

Shi, Y. (1995): Notes on the Chinese species of the genus *Xenomyza* Wiedemann (Diptera: Asilidae).
- *Sinozoologia 12: 259-269; ?.

English translation by Dr. Yuji Tagawa (2006)

Key to Chinese species of *Xenomyza* Wiedemann

1 (2) Male: mesonotum strongly ridged on the dorsal central region which extends over the vertex of head and with four cornerlike projections at apex. The anterior half of lateral sides of thorax depressed as furrows, clothed with dense yellow hairs on the insides and dense black hairs on the outer margins, posterior half of thorax with four rows of yellow-hair bands dorsally. The vertex with oval projection bearing yellow hairs laterally. Occiput with cornerlike projection behind every eye; midtibia thickened at apex, with 3 thick black bristles, midtarsus slender and longer than those of others, with short brushlike yellow hairs ventrally. Female not as males character, but with thoracical four rows of yellow-hair bands.

.....*X. thorakeraia* Shi

2 (1) Not as the above.

3 (4) Anterior margin of male wing dilated forward strongly, and bearing black long hairs on it; Female wing not dilated. Legs black. Fore and mid femora with pale yellow hairs ventrally. Hind femora especially thickened with tufty black long hairs ventrally.

..... *X. hirtalula* Shi

4 (3) Anterior margin of male wing not dilated strongly.

5 (10) Abdomen cylindrical, not flattened.

6 (9) Hind trochanter covered with yellow hairs ventrally. Hind femora black, basally reddish yellow.

7 (8) Mesonotum with a row of acrostichal bristles. Hind trochanter without a coniform projection ventrally. Face clothed with sparse yellow hairs. Hypandrium not shining, black.

..... *X. hirtidorsalis* Shi

8 (7) Mesonotum without acrostichal bristles. Hind trochanters with coniform projection ventrally. Face clothed with sparse short black hairs. Hypandrium shining black.

..... *X. conica* Shi

9 (6) Hind trochanters covered with black bristles ventrally. Hind femora reddish yellow. Mystax black, 15 in number. Mesonotum with acrostichal bristles. Hypandrium shining, black. Epandrium pincerslike, with a clawlike projection at apex.

..... *X. nigriscoms* Shi

10 (5) Abdomen flattened.

11 (20) Mesonotum with black longitudinal stripe.

12 (13) Sternite 3 - 7 with a black spot at both lateral sides of each segment, and spots arranged in a row.

..... *X. speculiventris* (De Meijere)

13 (12) Sternites not as above.

- 14 (15) Abdomen brown or pale blackish, clothed with brown tomentum. Male genitalia wide.
 X. vitripennis (Osten Sacken)
- 15 (14) Abdomen reddish yellow, clothed with pale yellow tomentum. Male genitalia narrow.
- 16 (19) Palpi and mystax yellow. Hind femora reddish yellow.
- 17 (18) Abdomen reddish yellow, tergites 2 - 7 with black band on hind margin, clothed with yellow tomentum. Male genitalia rotate 90 degrees.
 X. fascia Shi
- 18 (17) Abdomen yellow, without black band on hind margin, densely clothed with yellowish white tomentum. Male genitalia rotate 180 degrees.
 X. beijingensis Shi
- 19 (16) Palpi and mystax black. Hind femora black at apical half. Lateral sides of tergite 2 - 5 with black spots, tergite 6 - 7 black.
 X. nigripalpis Shi
- 20 (11) Mesonotum without black longitudinal stripe.
- 21 (22) Wings infuscated. Hind femur with thick black bristles ventrally, middle with wide black ring. tibia black at apical half.
 X. spinifemurata Shi
- 22 (21) Wings not infuscated wholly.
- 23 (24) Wings infuscated at basal half, hyaline at apical half. Abdomen reddish @yellow, tergite 1 black, 2-7 black on lateral sides. Hypandrium clothed with black bristles.
 X. bicolor Shi
- 24 (23) Wings wholly hyaline . Abdomen black. Hypandrium clothed with yellow hairs.
 X. nigrabdomina Shi

**Shi, Y. (1995): Study on the Chinese species of the family Asilidae (Diptera: Asilidae). -
*Sinozoologia 12: 253-258; ?.**

English translation by Dr. Yuji Tagawa (2006)

Study on the Chinese species of the family Asilidae
(Diptera: Asilidae)
Shi Yongshan
(Institute of Zoology, Academia Sinica, Beijing, China 100080)

key to species of Chinese Ancylotrichus

1 (2). Postpedicel 2.5 times as long as scape and pedicel combined. Wing pale yellow. Tergites 2-7 with yellow bands, tergites 2-6 with gray-white pollinose markings laterally. Tibia and tarsi red-yellow *An. longicornis* (Schiner)

2 (1). Postpedicel more than 5 times as long as scape and pedicel combined. Wing smoky brown. Abdomen red-yellow. Tergite 2 with yellow band. Legs entirely black.

