministry of Environment grant (KIEST 052-081-213 072) and the Ministry of Environment of the Korean Government.

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Received February 10, 2010
Accepted March 11, 2010