

First Record of the Genus *Ochthera* Latreille (Diptera: Ephydriidae) in Korea

Sang Jae Suh and Yong Jung Kwon^{1*}

School of Applied Ecological Resources, Kyungpook National University, Sangju 742-711, Korea; ¹School of Applied Biosciences, Kyungpook National University, Daegu 702-701, Korea

Abstract: In this paper, two species of the shore fly belonging to the genus *Ochthera* Latreille are newly reported from Korea: *Ochthera circularis* Cresson and *O. japonica* Clausen. A key to Korean species and diagnoses are given. Photographs on external features and illustrations of male genitalic structures are also provided.

Key words: taxonomy, Diptera, Ephydriidae, *Ochthera*, Korea

INTRODUCTION

The genus *Ochthera* Latreille is one of the common shore flies being widely distributed throughout the world, so far including thirty seven species under two subgenera (Mathis and Zatwarnicki, 1995). The adults appear strikingly mantid-like with enormous raptorial forelegs which are most suitably modified for capturing and holding prey (Clausen, 1977; Miyagi, 1977).

In this paper, we report two species, *O. circularis* Cresson and *O. japonica* Clausen, belonging to the nominate subgenus *Ochthera* Latreille for the first time in Korea.

MATERIALS AND METHODS

The classification system and morphological terminology mainly followed Mathis and Zatwarnicki (1995) and Clausen (1971).

The voucher specimens examined in the present study are deposited in the Laboratory of Plant Protection at Kyungpook National University, Sangju. Abbreviations for Korean provincial names are used as follows: CB: Chungcheongbuk-do, GB: Gyeongsangbuk-do, GN: Gyeongsangnam-do, JB: Jeollabuk-do.

*To whom correspondence should be addressed.
Tel: +82-53-950-5764; Fax: +82-53-950-6758
E-mail: yjkwon@knu.ac.kr

Systematic Accounts

Order Diptera
Family Ephydriidae

Genus *Ochthera* Latreille, 1802

Ochthera Latreille, 1802: 462 (type-species: *Musca manicata* Fabricius, 1794).

Diagnosis. Head with distinct facial carina in middle; clypeus triangular; fore leg mantis-like, femur greatly enlarged, with flexor spines, tibia with large apical spur, basitarsus of male sometimes with a sensory structure on outer apex (Clausen, 1977).

Key to the Korean species of the genus *Ochthera*

1. Clypeus very large, triangular, long and pointed subgenus *Haplochila*
-. Clypeus small, subtriangular, not pointed (subgenus *Ochthera*) 2
2. Spatulate-like sensory structure present on fore basitarsus in male; head with one large porclinate pair of frontal setae *O. circularis* Cresson
-. Spatulate-like sensory structure absent on fore basitarsus in male; head with two large porclinate pairs of frontal setae *O. japonica* Clausen

Ochthera (Ochthera) circularis Cresson, 1926

(Figs. 1-2)

Ochthera circularis Cresson, 1926: 254-255 (Type-locality: Taiwan).

Diagnosis. Body length 4.0-5.0 mm, wing length 3.8-4.2 mm. Head about 0.7-0.8 times as high as long in profile; mesofrons distinguished from parafrons, sparsely and mostly uniformly brown microtomentose, at most slightly subshiny; ocellar triangle and parafrons densely dark brown microtomentose, appearing velvety; 10-15 very fine orbital setae present; 2 proclinate interfrontal bristles developed;

