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Review of the genus *Prosciara* Frey (Diptera, Sciaridae) from China

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<i>Prosciara extumida</i> Shi & Huang, sp. nov.	337
<i>Prosciara meracula</i> Vilkamaa & Hippa, 1996	340
<i>Prosciara decamera</i> Hippa & Vilkamaa, 1991	340

Abstract

The genus *Prosciara* from China is reviewed and 36 species are recognized. Among them, 16 new species, *P. oligotricha* sp. nov., *P. gyracantha* sp. nov., *P. hemicrypta* sp. nov., *P. angusta* sp. nov., *P. euryacantha* sp. nov., *P. ellipsoidea* sp. nov., *P. paucispina* sp. nov., *P. myriacantha* sp. nov., *P. columellata* sp. nov., *P. fossulata* sp. nov., *P. ternidigitata* sp. nov., *P. globoidea* sp. nov., *P. longispina* sp. nov., *P. extumida* sp. nov., *P. sinensis* sp. nov. and *P. tetracantha* sp. nov. and 16 species, *P. falcicula* Vilkamaa & Hippa, *P. latilingula* Hippa & Vilkamaa, *P. duplicidens* Vilkamaa & Hippa, *P. scopulifera* Vilkamaa & Hippa, *P. megachaeta* Hippa & Vilkamaa, *P. pentadactyla* Hippa & Vilkamaa, *P. pollex* Hippa & Vilkamaa, *P. crassidens* Hippa & Vilkamaa, *P. producta* (Tuomikoski), *P. exsecta* Vilkamaa & Hippa, *P. bisulcata* Vilkamaa & Hippa, *P. furcifera* Hippa & Vilkamaa, *P. latifurca* Hippa & Vilkamaa, *P. proluxa* Vilkamaa & Hippa, *P. triloba* Hippa & Vilkamaa and *P. decamera* Hippa & Vilkamaa are reported for the first time from China. *Manusciara* Yang, Zhang & Yang, 1995 is recognized as a synonym of *Prosciara*, therefore, *P. quadridigitata* (Yang, Zhang & Yang, 1995) is a new combination. In addition, geographical distribution of 36 Chinese species are provided, as well as a key to all these Chinese species. This study raises the number of the species of Chinese *Prosciara* from three to 36.

Key words: Diptera, Sciaridae, new species, new combination, China

Introduction

The genus *Prosciara* Frey, 1942 was revised by Hippa & Vilkamaa (1991) and Vilkamaa & Hippa (1996) and is characterized by having a dorsal lobe with stout and slightly curved megasetae on their gonostylus. Until now, about ninety species are recognized in total. Since most of them are Oriental, Hippa & Vilkamaa (1991) suggested this region is the "home" of the genus.

However, Menzel and Mohrig (2000), in their revision of Palaearctic Sciaridae, treated *Prosciara*, *Dolichosciara* Tuomikoski, 1960 and *Phytosciara* s. str. Frey, 1942 as three subgenera within *Phytosciara sensu* Frey, 1942. This followed Tuomikoski (1960), based on three synapomorphies: apex of gonostylus covered with dense setae, segments of the maxillary palpus elongated, and claws often very coarsely toothed. Based on sixty-four morphological characters from adult males, Vilkamaa (2000) recovered *Phytosciara sensu* Frey as a polyphyletic entity and recognized *Prosciara* in the previous sense as a polyphyletic genus and both *Phytosciara* s. str. and *Dolichosciara* in the previous sense as paraphyletic genera. Accordingly, both *Prosciara* and *Dolichosciara* were revised and justified to be monophyletic genera in the new sense (Vilkamaa, 2000). But, for the relationship of the three genera, further analysis of a wider scale is still necessary.

Here we follow Vilkamaa's (2000) revised concept of *Prosciara*. The group is diagnosed by a combination of the following characteristics: color of thorax and abdomen pale, usually darker dorsally; maxillary palp three-segmented, first palpal segment with more than one seta; hind margin of wing with dorsal setae only; legs long, with a subapical prolateral straight comb-like row of strong setae on foretibia; gonostylus with megasetae on dorsal lobe.

The genus has never been systematically studied from China. The earlier and only records were *P. anfracta* Vilkamaa & Hippa, *P. furtiva* Vilkamaa & Hippa and *P. meracula* Vilkamaa & Hippa from Taiwan (Vilkamaa & Hippa, 1996). In this study, we taxonomically revise *Prosciara* based on specimens collected from various localities from China. Detailed illustrations, differential diagnoses, distributional information of all the species are provided, as well as a key to the Chinese species.

