

## A REVIEW OF THE GENUS *HOMONEURA* FROM GUANGXI, CHINA (DIPTERA: LAUXANIIDAE)

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**ABSTRACT.** – The species of the genus *Homoneura* from Guangxi are revised. The following 6 species are described as new to science: *Homoneura (Homoneura) abnormis*, new species, *H. (H.) brevis*, new species, *H. (H.) jiangi*, new species, *H. (H.) longispina*, new species, *H. (H.) tianeensis*, new species, and *H. (H.) tianlinensis*, new species. The following 2 species are recorded from China for the first time: *H. (H.) cornuta* Sasakawa, 2001, and *H. (H.) immaculata* (de Meijere, 1910). A key to the species of the genus from Guangxi is presented.

**KEY WORDS.** – Lauxaniidae, *Homoneura*, Guangxi, new species.

### INTRODUCTION

The genus *Homoneura* van der Wulp, is one of the largest genera in the family Lauxaniidae in China and distributed worldwide (Stuckenberg, 1971; Kim, 1994). There are 44 known species from the Palaearctic Region (Papp, 1984) and 138 known species from the Oriental Region (Shewell, 1977). Up to the present, 70 species are known to occur in China, mainly based on studies by Kertész (1913, 1915), Malloch (1929), Shatalkin (1998), Gao & Yang (2002) and Yang, Hu & Zhu (2001, 2002), Yang, Zhu & Hu (1999). Guangxi is located in Southwest China, and belongs to the Oriental Realm with subtropical and tropical climate. Its fauna is very rich. In the present paper, the genus *Homoneura* is reported from Guangxi for the first time with 11 species. Among them 6 species are described as new to science, and 2 species which are new to China, are redescribed. A key to the species of the genus from Guangxi is given. The types are mainly deposited in the insect collection of China Agricultural University (CAU) except some paratypes kept in the Zoological Reference Collection (ZRC) of the Raffles Museum of Biodiversity Research, National University of Singapore.

### TAXONOMY

#### Key to species of *Homoneura (Homoneura)* from Guangxi

1. Wing mostly brown; face with brown spots on ventral part ..... *picta* (de Meijere)  
– Wing mostly yellowish; face without brown spots on ventral part ..... 2
2. Thorax with stripes; abdomen mostly brown ..... 3  
– Thorax without stripes, abdomen mostly yellow or yellow brown ..... 4
3. Subcostal cell clear apically; thoracic dorsum black brown ..... *immaculata* (de Meijere)  
– Subcostal cell dark apically; thoracic dorsum testaceous yellow with a pair of brown stripes ..... *bistriata* (Kertész)
4. Thorax dark brown; wing with 3 brown spots behind r-m on  $R_{4+5}$  ..... *tianlinensis*, new species  
– Thorax yellow; wing with 1-2 brown spots behind r-m on  $R_{4+5}$  ..... 5
5. Wing with r-m cloud; abdomen with black spots on dorsum ..... 6  
– Wing with r-m clear; abdomen without spots, or with tergites 1-6 black on edge ..... 8
6. Wing with 1 spot behind r-m on  $R_{4+5}$ ; apical spot on  $R_{4+5}$  not extending to apex of wing (Fig. 13) ..... *cornuta* Sasakawa  
– Wing with 2 spots behind r-m on  $R_{4+5}$ ; apical spot on  $R_{4+5}$  extending to apex of wing ..... 7
7. Apical spots on  $R_{2+3}$ - $R_{4+5}$  connected (Fig. 1); abdomen with black spots on tergites 7-9 ..... *abnormis*, new species  
– Apical spots on  $R_{2+3}$ - $R_{4+5}$  separate (Fig. 19); abdomen without black spots on tergites 7-9 ..... *jiangi*, new species

8. Apical spots on  $R_{2+3}$ - $R_{4+5}$  connected; abdomen yellow to yellow brown ..... 9  
 – Apical spots on  $R_{2+3}$ - $R_{4+5}$  vein separate; abdomen pale brown, with tergites 1-6 black on edge ..... *serrata* Gao & Yang  
 9. Protandrium ringed (Figs. 33, 39); surstylus long .... 10  
 – Protandrium forming an incompletely dorsal band (Fig. 9); surstylus indistinct ..... *brevis*, new species  
 10. Frons with dark anterior spots; gonopod long (Figs. 41, 42) ..... *tianeensis*, new species  
 – Frons without spots; gonopod indistinct (Figs. 35, 36) ..... *longispina*, new species

***Homoneura (Homoneura) abnormis*, new species**  
 (Figs. 1-6)

**Material examined.** – Holotype – male, Guangxi: Tianlin, Linaoshan (1100m), 14 Aug.2002, coll. Ding Yang (CAU).

Paratypes – 2 males, 3 females, same data as holotype (CAU & ZRC).

**Diagnosis.** – Wing with 6 brown spots on tip of  $R_{2+3}$  to  $M_{1+2}$ , preapical section of  $R_{4+5}$ , r-m and m-m; subcostal cell slightly darkened apically (Fig. 1).

**Description.** – Body length 3.8-4.0 mm (male) or 3.9-4.6 mm (female), wing length 3.6-4.3 mm (male) or 3.9-4.3 mm (female).

Head yellow, with yellow dust. Frons about as long as wide and parallel-sided, with 2 pale brown stripes; ocellar triangle dark; oc (ocellar bristle) shorter than anterior or (orbital bristle); face without spots; cheek about 1/6 height of eye. Antenna yellow; 3rd segment 1.5 times as long as wide; arista black except yellow base, with longest hairs shorter than width of 3rd antennal segment. Proboscis yellow, pale yellow apically, with black and yellow hairs; palpus yellow, with black hairs.

Thorax yellow, with yellow dust, 0+3 dc (dorsocentral bristle), acr (acrostichal bristle) in 7 rows, prsc (prescutellar acrostichal bristle) about as long as 1st post-sutural dc. Legs yellow. Fore femur with 3 posterior ventral bristles, 4 posterior dorsal bristles, and ctenidium with 10-12 short bristles. Mid femur with 6 anterior bristles; mid tibia with 3 spurs. Wing pale yellow, dark on apex of subcostal cell, tip of  $R_{2+3}$  to  $M_{1+2}$ , preapical section of  $R_{4+5}$ , r-m and m-m; costa with  $R_{2+3}$ ,  $R_{4+5}$  and  $M_{1+2}$  sections in proportion of 8.5:2.6:1.6; r-m before middle of discal cell; ultimate section of  $M_{1+2}$  about as long as penultimate; ultimate section of  $M_{3+4}$  about 1/10 of penultimate. Halter yellow.

Abdomen yellow, with yellow dust, with dark spot at middle of tergites 3-9 and on edge of tergites 3-6 dark in male; with dark spot at middle of tergites 3-9, on two sides of sternites 5-8 and edge of tergites 3-7 dark; in female, sternites 9 also dark except sides. Male genitalia (Figs. 2-6): Protandrium rather wide, forming an incompletely sclerotized band (Fig. 3), and without setulae around spiracle; surstylus elongated

and narrowing apically, with anterior process short and baggy; hypandrium with apodemes large and wide, gonopod long and with long bristles; aedeagus long, pointed apically, without apical incision (Fig. 6).