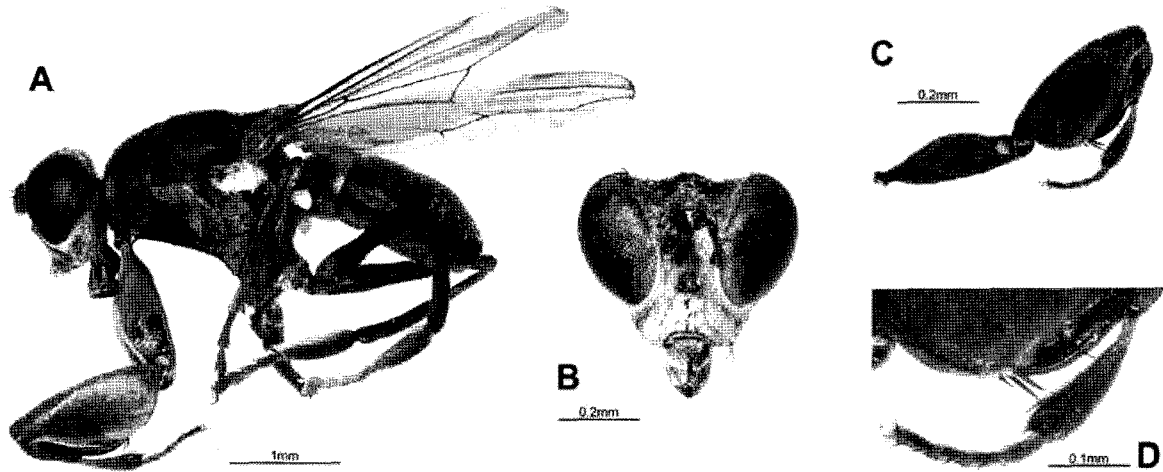


Fig. 1. *Ochthera (Ochthera) circularis* Cresson, 1926. A: habitus; B: head; C-D: Fore leg.

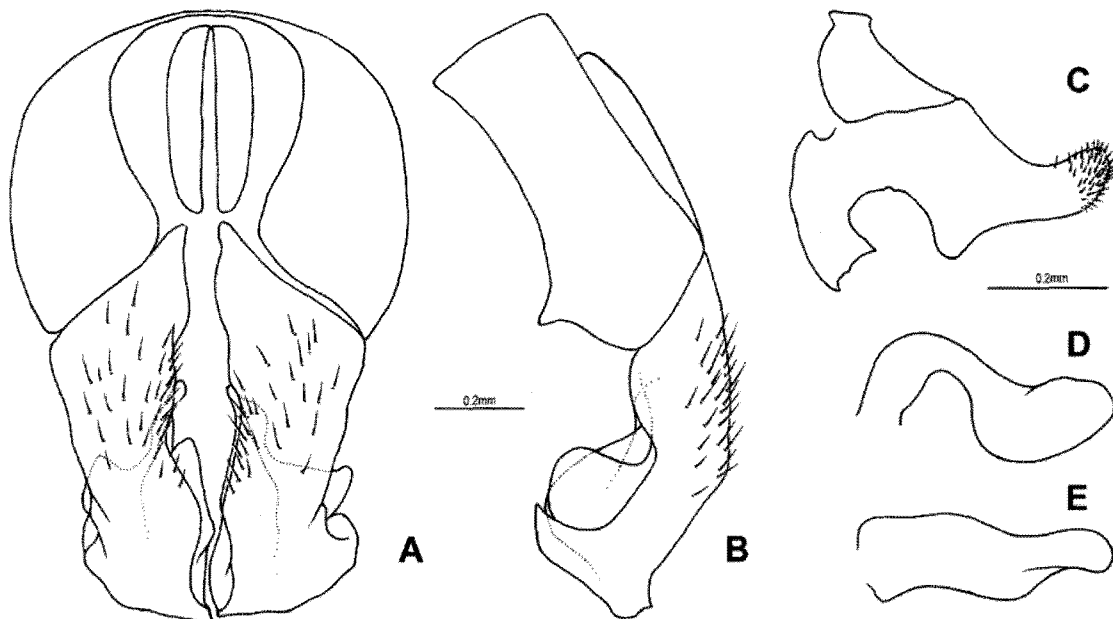


Fig. 2. *Ochthera (Ochthera) circularis* Cresson, 1926. A: male terminalia, ventral view; B: same, lateral view; C: male aedeagal, lateral view; D: male gonite, lateral view; E: same, ventral view.

ocellar bristles well developed, proclinate and divergent; vertex sunken, inner vertical bristles very weak. First and second flagellomere balck; third flagellomere tan to dark brown; arista plumose. Face and parafacialia densely silvery yellow microtomentose, with white or whitish brown parafacial bristles; facial carina very prominent with two points; cheek and clypeus densely silvery yellow microtomentose; palpus brownish black, silvery gray microtomentose; prementum brown to dark brown. Thorax generally dull; mesonotum subshiny blackish brown, densely microtomentose, mostly uniformly brown but with faint grayish brown stripes between dorsocentral and acrostichal setal rows. Scutellum microtometose, subshiny. Acrostichal setulae and dorsocentral bristles small,

inconspicuous; posterior intraalar seta well developed; lateral and apical scutellar bristles well developed. Pleura densely brown microtomentose but posterior part of pleural ridge greyish, appearing velvety; anterior anepisternum and katepisternum sunken and making pleural ridge; posterior notopleural bristle rather developed, the anterior very weak if present; 1-2 long and some fine anepisternal bristles present; 1 long katepisternal bristle. Legs black with silvery microtomentum, lacking prominent setae; fore femur greatly enlarged and bearing large flexor spines; fore tibia with large apical spur; tarsi and knees slightly brownish tinged; fore basitarsus of male with a spatulate-like sensory structure on outer apex bearing two black seate; yellow basotarsomere tuft developed. Wing hyaline, densely

