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REVIEW OF CHINESE SPECIES OF *DEFERUNDA* (HEMIPTERA: FULGOROMORPHA: ACHILIDAE) WITH DESCRIPTIONS OF TWO NEW SPECIES

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ABSTRACT

The Chinese species of the genus *Deferunda* Distant, 1912 are reviewed. They include 9 species as follows: *D. acuminata* Chou & Wang, 1985, *D. diana* Chen & He, 2010, *D. ellipsoidea* **sp. nov.**, *D. lua* **sp. nov.**, *D. qiana* Chen & He, 2010, *D. rubrostigma* (Matsumura, 1914), *D. striata* Wang & Liu, 2008, *D. trimaculata* Wang & Peng, 2008 and *D. truncata* Chen, Yang & Wilson, 1989. The 2 new species, *D. ellipsoidea* **sp. nov.** and *D. lua* **sp. nov.**, are described and illustrated. A checklist of Chinese species and a key to all known species in the genus are provided.

Key Words: achilid, Fulgoroidea, morphology, Oriental region, taxonomy

RESUMEN

Se revisa las especies chinas del género *Deferunda* Distante, 1912. Se incluye las siguientes 8 especies: *D. acuminata* Chou y Wang, 1985, *D. diana* Chen y He, 2010, *D. ellipsoidea* spec. nov., *D. lua* spec. nov., *D. qiana* Chen y He, 2010, *D. rubrostigma* (Matsumura, 1914), *D. striata* Wang y Liu, 2008, *D. trimaculata* Wang y Peng, 2008 y *D. truncata* Chen, Yang y Wilson, 1989. Se describen e ilustran 2 nuevas especies, *D. ellipsoidea* spec. nov. y *D. lua* spec. nov. Se provee una lista de las especies de China y una clave para todas las especies conocidas del género.

Palabras Clave: achilid, Fulgoroidea, morfología, región Oriental, taxonomía

The planthopper genus *Deferunda* (Hemiptera: Fulgoromorpha: Achilidae: Plectoderini) was established by Distant (1912) with *D. stigmatica* Distant, 1912 from Bangladesh as its type species. The genus consists of 13 species, which are widely distributed in the Oriental (China, India, Bangladesh and Philippines), Palaearctic (Tajikistan, Japan and Korea) and Australian (Australia) regions. Most are distributed in the Oriental region, especially in the southern China (Chen & He 2010).

In this paper, the Chinese species of the genus *Deferunda* are reviewed and 2 new species are described and illustrated from Guizhou and Shandong Provinces, China. A checklist of Chinese species and a key to all species of *Deferunda* are provided.