Material and methods

All of the specimens were collected by sweeping, light trap and Malaise trap in the field and preserved in 75% ethanol. All were mounted on glass slides in xylol-based Canada balsam after clearing in creosote. The glass slides were made under a Nikon SMZ1500 stereoscopic microscope. The specimens were observed, measured and

illustrated under a Leica DM2500 microscope. The terminology follows Vilkamaa & Hippa (1996). The study is based on males only because all species concepts in *Prosciara* are based on the male morphology, whereas females are not generally identifiable to species level. All specimens in this study including holotypes are deposited at the Institute of Forest Protection, Zhejiang A & F University, Hangzhou, Zhejiang province, China [ZAFU].

Taxonomy

Species included

- anfracta* Vilkamaa & Hippa, 1996: Taiwan, p.27
angusta **sp. nov.**: Zhejiang, p.9, Fig. 4
bisulcata Vilkamaa & Hippa, 1996: Yunnan, p.26
columellata **sp. nov.**: Yunnan, p.20, Fig. 10
crassidens Hippa & Vilkamaa, 1991: Yunnan, p.20
decamera Hippa & Vilkamaa, 1991: Yunnan, p.40
duplicidens Vilkamaa & Hippa, 1996: Yunnan, Guizhou, p.15
ellipsoidea **sp. nov.**: Sichuan, p.12, Fig. 6
euryacantha **sp. nov.**: Guangxi, p.9, Fig. 5
exsecta Vilkamaa & Hippa, 1996: Yunnan, p.22, Fig. 13
extumida **sp. nov.**: Yunnan, p.37, Fig. 22
falcicula Vilkamaa & Hippa, 1996: Sichuan, p.9
fossulata **sp. nov.**: Taiwan, p.22, Fig. 12
furcifera Hippa & Vilkamaa, 1991: Yunnan, p.26
furtiva Vilkamaa & Hippa, 1996: Sichuan, Taiwan p.14
globoidea **sp. nov.**: Sichuan, p.31, Fig. 17
gyracantha **sp. nov.**: Yunnan, p.5, Fig. 2
hemicrypta **sp. nov.**: Yunnan, p.7, Fig. 3
latifurca Hippa & Vilkamaa, 1991: Yunnan, p.26
latilingula Hippa & Vilkamaa, 1991: Zhejiang, p.12
longispina **sp. nov.**: Sichuan, p.37, Fig. 21
megachaeta Hippa & Vilkamaa, 1991: Guangxi, p.15
meracula Vilkamaa & Hippa, 1996: Taiwan, p.40
myriacantha **sp. nov.**: Zhejiang, p.17, Fig. 9
oligotricha **sp. nov.**: Yunnan, p.5, Fig. 1
paucispina **sp. nov.**: Yunnan, p.17, Fig. 8
pentadactyla Hippa & Vilkamaa, 1991: Sichuan, p.15
pollex Hippa & Vilkamaa, 1991: Yunnan, p.15, Fig. 7
producta (Tuomikoski, 1960): Heilongjiang, p.22, Fig. 11
prolixa Vilkamaa & Hippa, 1996: Taiwan, p.27, Fig. 15
quadridigitata (Yang, Zhang & Yang, 1995): Zhejiang, p.27, Fig. 14
scopulifera Vilkamaa & Hippa, 1996: Yunnan, p.14
sinensis **sp. nov.**: Zhejiang, p.34, Fig. 19
ternidigitata **sp. nov.**: Zhejiang, p.29, Fig. 16
tetracantha **sp. nov.**: Sichuan, p.34, Fig. 20
triloba Hippa & Vilkamaa: Taiwan, p.31, Fig. 18

Key to the species of *Prosciara* from China (males)

- | | | |
|----|--|----|
| 1. | M1, M2 and Cu1 setose, and Cu2 setose or nonsetose | 2 |
| - | M1, M2, Cu1 and Cu2 nonsetose (Fig. 23A, B) | 23 |
| 2. | Cu2 nonsetose (Fig. 23C, F) | 3 |
| - | Cu2 setose (Fig. 23D, E) | 17 |

