

## A Revision of *Systasis* Walker (Hymenoptera: Pteromalidae) from China

Hui Xiao<sup>1</sup> and Da-Wei Huang<sup>1,\*</sup>

<sup>1</sup>Institute of Zoology, Chinese Academy of Sciences, Beijing 100080, China

Tel: 86-10-62547484. Fax: 86-10-62565689. E-mail: huangdw@panda.ioz.ac.cn

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**Hui Xiao and Da-Wei Huang (2001)** A revision of *Systasis* Walker (Hymenoptera: Pteromalidae) from China. *Zoological Studies* 40(1): 7-13. The pteromalid genus, *Systasis* Walker, is reported from China for the first time. Four new species, *Systasis oculi* sp. nov., *S. ovoidea* sp. nov., *S. procerula* sp. nov., and *S. rimata* sp. nov., and 2 species newly recorded from China are dealt with in the present paper. A key is given to separate the species. The type specimens are deposited at the Zoological Museum, Institute of Zoology, the Chinese Academy of Science.

**Key words:** Hymenoptera, Pteromalidae, *Systasis*, New species, China.

The taxonomic status of *Systasis* Walker has changed several times since it was erected. The genus was placed in the tribe of Tridymini by Thomson (1876), in Tridymini, Tridyminae of the Miscogasteridae by Ashmead (1904), in Tridyminae of the Pteromalidae by Bouček (Peck et al. 1964), and in Ormocerini, Miscogasterinae of the Pteromalidae by Graham (1969). Bouček (1988) established the new tribe, Systasini, under the subfamily Ormocerinae, and placed *Systasis* Walker and *Semiotellus* Westwood in it. Based on morphological characters, we agree with the current taxonomic status of Systasini. The genus *Systasis* is close to *Semiotellus*, but differs from *Semiotellus* in the following characters: thoracic dorsum lacking coarse piliferous punctures, reticulate sculpturing barely raised above the general surface; fore wing with large speculum; postmarginal vein at most 1.5 times as long as stigmal vein.

About 49 species of this genus have been recorded, and the genus is distributed worldwide. There are 24 species in Australia, eight Palearctic species, four Oriental species, and 5 species in North America (Heydon 1995). In Asia, *Systasis* has been recorded from India and Kazakhstan (Mani 1989, Dzhanokmen 1996). This is the first report of the genus from China. We describe 3 new species, *Systasis procerula* sp. nov., *S. rimata* sp. nov., and

*S. ovoidea* sp. nov., which occur in both the Oriental and Palearctic faunal regions of China, and one new species, *S. oculi* sp. nov., from the Oriental region. We also record the fact that the geographic ranges of *S. encyrtoides* Walker, *S. tenuicornis* Walker, *S. longula* Bouček and *S. parvula* Thomson, which were all described from the Palearctic region, extend into the Oriental faunistic region in China.

Terminology generally follows that of Graham (1969). The abbreviations used are as follows: ocellar-ocular distance is OOL, posterior ocellar distance is POL, antennal funicular segments are F1 through F6, and gastral tergites are T1 through T7. We use 'eye space' to describe the shortest distance between the two eyes. Body length is measured in millimeters. The other measurements are given as a ratio to make them easy to compare and calculate.

### TAXONOMY

#### *Systasis* Walker, 1834

*Systasis* Walker, 1834: 288, 296. (Type: *S. encyrtoides* Walker; designated by Westwood 1839: 70). Graham, 1969: 257-263, key to 5 European species. Farooqi and Menon, 1972: 111-114, key to 3 Indian species. Heydon, 1995: 569-581, key to 5 Nearctic species. Dzhanokmen, 1996: 1787-1802,

\*To whom correspondence and reprint requests should be addressed.

key to 7 species from Kazakhstan.

*Paruriella* Girault, 1913: 308. (Type: *P. australiensis* Girault; by original designation). Synonymized by Bouček 1988: 310.