3 (4). Anal cell open. Tergite 1 with broad gray-white pollinose band, tergite 2 with interrupted yellow band *An. orientalis* sp. n.

4 (3). Anal cell closed. Tergite 1 without gray-white band, tergite 2 with solid yellow band, and triangular black markings *An. minus* sp. n.

Shi, Y. (1992): Notes on the genus *Trichomachimus* Engel from China (Diptera: Asilidae). - *Acta Zootaxonomica Sinica* 17(4): 458-472; Beijing.

English translation by Dr. Yuji Tagawa (2006)

Notes on the genus *Trichomachimus* Engel from China
(Diptera: Asilidae)
Shi Yongshan
(Institute of Zoology, Academia Sinica, Beijing, China)

key to species

1 (2). Legs with red-yellow hair. Palpi red-yellow with black hair. Thorax red-yellow with black hair. Tergites 2-7 with red-brown long hair. Scutellum red-yellow with black hair and black marginal bristles. Terminalia red-yellow. Gonostylus with thick short spines apically *Tr. dontus* Shi

2 (1). Legs entirely black, or tibia and tarsus yellow at most.

3 (16). Legs entirely black

4 (5). Sternite 8 with hind marginal tongue-like extension. Palpi black with black hair. Proboscis black with pale yellow hair ventrally. Facial tubercle with black hair. Thorax black with black hair and bristles. Scutellum black with black hairs on the disk and black marginal bristles. Hind margin of tergites 2-7 with deep red long hair. Sternites with black hair. Terminalia black with black hair. Aedeagus trifid apically *Tr. lobus* Shi

5 (4). Sternite 8 not extended posteriorly.

6 (9). Sternites with yellow hair.

7 (8). Mesonotum with black and yellow hair. Terminalia black with yellow hair
Tr. tubus sp. n.

8 (7). Mesonotum with black hair. Terminalia black with yellow hair *Tr. nigrus*
Shi

9 (6). Sternites with black hair, sometimes mingled with yellow hair.

10(11). Postpronotal lobe with gold-yellow tomentum. Mesonotum with distinct pollinose
markings *Tr. maculatus* sp. n.

11 (10). Postpronotal lobe covered with white pollen. Mesonotal markings indistinct.

12 (15). Pleura and anatergite with black hair.

13 (14). Mesonotum with black long hair on anterior 2/3, white hair bent posteriorly on posterior
1/3. Tergites 1-2 with long pale yellow hair, dense on posterior margin, tergites 3-5 with long,
fine reddish hair, tergites 7-8 with long yellow hair *Tr. rufus* sp. n.

14 (13). Mesonotum with short black hair, and long, fine black hair bent posteriorly. Tergites 1-
4 with recumbent black hair, tergites 6-7 with short sparse pale yellow hair *Tr.*
nigritarsus sp. n.

15 (12). Pleura and anatergite with pale yellow pubescence. Scutellum with yellow marginal
bristles and yellow hair on disk *Tr. marginis* sp. n.

16 (3). Tibia and tarsus red-yellow.

17 (26). Sternites with black hair.

18 (21). Posterior margins of tergite 2-8 with recumbent gold-yellow hair.

19 (20). Epandrium narrow and excised apically. Scutellum with yellow marginal bristles.
Mesonotum with yellow bristles *Tr. angustus* sp. n.

20 (19). Epandrium wide and rounded apically. Scutellum with black marginal bristles.
Mesonotum with black hair and bristles. Aedeagus trifold with oblique apices *Tr.*
- 2/3 -

obliquus sp. n.

21 (18) . Tergites with deep red hair.

22 (25) . Scutellum with black marginal bristles.

23 (24) . Scutellum with black hair on disk. Facial tubercle mainly with yellow hair. Aedeagus thick basally, thin apically *Tr. grandis* sp. n.

24 (23) . Scutellum with yellow hair on disk. Facial tubercle mainly with black hair *Tr. nigricornis* sp. n.

25 (22) . Scutellum with yellow and black bristles. Facial tubercle mainly with black hair. Mesonotum with black hair and bristles *Tr. basalis* Oldroyd

26 (17) . Sternites with pale yellow hair or mingled with yellow and black long hair.

27 (28) . Mesonotum with black hair behind suture. Scutellum with black hair on disk and black marginal bristles mingled with yellow ones. Aedeagus slender, tri-pronged basally *Tr. tenuis* sp. n.