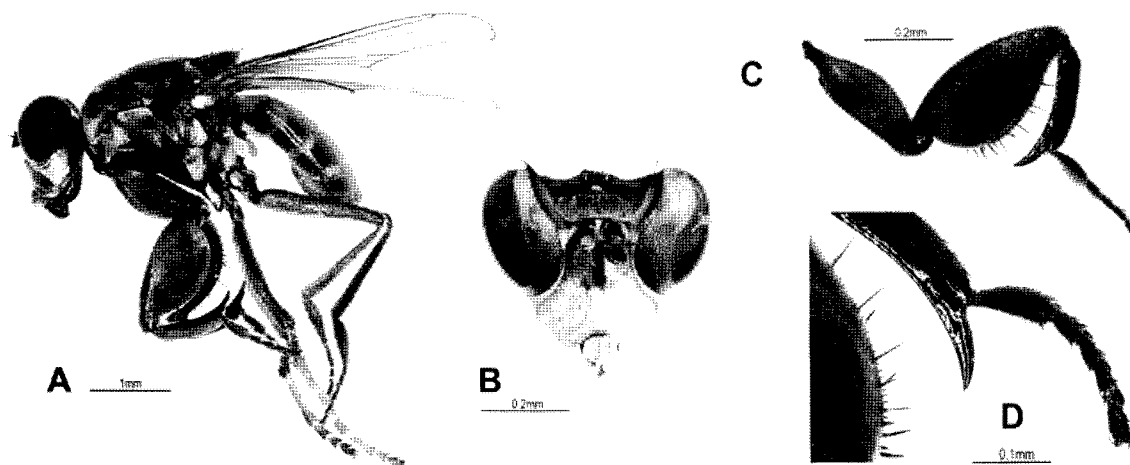


Fig. 3. *Ochthera (Ochthera) japonica* Clausen, 1977. A: habitus; B: head; C-D: Fore leg.

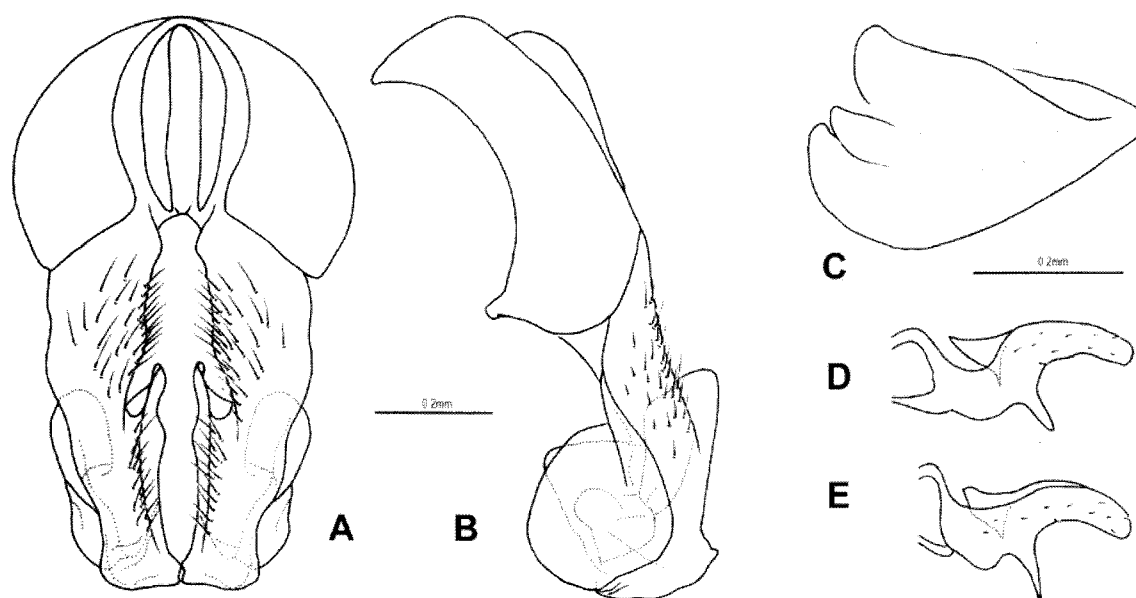


Fig. 4. *Ochthera (Ochthera) japonica* Clausen, 1977. A: male terminalia, ventral view; B: same, lateral view; C: male aedeagal, lateral view; D: male gonite, lateral view; E: same, ventral view.

brownish black tinged. Calypter white with pale fringe. Halter with knob whitish yellow. Abdomen generally subshiny black, tergites with grayish bands apically.