**Generic characters:** Body robust; antenna 12-segmented; antennal formula 11253; notauli complete, sharply cut; face with scattered umbilicate punctures; wings hyaline, with speculum extending to stigmal vein; under surface of fore wing bearing a row of long erect hairs behind the marginal vein.

It is difficult to make definitive statements about the biology of *Systasis*. Two types of host interaction are known: phytophagy and gall insect associations. At least 1 species has been recorded as a seed feeder, consuming the seeds of grasses such as *Cenchrus* L., *Panicum* L., and *Ziziphus* Mill. (Noyes 1998). Other species are associated with the galls caused by Cecidomyiidae (Diptera), such as *Asphondylia sesami* Felt (Mathur and Verma 1974), *Contarinia dalbergiae* Mani (Gangwar and Prasad 1984), *Dasineura amaramanjarae* Grover (Grover 1986), and *Dasineura ericina* (Loew) (Thompson 1958). It is presumed that *Systasis* larvae are parasitoids of the cecidomyiid larvae in the galls.

#### Key to species from China (female)

1. Fore wing without bare area between postmarginal and stigmal vein (Fig. 14), and with relatively dense hairs beyond speculum ..... 2
  - Fore wing with at least a small bare area between postmarginal and stigmal vein (Fig. 8); fore wing with relatively sparse hairs beyond speculum ..... 3
2. Face with conspicuous large umbilicate punctures; gaster 2.4 times as long as broad, longer than head and thorax together; venation slim, marginal vein 1.7 times as long as stigmal vein ..... *S. longula* Bouček
  - Face with sparse, tiny, and shallow umbilicate punctures; gaster 2 times as long as broad, equal to head and thorax together; venation slightly thickened, marginal vein 1.4 times as long as stigmal vein ..... *S. tenuicornis* Walker
3. Eye large (Fig. 1), height slightly longer than eye space; gaster 2 times as long as broad, longer than head and thorax together ..... *S. oculi* sp. nov.
  - Eye relatively small (Fig. 9), eye height shorter than or at most equal to eye space ..... 4
4. Antennal scape reaching or beyond vertex ..... 5
  - Antennal scape not reaching vertex, at most reaching median ocellus ..... 6
5. Each antennal funicular segment longer than broad (Fig. 13); postmarginal vein shorter than stigmal vein (Fig. 14); pedicellus and flagellum together about 1.4 times as long as head width; gaster 1.5 times as long as broad ..... *S. procerula* sp. nov.
  - Each antennal funicular segment square or sub-square (Fig. 7); postmarginal vein equal to stigmal vein (Fig. 8); pedicellus and flagellum together about 1.2 times as long as head width; gaster about 1.8 times as long as broad ..... *S. encyrtoides* Walker
6. Gaster at least 2 times as long as broad ..... 7
  - Gaster about 1.3-1.8 times as long as broad ..... 8
7. Head in dorsal view, 2 times as broad as long; flagellum

- (Fig. 5) slightly clavate (clava about 2.6 times as long as broad), pedicellus about as long as anelli plus F1; scutellum without a small split at anterior margin ..... *S. angustula* Graham
- Head in dorsal view, 1.4 times as broad as long; flagellum (Fig. 15) distinctly clavate (clava about 2 times as long as broad), pedicellus shorter than anelli and F1 together; scutellum with a small split at anterior margin ... *S. rimata* sp. nov.
- 8. Each funicular segment transverse (Fig. 10); pedicellus and flagellum together shorter than head width; marginal vein as long as stigmal vein; gaster 1.6 times as long as broad, shorter than the length of head and thorax together ..... *S. ovoidea* sp. nov.
- Each funicular segment square; pedicellus and flagellum together equal to head width; marginal vein distinctly longer than stigmal vein (about 1.4 times as long as stigmal); gaster 1.8 times as long as broad, and equal to length of head and thorax together ..... *S. parvula* Thomson

#### *Systasis oculi* sp. nov.

(Figs. 1, 2, 3, 4)

**Description:** Female. Body 2.5-3.0 mm. Body metallic bluish green; antennal scape yellow; legs concolorous with body, except tibiae and tarsi yellow.