**Etymology.** – The species is named after the abnormal shape of the surstylus.

**Distribution.** – China (Guangxi).

**Remarks.** – The new species is somewhat similar to *Homoneura (Homoneura) variinervis* (Kertész, 1913) from Taiwan, but can be separated from the latter by the preapical spot on  $R_{4+5}$  located just above m-m. In *variinervis*, the preapical spot on  $R_{4+5}$  is located beyond level of m-m (Sasakawa & Ikeuchi, 1982, 1985).

***Homoneura (Homoneura) bistrata* (Kertész, 1915)**

*Lauxania (Minettia) bistrata* Kertész, 1915: 524. Type locality - Taiwan.

**Material examined.** – 1 male, Guangxi: Yanshan, 31 May.1963, coll. Jikun Yang (CAU).

**Diagnosis.** – Thoracic dorsum testaceous yellow with a pair of brown stripes. Abdomen mostly brown. Subcostal cell dark apically.

**Distribution.** – China (Guangxi, Taiwan); Japan, Sri Lanka.

**Remarks.** – For redescription of this species, see Sasakawa (1982).

***Homoneura (Homoneura) brevis*, new species**  
 (Figs. 7-12)

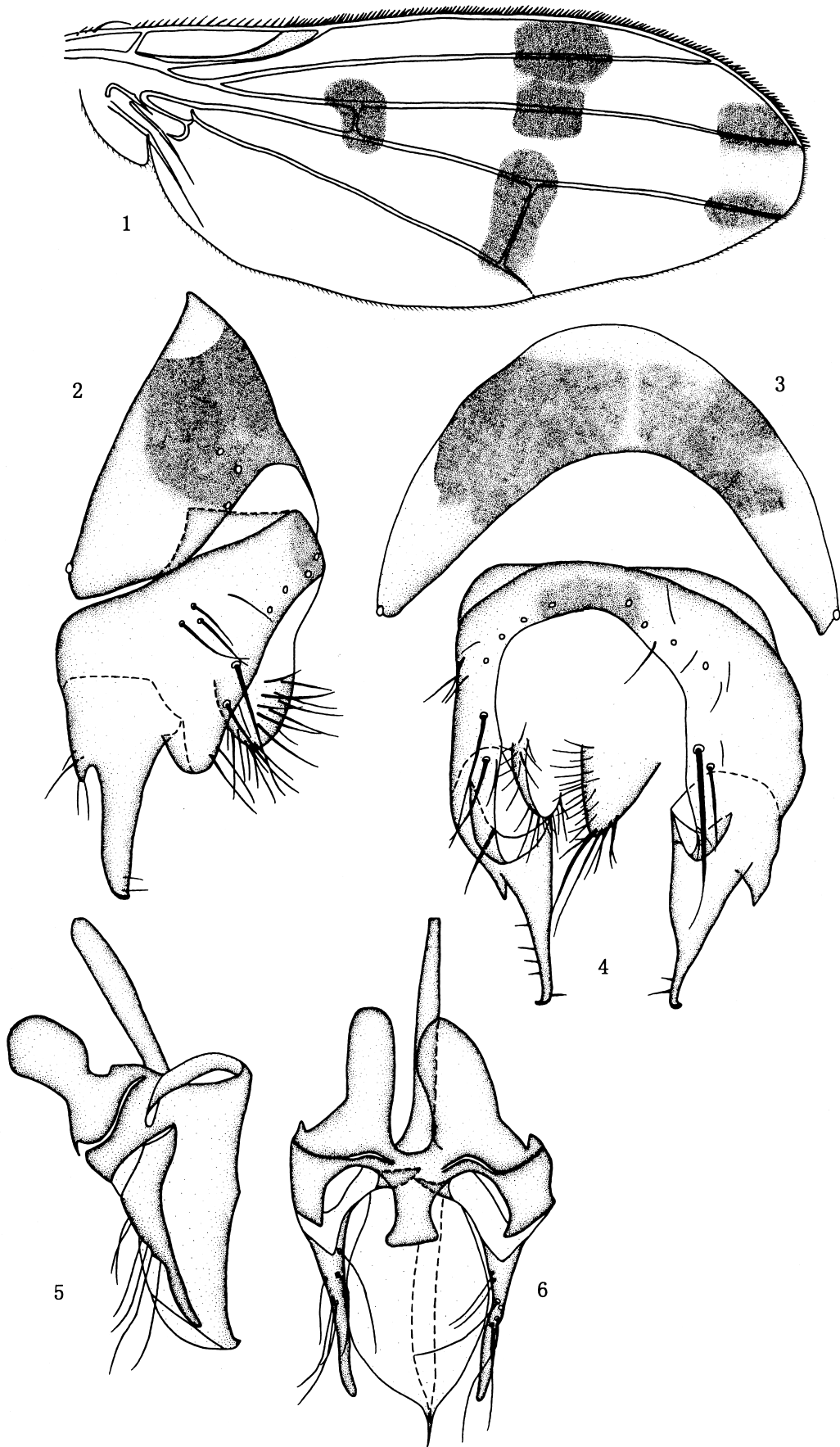
**Material examined.** – Holotype - male, Guangxi: Longjin, Daqingshan Mountain, 15 May.1963, coll. Jikun Yang (CAU)

Paratypes – 1 female, Guangxi: Longsheng, Cujiang (800m), 24 Jun.1982, coll. Jikun Yang (CAU).

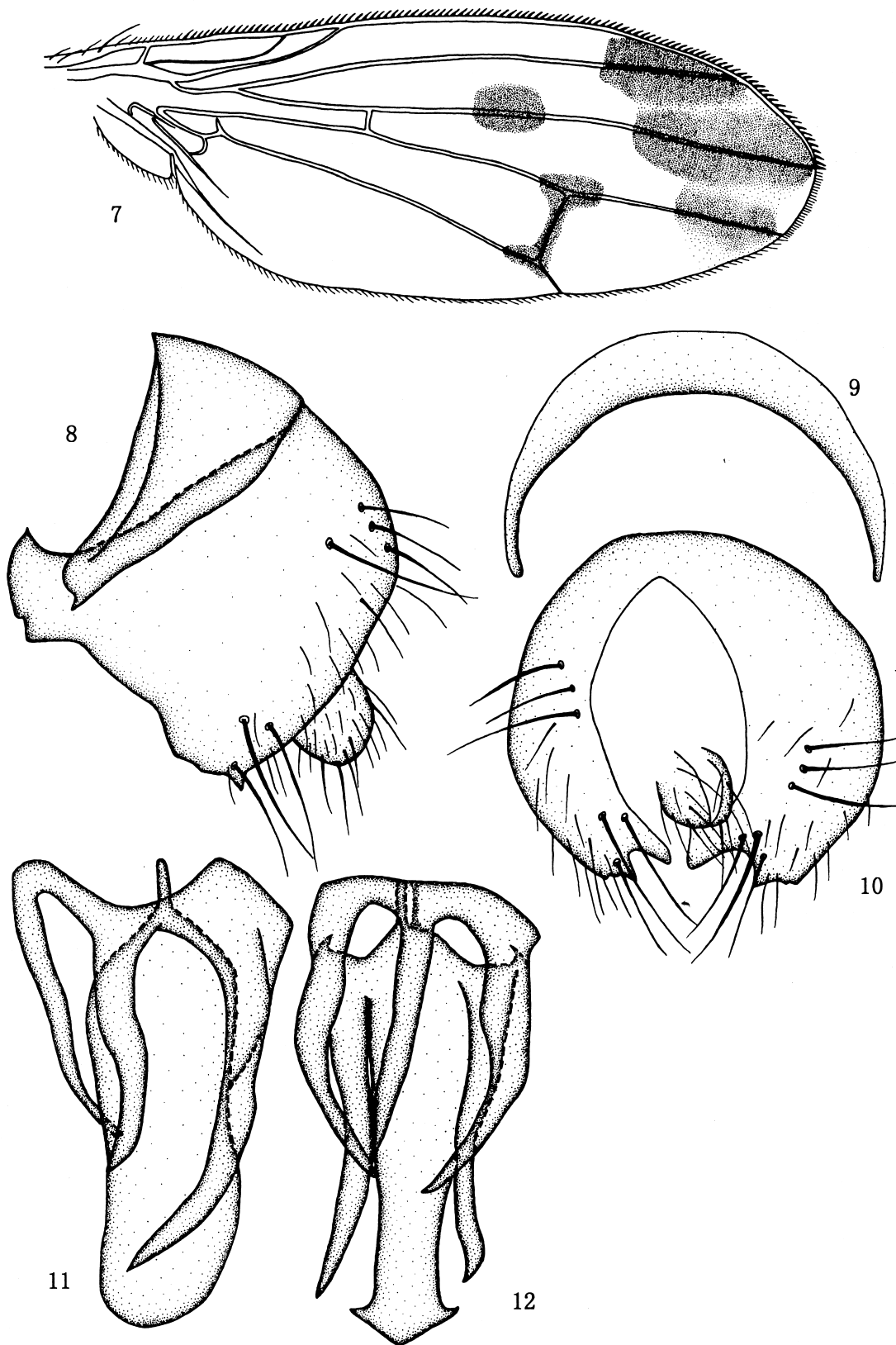
**Diagnosis.** – Wing with 5 spots on tip of  $R_{2+3}$  to  $M_{1+2}$ , preapical section of  $R_{4+5}$  and m-m, apical spots on  $R_{2+3}$  to  $M_{1+2}$  rather large and connected; epandrium extruding forward ventrally.