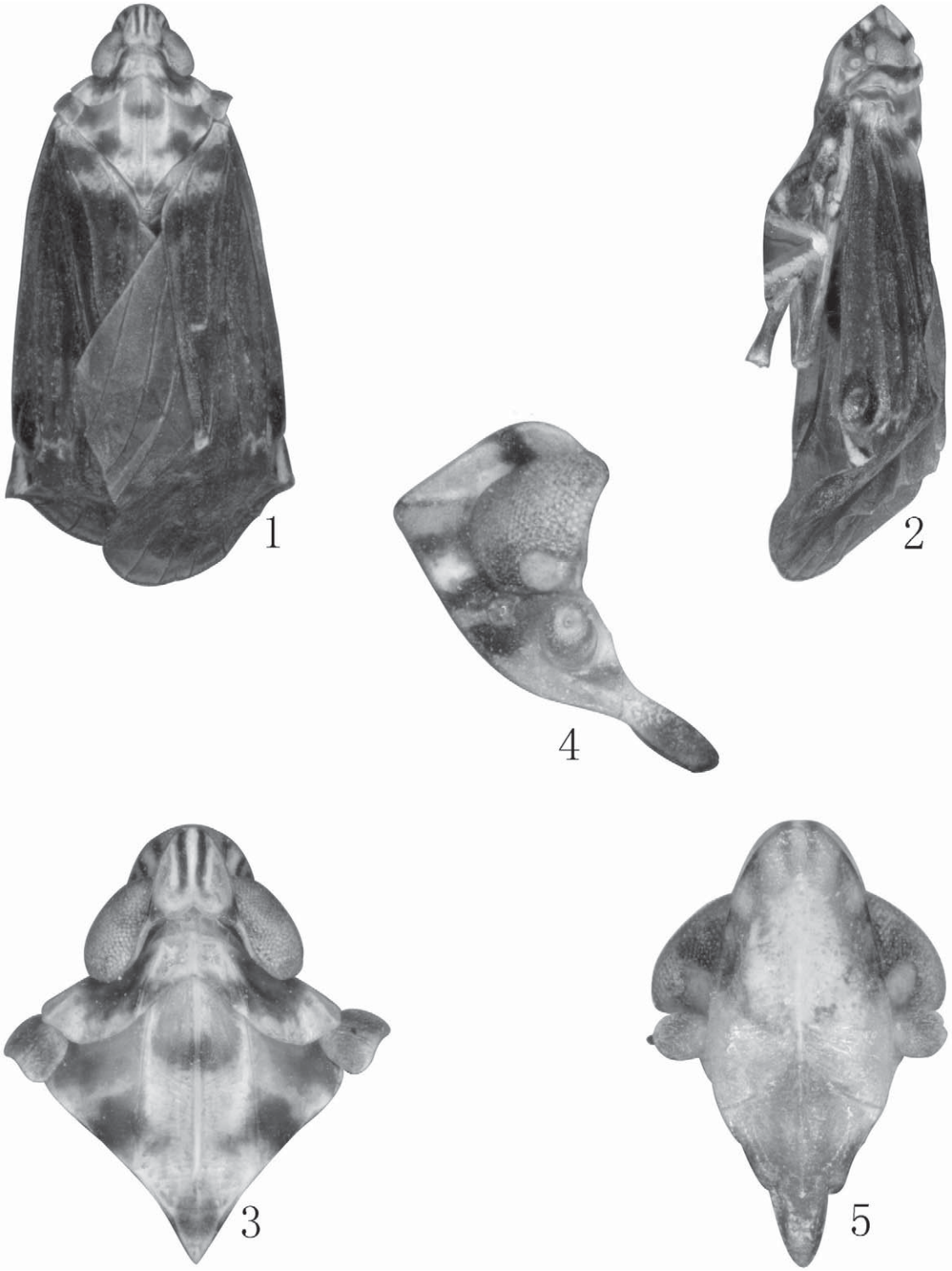
MATERIALS AND METHODS

The morphological terminology and measurements used in this study follow Chen et al. (1989) and Yang & Chang (2000). The color photographs of examined specimens were taken with a Keyence VHX-1000C camera. External morphology was observed under an Olympus SZX7 stereoscopic microscope and characters measured with an ocular micrometer. The genital segments of the examined specimens were macerated in 10% KOH and drawn from preparations in glycerin using Olympus CX41 stereomicroscope. Illustrations were scanned by Canon CanoScan LiDE100 and imported into Adobe Photoshop CS5 for labeling and plate composition. Spinal formula refers to the numbers of apical spines of the hind tibiae and 1st and 2nd hind tarsomeres. The type materials and examined materials are deposited in the Institute of Entomology, Guizhou University, Guiyang, Guizhou Province, China (IEGU).

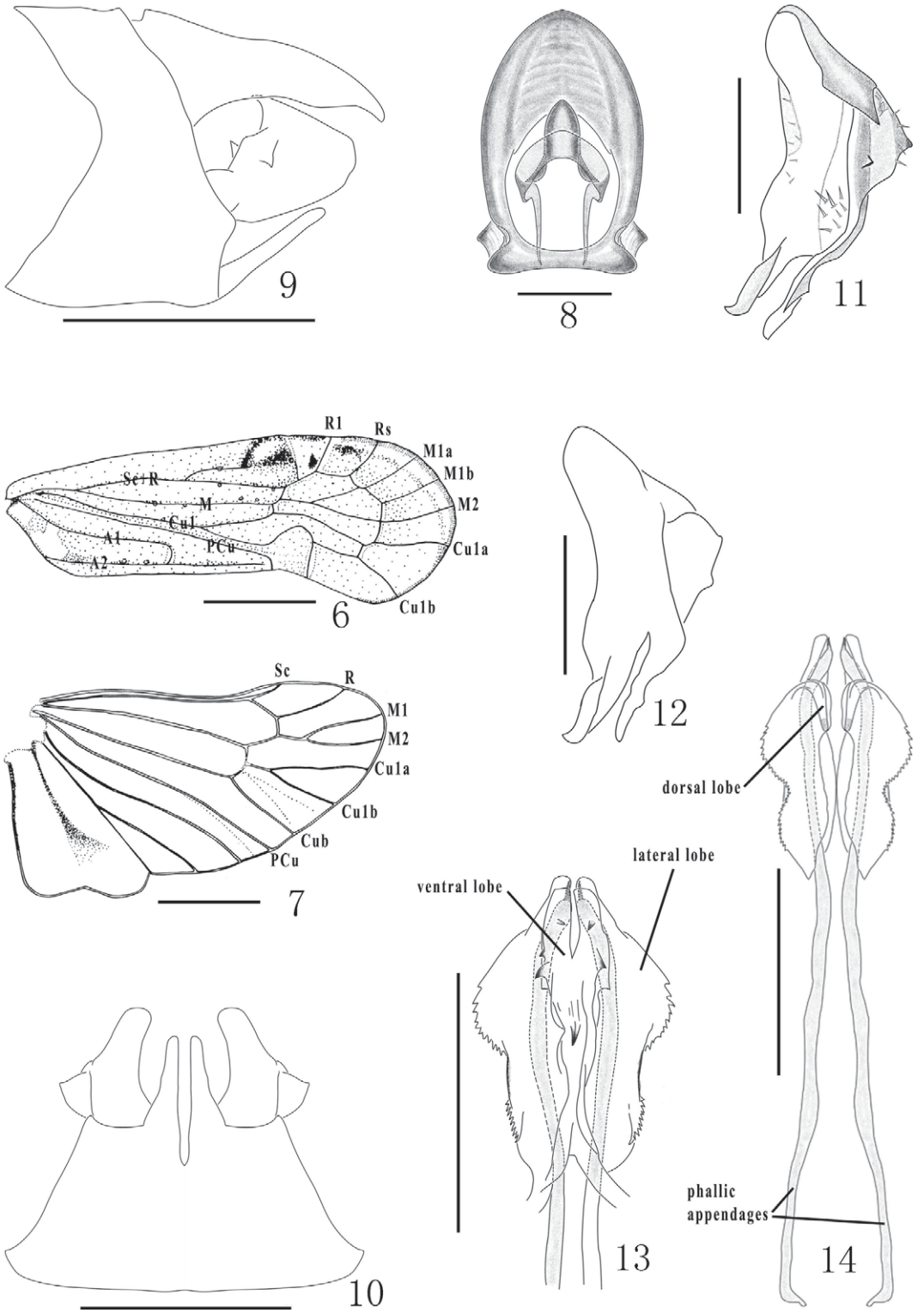
DESCRIPTIVE TAXONOMY

Genus *Deferunda* Distant, 1912 (Figs. 1-30)