Head (Figs. 1-2) in front view, with dense and small reticulation, either side of clypeus with conspicuous piliferous punctures. Eye large, height about 0.7 head height, 1.1 times as long as eye space. Scrobe distinct, barely reaching median ocellus; clypeus reticulate, epistomal sulcus distinct. Antennal insertion in middle of face; pedicellus and flagellum together shorter than head width; scape at most reaching median ocellus; pedicellus shorter than anelli plus F1; each funicular segment square, with single row of sensilla; antenna not clavate, clava slightly shorter than F3-F5 together. Relative measurements: head width 51, height 40, dorsal length 25, POL: OOL as 14: 3.5, eye space 26, eye height 28, malar space 9, flagellum plus pedicellus 45.

Thorax convex, with raised reticulation; large piliferous punctures scattered on mid lobe of mesoscutum, but lateral lobe with relatively dense piliferous punctures. Pronotum short. Propodeum almost under scutellum, angle of scutellum and propodeum about 90°; median carina complete. Fore wing (Fig. 3) with upper surface of triangular area between postmarginal vein and stigmal vein, or below stigmal vein pilose. Gaster (Fig. 4) elongate, longer than head and thorax together. Relative measurements: marginal vein 29, postmarginal vein 14, and stigmal vein 9; gaster length 94 and width 47.

**Male:** Unknown.

The new species may be recognized by the following combination of characters: body large; eye large, height about 7/10 as long as head height, and about 1.1 times as long as eye space; thorax convex;

gaster elongate, longer than head and thorax together.

**Etymology:** The specific name is from the Latin word, *ocul-* (= eye).

**Types:** Holotype: ♀, China: Fujian, Tongmu, 11 Apr. 1982 (Ju-Chang Huang). Paratypes: 2 ♀♀, China: Fujian, Tongmu, 10 Apr. 1982 (Ju-Chang Huang); 1 ♀, China: Fujian, Huanggang Mt., 27 June 1980 (Shi-Cheng Qi); 1 ♀, China: Fujian, Jianyang, 900-1170 m, 28 May 1960 (Yi-Ran Zhang).

**Biology:** Unknown.

**Distribution:** China (Fujian).

### *Systasis angustula* Graham

(Figs. 5, 6)

*Systasis angustula* Graham, 1969: 262.

**Materials examined:** China: 2 ♀♀ 2 ♂♂, Henan, Luanchuan, 11 July 1996 (Hui Xiao); 1 ♀ 2 ♂♂, same locality, 12 July 1996 (Hui Xiao); 4 ♀♀, same locality, 14 July 1996 (Hui Xiao); 5 ♀♀, Henan, Songxian, 15 July 1996 (Hui Xiao); 2 ♀♀, same locality, 16 July 1996 (Hui Xiao); 2 ♀♀, same locality, 17 July 1996 (Hui Xiao); 3 ♀♀, same locality, 18 July 1996 (Hui Xiao); 38 ♀♀ 15 ♂♂, Beijing, 19 July 1996 (Da-Wei Huang); 1 ♀ 1 ♂, Beijing, 3 July 1990 (Da-Wei Huang); 6 ♀♀ 1 ♂, Tianjin, June 1963 (Ding-Xi Liao); 3 ♀♀ 2 ♂♂, Tianjin, 20 July 1963 (Ding-Xi Liao); 1 ♀, Tianjin, 16 Sept. 1982 (Ding-Xi Liao).

**Biology:** Its known hosts are *Kiefferia pimpinellae* Hed. and *Putoniella pruni* (Kaltenbach) (Dzhanokmen 1978).

**Distribution:** China (Beijing, Tianjin, Henan); Palearctic Region (United Kingdom).

### *Systasis encyrtoides* Walker

(Figs. 7, 8)

*Systasis encyrtoides* Walker, 1834: 296. Haliday, 1841-1842: v, pl. B, fig. 1.; Graham, 1969: 261; Heydon, 1995: 574-576; Xiao & Huang, 2000: 144.