3.	The dorsal lobe of gonostylus subapical, in ventral aspect the gonostylus does not appear deeply bilobed (Fig. 1B, 2A, 3A, 4B, 5B, 6B)	4
-	The dorsal lobe of gonostylus well basal from apex, gonostylus appears deeply bilobed (Fig. 7A, 8B)	11
4.	Intercoxal lobe of hypopygium indistinct or absent (Fig. 1A, 2B, 3B)	5
-	Intercoxal lobe of hypopygium present and distinct (Fig. 4A, 5A, 6A)	7
5.	Tegmen wide, megasetae located in one group (Fig. 1B)	<i>P. oligotricha</i> sp. nov.
-	Tegmen narrow, megasetae located separately (Fig. 2A, 3A)	6
6.	Dorsal lobe of gonostylus visible in ventral view (Fig. 2A)	<i>P. gyracantha</i> sp. nov.
-	Dorsal lobe of gonostylus located completely in dorsal side, not visible in ventral view (Fig. 3A)	<i>P. hemicrypta</i> sp. nov.
7.	Intercoxal lobe of hypopygium short and narrow (Fig. 4A)	<i>P. angusta</i> sp. nov.
-	Intercoxal lobe of hypopygium large (Fig. 5A, 6A)	8
8.	Tegmen longer than wide	<i>P. falcicula</i> Vilkamaa & Hippa
-	Tegmen as long as or wider than long	9
9.	Apex of dorsal lobe on gonostylus broad, megasetae located nearly in a row (Fig. 5B)	<i>P. euryacantha</i> sp. nov.
-	Apex of dorsal lobe on gonostylus narrow, megasetae located in a group (Fig. 6B)	10
10.	Dorsal lobe at about the same level as apex of gonostylus, with six megasetae (Fig. 6B)	<i>P. ellipsoidea</i> sp. nov.
-	Dorsal lobe shifted basad from apex of gonostylus, with four megasetae	<i>P. latilingula</i> Hippa & Vilkamaa
11.	Dorsal lobe of gonostylus located completely in dorsal side, not visible in ventral view	<i>P. furtiva</i> Vilkamaa & Hippa
-	Dorsal lobe of gonostylus visible in ventral view	12
12.	Intercoxal lobe of hypopygium present and distinct	13
-	Intercoxal lobe of hypopygium absent or indistinct (7B, 8A)	15
13.	Apical rim of tegmen complete	<i>P. scopulifera</i> Vilkamaa & Hippa
-	Apical rim of tegmen with a break	14
14.	The megasetae on dorsal lobe of gonostylus arranged into two pairs	<i>P. duplicidens</i> Vilkamaa & Hippa
-	The megasetae on dorsal lobe of gonostylus in one group	<i>P. megachaeta</i> Hippa & Vilkamaa
15.	Megasetae of dorsal lobe on gonostylus located separately	<i>P. pentadactyla</i> Hippa & Vilkamaa
-	Megasetae of dorsal lobe on gonostylus in tight bunch (Fig. 7A, 8B)	16
16.	Dorsal lobe of gonostylus with eight short megasetae (Fig. 7A)	<i>P. pollex</i> Hippa & Vilkamaa
-	Dorsal lobe of gonostylus with three long megasetae (Fig. 8B)	<i>P. paucispina</i> sp. nov.
17.	The dorsal lobe of gonostylus subbasal, its megasetae slender (Fig. 9A)	<i>P. myriacantha</i> sp. nov.
-	The dorsal lobe of gonostylus on the apical half or near the middle, its megasetae thick (Fig. 10B, 11A, 12B, 13A)	18
18.	The gonostylus slender, nearly parallel-sided, the necks and setae of flagellomeres elongated slightly (Fig. 10B, 10D)	19
-	The gonostylus broad, the necks and setae of flagellomeres normal (Fig. 11D)	20
19.	The dorsal lobe of gonostylus shorter than its megasetae (Fig. 10B)	<i>P. columellata</i> sp. nov.
-	The dorsal lobe of gonostylus longer than its megasetae	<i>P. crassidens</i> Hippa & Vilkamaa
20.	Dorsal lobe at about the same level as apex of gonostylus (Fig. 11A)	<i>P. producta</i> (Tuomikoski)
-	Dorsal lobe clearly not at same level as apex of gonostylus (Fig. 12A, 13A)	21
21.	The dorsal lobe of gonostylus shorter than its megasetae (Fig. 12B)	<i>P. fossulata</i> sp. nov.
-	The dorsal lobe of gonostylus much longer than its megasetae (Fig. 13A)	22
22.	Intercoxal lobe of hypopygium absent (Fig. 13B)	<i>P. exsecta</i> Vilkamaa & Hippa
-	Intercoxal lobe of hypopygium present	<i>P. bisulcata</i> Vilkamaa & Hippa
23.	Intercoxal lobe of hypopygium absent (Fig. 14A, 15B, 16B, 17B)	24
-	Intercoxal lobe of hypopygium present (Fig. 18A, 19B, 20A, 21A, 22B)	30
24.	The dorsal lobe of gonostylus long, gonostylus deeply bilobed (Fig. 14B, 15A)	25
-	The dorsal lobe of gonostylus short, gonostylus not deeply bilobed (Fig. 16A, 17A)	29
25.	Setae on gonocoxites strong, intercoxal area with a few of strong setae	<i>P. furcifera</i> Hippa & Vilkamaa
-	Setae on gonocoxites weak, intercoxal area with few setae or a group of weak setae	26
26.	Megasetae on dorsal lobe of gonostylus in one group	27
-	One of the megasetae on dorsal lobe of gonostylus more basal in position than the others (Fig. 14B)	28
27.	A dorsal lobe abruptly narrowed toward its apex on gonostylus	<i>P. latifurca</i> Hippa & Vilkamaa
-	A dorsal lobe evenly narrowed toward its apex on gonostylus	<i>P. anfracta</i> Vilkamaa & Hippa
28.	Dorsal lobe of gonostylus with four megasetae, tegmen wider than long (Fig. 14A)	
-	<i>P. quadridigitata</i> (Yang, Zhang & Yang, 1995)
-	Dorsal lobe of gonostylus with more than five megasetae, tegmen longer than wide (Fig. 15B)	<i>P. proluxa</i> Vilkamaa & Hippa
29.	The gonostylus with three megasetae, arranged in one row (Fig. 16A)	<i>P. ternidigitata</i> sp. nov.
-	The gonostylus with six megasetae, arranged in multiple rows (Fig. 17A)	<i>P. globoidea</i> sp. nov.
30.	Gonostylus with one subapical and one submedial dorsal lobe (Fig. 18B)	<i>P. triloba</i> Hippa & Vilkamaa
-	Gonostylus with only one dorsal lobe	31
31.	Dorsal lobe of gonostylus with four megasetae, tegmen with lateral membraneous prominence on each side (Fig. 19B, 20A)	32
-	Dorsal lobe of gonostylus with more than four megasetae, tegmen without lateral membraneous prominence on each side	33
32.	The dorsal lobe of gonostylus subapical, with megasetae in two rows (Fig. 19A)	<i>P. sinensis</i> sp. nov.
-	The dorsal lobe of gonostylus well basal from apex, with megasetae in one rows (Fig. 20B)	<i>P. tetracantha</i> sp. nov.