**Description.** – Body length 6.7 mm, wing length 8.0 mm or 7.3 (female) mm.

Head yellow, with yellow dust. Frons about as long as wide, parallel-sided; ocellar triangle brown; oc as long as anterior or; face without spot; cheek about 1/6 height of eye. Antenna yellow; 3rd segment with apex yellow brown, 2 times as long as wide; arista black except testaceous base, with longest hairs as long as width of 3rd antennal segment. Proboscis yellow brown, with black and yellow hairs; palpus yellow, with black hairs.



Figs. 1-6. *Homoneura abnomis*, new species, male. 1. wing. 2. epandrium and protandrium, lateral view. 3. protandrium, anterior view. 4. epandrium, posterior view. 5. aedeagal complex, lateral view, 6. aedeagal complex, ventral view.



Figs. 7-12. *Homoneura brevis*, new species, male. 7. wing. 8. epandrium and protandrium, lateral view. 9. protandrium, anterior view. 10. epandrium, posterior view. 11. aedeagal complex, lateral view. 12. aedeagal complex, ventral view.

Thorax yellow, with yellow dust, 0+3 dc, 10 rows of acr, prsc longer than 1st post-sutural dc. Legs yellow. Fore femur with 4 posterior ventral bristles, 6-7 posterior dorsal bristles, and ctenidium with 14 bristles. Mid femur with 5 anterior bristles, mid tibia with 3 spurs. Wing pale yellow, with 5 brown spots on tip of  $R_{2+3}$ ,  $R_{4+5}$  and  $M_{1+2}$  each, middle of  $R_{4+5}$  and on m-m, apical spots on  $R_{2+3}$  to  $M_{1+2}$  rather large and connected; costa with 2nd, 3rd and 4th sections in proportion of 9:2:1.6; r-m before middle of discal cell; ultimate section of  $M_{1+2}$  1.5 times as long as penultimate; ultimate section of  $M_{3+4}$  about 1/8 of penultimate. Halter yellow.

Abdomen yellow, with pale gray dust. Male genitalia (Figs. 8-12): Protandrium forming an incompletely sclerotized band; epandrium extruding forward ventrally, surstylus rather short; hypandrial apodemes indistinct, gonopod long; aedeagus with acute apico-lateral processes, aedeagal apodeme very short and thin.

**Etymology.** – The species is named after the short surstylus.

**Distribution.** – China (Guangxi).

**Remarks.** – The new species is similar to *Homoneura (Homoneura) chinensis* Malloch, 1929, and *grandis* (Kertész, 1915) in the wing markings, but can be separated from them by the epandrium extruding forward ventrally and surstylus rather short. In *chinensis* and *grandis*, the epandrium is not extruding forward ventrally, and the surstylus is distinct (Malloch, 1929).

***Homoneura (Homoneura) cornuta* Sasakawa, 2001**  
(Figs. 13-18)

*Homoneura cornuta* Sasakawa, 2001: 85. Type locality – Viet Nam.

**Material examined.** – 1 male, 1 female, Guangxi: Longsheng, Hongtan, 25 Jun.1986, Jikun Yang (CAU).

**Diagnosis.** – Wing with 5 brown spots on tip of  $R_{2+3}$  to  $M_{1+2}$ , r-m and m-m, but spot on m-m disappeared gradually backward.

**Redescription.** – Body length 5.7 mm (male) or 5.8 mm (female), wing length 5.9 mm (male) or 6.7 mm (female).

Head yellow, with yellow dust. Frons about as wide as long, parallel-sided; ocellar triangle pale brown; oc as long as anterior or; face without spot; cheek about 1/8 height of eye. Antenna yellow brown; 3rd segment 1.6 times as long as wide; arista black except testaceous base, with longest hairs as long as width of 3rd antennal segment. Proboscis yellow brown, with black and yellow hairs; palpus yellow, with black hairs.

Thorax yellow, with yellow dust. 0+3 dc, 8 rows of acr, prsc longer than 1st post-sutural dc. Legs yellow. Fore femur with 4 posterior ventral bristles, 7 posterior dorsal bristles, and ctenidium with 14 short bristles. Mid femur with 4 anterior bristles, mid tibia with 3 spurs. Wing pale yellow, with 5

brown spots on tip of  $R_{2+3}$  to  $M_{1+2}$ , r-m and m-m; costa with 2nd, 3rd and 4th sections in proportion of 10:3:2; r-m slightly behind middle of discal cell; ultimate section of  $M_{1+2}$  1.4 times as long as penultimate; ultimate section of  $M_{3+4}$  about 1/7 of penultimate. Halter yellow to brown.

Abdomen testaceous, with dense white dust; tergites 5-6 with black spot apically. Male genitalia (Figs. 14-18): Protandrium forming a sclerotized band with a ventral segment, without setulae around spiracle (Fig. 15); surstylus on epandrium with 3 acute processes; hypandrial apodemes small, gonopod bifurcate apically; aedeagus with deep apical incision (Fig. 18).

**Distribution.** – China (Guangxi); Vietnam. New to China.

***Homoneura (Homoneura) immaculata* (de Meijere, 1910)**  
(Figs. 19-24)

*Lauxania immaculata* de Meijere, 1910. Type locality – Java.