*Pteromalus geniculatus* Nees, 1834: 113. Synonymized by Graham 1993: 224.

*Tridymus punctatus* Ratzeburg, 1852: 227. Synonymized by Reinhard 1857: 78.

*Hormocerus impletus* Walker, 1872: 96. Synonymized by Graham 1969: 261.

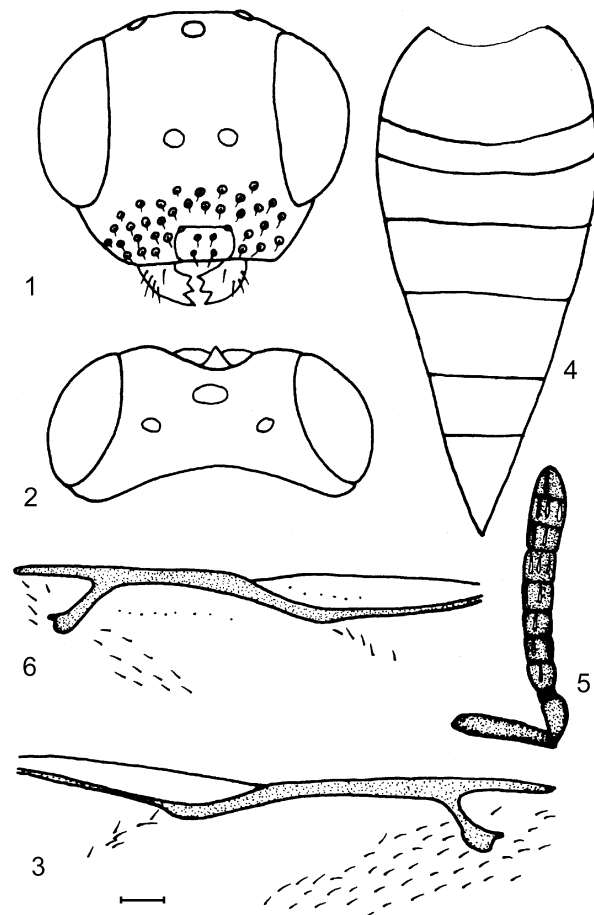
*Systasis longicornis* Thomson, 1876: 204. Synonymized by Graham 1969: 261.

**Variation:** Some specimens from Shaanxi Province have the following characteristics: gaster distinctly plump, wider than head width, longer than the length of head plus thorax.

**Materials examined:** We examined 2 specimens from NHML (1 ♀, Slov. or. Slov. N. Mesto, 31

May 1952 (Hoffer), Det. Bouček, 1953; 1 ♀, YUGOSLAVIA: Durmitor, Zabljak, env.; Crna Gora, 25 June-July 1958 (Bouček), Det. Bouček, 1958). China: 18 ♀♀ 2 ♂♂, Jilin, Erdaohe, 750 m, 1 Aug. 1996 (Da-Wei Huang); 1 ♀ 1 ♂, Fujian, Shanghang, 14 Sept. 1996 (Hui Xiao); 6 ♀♀ 1 ♂, Shaanxi, Fuping, 7 Aug. 1973.

**Biology:** The hosts of *S. encyrtoides* in China are unknown. In Europe, it has been reported from galls of cecidomyiids or agromyzids in seeds. The hosts recorded include the following genera: Cecidomyiidae - *Cecidomyia* Meigen, *Contarinia* Gagné, *Dasineura* Saunders, *Diplosiola* Solinas, and *Jaapiella* Rübbsaamen; Agromyzidae - *Phytomyza* Fallén. Other records are *Apion* Herbst (Curculionidae), *Cochylidia* Obraztsov, and *Tortrix* Denis et Schiffermüller (Tortricidae). These hosts, recorded as weevil and leafroller, must be suspected, as did Graham (1969) and Parnell (1963).