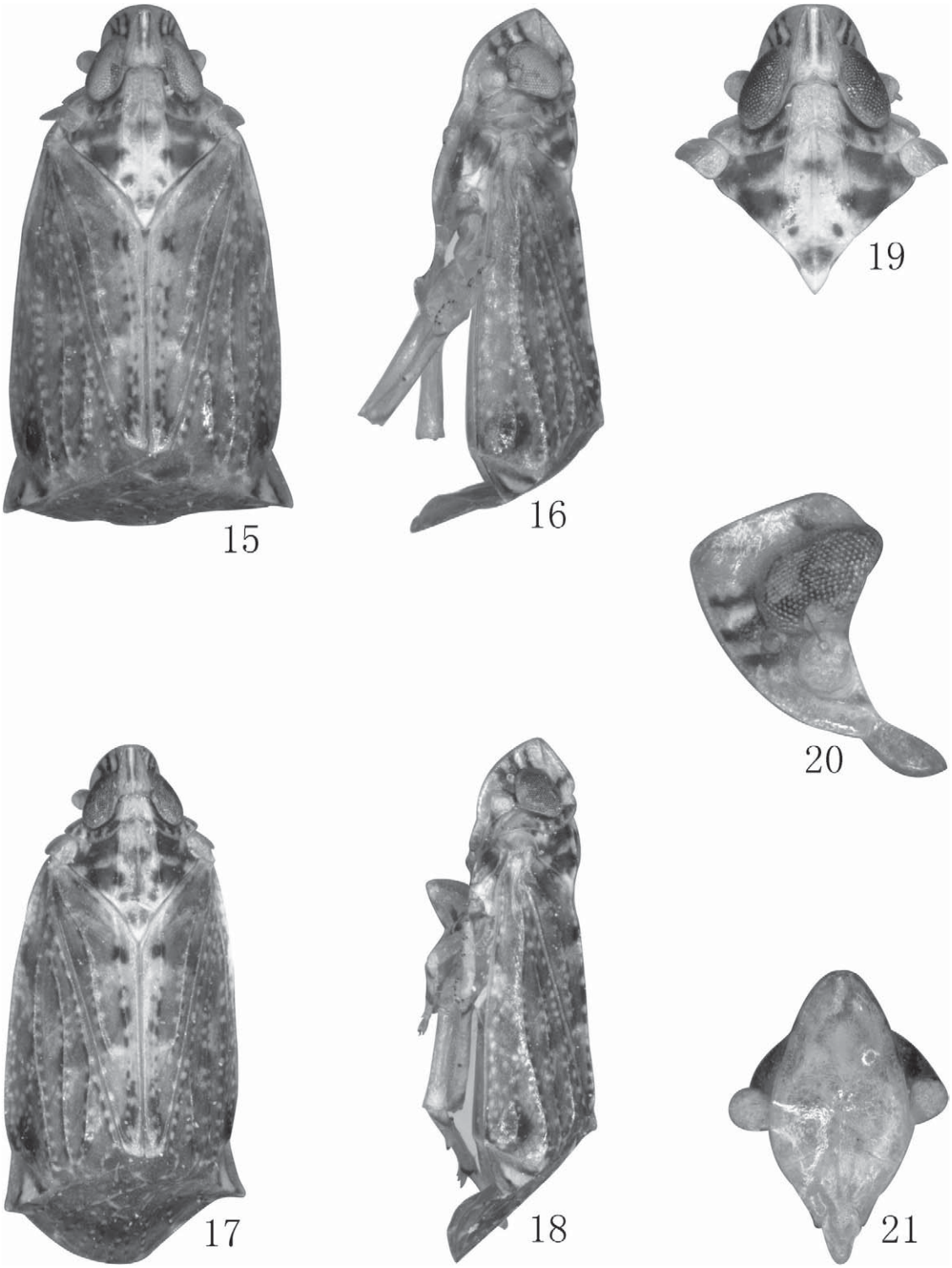
Majella Kirkaldy, 1906: 421, preoccupied by *Majella* Ortmann 1893.