Material examined. 6 ♂ 4 ♀, Angol, Ungcheon-dong, Jinhae-shi, GN, 17.ix.2007, SJ Suh.

Distribution. Korea (new record), Japan, India, Indonesia, Malaysia, Nepal, Philippines, Sri Lanka, Taiwan, Vietnam.

***Ochthera (Ochthera) japonica* Clausen, 1977**
(Figs. 3-4)

Ochthera japonica Clausen, 1977: 504 (Type-locality: Japan).

Diagnosis. Body length 4.4-5.1 mm, wing length 3.9-4.4 mm. Head about 0.6-0.7 times as high as long in profile; mesofrons distinguished from parafrons, sparsely and

mostly uniformly brown microtomentose, at most slightly subshiny; ocellar triangle and parafrons densely dark brown microtomentose, appearing velvety; 15-20 very fine orbital setae present; 1 proclinate interfrontal bristle developed; ocellar bristles well developed, proclinate and divergent; vertex sunken, inner vertical bristles very weak. Antenna black to dark brown; arista plumose. Face and parafacialia densely golden microtomentose, with 10-15 black or dark brown parafacial bristles; facial carina very prominent with two points; cheek and clypeus densely golden microtomentose; postgena and occiput greyish microtomentose; palpus dark brown with brownish microtomenta; prementum black or dark brown. Thorax generally dull; mesonotum subshiny blackish brown, densely microtomentose, mostly uniformly brown but with faint grayish brown stripes between

dorsocentral and acrostichal setal rows. Scutellum microtomentose, subshiny. Acrostichal setulae and dorsocentral bristles small, inconspicuous; posterior intraalar seta well developed; lateral and apical scutellar bristles well developed. Pleura densely silvery microtomentose but anepisternum golden brown, appearing velvety; posterior notopleural bristle rather developed, the anterior very weak if present; two long and some fine anepisternal bristles present. Legs black with silvery microtomentum, lacking prominent setae; fore femur greatly enlarged and bearing large flexor spines; fore tibia with large apical spur; tarsi and knees slightly brownish tinged; mid and hind tarsi slightly brownish tinged; fore basitarsus of male without a spatulate-like sensory structure; yellow basotarsomere tuft developed. Wing hyaline, slightly brownish black tinged. Calypter dull white with pale yellow fringe. Halter with knob whitish yellow to yellow. Abdomen generally shiny black; tergites with grayish bands apically.

Material examined. 4 ♂, Chungdo-ri, Soi-myeon, Eumseong-gun, CB, 4.x.2007, SJ Suh; 3 ♂ 6 ♀, Deunggoksan, Sangno-ri, Hansu-myeon, Jecheon-shi, CB, 5.vi.2006, SJ Suh; 5 ♂ 5 ♀, Eoraesan, Handeokgol, Iryu-myeon, Chungju-shi, CB, 21.viii.2006, SJ Suh; 1 ♂ 2 ♀, Obongsan, Goesan-eup, Goesan-gun, CB, 21.vii.2006, SJ Suh; 1 ♂ 1 ♀, Uhwagyo, Chungju-dam, Jungbang-ri, Danseong-myeon, Danyang-gun, CB, 27.iv.2007, SJ Suh; 2 ♂ 2 ♀, Hwadong-ri, Gonggeom-myeon, Sangju-shi, GB, 21.vii.2009, SJ Suh; 2 ♂ 2 ♀, Jodo-ri, Seopo-myeon, Sacheon-shi, GN, 30.viii.

2007, SJ Suh; 3 ♂ 1 ♀, Baengnyeong-ri, Haseo-myeon, Buan-gun, JB, 3.ix.2006, SJ Suh; 10 ♂ 10 ♀, Haechang-ri, Haseo-myeon, Buan-gun, JB, 3.ix.2006, SJ Suh; 2 ♀, Ongnyeobong, Suryeon-ri, Sangseo-myeon, Buan-gun, JB, 3.ix.2006, SJ Suh.

Distribution. Korea (new record), Japan, Russia (Far East).

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