**Figs. 1-6.** 1-4. *Systasis oculi* sp. nov., female: 1, head in front view; 2, head in dorsal view; 3, fore wing; 4, gaster. 5-6. *Systasis angustula* Graham, female: 5, antenna; 6, fore wing. (Scale bar = 0.1 mm).

**Distribution:** China (Heilongjiang, Jilin, Beijing, Ningxia, Gansu, Shaanxi, Shandong, Zhejiang, Yunnan, Fujian, Hainan); Palearctic Region, Nearctic Region.

### ***Systasis tenuicornis* Walker**

*Systasis tenuicornis* Walker, 1834: 297; Graham, 1969: 260-261.

**Materials examined:** China: 6 ♀♀, Hubei, Shennongjia, Aug. 1995 (Qing-Tian Li); 1 ♀, Beijing, 8 July 1983 (Da-Wei Huang); 1 ♀, Beijing, 5 July 1983 (Da-Wei Huang); 2 ♀♀ 1 ♂, Shandong, Yashan, 9 Aug. 1964 (Zi-Qing Wang); 1 ♀, Yunnan, Lijiang, 1 Sept. 1962 (Ding-Xi Liao); 120 ♀♀ 20 ♂♂, Hebei, Xinglong, 2116 m, 24 July 1985 (Hua-Fu Mi); 17 ♀♀ 3 ♂♂, Jilin, Changbai Mt. 24 July 1990 (Da-Wei Huang); 28 ♀♀ 1 ♂, Jilin, Yanji, 23 July 1990 (Da-Wei Huang); 1 ♀, Liaoning, Shenyang, 12 June 1990 (Yu-Zhi Niu).

**Biology:** Dzhanakmen (1996) reported that the hosts are cecidomyiid species: *Bremiola hedysarii* (Fedotova), *Dasineura loniceragemmae* (Fedotova), *Jaapiella sediflora* (Fedotova), and *Spiraeanthomyia karatavica* Fedotova.

**Distribution:** China (Liaoning, Jilin, Hebei, Beijing, Shandong, Hubei, Yunnan); Palearctic.

### ***Systasis parvula* Thomson**

*Systasis parvula* Thomson, 1876: 205; Graham, 1969: 263; Xiao & Huang, 2000: 145.

**Materials examined:** China: 2 ♀♀, Beijing, 25 Sept. 1983 (Da-Wei Huang); 2 ♀♀, Beijing, 18 Aug. 1983 (Da-Wei Huang); 8 ♀♀ 2 ♂♂, Beijing, 13 Aug. 1982 (Bao-Cai Shi); 1 ♀, Henan, Luanchuan, 13 July 1996 (Hui Xiao); 1 ♀, Shaanxi, 1 Sept. 1973 (Ding-Xi Liao); 1 ♀, Shaanxi, Meixian, 22 July 1973 (Ding-Xi Liao); 1 ♀, Shaanxi, Fengxian, 25 July 1973 (Ding-Xi Liao); 6 ♀♀ 1 ♂, Shaanxi, Lintong, 4 Sept. 1973 (Ding-Xi Liao); 5 ♀♀ 1 ♂, Shandong, Yashan, 30 July 1964 (Zi-Xing Wang); 1 ♀ 2 ♂♂, Heilongjiang, Daxingan Mt. 23 July 1970 (Ding-Xi Liao); 2 ♀♀ 1 ♂, Hunan, Nanyue Mt. 17 Aug. 1980 (Xin-Wang Tong); 3 ♂♂, Jilin, Changling, 30 July 1990 (Da-Wei Huang); 1 ♀, Xinjiang, Jinghe, 24 Aug. 1955 (Shi-Jun Ma); 1 ♀, Xinjiang, Qapqal, 29 Aug. 1955 (Kai-Ling Xia); 1 ♀, Xinjiang, Usu, 4 July 1955 (Yong-Lin Chen); 10 ♀♀ 1 ♂, Hainan, Wuzhi Mt., 27 Apr. 1964 (Tai-Lu Chen).