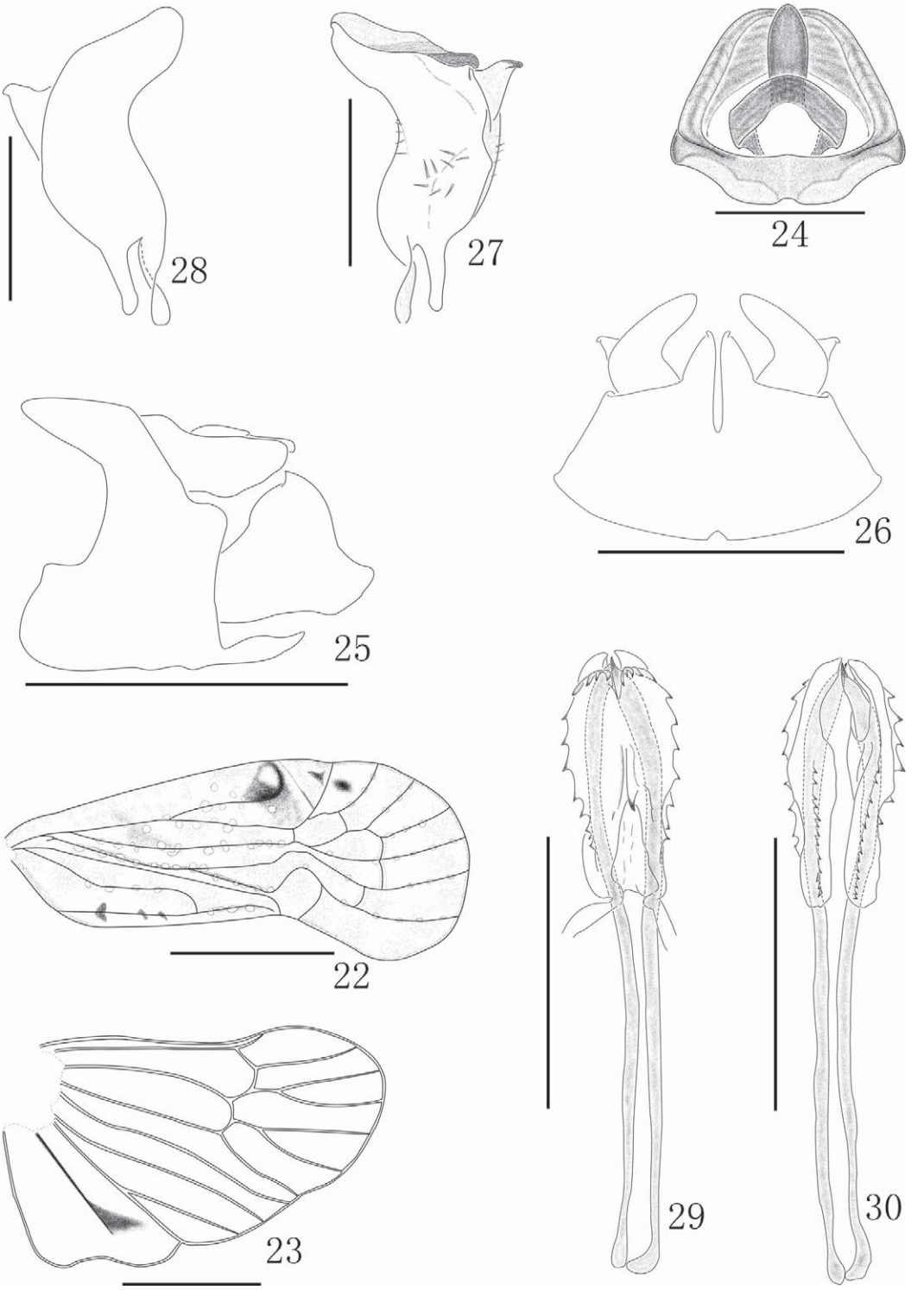
Figs. 1-5. *Deferunda ellipsoidea* **sp. nov.** 1. Male habitus, dorsal view; 2. Male habitus, lateral view; 3. Head and thorax, dorsal view; 4. Head, lateral view; 5. Face.



Figs. 6-14. *Deferunda ellipsoidea* **sp. nov.** 6. Forewing; 7. Hind wing; 8. Anal segment, dorsal view; 9. Male genitalia, lateral view; 10. Pygofer and paramere, ventral view; 11. Right paramere, dorsal view; 12. Right paramere, ventral view; 13. Apex of aedeagus, ventral view; 14. Aedeagus, dorsal view. Scale bars: = 1 mm (Figs. 6, 7); 0.5 mm (Figs. 9, 10, 13, 14); 0.2 mm (Figs. 8, 11, 12).



Figs. 15-21. *Deferunda lua* **sp. nov.** 15. Male habitus, dorsal view; 16. Male habitus, lateral view; 17. Female habitus, dorsal view; 18. Female habitus, lateral view; 19. Head and thorax, dorsal view; 20. Head, lateral view; 21. Face.



Figs. 22-30. *Deferunda lua* **sp. nov.** 22. Forewing; 23. Hind wing; 24. Anal segment, dorsal view; 25. Male genitalia, lateral view; 26. Pygofer and paramere, ventral view; 27. Right paramere, dorsal view; 28. Right paramere, ventral view; 29. Aedeagus ventral view; 30. Aedeagus dorsal view. Scale bars: = 1 mm (Figs. 22, 23); 0.5 mm (Figs. 25, 26, 29, 30); 0.2 mm (Figs. 24, 27, 28).

Deferunda Distant, 1912: 186; Fennah, 1950: 104; Chen et al. 1989: 57; Wang et al. 2008: 775; Chen and He, 2010: 60.
Okatropis Matsumura, 1914: 272, synonymised by Fennah 1950: 104.
Majellana Metcalf, 1948:63, *nom. nov.* for *Majella* Kirkaldy, synonymised by Fennah 1950: 104.

Type species: *Deferunda stigmatica* Distant, 1912: 186, by original designation.

Diagnosis

Small achilids. Head with eyes distinctly narrower than pronotum. Vertex produced before eyes two-thirds to a half length of vertex, anterior margin rounded, subtruncate or truncate, posterior margin subtruncate or slightly concave, anterior half of median carina obsolete, basal half prominent, lateral margins distinctly foliate, highly elevated, diverging posteriorly. Frons, in lateral view, slightly convex, longer in mid line than widest part, basal margin roundly convex or truncate, one-fifth as wide as broadest part; median carina simple, with basal half obsolete, lateral margins strongly foliate basally, extending laterad beneath antennae, hence incurved into suture, disk of frons depressed at basal third, or apparently so on account of deeply foliate margins. Postclypeus shorter than frons in mid line, nearly straight in lateral view. Rostrum reaching mesothoracic trochanters. Pronotum shorter than vertex in mid line, anterior margin angularly or rounded convex, lateral carinae diverging posteriorly, reaching hind margin. Mesonotum longer than vertex and pronotum combined. Forewing with Sc+R forked in basal third of forewing, Cu_1 forked level with union of claval veins, M forked level with node, Cu_1 deeply convex distad of claval apex, almost reaching M, hence slightly detached; with a callus in costal cell, 6 apical areoles distad of stigma, apical part behind apex of clavus folding down and covering apex of abdomen. Spinal formula of hind leg 8-7(8)-6(5).