33. The dorsal lobe of gonostylus subapical, in ventral aspect the gonostylus not deeply bilobed (Fig. 21B) *P. longispina* sp. nov.
 - The dorsal lobe of gonostylus well basal from apex, in ventral aspect gonostylus deeply bilobed (Fig. 22A) 34
 34. Intercoxal lobe of hypopygium inflated (Fig. 22B) *P. extumida* sp. nov.
 - Intercoxal lobe of hypopygium not inflated 35
 35. Dorsal lobe of gonostylus with eight megesetae *P. meracula* Vilkamaa & Hippa
 - Dorsal lobe of gonostylus with more than ten megesetae *P. decamera* Hippa & Vilkamaa

The Chinese species of *Prosciara*

Prosciara oligotricha Shi & Huang, sp. nov.

(Figs. 1, 24)

Specimens examined. *Holotype*, male. China, Yunnan province, Baoshan, Nankang, Gaoligong Nature Park, 2181 m, sweep-net, 24°49.729'N, 98°46.074'E, 11.V.2009, Su-Jiong Zhang [SM00896].

Description (Male). **Color.** Head dark brown; antenna, thorax, abdomen and hypopygium yellowish-brown, mesonotum brown; palpus and legs yellow; wing fumose. **Head** (Fig. 1C, D). Eye bridge with 3 rows of facets. Basal segment of palpus with 2 setae; 2nd segment with 6 setae; 3rd segment with 8 setae. Length/width of 4th flagellomere: 1.45. **Thorax.** Anterior pronotum with 6 setae, episternum 1 with 7 setae. **Wings.** Wing length 2.54 mm, width/length: 0.37. c/w: 0.57. R1/R: 1.03. r-m with 3 setae, stM with a few setae, M1 and M2 with numerous setae, Cu1 with numerous setae and Cu2 bare. **Legs.** Foretibia with a comb of 7 setae (Fig. 1E). Length of spur/width of foretibia 1.89. Length of femur/length of metatarsus: foreleg 1.09. Length of metatarsus/length of tibia: foreleg 0.67, hind leg 0.53. Length of hind tibia/length of thorax 1.54. Foretibia with 0 dorsal, 1 ventral, 2 prolateral and 2 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 1A, B). Sternite 10 with 3 setae on each half.