**Biology:** Associated with the galls of the cecidomyiids: *Bremiola caraganae* (Fedotova), *Dasineura herteroae* (Stelter), and *Schizomyia galiorum* Kieffer (Dzhanakmen, 1996).

**Distribution:** China (Heilongjiang, Jilin, Xinjiang,

Beijing, Henan, Shaanxi, Shandong, Hunan, Hainan); Palearctic Region, Nearctic Region.

### ***Systasis ovoidea* sp. nov.**

(Figs. 9, 10, 11, 12)

**Description:** Female. Body 1.8-2.0 mm. Body metallic purplish blue, gaster bluish green; antenna brown except scape yellowish brown; coxae, mid and hind femora concolorous with body.

Head in front view (Fig. 9), with dense and small reticulate sculpturing. Eye somewhat small, height about 0.53 head height, 0.8 times as long as eye space. Scrobes distinct, clypeus reticulate, epistomal sulcus distinct. Antennal insertion in middle of head; scape at most reaching vertex; pedicellus and flagellum together shorter than head width; pedicellus as long as anelli plus F1; each funicular segment transverse; clava slightly longer than F3-F5 together (Fig. 10). Relative measurements: head width 33, dorsal length 22, height 30, POL: OOL as 12: 3, eye space 21, eye height 16, eye length 12, malar space 8, temple 4, flagellum plus pedicellus 30.

Thorax (Fig. 11) short and conspicuously convex, with raised reticulation; mid lobe of mesoscutum extended forward; propodeum short, almost under scutellum; median carina complete, plica almost complete. Fore wing with sparse hairs outside speculum; speculum large; basal cell bare, basal vein with single hair; upper surface of triangular area between postmarginal vein and stigmal vein bare. Gaster shorter than head plus thorax. Relative measurements: mesoscutum width 32, length 19.5, scutellum 18: 18, marginal vein 18, postmarginal vein 6, stigmal vein 6, wing width 50, gaster length 48, width 30.

**Male:** Body smaller than in female; antenna slightly clavate; each funicular segment longer than broad, or almost square; clava about 3 times as long as broad, as long as the last 3 funicular segments combined. Gaster round (Fig. 12), aedeagus elongate and equal to gaster length.

The new species can be recognized by the following characters: each funicular segment transverse; pedicellus and flagellum together shorter than head width; marginal vein as long as stigmal vein; female gaster 2.6 times as long as broad, shorter than the length of head and thorax together.

**Etymology:** The specific name is from the Latin word, *ovoideus* (= oval).

**Types:** Holotype: ♀, China: Fujian, Longyan, 12 July 1986 (Nai-Quan Ling). Paratypes: 19 ♀♀ 1 ♂, same as holotype; 1 ♂, Beijing, 6 July 1992 (Nai-Quan Ling); 1 ♂, Sichuan, Chengdu, 29 Nov. 1963

(Ding-Xi Liao).

*Biology*: Unknown.

*Distribution*: China (Beijing, Sichuan, Fujian).

***Systasis procerula* sp. nov.**

(Figs. 13, 14)

*Description*: Female. Body 2.0 mm. Body dark green; antenna blackish brown; coxae and femora concolorous with body.

Head with small reticulate sculpturing. Scrobe distinct, clypeus reticulate, epistomal sulcus distinct. Eye height about 0.56 head height, 0.64 times as long as eye space. Antennal insertion above the middle of head; scape extending beyond vertex; pedicellus and flagellum together longer than head width; pedicellus longer than F1; each funicular segment longer than broad (about 1.6 times); antenna not clavate (Fig. 13). Relative measurements: head width 33, length 20, height 25, POL: OOL as 10: 4, eye space 21.5, eye height 14, eye length 12, malar space 8, temple 3, flagellum plus pedicellus 45.

