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TWO NEW SPECIES OF *DRYINUS* LATREILLE (HYMENOPTERA: DRYINIDAE) FROM CHINA

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ABSTRACT

Two new species, *Dryinus chenae* and *Dryinus expolitus*, are described from Jianfengling National Nature Reserve (Hainan Province, China). *Dryinus chenae* can be recognized from the related Oriental species *D. lini* Olmi and *D. lianus* Xu, Olmi & He by the different OPL/TL ratio (OPL as long as TL in *D. chenae*, much shorter than TL in *D. lini*, much longer than TL in *D. lianus*). *Dryinus expolitus* can be recognized from the related Oriental species *D. choui* Olmi by the different sculpture (scutum granulated, with a few small areolae near the posterior margin in *D. expolitus*; almost completely reticulate rugose, with only the anterior surface of the median region granulated in *D. choui*) and color (pronotum black in *D. expolitus*, broadly testaceous in *D. choui*). Keys are provided for the determinations of the above species with illustrations of female chelae.

Key Words: Taxonomy, Hymenoptera, Dryinidae, *Dryinus*, new species, China

RESUMEN

Se describen las nuevas especies *Dryinus chenae* y *Dryinus expolitus* de la Reserva Natural y Nacional Jianfengling (Provincia de Hainan, China). *Dryinus chenae* puede ser diferenciada de las especies orientales relacionadas, *D. lini* Olmi y *D. lianus* Xu, Olmi & He, por diferencias en la relación OPL/TL (OPL tan largo como TL en *D. chenae*, mas corto que TL en *D. lini*, y mas largo que TL en *D. lianus*). *Dryinus expolitus* puede ser diferenciado de *D. choui* Olmi, que es la especie oriental mas relacionada, por diferencias en la escultura (en *D. expolitus* escudo granulado, con pocas y pequeñas areolas cercanas al margen posterior, mientras que en *D. choui* el escudo es casi completamente reticulado rugoso, solo con la superficie anterior de la región media granulada), y la coloración (pronoto negro en *D. expolitus*, y mayormente testaceo en *D. choui*). Se proveen claves para la determinación de las especies y ilustraciones de las quelas de sus hembras.

Translation provided by the authors.

Dryinidae (Hymenoptera: Chrysidoidea) are parasitoids of Hemiptera Auchenorrhyncha (Guglielmino & Olmi 1997, 2006). *Dryinus* Latreille, 1804, is a genus present in all zoogeographical regions. About 242 species have been described from all continents (Olmi 1999) and the genus was revised by Olmi (1984, 1993).

The species of *Dryinus* inhabiting China were studied in the last 20 years mainly by Xu & He (1994a, 1994b, 1998), Yang (1994), Yang & Ma (1994) and Xu et al. (2006). A recent book on Chinese Dryinids was published by He & Xu (2002).

In 2006 we have examined additional specimens of *Dryinus* from P.R. China, Hainan Province, and have found 2 new species described herein.

MATERIALS AND METHODS

The descriptions follow the terminology used by He & Xu (2002) and Olmi (1984, 1994, 1999). The measurements reported are relative, except for the total length (head to abdominal tip, without the antennae), which is expressed in millimetres. In the descriptions, POL is the distance between the inner edges of the two lateral ocelli; OL is the distance between the inner edges of a lateral ocellus and the median ocellus; OOL is the distance from the outer edge of a lateral ocellus to the compound eye; OPL is the distance from the posterior edge of a lateral ocellus to the occipital carina; TL is the distance from the posterior edge of an eye to the occipital carina.

All material studied in this paper is deposited in the Hymenoptera collection of Zhejiang University (ZJUC), Hangzhou, Zhejiang, P.R. China.

Dryinus chenae **sp. nov.** (Fig. 1)

Description. Holotype female. Fully winged. Length 5.12 mm. Head black, with mandibles and