Male genitalia. Anal segment, in dorsal view, broadly elliptical or ovoid with apical margin rounded, truncate or emarginate. Pygofer, in lateral view, distinctly shorter dorsally than ventrally, anterior margin concave, posterior margin convex, pygofer in ventral view with a pair of medioventral processes. Aedeagus with phallobase dividing into 4 lobes distally, ventral lobe usually cleft at apex medially. Phallic appendages slender, much longer than phallobase, tubular, tapering distally. Parameres narrow at base, and widening distally, each nearly triangular, outer margin usually with 1 or 2 processes apically and subapically. Connective long (Chen & He 2010).

Distribution

Oriental, Palearctic and Australian regions.

KEY TO SPECIES OF THE GENUS *DEFERUNDA* DISTANT

1. Frons centrally with a V-shaped dark mark (Chen & He 2010: Fig. 2) 2
—. Frons without dark mark (Figs. 5, 21) 8
2. Hind tibiae without lateral spine (Distant, 1912). . . . . *D. stigmatica* Distant
—. Hind tibiae with a lateral spine at middle near base 3
3. Anterior margin of vertex truncate (Chen et al. 1989: Fig. 28: A); apical third of forewing without milky-white spots (Chen et al. 1989: Fig. 28: D) . . . . . *D. truncata* Chen, Yang & Wilson
—. Anterior margin of vertex acute (Chen & He 2010: Fig. 1); apical third of forewing with milky-white spots (Chen & He 2010: Fig. 3) 4
4. Vertex length subequal to pronotal length in mid line (Melichar, 1914) . . . . . *D. philippina* (Melichar)
—. Vertex distinctly longer than pronotum in mid line (Chen & He 2010: Fig. 1) 5
5. Lateral margins of frons without narrow dark stripes (Chen & He 2010: Fig. 2). . . . . *D. diana* Chen & He
—. Lateral margins of frons with several narrow dark stripes (Matsumura 1914: Fig. 5: b; Chou & Wang 1985: Fig. 28: b; Chen et al. 1989: Fig. 27: B) 6
6. Vertex relatively short, as long in mid line as broad at base, median carina bordered with short longitudinal black stripes apically (Matsumura, 1914) . . . . . *D. lineola* (Matsumura)

—. Vertex relatively long, longer in median line than broad at base, median carina bordered with longitudinal dark stripes from apex to base (Matsumura 1914: Fig. 5: a; Chou & Wang 1985: Fig. 28: a; Chen et al. 1989: Fig. 27: A). 7

7. Forewing with Cu_{1a} deeply convex distad of clavus, reaching M (Chen et al. 1989: Fig. 27: D). . . . . *D. rubrostigma* (Matsumura)

—. Forewing with Cu_{1a} straight or slightly convex distad of clavus, not reaching M (Chou & Wang 1985: Fig. 8: a) . . . . . *D. acuminata* Chou & Wang

8. Forewing with irregular yellowish brown transverse marks (Wang et al. 2008: Figs. 10 and 20-21). . . . . *D. striata* Wang & Liu

—. Forewing without above marks (Figs. 1, 15 and 17; Wang et al 2008: Figs. 2 and 18). 9

9. Lateral margins of frons with 5 narrow dark brown stripes (Wang et al. 2008: Fig. 1); forewing with costal margin red, apical region with 3 red triangular marks (Wang et al. 2008: Figs. 2 and 18). . . . . *D. trimaculata* Wang & Peng

—. Lateral margins of frons without dark brown stripes (Figs. 5 and 21); forewing without above marks (Figs. 1, 6, 15, 17 and 22). 10

10. Forewing with apex of clavus sanguineous with a large bluish-black spot; base of first apical cell sanguineous (Kirkaldy, 1906). . . . . *D. majella* (Kirkaldy)

—. Forewing not as above (Figs. 1, 6, 15, 17 and 22) 11

11. Anal segment in dorsal view longer than widest part, with apical margin rounded (Fig. 8). . . . . *D. ellipsoidea* **sp. nov.**

—. Anal segment in dorsal view shorter than widest part, with apical margin slightly incised in middle (Fig. 24) 12

12. Pygofer with mediaoventral processes narrow in the middle, thence diverging apically (Dlabola, 1961: Fig. 32) . . . . . *D. incompta* Dlabola

—. Pygofer with mediaoventral processes not as above (Fig. 26) 13

13. Clypeus and mesonotum dark brown (Muir, 1922); each medioventral process of pygofer as right angled triangles (Muir, 1922); paramere with 1 process on outer margin (Muir, 1922) . . . . . *D. albomaculata* (Muir)

—. Clypeus with apical half brown to fuscous or totally yellowish white (Fig. 21); mesonotum yellowish brown, with irregular brown to fuscous markings (Fig. 19); each medioventral process of pygofer not as above (Fig. 26); paramere with 2 processes (Fig. 27). 14