**Material examined.** – 1 male, Guangxi: Tianlin, Linaoshan (1300m), 14 Aug.2002, coll. Ding Yang (CAU).

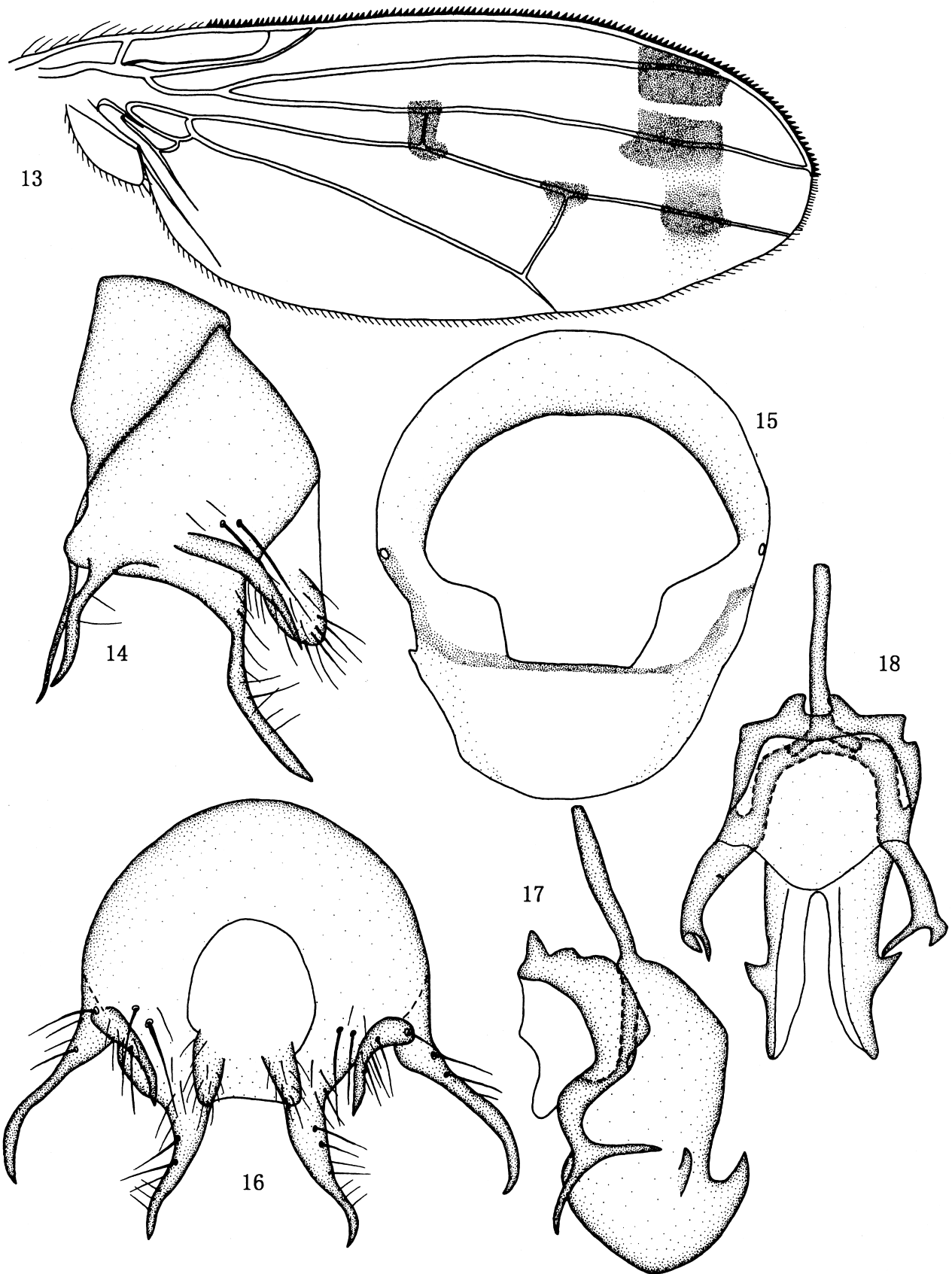
**Diagnosis.** – Thoracic dorsum black brown, pleuron and venter yellow with brown spots; scutellum black brown with yellow edge. Wing clear, only dark on m-m; surstylus short and winding upward.

**Redescription.** – Body length 4.1 mm (male), wing length 3.8 mm (male).

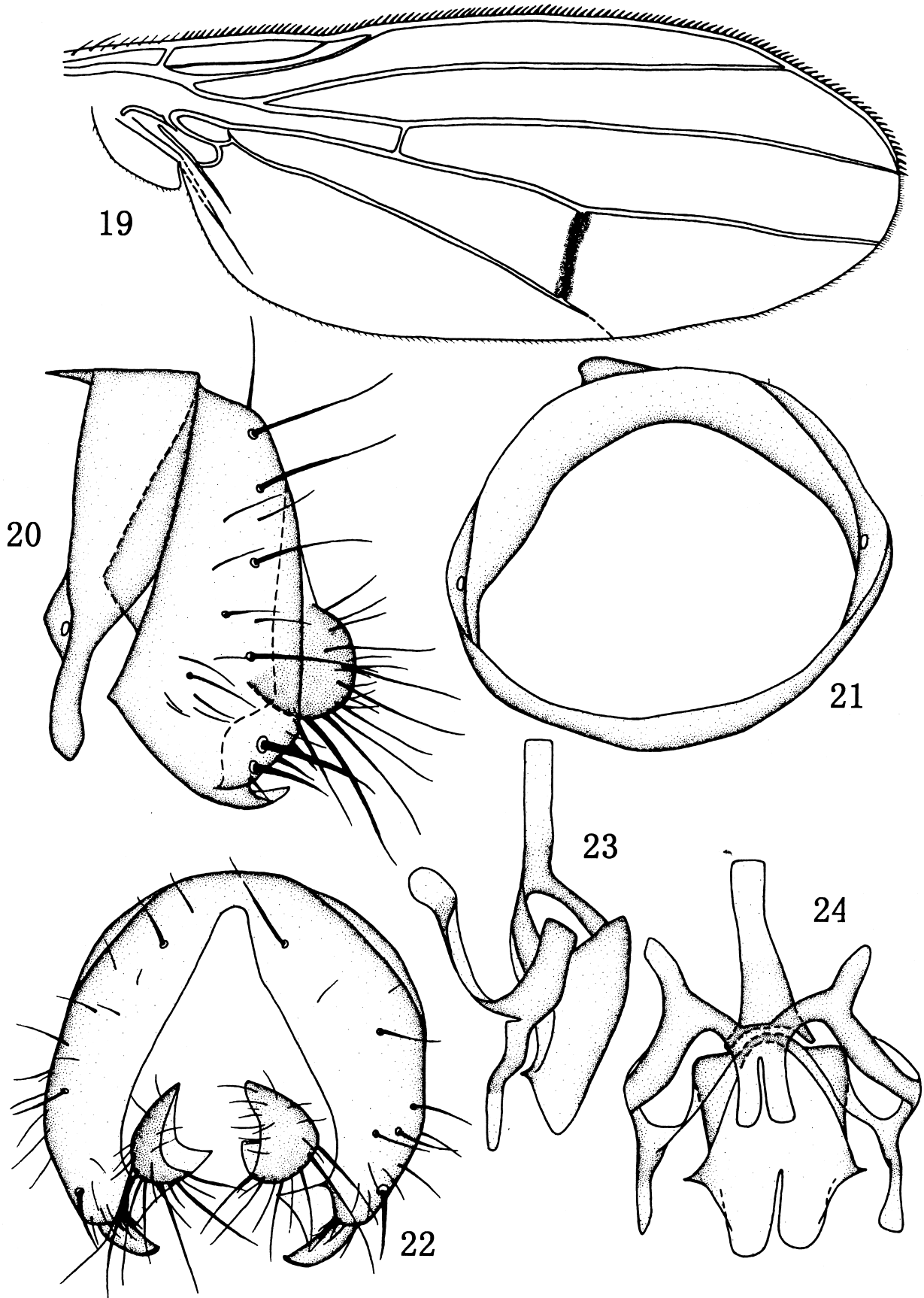
Head yellow, with yellow dust. Frons about as long as wide and slightly converging backward, with 2 brown stripes; ocellar triangle brown; oc developed, and longer than anterior or; face with 2 brown spots at middle; cheek about 1/8 height of eye. Antenna dark brown; 3rd segment pale brown, pale yellow medially, 1.6 times as long as wide; arista brown except yellow brown base, with longest hairs longer than width of 3rd antennal segment. Proboscis yellow, pale yellow apically, with black and yellow hairs; palpus yellow, with black hairs.