Thorax convex, with raised reticulation; mid lobe of mesoscutum slightly protruding forward, without piliferous punctures; propodeum with median carina, plica almost complete. Fore wing (Fig. 14) with sparse hairs outside speculum; basal cell bare, basal vein with hairs; upper surface of triangular area between postmarginal vein and stigmal vein pilose; postmarginal vein shorter than stigmal vein. Gaster ovoid, wider than thorax. Relative measurements: mesoscutum width 30, length 19, scutellum 15: 9, marginal vein 19, postmarginal vein 8, stigmal vein 9, wing width 43, gaster length 57, width 37.

*Male*: Unknown.

This species can be identified by the following characters: each antennal funicular segment longer than broad; postmarginal vein shorter than stigmal vein; pedicellus and flagellum together longer than head width, (about 1.4 times as long); gaster 1.5 times as long as broad.

*Etymology*: The specific name is from the Latin word, *procerulus* (= protrudent).

*Type*: Holotype: ♀, China: Hunan, 30 June 1987.

*Biology*: Unknown.

*Distribution*: China (Hunan).

***Systasis rimata* sp. nov.**

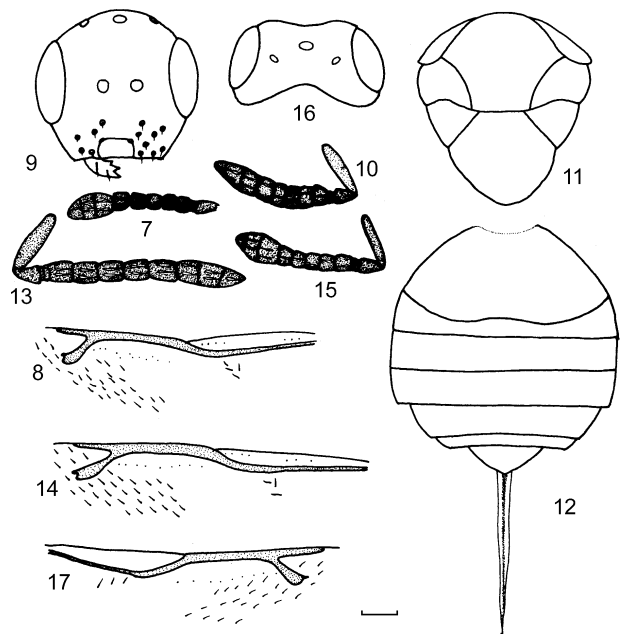
(Figs. 15, 16, 17)

*Description*: Female. Body 1.5–1.7 mm. Body metallic green; antenna blackish brown; coxae, femora, mid and hind tarsi concolorous with body.

Head with small reticulate sculpturing and scat-

tering piliferous punctures; in dorsal view about 1.4 times as broad as long (Fig. 16) Scrobe distinct, epistomal sulcus weak. Eye height about 0.64 head height, 0.9 times as long as eye space. Antennal scape at most reaching median ocellus; pedicellus and flagellum together equal to or shorter than head width; pedicellus shorter than anelli plus F1; each funicular segment square or sub-square; antenna clavate, about 2 times as long as broad, equal to following 3 segments combined (Fig. 15). Relative measurements: head width 30.5, length 22.5, height 25, POL: OOL as 9: 3.5, eye space 18, eye height 16, eye length 12.5, malar space 6, temple 3.5, flagellum plus pedicellus 30.

Thorax convex, with raised reticulation; mid lobe of mesoscutum protruding forward, with sparse piliferous punctures; scutellum with a small split at anterior margin; propodeum short, median carina complete, plica incomplete. Upper surface of fore wing (Fig. 17) and basal cell bare, basal vein with 3 hairs; triangular area between postmarginal vein and stigmal vein pilose. Gaster elongate; hind margin of T3 and T4 emarginate. Relative measurements: mesoscutum width 29, length 19, scutellum 16: 18, marginal vein 20, postmarginal vein 8.5, stigmal vein



**Figs. 7-17.** 7-8. *Systasis encyrtoides* Walker, female: 7, antenna; 8, fore wing. 9-12. *Systasis ovoidea* sp. nov., female: 9, head in front view; 10, antenna; 11, pronotum and mesothorax; 12, male, gaster. 13-14. *Systasis procerula* sp. nov., female: 13, antenna; 14, fore wing. 15-17. *Systasis rimata* sp. nov., female: 15, antenna; 16, head in dorsal view; 17, fore wing. (Scale bar = 0.1 mm).