14. Clypeus with apical half brown to fuscous (Chen & He 2010: Fig. 14); basal margin of pygofer in ventral view not incised in middle (Chen & He 2010: Fig. 18); aedeagus with phallobase in ventral view, each ventral lob with 4 or 5 spines on ventral aspect, 2 large forked processes arising from near middle of lateral margin, inner branch with 3 apical teeth, outer branch with apex acute, curving ventrad apically (Chen & He 2010: Fig. 21) . . . . . *D. qiana* Chen & He

—. Clypeus yellowish white (Fig. 21); basal margin of pygofer in ventral view incised in middle (Fig. 26); aedeagus with phallobase, in ventral view, with a strong spine-like process at mid line, directed basad, lateral margins dentate, left lobe at apex divided into 4 small processes, right lobe at apex divided into 5 small processes (Fig. 29) . . . . . *D. lua* **sp. nov.**

Deferunda acuminata Chou & Wang, 1985

Deferunda acuminata Chou & Wang (in Chou et al. 1985): 32.

Materials Examined

14♂♂, 3♀♀, Jianfengling National Nature Reserve, Hainan Province, China, 13-16-I-2011, J.-K. Long; 2♂♂, Jianfengling National Nature Reserve, Hainan Province, China, 13-16-I-2011, W.-B. Zheng.

Distribution

China (Hainan).

Deferunda diana Chen & He 2010

Deferunda diana Chen & He 2010:62.

Materials Examined

5♂♂, 3♀♀, Tenchong, Yunnan Province, China, , Yunnan Province, China, 13-VIII-2006, Q.-Z. Song and Z.-G. Zhang; 1♂, 4♀♀, Xiaguan, Dali, Yunnan Province, China, 4-VIII-2006, Q.-Z. Song; 3♂♂, 5♀♀, Pianma (1,800 m), Lushui, Yunnan Province, 16-VIII-2000, X.-S. Chen; 1♂, Xishan Park (1,950 m), Kunming, Yunnan Province, 31-VIII-2006, P. Zhang.

Distribution

Southwest China (Yunnan).

Deferunda ellipsoidea **sp. nov.** (Figs. 1-14)

Materials Examined

HOLOTYPE: ♂, Dayi (N 25°21' E 106°06', 1,220-1,320m), Wangmo County, Guizhou Province, China, 21-23-VIII-2011, S.-Y. Xu; paratypes: 2 ♂♂, same data as holotype.

Etymology

The feminine species name is derived from the Latin word "ellipsoideus" (ellipsoidal), indicating the anal segment ellipsoidal in dorsal view.

Description

Measurement. Body length (from apex of vertex to tip of forewings): male 4.5-4.8 mm (n = 3); forewing length: male 3.5-4.0 mm (n = 3).

Coloration. General color yellowish white to fuscous (Figs. 1-5). Vertex (Figs. 1 and 3) yellowish white with 2 long fuscous stripes along mid line from apical two thirds to apex and base third yellowish fuscous, lateral carinae brown. Frons (Fig. 5) yellowish white. Clypeus shallow brown to brown. Rostrum light brown except apex fuscous. Genae (Fig. 4) yellowish white, with 3 fuscous transverse stripes before eyes (2 above and 1 below ocelli), 1 dorsad, area beneath antenna with a pale brown marking. Eyes (Figs. 1-5) brown, ocelli reddish brown. Antennae yellowish brown to brown. Pronotum (Figs. 1, 3) yellowish white, areas behind eyes yellowish fuscous, area between lateral carina with yellowish fuscous near posterior margin. Disk of mesonotum yellowish brown, with large asymmetrical fuscous marks. Tegula mostly yellowish fuscous. Forewing (Figs. 1-2 and 6) fuscous, with a few white spots scattered at the basal area before apex of clavus, base of clavus with 2 yellowish white markings, veins reddish fuscous with part behind apex of clavus reddish, callus blackish brown, tinged with reddish orange margin, apical and outer margins reddish. Hind wing (Fig. 7) pale brown, veins brown, with a brown marking at anal region. Thorax with ventral areas brown to fuscous. Legs yellowish fuscous to fuscous. Abdomen fuscous, except lateral margin light fuscous. Genital segment yellowish fuscous to fuscous.

Head and thorax. Width of vertex measured at base of mid line in the dorsal view (Fig. 3) more than length along middle (1.1:1), disk strongly depressed, apex slightly acute, anterior margin rounded, posterior margin sinuate, angularly concave medially, median carina with basal half distinct, lateral carinae strongly keeled. Frons (Fig. 5) longer in mid line than widest part (1.3:1), widest near apical third, basal margin slightly roundly convex, apical margin concave medially, median disk distinctly depressed, median carina with basal half obsolete, lateral margins strongly foliate. Rostrum with ratio of length of apical to subapical segment 1.5:1. Pronotum (Fig. 3) in mid line shorter than vertex (0.5:1). Mesonotum (Fig. 3) longer in mid line than vertex and pronotum combined (1.8:1). Forewing (Fig. 6) longer than widest part (2.7:1). Hind wing (Fig. 7) longer than widest part (1.8:1). Spinal formula of hind leg 8-7-6.