Thoracic dorsum black brown, pleuron and venter yellow with brown spots; scutellum black brown with yellow edge. 0+3 dc, acr in 6 rows, 1st post-sutural dc close to suture, prsc about as long as 1st post-sutural dc. Legs yellow. Fore femur with 4 posterior ventral bristles, 6 posterior dorsal bristles, and ctenidium with 14 short bristles. Mid femur with 6 anterior bristles; mid tibia with 3 spurs. Wing pale yellow, only dark on m-m; costa with 2nd, 3rd and 4th sections in proportion of 3:1.4:0.8; r-m slightly before middle of discal cell; ultimate section of  $M_{1+2}$  1.4 times as long as penultimate; ultimate section of  $M_{3+4}$  about 1/5 of penultimate. Halter white.

Abdomen with black brown dorsum and yellow venter; tergites 6-9 yellow, 6th tergite with a brown stripe at middle; cercus brown. Male genitalia (Figs. 20-24): Protandrium



Figs. 13-18. *Homoneura cornuta* Sasakawa, male. 13. wing. 14. epandrium and protandrium, lateral view. 15. protandrium, anterior view. 16. epandrium, posterior view. 17. aedeagal complex, lateral view. 18. aedeagal complex, ventral view.



Figs. 19-24. *Homoneura immaculata* (de Meijere, 1910) male. 19. wing. 20. epandrium and protandrium, lateral view. 21. protandrium, anterior view. 22. epandrium, posterior view. 23. aedeagal complex, lateral view. 24. aedeagal complex, ventral view.

forming a sclerotized band with a ventral segment, with a small dorsal protuberance directed forward, without setulae around spiracle (Fig. 21); surstylus on epandrium short and winding upward; hypandrium H-shaped, its apodemes distinct, gonopod long; aedeagus short and broad, with distinct apical incision (Fig. 24).

**Distribution.** – China (Guangxi); Java, Malaysia. New to China.

***Homoneura (Homoneura) jiangi, new species***  
(Figs. 25-30)

**Material examined.** – Holotype - male, Guangxi: Tianlin, Linaoshan (1100m), 14 Aug.2002, coll. Ding Yang (CAU).

Paratypes – 4 males, 1 female, same data as holotype (CAU & ZRC).

**Diagnosis.** – Wing with 6 separate brown spots on tip of  $R_{2+3}$  to  $M_{1+2}$ , preapical section of  $R_{4+5}$ , r-m and m-m; subcostal cell clear apically.

**Description** -Body length 3.9-4.5 mm (male) or 4.2 mm (female), wing length 3.8-4.5 mm (male) or 4 mm (female).

Head yellow, with yellow dust. Frons slightly longer than wide and parallel-sided, with 2 brown stripes; ocellar triangle black; oc undeveloped, and shorter than anterior or; face without spots; cheek about 1/5 height of eye. Antenna yellow; 3rd segment 1.4 times as long as wide; arista black except yellow base, with longest hairs shorter than width of 3rd antennal segment. Proboscis yellow, pale yellow apically, with black and yellow hairs; palpus yellow, with black hairs.

Thorax yellow, with yellow dust. 0+3 dc, acr in 6 rows, prsc about as long as 1st post-sutural dc. Legs yellow. Fore femur with 3 posterior ventral bristles, 4 posterior dorsal bristles, and ctenidium with 10-12 short bristles. Mid femur with 4 anterior bristles; mid tibia with 3 spurs. Wing pale yellow, dark on tip of  $R_{2+3}$  to  $M_{1+2}$ , preapical section of  $R_{4+5}$ , r-m and m-m; costa with 2nd, 3rd and 4th sections in proportion of 27.5:8:5.7; r-m behind middle of discal cell; ultimate section of  $M_{1+2}$  1.6 times as long as penultimate; ultimate section of  $M_{3+4}$  about 1/6 of penultimate. Halter yellow.

Abdomen yellow, with yellow dust, with black spots at middle of tergites 4-6 and on two sides of tergites 5-6 in male; with black spots on two sides of tergite 6 in female. Male genitalia (Figs. 26-30): Protandrium forming an incompletely sclerotized band, without setulae around spiracle; surstylus long (Fig. 27); hypandrium with apodemes distinct, gonopod long and pointed apically; aedeagus long, pointed apically, with large semicircular apical incision.

**Etymology.** – The species is named after Prof. Guofang Jiang to express our sincere thanks for his help during the survey in 2002.

**Distribution.** – China (Guangxi).

**Remarks.** – The new species is somewhat similar to *Homoneura (Homoneura) variinervis* (Kertész, 1913) from Java, but can be separated from the latter by the distinct hypandrial apodemes. In *variinervis*, the hypandrial apodemes are indistinct (Sasakawa & Ikeuchi, 1982).

***Homoneura (Homoneura) longispina, new species***  
(Figs. 31-36)

**Material examined.** – Holotype - male, Guangxi: Tianlin, Langping, 30 May.1982, coll. Xinli Wang (CAU).

Paratypes – 1 male, Guangxi: Tianlin, Langping, 30 May.1982, coll. Jikun Yang (CAU); 1 female, Guangxi: Longsheng, Cuijiang, 24 Jun.1982, coll. Jikun Yang (CAU).

**Diagnosis.** – Wing with 5 brown spots on tip of  $R_{2+3}$  to  $M_{1+2}$ , m-m, and preapical section of  $R_{4+5}$ ; surstylus with long spine-like inner process.

**Description.** – Body length 7.3-8.0 mm (male) or 7.3 mm (female), wing length 8.3-8.7 mm (male) or 7.6 mm (female).

Head yellow, with dense yellow white dust. Frons broader than long, parallel-sided, with 2 pale brown stripes; ocellar triangle brown; oc developed, and as long as anterior or; face without spot. Cheek about 1/6 height of eye. Antenna yellow; 3rd segment yellow brown, 2 times as long as wide, yellow basally; arista black except testaceous base, with longest hairs as long as width of 3rd antennal segment. Proboscis yellow brown, its apex white yellow, with black and yellow hairs; palpus yellow, with black hairs.