6.5, gaster length 54, width 27.

*Male*: Unknown.

This new species can be recognized by the following characters: head in dorsal view about 1.4 times as broad as long; antenna clavate, clava about 2 times as long as broad, pedicellus shorter than anelli and F1; margin of T3 and T4 emarginate; scutellum with a small split at anterior margin.

*Etymology*: The specific name is from the Latin word, *rimatus* (= with split).

*Types*: Holotype: ♀, China: Hunan, Nanyue Mt., 6 Sept. 1980 (Xin-Wang Tong). Paratypes: 6 ♀ ♀, China: Beijing, 13 July 1982 (Bao-Cai Shi).

*Biology*: Unknown.

*Distribution*: China (Beijing, Hunan).

### ***Systasis longula* Bouček**

*Systasis longula* Bouček, 1956: 326; Graham, 1969: 263; Xiao & Huang, 2000: 145.

Bouček and Graham did not describe the male. We found male specimens in our study.

*Male*: Body slightly smaller than in female; antennal funicular segments square; basal vein of fore wing with 3 hairs; gaster short and narrow. Other characters same as in female.

*Materials examined*: China: 17 ♀ ♀ 1 ♂, Fujian, Tongmu, 25 July 1986 (Nai-Quan Lin); 1 ♀, Fujian, Longyan, 24 Sept. 1996 (Hui Xiao); 9 ♀ ♀ 1 ♂, Fujian, Shaowu, 1 Oct. 1945 (Xiu-Fu Zhao); 10 ♀ ♀ 2 ♂ ♂, Sichuan, Chengdu, 17-19 July 1964 (Ding-Xi Liao); 5 ♀ ♀, Guangxi, Xingan, 1110 m, 13 July 1985 (Chang-Fang Li); 7 ♀ ♀ 2 ♂ ♂, Shandong, Yashan, 12 May 1964 (Zi-Qing Wang); 1 ♀ 1 ♂, Heilongjiang, Harbin, 26 Aug. 1978 (Ding-Xi Liao); 1 ♀, Jiangsu, Wuxian, 13 May 1978 (Ding-Xi Liao); 1 ♀, Zhejiang, Muogan Mt. 13 June 1964 (Tai-Lu Chen); 4 ♀ ♀ 1 ♂, Hainan, Wuzhi Mt. 22 Apr. 1964 (Tai-Lu Chen); 2 ♀ ♀, Hainan, Xinglong, 6 Apr. 1964 (Tai-Lu Chen).

*Biology*: Unknown.

*Distribution*: China (Heilongjiang, Hebei, Shandong, Sichuan, Zhejiang, Jiangsu, Guangxi, Fujian); Palearctic Region.

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## 中國的毛鏈金小蜂屬之分類研究（膜翅目：金小蜂科）

肖暉<sup>1</sup> 黃大衛<sup>1</sup>

毛鏈金小蜂屬(*Systasis* Walker, 1834)是金小蜂科柄腹金小蜂亞科 Ormocerini 族中的一個屬，世界已知約 49 種，主要分布在歐洲、澳大利亞、日本和印度等地。本文記述中國 4 新種，巨眼毛鏈金小蜂(*S. oculi* sp. nov.)，圓腹毛鏈金小蜂(*S. ovoidea* sp. nov.)，長角毛鏈金小蜂(*S. procerula* sp. nov.)和裂紋毛鏈金小蜂(*S. rimata* sp. nov.)，及 2 個中國新記錄種，編製了種檢索表。模式標本存於中國科學院動物研究所動物標本館。

**關鍵詞：**膜翅目，金小蜂科，毛鏈金小蜂屬，新種，中國。

<sup>1</sup> 中國科學院動物研究所