Male genitalia. Anal segment in dorsal view (Fig. 8) ellipsoidal with length greater than width (1.6:1), apical margin rounded, anal style relatively short and not extending beyond apical margin of anal segment. Pygofer in lateral view (Fig. 9) distinctly shorter dorsally than ventrally, anterior margin with a strongly concave, posterior margin with a rounded process in ventral quarter, pygofer in ventral view (Fig. 10) subtrapezoidal, each medioventral process finger-like, narrowing distally, 2 processes connected basally, median cleft deep. Parameres (Figs. 11 and 12) arched in dorsal and ventral views, apex rounded, dorsal margin with 2 large processes, 1 extending anteriorly, the other extending laterally, the latter with a small basal process on inner surface. Phallic appendages (Fig. 14) longer than phallobase (2.8:1). Aedeagus with phallobase tubular, membranous, divided into 4 lobes at apex, in ventral view (Fig. 13) not quite bilaterally symmetrical, lateral processes reduced, with a strong spine-like process at mid line, directed basad, ventral lobe cleft at apex medially, 2 ventral lobes rounded at apex, left side with 3 subapical spines, right side with 2 subapical spines, lateral margins with the dorsal aspect with dentate margins near the base; in dorsal view (Fig. 14), aedeagus with phallobase almost symmetrical, dorsal lobes apically digitate and bent forward, most of lateral margins strongly dentate.

Distribution

Southwest China (Guizhou).

Remarks

This species is similar to *D. truncata* Chen, Yang & Wilson, 1989 (China: Taiwan), but can be distinguished by the frons centrally without any marks (frons centrally with a V-shaped dark marks in *truncata*); anterior margin of vertex rounded (truncate in *truncata*); hind tibiae with a lateral spine at middle near to base, spinal formula of hind leg 8-7-6 (8-7-5 in *truncata*). This species also differs from other species of *Deferunda* in the anal segment in dorsal view ellipsoidal with distinctly longer than widest part (1.6:1); dorsal margin of the parameres in dorsal view with 2 large processes, 1 extending anteriorly, the other extending laterally, the latter process with a small process at inner surface basally.

Deferunda lua **sp. nov.** (Figs. 15-30)

Materials Examined

HOLOTYPE: ♂, Yellow River Delta National Nature Reserve (N 37°35'–38°12' E 118°33'–119°20', 0–6m), Shandong Province, China, 4-VIII-2011, J.-K. Long; paratypes: 7 ♂♂ 8 ♀♀, same data as holotype; 22 ♂♂ 10 ♀♀, Yellow River Delta National Nature Reserve, Shandong Province, China, 4-VIII-2011, Z.-M. Chang; 12 ♂♂ 4 ♀♀, Yellow River Delta National Nature Reserve, Shandong Province, China, 4-VIII-2011, W.-B. Zheng.

Etymology

The feminine specific name refers to the type locality, with the word "lu" being the transliteration of the Chinese shortened form for Shandong Province.

Description

Measurement. Body length (from apex of vertex to tip of forewings): male 3.5-3.9 mm (n = 42), female 3.8-4.5 mm (n = 22); forewing length: male 2.8-3.2 mm (n = 42), female 3.0–3.6 mm (n = 22).

Coloration. General color yellowish white to fuscous (Figs. 15-21). Vertex (Figs. 15, 17 and 19) yellowish white with 2 long fuscous stripes along mid line from apical two thirds to apex, lateral carinae brown. Frons and clypeus (Fig. 21) yellowish white. Rostrum light brown except apex fuscous. Gena (Fig. 20) yellowish white, with 3 fuscous transverse stripes before eyes (2 above and 1 below ocelli), 1 dorsad, area beneath antenna with a light fuscous marking. Eyes (Figs. 15-21) brown, ocelli reddish brown. Antennae yellowish brown to brown. Pronotum (Figs. 15, 17 and 19) yellowish brown, lateral areas with 3 fuscous spots, areas behind eyes fuscous. Mesonotum yellowish brown, with irregular brown to fuscous markings. Tegula yellowish brown. Forewing (Figs. 15-18 and 22) pale brown to brown, distributing irregular brown to fuscous markings, along veins, with narrow black stripes, many white spots scattered, most of them near veins, callus blackish brown, tinged with reddish orange margin. Hind wing (Fig. 23) pale brown, veins brown, with a brown marks on anal region. Thorax with ventral areas brown to fuscous. Legs yellowish brown to brown, outside margin of each end of hind tibiae with a small brown mark. Abdomen fuscous, except lateral margin pale fuscous. Genital segment yellowish brown to brown.

Head and thorax. Width of vertex measured at base of mid line in the dorsal view (Fig. 19) narrower than length along middle (0.8:1), disk strongly depressed, apex slightly acute, anterior margin subtruncate, posterior margin sinuate, angularly concave medially, median carina with basal half distinct, lateral carinae strongly keeled. Frons (Fig. 21) longer in mid line than widest part (1.1:1), widest near apical third, basal margin slightly roundly convex, apical margin concave medially, median disk distinctly depressed, median carina with basal half obsolete, lateral margins strongly foliate. Rostrum with ratio of length of apical to subapical segment 1:1. Pronotum (Fig. 19) in mid line shorter than vertex (0.6:1). Mesonotum (Fig. 19) longer in mid line than vertex and pronotum combined (1.7:1). Forewing (Fig. 22) longer than widest part (2.4:1). Hind wing (Fig. 23) longer than widest part (1.6:1). Spinal formula of hind leg 8-7-6.