Thorax yellow, with yellow dust. 0+3 dc, acr in 10 rows, prsc longer than 1st post-sutural dc. Legs yellow. Fore femur with 4 posterior ventral bristles, 7-9 posterior dorsal bristles, and ctenidium with 12-13 short bristles. Mid femur with 6-8 anterior bristles, mid tibia with 3 spurs. Wing pale yellow, with 5 brown spots on tip of  $R_{2+3}$  to  $M_{1+2}$ , m-m, and preapical section of  $R_{4+5}$ ; costa with 2nd, 3rd and 4th sections in proportion of 22.2:4.5:3.5; r-m before middle of discal cell; ultimate section of  $M_{1+2}$  as long as penultimate; ultimate section of  $M_{3+4}$  about 1/6 of penultimate. Halter yellow.

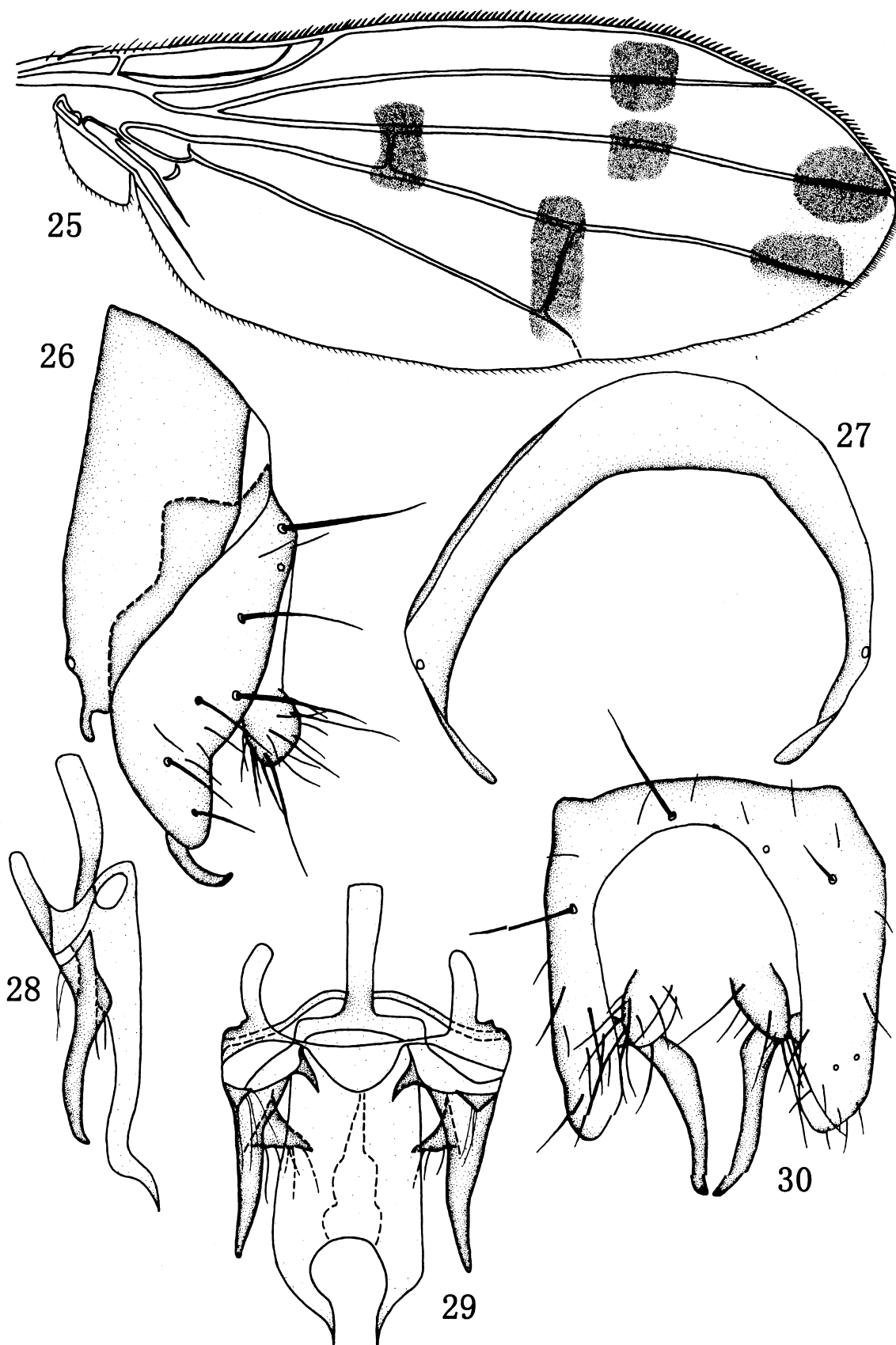
Abdomen yellow to brown, with dense gray dust. Male genitalia (Figs. 32-36): Protandrium long and broad, forming a sclerotized band with a ventral segment, without setulae around 7th spiracle (Fig. 33); surstylus on epandrium with inner process long spine-like and haired; hypandrial apodemes indistinct, gonopod long with curved apex; aedeagus with two dorsal hamuli at tip, and weakly incised apically (Fig. 36).

**Etymology.** – The species is named after the surstylus with long spine-like inner process.

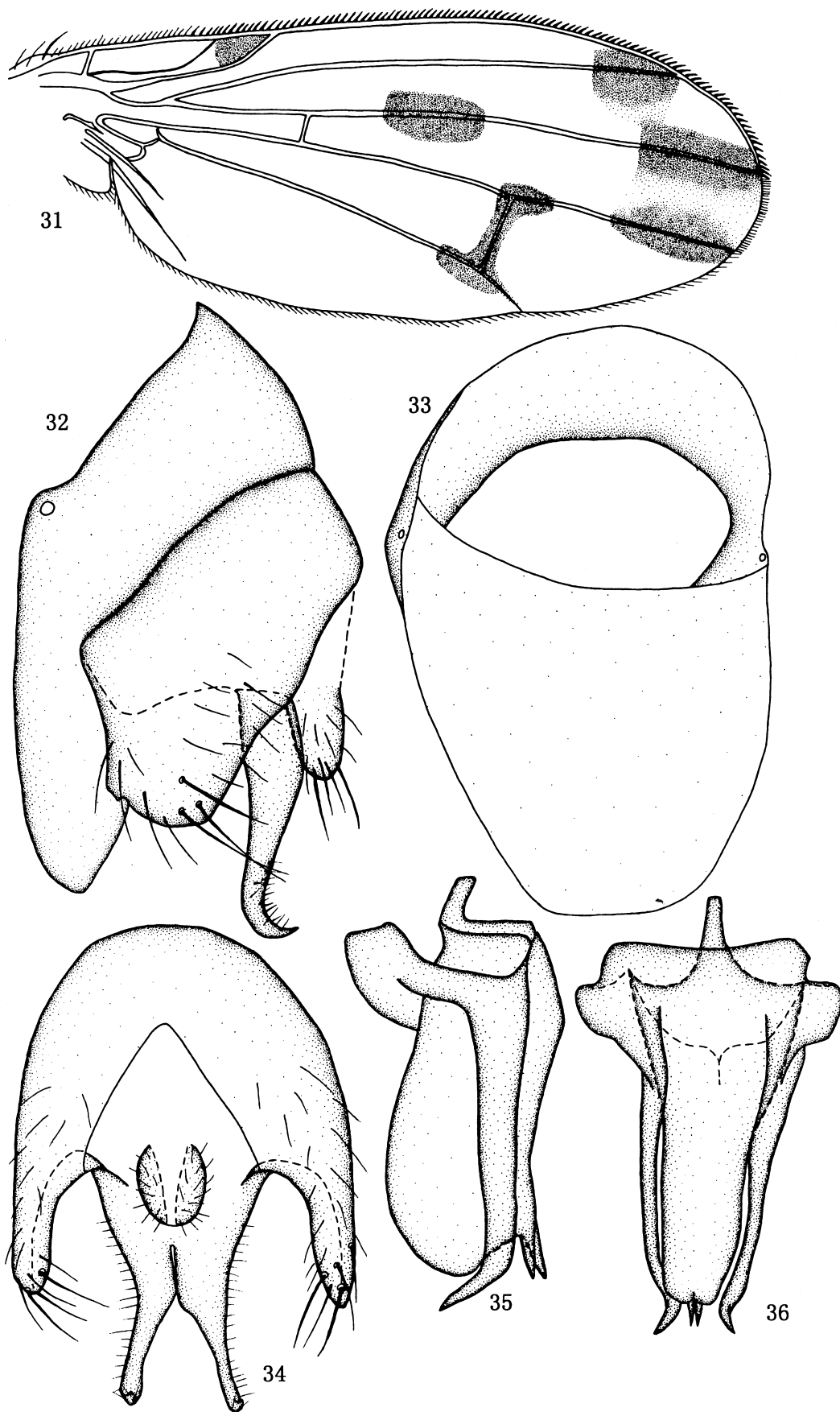
**Distribution.** – China (Guangxi).