28 (27) . Mesonotum with yellow hair, or mingled with yellow and black hair behind suture.

29 (30) . Scutellum with yellow hair on disk and yellow marginal bristles. Aedeagus slender with cylindrical apex *Tr. elongatus* sp. n.

30 (29) . Scutellum with yellow and black hair on disk, yellow marginal bristles. Aedeagus not separate *Tr. conjugus* Shi

Shi, Y. (1992): Notes on the Chinese species of the genus *Trigonomima* Enderlein (Diptera: Asilidae). - *Sinozoologia 9: 339-343; ?.

English translation by Dr. Yuji Tagawa (2006)

Notes on the Chinese species of the genus *Trigonomima* Enderlein (Diptera: Asilidae)

Shi Yongshan

(Institute of Zoology, Academia Sinica, Beijing, China)

key to species

1 (2). Palpi with yellow hair. Mesopleura with yellow and black long hair ***Tr. pennipes*** (Hermann)

2 (1). Palpi with black hair. Hair of mesopleura single color

3 (6). Anal cell closed and stalked

4 (5). Mesonotum with thick silver-white tomentum on anterior 3/5, black-brown tomentum on posterior 2/5. Mesopleura with white hair. Scutellum with 3 bristly hairs on disk ***Tr. argentea*** sp. n.

5 (4). Thorax with grey tomentum. Mesopleura with yellow hair. Scutellum with 2 bristly hairs on disk ***Tr. nigra*** sp. n.

6 (3). Anal cell open at wing margin. Mesonotum strongly humped. Head positioned ventrally ***Tr. gibbera*** sp. n.

Shi, Y. (1995): Notes on the genus *Clephyroneura* Becker from China (Diptera: Asilidae). - *Sinozoologia 12: 270-280; ?.

English translation by Dr. Yuji Tagawa (2006)

Notes on the genus *Clephyroneura* Becker from China

(Diptera: Asilidae)

Shi Yongshan

(Institute of Zoology, Academia Sinica, Beijing, China 100080)

key to species

1. Anatergite with black hair 2

Anatergite with yellow hair 6

2. Scutellum with 2 black marginal bristles. Male sternite 8 not extended. Aedeagus flared. Gonostylus and lower forceps pale yellow *Cl. bella* sp. n.

Scutellum without marginal bristles 3

3. Occipital bristles intermingled with black. Male sternite 8 not extended. Epandrium wide and long, rounded apically. Aedeagus and gonostylus red-brown. Lower forcep black *Cl. trifissura* sp. n.

Occipital bristles yellow 4

4. Epandrium slender, curved and hooked apically *Cl. hamiforceps* sp. n.

Epandrium wide and long, without hooked apex 5

5. Pronotum yellow. Antenna yellow; length of scape 1.5 times as long as pedicel. Epandrium yellow, punctate ventrally with a individual pit yellow hair *Cl. alveolusa* sp. n.

Pronotum black. Antennal scape and postpedicel yellow, pedicel black; length of scape 2 times
- 1/3 -

as long as pedicel. Epandrium black with black hair.

6. Antenna black; length of scape 2.5 times as long as pedicel. Aedeagus needle-like. Gonostylus and lower forceps black *Cl. nigrata*

Scape and pedicel yellow. Length of scape 2 times as long as pedicel 7

7. Anterior margin of wing not expanded 8

Anterior margin of wing strongly expanded forward 11

8. Scutellum with 2 marginal bristles. Aedeagus half as long as epandrium. Epandrium narrow basally and wide apically *Cl. apicivirga* sp. n.

Scutellum without marginal bristles. Aedeagus two thirds as long as epandrium. Epandrium not narrow basally 9

9. Epandrium slender with 2 teeth-like projections apically. Male sternite 8 prolonged tongue-like, with dense yellow hair *Cl. bidensa* sp. n.

Epandrium without apical projection 10

10. Wing veins covered with tomentum. Tergites with black hair. Male sternite 8 prolonged with yellow hair apically *Cl. cilia* sp. n.

Wing veins without tomentum. Tergites with yellow hair. Male sternite 8 not extended *Cl. fulvovirga* sp. n.

11. Thorax yellow with two black longitudinal dorsal stripes *Cl. sundaica* (Jaenicke)

Thorax yellow dorsally, with or without a black longitudinal stripe or not 12

12. Scape and pedicel black. Thorax entirely yellow *Cl. cochinesis* Oldroyd

Scape and pedicel yellow. Thorax yellow dorsally with a longitudinal stripe ***Cl.***
xanthopa (Wiedemann)