Male genitalia. Anal segment in dorsal view (Fig. 24) slightly shorter than widest part (0.84:1), with apical margin slightly incised in middle, anal style slightly extending out apical margin of anal segment. Pygofer, in lateral view (Fig. 25), distinctly shorter dorsally than ventrally, anterior margin strongly concave above ventral fourth, posterior margin with a rounded process at middle; pygofer, in ventral view (Fig. 26), with basal margin incised in middle, medioventral processes swollen, narrowing apically, 2 processes connected basally, median cleft deep. Parameres arched in dorsal and ventral views (Figs. 27 and 28), apex rounded, dorsal margin with 2 processes. Phallic appendages (Figs. 29 and 30) longer than phallobase (2.5:1). Aedeagus with phallobase almost bilaterally symmetrical, tubular, membranous, dividing into 4 lobes at apex, in ventral view (Fig. 29), ventral lobe cleft at apex medially, with a strong spine-like process at mid line, directed basad, lateral margins dentate, left lobe at apex dividing into 4 small processes, right lobe at apex diving into 5 small processes; in dorsal view (Fig. 30) dorsal lobes reduced, rounded at apex, each with a longitudinal row of spines.

Distribution

East China (Shandong).

Remarks

This species is closely related to *D. albomaculata* (Muir 1922) (India: Assam), but can be distinguished by the clypeus yellowish white, mesonotum yellowish brown, with irregular brown to fuscous marks (clypeus and mesonotum dark brown in *albomaculata*); each medioventral process of pygofer swollen, narrowing apically (as right angle triangles in *albomaculata*); paramere with 2 processes on outer margin (with 1 process on outer margin subapically in *albomaculata*). This species is also similar to *D. qiana* Chen & He 2010 (China: Guizhou, Yunnan), but differs from the latter in: clypeus yellowish white (clypeus with apical half brown to fuscous in *qiana*); basal margin of pygofer in ventral view incised in middle (not incised in *qiana*), aedeagus with phallobase in ventral view with a strong spine-like process at mid line, directed basad, lateral margins dentate, left lobe at apex dividing into 4 small processes, right lobe at apex diving into 5 small processes (aedeagus with phallobase in ventral view, each ventral lobe with 4 or 5 spines at ventral side subapically, 2 large forked processes arising from near middle of lateral margin, inner branch with 3 teeth at apex, outer branch with apex acute, curving ventrad apically in *qiana*).

Deferunda qiana Chen & He 2010

Deferunda qiana Chen & He 2010: 64.

Materials Examined

1 ♂, 1 ♀, Ceheng, Guizhou province, , Guizhou province, 8-VII-1977, Z.-Z. Li; 1 ♂, Luodian, Guizhou Province, Guizhou Province, 16-IX-1994, X.-S. Chen; 1 ♂, Lijiang, Yunnan Province, 11-VIII-2000, X.-S. Chen; 3 ♀♀, Ceheng, Guizhou Province, 1-VII-2006, Z.-G. Zhang; 4 ♂♂, 5 ♀♀, Xietang, Huishui, Guizhou Province, China, shrubbery or grasses, grasses, 31-V-2008, X.-S. Chen; 1 ♀, Bazong, Luodian, Guizhou Province, 1-VI-2008, X.-S. Chen; 2 ♂♂, 2 ♀♀, Nabang, Yingjiang, Yunnan Province, unnan Province, 30-V-2011, J.-K. Long; 1 ♂, 1 ♀, Nabang, Yingjiang, Yunnan Province, unnan Province, 1-VI-2011, light trap, J.-K. Long; 1 ♂, 1 ♀, Moli, Ruili, Yunnan Province, unnan Province, 5-VI-2011, J.-K. Long; 19 ♂♂, 26 //, Baihualing, Gaoligongshan National Nature Reserve, Baoshan City, Yunnan Province, 13-VI-2011, J.-K. Long; 3 ♂♂, 6 ♀♀, Cikai, Gongshan, Yunnan Province, 28-VII-2011, J.-K. Long; 2 ♂♂, 5 ♀♀, Bingzhongluo, Gongshan, Yunnan Province, 29-31-VII-2011, J.-K. Long; 20 ♂♂, 25 ♀♀, Fuxing, Wangmo, Guizhou Province, 19-VIII-2012, J.-K. Long, Z.-M. Chang, W.-B. Zheng and S.-Y. Xu; 57 ♂♂, 38 ♀♀, Zhelou, Ceheng, Guizhou Province, Province, 25-VIII-2012, J.-K. Long, Z.-M. Chang, W.-B. Zheng and S.-Y. Xu.

Distribution

China (Guizhou, Yunnan).

Deferunda rubrostigma (Matsumura, 1914)

Okatropis rubrostigma Matsumura, 1914: 273.
Deferunda rubrostigma, Fennah, 1950:104; Chen et al. 1989: 57.

Materials Examined

No specimens of this species were available for this study.

Distribution

China (Taiwan, Hunan Provinces), Japan, Korea.

Deferunda striata Wang & Liu 2008

Deferunda striata Wang & Liu (in Wang, Peng & Liu 2008): 778.

Materials Examined

No specimens of this species were available for this study.

Distribution

China (Hainan).

Deferunda trimaculata Wang & Peng, 2008

Deferunda trimaculata Wang & Peng (in Wang, Peng & Liu 2008): 776.

Materials Examined

1 ♂, Bawangling National Nature Reserve, Hainan Province, China, 10-11-I-2011, J.-K. Long; 5 ♂♂, 3 ♀♀, Jianfengling National Nature Reserve, Hainan Province, China, Province, China, 13-16-I-2011, J.-K. Long; Jianfengling National Nature Reserve, Hainan Province, China, Hainan Province, China, 16-I-2011, W.-B. Zheng.

Distribution

South China (Hainan).

Deferunda truncata Chen, Yang & Wilson 1989

Deferunda truncata Chen, Yang & Wilson 1989:

Materials Examined

No specimens of this species were available for this study.

Distribution

Southeast China (Taiwan).

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