**Remarks.** – The new species is similar to *Homoneura (Homoneura) serrata* Gao & Yang, 2002, from Guizhou and





Figs. 25-30. *Homoneura jiangi*, new species, male. 25. wing. 26. epandrium and protandrium, lateral view. 27. protandrium, anterior view. 28. aedeagal complex, lateral view. 29. aedeagal complex, ventral view. 30. epandrium, posterior view.



Figs. 31-36. *Homoneura longispina*, new species, male. 31. wing. 32. epandrium and protandrium, lateral view. 33. protandrium, anterior view. 34. epandrium, posterior view. 35. aedeagal complex, lateral view. 36. aedeagal complex, ventral view.

Guangxi, but can be separated from the latter by the acr in 10 rows and aedeagus not dentate. In *serrata*, the acr is in 6-8 rows, and the aedeagus is dentate (Gao & Yang, 2002).

***Homoneura (Homoneura) picta (de Meijere, 1904)***

*Drosomyia picta* de Meijere, 1904: 114. Type locality – Java.

**Material examined.** – 1 female, Guangxi: Tianlin, Heba (1400m), 16 Aug.2002, coll. Ding Yang (CAU); 6 males, 11 females, Guangxi: Tianlin, Linaoshan (1300m), 14 Aug.2002, coll. Ding Yang (CAU & ZRC).

**Diagnosis.** – Face with brown spots on ventral part. Wing mostly brown.

**Distribution.** – China (Guangxi, Guizhou, Zhejiang, Taiwan); Malaysia, Nepal, Viet Nam, Thailand, Flores Island, India, Java, Malaya, Sumatra.

***Homoneura (Homoneura) serrata Gao & Yang, 2002***

*Homoneura serrata* Gao & Yang, 2002: 295. Type locality – Guizhou.

**Material examined.** – 1 male, Guangxi: Tianpingshan, 26 Jun.1982, coll. Jikun Yang (CAU); 1 male, Guangxi: Jinxiu, Dayaoshan, 13 Jun.1982, coll. Fasheng Li (ZRC).

**Diagnosis.** – Abdomen pale brown, with tergites 1-6 black on edge. Apical spots on  $R_{2+3}$  and  $R_{4+5}$  separate.

**Distribution.** – China (Guangxi, Guizhou).

***Homoneura (Homoneura) tianeensis, new species***

(Figs. 37-42)

**Material examined.** – Holotype - male, Guangxi: Tian'e, Xinglonglinchang (1100m), 4 Aug.2002, coll. Ding Yang (CAU).

**Diagnosis.** – Wing with 5 brown spots on tip of  $R_{2+3}$  to  $M_{1+2}$ , preapical section of  $R_{4+5}$  and m-m, apical spots on  $R_{2+3}$  to  $M_{1+2}$  more or less connected; subcostal cell dark apically.

**Description.** – Body length 8.5 (male) mm, wing length 8.5(male) mm.

Head yellow, with yellow dust. Frons about as long as wide and slightly converging backward, with dark anterior spots; ocellar triangle yellow brown; oc developed; face without spots; cheek about 1/7 height of eye. Antenna yellow; 3rd segment 2 times as long as wide; arista black except yellow base, with longest hairs as long as width of 3rd antennal segment. Proboscis yellow, with black and yellow hairs; palpus yellow, with black hairs.

Thorax yellow, with yellow dust; scutellum testaceous. 0+3 dc, acr in 10 rows, 1st post-sutural dc broken. Legs yellow.

Fore femur with 4 posterior ventral bristles, 5 posterior dorsal bristles, and ctenidium with 12 short bristles. Mid femur with 7 anterior bristles; mid tibia with 3 spurs. Wing pale yellow, dark on apex of subcostal cell, tip of  $R_{2+3}$  to  $M_{1+2}$ , preapical section of  $R_{4+5}$  and m-m; costa with 2nd, 3rd and 4th sections in proportion of 8:2:1.5; r-m before middle of discal cell; ultimate section of  $M_{1+2}$  1.2 times as long as penultimate; ultimate section of  $M_{3+4}$  about 1/5 of penultimate. Halter yellow.

Abdomen yellow, with yellow dust. Male genitalia (Figs. 38-42): Protandrium forming a sclerotized band with a ventral segment, with a dorsal protuberance directed forward, without setulae around spiracle (Fig. 39); surstylus on epandrium with distinct inner process; hypandrial apodemes rather weak, gonopod long and rolling up apically; aedeagus long, distinctly incised apically (Fig. 42).

**Etymology.** – The species is named after the type locality Tian'e.

**Distribution.** – China (Guangxi).

**Remarks.** – The new species is similar to *Homoneura (Homoneura) yaromi* Yang, Hu & Zhu, 2001, from Zhejiang, but can be separated from the latter by frons with spots. In *yaromi*, the frons has no spots (Yang, Hu & Zhu, 2001).