Distribution. China (Yunnan, Fig. 24).

Remarks. By its relative wing length, setose M and Cu1, the form of the gonostylus and the subapically located dorsal lobe, the new species resembles *P. bifida* Hippa & Vilkamaa, 1991 and *P. mima* Hippa & Vilkamaa, 1991. But the intercoxal lobe of the hypopygium is not present in *P. oligotricha*, whereas it is distinctly present in *P. bifida* and *P. mima*. The tegmen is wider than length in *P. oligotricha*, while as long as or longer than wide in *P. bifida* and *P. mima*. Additionally, *P. oligotricha* differs from *P. bifida* by having a wider gonostylus, with a dorsal lobe extended distally as far as apex of the gonostylus. This species differs from *P. mima* by a wider gonostylus, with five megasetae on the dorsal lobe, while four in *P. mima*.

Etymology. This species is named after its few setae on the ventral membranous area between the gonocoxites, from the Latin adjective *oligotrichus*, meaning few setae.

Prosciara gyracantha Shi & Huang, sp. nov.

(Figs. 2, 24)

Specimens examined. *Holotype*, male. China, Yunnan province, Baoshan, Longyang, Lujiang, Nankang, 1847 m, sweep-net, 24°48.376'N, 98°47.342'E, 9.V.2009, Jie Zeng [SM00865].

Description (Male). **Color.** Head dark brown; antenna, thorax, abdomen and hypopygium yellowish-brown, the mesonotum brown; palpus and legs yellow; wing fumose. **Head.** Head in poor condition in the specimen studied. Length/width of 4th flagellomere: 1.77. **Thorax.** Anterior pronotum with 5 setae, episternum 1 with 7 setae. **Wings.** Wing length 2.61 mm, width/length: 0.38. c/w: 0.52. R1/R: 0.85. r-m with 3 setae, stM with a few setae, M1 and M2 with numerous setae, Cu1 with numerous setae and Cu2 bare. **Legs.** Legs missing in the specimen studied. **Hypopygium** (Fig. 2A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Yunnan, Fig. 24).