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clypeus ferruginous; genae partly ferruginous. Antennae with segments 1-8 testaceous; segments 9-10 missing in the holotype. Mesosoma black, with posterior collar of pronotum testaceous. Gaster brown. Legs testaceous, with coxae black. Antennae clavate; antennal segments 1-8 in the following proportions: 11:7:33:18:14:12:10:8 (last 2 segments missing in the holotype). Head dull, hairless, slightly convex, with dorsal surface reticulate rugose; ventral surface of the head with medial area smooth and lateral areas sculptured by many longitudinal keels; frontal line complete; occipital carina complete, laterally not reaching the eyes; POL = 8; OL = 2.5; OOL = 8; OPL = 2; TL = 2; greatest diameter of posterior ocelli: 3. Pronotum shiny, smooth, without sculpture, except many longitudinal striae around and on the sides of the disc; pronotum with disc humped and posterior collar short; pronotal tubercles not reaching the tegulae. Scutum, scutellum and metanotum dull, reticulate rugose. Notauli almost complete, almost reaching the posterior margin of the scutum (but slightly visible near the posterior margin of the scutum among the areolae). Mesopleura dull, reticulate rugose. Metapleura dull, strongly transversely striate. Propodeum hairless, with dorsal surface reticulate rugose; posterior surface reticulate rugose, with 2 complete longitudinal keels; dorsal surface of propodeum about as long as posterior surface. Forewing with 2 dark transverse bands; distal part of stigmal vein about twice as long as proximal part (19:9). Fore tarsal segments in the following proportions: 24:2.5:5.5:17:25. Enlarged claw spatulate (Fig. 1) with a strong subdistal tooth and 1 row of 15 lamellae. Segment 5 of front tarsus (Fig. 1) with 3 rows of 6 (longer) + approximately 48 lamellae, without interruption to the distal apex. Tibial spurs 1, 1, 2.

Male. Unknown.

Holotype: Female, P.R. CHINA, Hainan Prov., Jianfengling National Nature Reserve, 12-15.vii.2006, T. F. Chen, No. 200700783 (ZJUC).

Etymology: The species is named after the collector Miss T. F. Chen.

Remarks. *Dryinus chenae* is similar to *D. lini* Olmi, 1993 (known from Taiwan and Guangxi), and *D. lianus* Xu et al. (2006) (known from Yunnan). The above species can be recognized by the different OPL /TL ratio (OPL as long as TL in *D. chenae*, much shorter than TL in *D. lini*, much longer than TL in *D. lianus*), as follows:

1 Head with OPL as long as TL ..... *chenae* **sp. nov.**

1' Head with OPL much shorter or much longer than TL 2

2 Head with OPL much shorter than TL; dorsal surface of the propodeum reticulate rugose, without parallel longitudinal keels ..... *lini* Olmi

2' Head with OPL much longer than TL; dorsal surface of the propodeum sculptured by numerous parallel longitudinal keels ..... *lianus* Xu, Olmi & He

Dryinus expolitus **sp. nov.** (Fig. 2)