***Homoneura (Homoneura) tianlinensis, new species***

(Figs. 43-48)

**Material examined.** – Holotype - male, Guangxi: Tianlin, Linaoshan (1300m), 14 Aug.2002, coll. Ding Yang (CAU).

**Diagnosis.** – Wing with 7 brown spots;  $R_{4+5}$  with 3 brown spots behind r-m; subcostal cell dark apically.

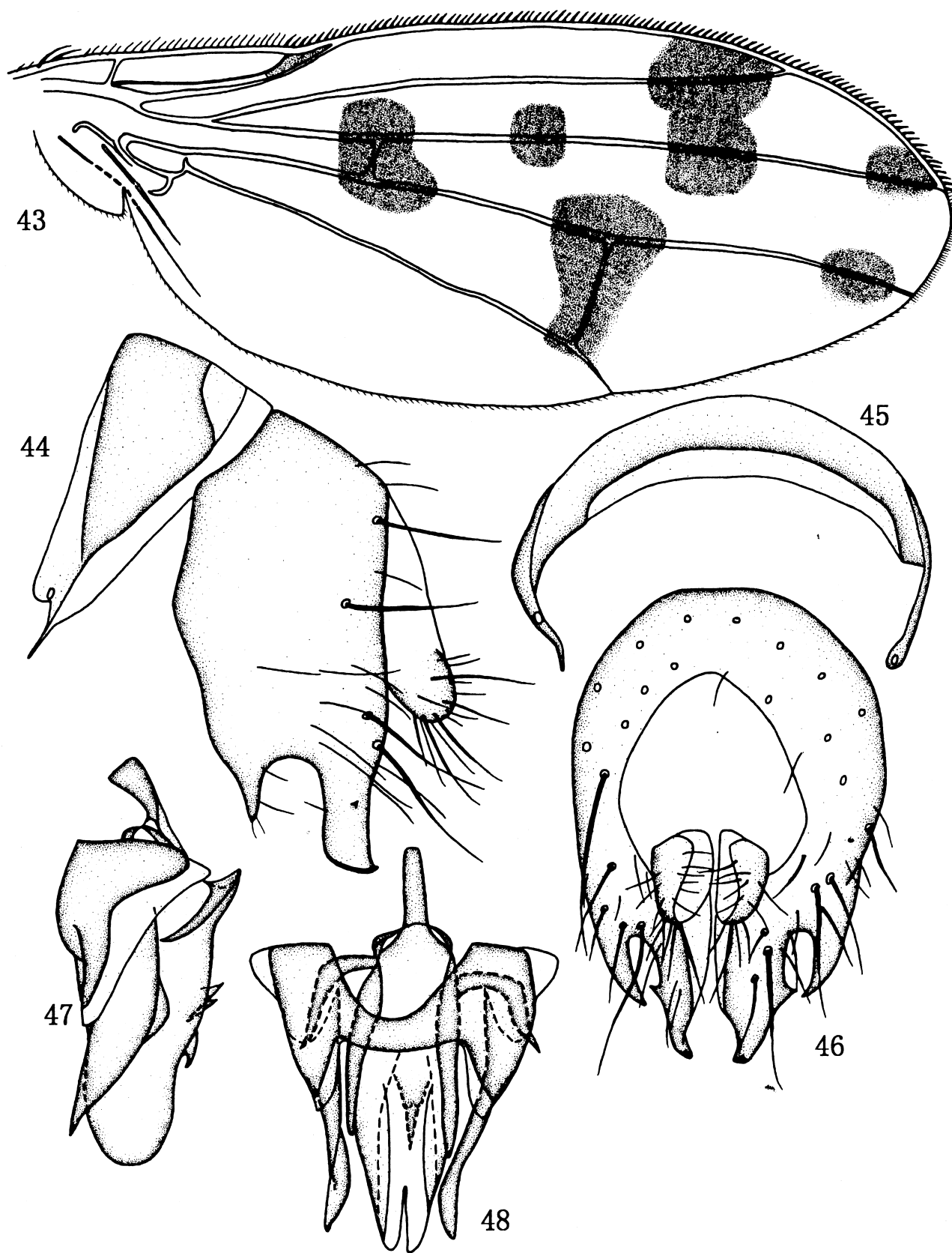
**Description.** – Body length 2.7 mm (male), wing length 3.2 mm (male).

Head dark brown, with gray dust. Frons about as long as wide and parallel-sided, with 2 brown stripes; ocellar triangle brown; oc developed, and as long as anterior or; face without spots; cheek about 1/6 height of eye. Antenna yellow brown; 3rd segment 2 times as long as wide, with dark brown apical margin; arista brown except yellow brown base, with longest hairs shorter than width of 3rd antennal segment. Proboscis yellow brown, pale yellow apically, with black and yellow hairs; palpus yellow brown, with black hairs.

Thorax dark brown, with gray dust. 0+3 dc, acr in 6 rows, 1st post-sutural dc broken. Legs yellow; femora brown, yellow apically. Fore femur with 4 posterior ventral bristles, 4 posterior dorsal bristles, and ctenidium with 8 short bristles. Mid femur with 5 anterior bristles; mid tibia with 3 spurs. Wing pale yellow; subcostal cell dark apically; dark on tip of  $R_{2+3}$  to  $M_{1+2}$ , r-m and m-m, with 2 brown spots behind r-m on  $R_{4+5}$  except apical spot; costa with 2nd, 3rd and 4th sections in proportion of 4.4:2:1; r-m before middle of discal cell;



Figs. 37-42. *Homoneura tianeensis*, new species, male. 37. wing. 38. epandrium and protandrium, lateral view. 39. protandrium, anterior view. 40. epandrium, posterior view. 41. aedeagal complex, lateral view. 42. aedeagal complex, ventral view.



Figs. 43-48. *Homoneura tianlinensis*, new species, male. 43. wing. 44. epandrium and protandrium, lateral view. 45. protandrium, anterior view. 46. epandrium, posterior view. 47. aedeagal complex, lateral view. 48. aedeagal complex, ventral view.

ultimate section of  $M_{1+2}$  1.3 times as long as penultimate; ultimate section of  $M_{3+4}$  about 1/6 of penultimate. Halter white.

Abdomen with dark brown tergites and yellow brown sternites, and with gray dust. Male genitalia (Figs. 44-48): Protandrium forming an incompletely sclerotized band, without setulae around spiracle (Fig. 45); surstylus on epandrium with short anterior process and long thick posterior process bearing a tiny spine; hypandrium without apodemes, gonopod long; aedeagus long, distinctly incised apically (Fig. 48).

**Etymology.** – The species is named after the type locality Tianlin.

**Distribution.** – China (Guangxi).

**Remarks.** – The new species is similar to *Homoneura (Homoneura) singularis* Yang, Hu & Zhu, 2002, from Hainan, but can be separated from the latter by the apical spots on  $R_{4+5}$  and  $M_{1+2}$  being separated. In *singularis*, the apical spots on  $R_{4+5}$  and  $M_{1+2}$  are connected (Yang et al., 2002).

## DISCUSSION

The fauna of China is composed of the following seven regions: North East China Region, North China Region, Neimeng-Xinjiang Region, Qinghai-Xizang Region, South West China Region, Central China Region, South China Region (Zhang, 1998). The anterior four regions belong to the Palaearctic Realm, and the posterior three regions belong to the Oriental Realm. Guangxi with tropical and subtropical climate is located within the Oriental Realm. Eleven species of the genus *Homoneura* are known to occur in Guangxi. Among them, four species belong to Central China Region: *H. (H.) brevis*, new species, *H. (H.) serrata* Gao & Yang, 2002, *H. (H.) tianeensis*, new species, *H. (H.) tianlinensis*, new species; five species belong to South China Region: *H. (H.) abnormis*, new species, *H. (H.) jiangi*, new species, *H. (H.) longispina*, new species, *H. (H.) cornuta* Sasakawa, 2001, *H. (H.) immaculata* (de Meijere, 1910); two widely distributed species can be found in both Central China Region and South China Region: *H. (H.) bistriata* (Kertész, 1915) and *H. (H.) picta* (de Meijere, 1904). It is possible that more species will be found in Guangxi.

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