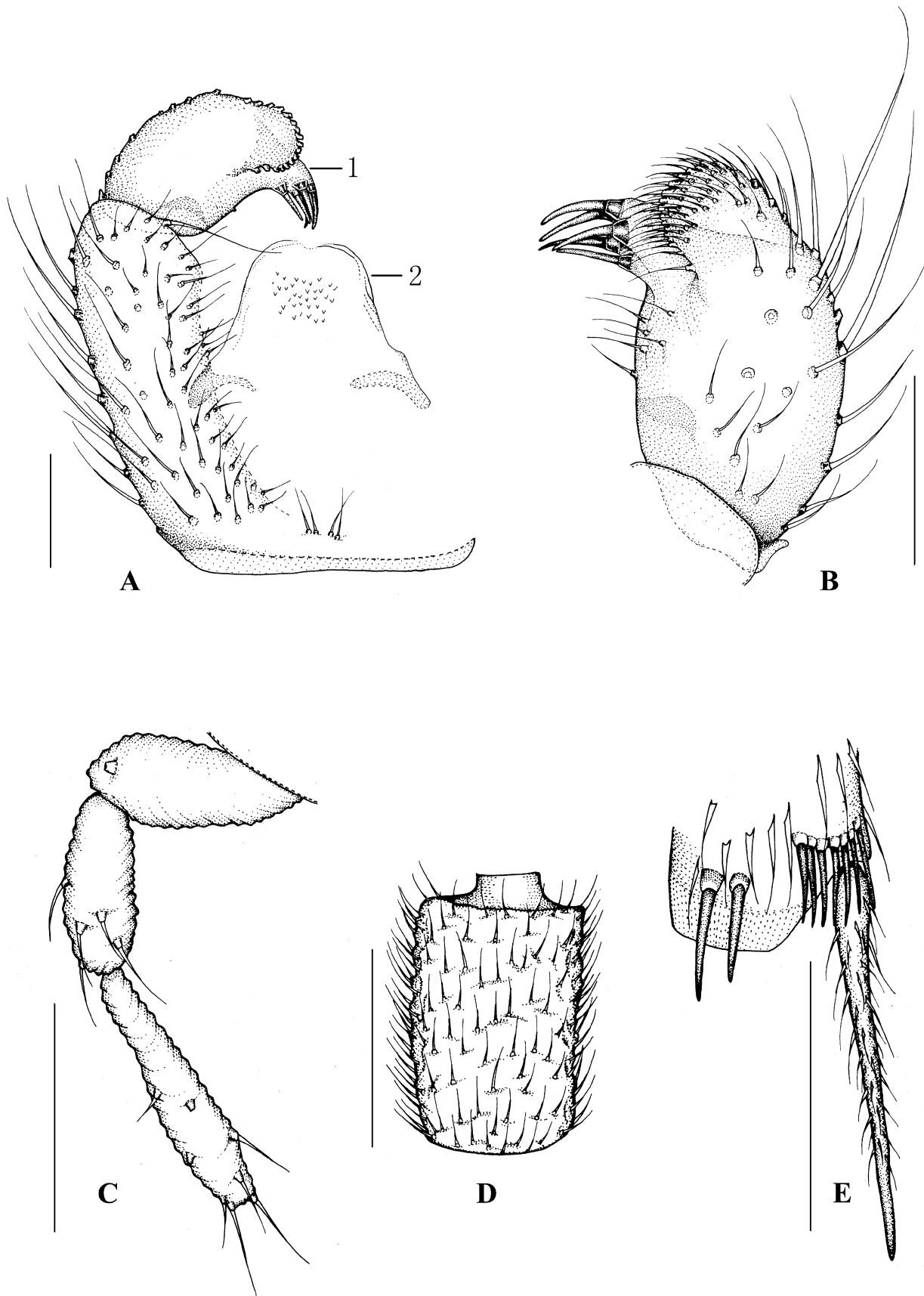


FIGURE 1. *Prosciara oligotricha* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; A-1: dorsal lobe on gonostylus; A-2: tegmen; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