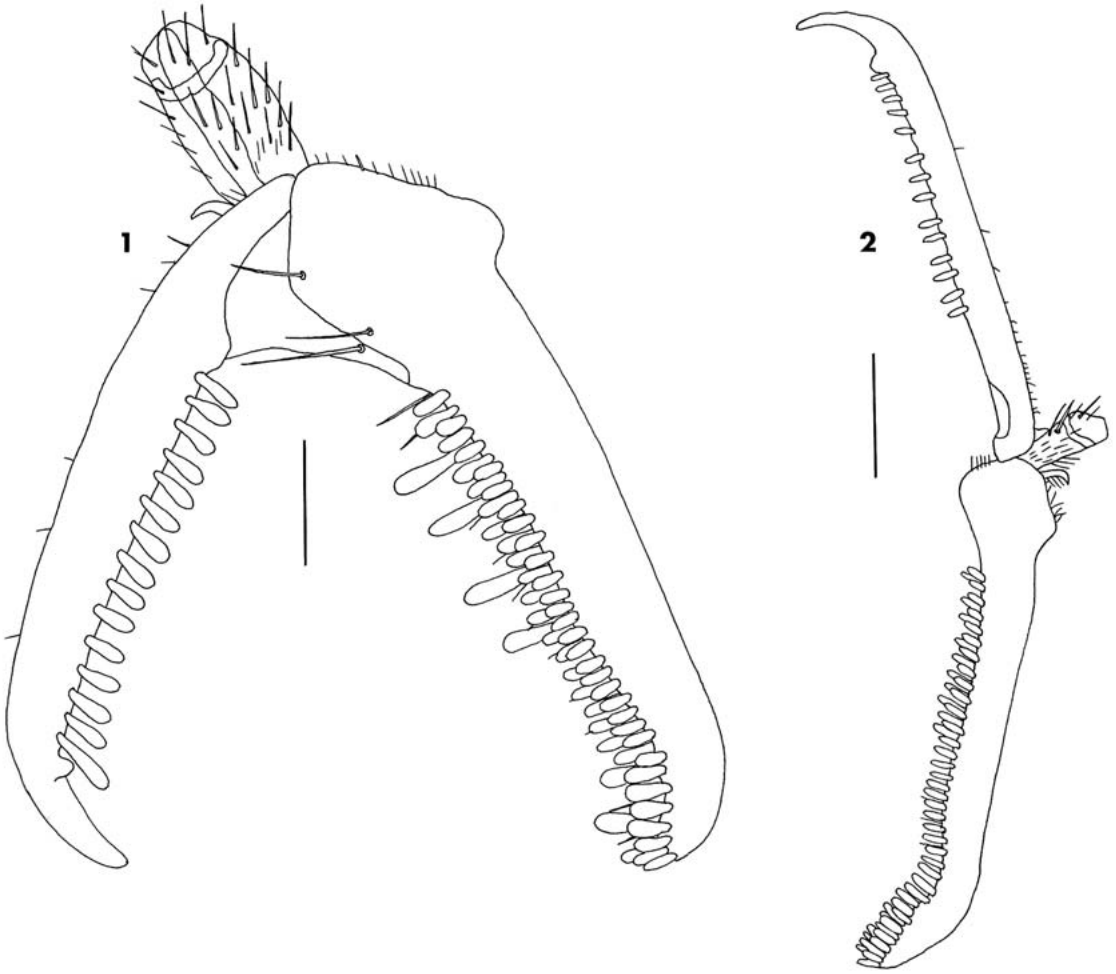
Description. Holotype female. Fully winged. Length 6.25 mm. Head black, with mandibles testaceous; clypeus black, with anterior margin whitish. Antennae brown, with segments 5-10 testaceous and ventral side of segment 1 whitish. Mesosoma black. Gaster brown. Legs black, with articulations, fore trochanters and distal third of fore coxae testaceous. Antennae clavate; antennal segments in the following proportions: 13:7:48:18:19:10:10:8:6:9. Head dull, hairless, excavated, with dorsal and ventral surface granulated; frontal line incomplete, not present in the anterior third of the frons; occipital carina complete, laterally not reaching the eyes; ocellar triangle with a few irregular keels joining the ocelli; POL = 3; OL = 4; OOL = 11; OPL = 1; TL = 2; greatest diameter of posterior ocelli: 3. Pronotum shiny, smooth, with disc granulated; sides of pronotum without sculpture and with many longitudinal striae around the disc; pronotum with disc humped and posterior collar short; pronotal tubercles not reaching the tegulae. Scutum dull, smooth, granulated, with a few areolae near the posterior margin. Notauli complete, posteriorly separated; minimum distance between the notauli longer than POL (6:3). Scutellum dull, granulated. Metanotum with anterior half reticulate rugose and posterior half smooth. Mesopleura dull, reticulate rugose. Metapleura dull, strongly transversely striate. Propodeum hairless, with dorsal surface reticulate rugose; posterior surface reticulate rugose, without longitudinal keels; dorsal surface of propodeum slightly longer than posterior surface (13:8). Forewing with 3 dark transverse bands; distal part of stigmal vein much longer than proximal part (21:9). Fore tarsal segments in the following proportions: 24:4:9:28:43. Enlarged claw not spatulate (Fig. 2) with a strong subdistal tooth and 1 row of 14 lamellae. Segment 5 of front tarsus (Fig. 2) with 2 rows of approximately 36 lamellae; distal apex with a group of at least 24 lamellae. Tibial spurs 1, 1, 2.

Male. Unknown.

Holotype: Female, P. R. CHINA, Hainan Prov., Jianfengling National Nature Reserve, 12-15.vii.2006, T. F. Chen, No. 200700723 (ZJUC).

Etymology: The specific name derives from the Latin adjective *expolitus* (smooth).

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Figs. 1-2. Chelae of holotypes. 1. *Dryinus chenae* (scale bar = 0.10 mm). 2. *Dryinus expolitus* (scale bar = 0.25 mm).

Remarks. *Dryinus expolitus* is similar to *D. choui* Olmi, 1993 (known from Taiwan).The above species can be recognized by the different sculpture (scutum granulated, with a few small areolae near the posterior margin in *D. expolitus*; almost completely reticulate rugose, with only the anterior surface of the median region granulated in *D. choui*) and color (pronotum black in *D. expolitus*; broadly testaceous in *D. choui*), as follows:

1 Pronotum broadly testaceous, with brown areas; scutum almost completely reticulate rugose, with only the anterior surface of the median region granulated . . . . . *choui* Olmi

1' Pronotum black; scutum granulated, with a few small areolae near the posterior margin . . . . . *expolitus* **sp. nov.**

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