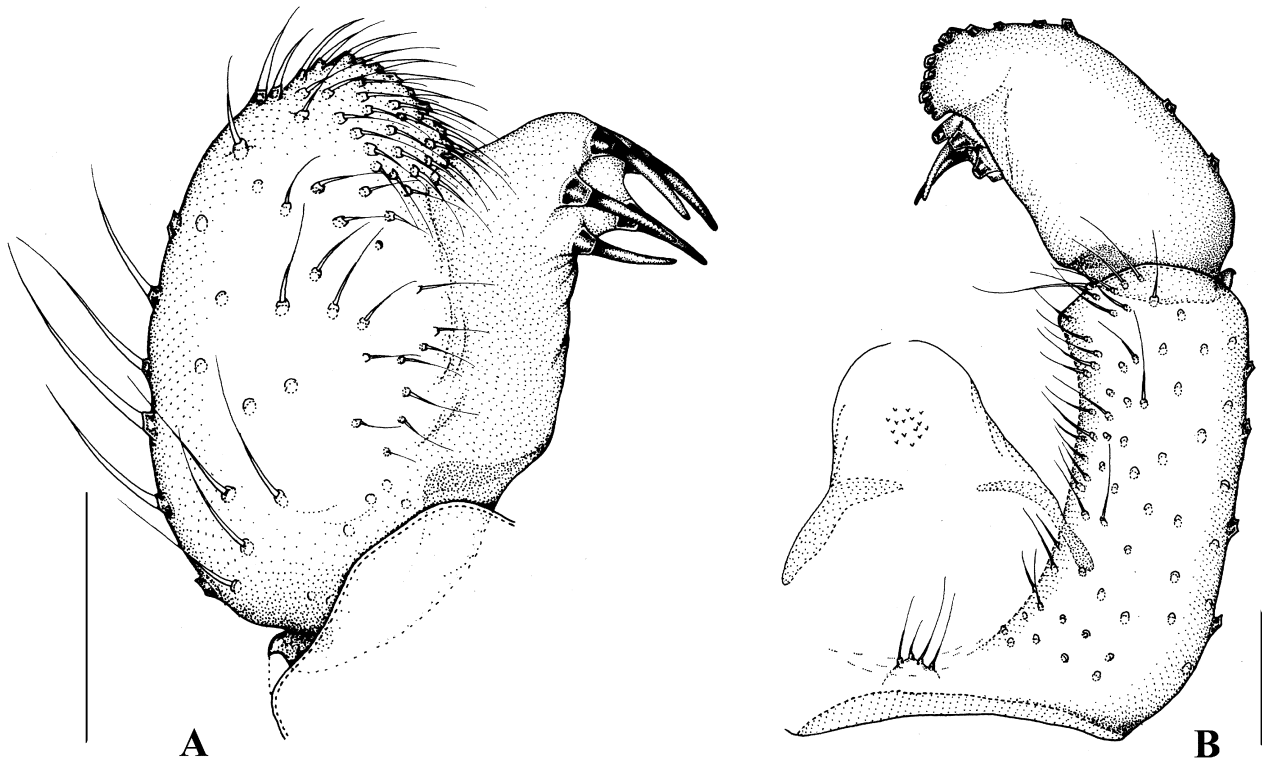


FIGURE 2. *Prosciara gyracantha* Shi & Huang, **sp. nov.**, male, holotype. A, left gonostylus, ventral view; B, part of hypopygium, ventral view. Scale 0.10 mm.

Remarks. The new species and *P. hemicrypta* **sp. nov.** (Fig. 3A, B) are similar to *P. pentadactyla* Hippa & Vilkamaa, 1991 and *P. turgida* Vilkamaa & Hippa, 1996 in their setose M and Cu1, the form of the gonostylus and small indistinct setose intercoxal lobe on the hypopygium. However, *P. gyracantha* and *P. hemicrypta* differ from *P. pentadactyla* by the shorter dorsal lobe shifted towards the apex of a much inflated gonostylus, and differ from *P. turgida* by having five megasetae on the dorsal lobe on the gonostylus, while six megasetae in *P. turgida*. Moreover, *P. hemicrypta* may be distinguished from *P. gyracantha* by a dorsal lobe on the gonostylus located completely in dorsal side, not visible in ventral view.

Etymology. This species is named after its circularly located megasetae on the dorsal lobe, from the Latin adjective *gyracanthus*, meaning circularly located megasetae.

***Prosciara hemicrypta* Shi & Huang, sp. nov.**
(Figs. 3, 24)

Specimens examined. *Holotype*, male. China, Yunnan province, Tengchong, Jietou, Shaba, Mt. Tiantaishan, sweep-net, 25°24.115'N, 98°42.615'E, 12.V.2009, Su-Jiong Zhang [SM00853].

Description (Male). **Color.** The head is bleached, pale brown; thorax, abdomen, and hypopygium yellowish-brown, the mesonotum brown; antenna, palpus and legs yellow; wing fumose. **Head** (Fig. 3C, D). Eye bridge with 3 rows of facets. Prefrons with 22 setae. Clypeus with 2 setae. Basal segment of palpus with 2 setae; 2nd segment with 11 setae; 3rd segment with 10 setae. Length/width of 4th flagellomere: 2.02. **Thorax.** Anterior pronotum with 6 setae, episternum 1 with 11 setae. **Wings.** Wing length 2.97 mm, width/length: 0.39. c/w: 0.49. R1/R: 1.04. r-m with 3 setae, stM with a few setae, M1 and M2 with numerous setae, Cu1 with numerous setae and Cu2 bare. **Legs.** Foretibia with a comb of 6 setae. Length of spur/width of foretibia 2.32. Length of femur/length of metatarsus: foreleg 1.00. Length of metatarsus/length of tibia: foreleg 0.74, hind leg 1.03. Length of hind tibia/length of thorax 0.77. Foretibia with 0 dorsal, 3 ventral, 2 prolateral and 2 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 3A, B). Sternite 10 with 1 seta on each half.

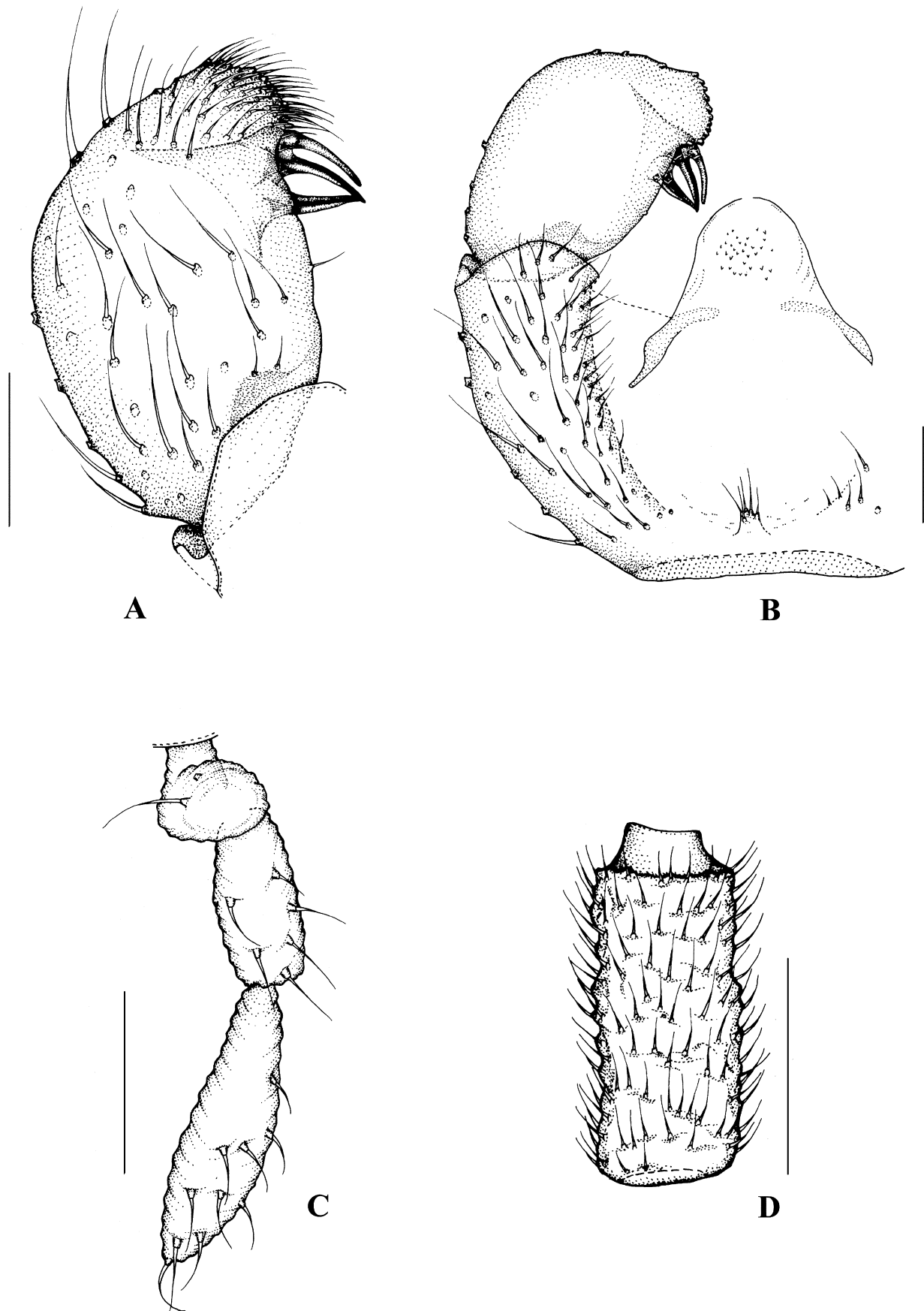


FIGURE 3. *Prosciara hemicypta* Shi & Huang, **sp. nov.**, male, holotype. A, left gonostylus, ventral view; B, part of hypopygium, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view. Scale 0.10 mm.

Distribution. China (Yunnan, Fig. 24).

Remarks. By their form of the gonostylus and small indistinct setose intercoxal lobe on the hypopygium, the new species is similar to *P. gyracantha* (Fig. 2) and the discussion is under the former species.

Etymology. This species is named after the dorsal lobe on the gonostylus not visible in ventral view except its megasetae, from the Latin adjective *hemicryptus*, meaning half concealed.

***Prosciara angusta* Shi & Huang, sp. nov.**

(Figs. 4, 24)

Specimens examined. *Holotype*, male. China, Zhejiang province, Lishui, Fengyangshan, plant nursery, malaise trap, 24.VIII.2007, Sheng-Long Liu [SM00281].

Description (Male). **Color.** Head dark brown; antenna, thorax, abdomen and hypopygium yellowish-brown, the mesonotum brown; palpus and legs yellow; wing fumose. **Head.** Eye bridge with 3 rows of facets. Prefrons with 11 setae. Clypeus with 4 setae. Basal segment of palpus with 2 setae; 2nd segment with 8 setae; 3rd segment with 15 setae. Length/width of 4th flagellomere: 3.23 (Fig. 4C). **Thorax.** Anterior pronotum with 8 setae, episternum 1 with 10 setae. **Wings.** Wing length 2.98 mm, width/length: 0.39. c/w: 0.56. R1/R: 0.97. r-m with 2 setae, stM with a few setae, M1 and M2 with numerous setae, Cu1 with numerous setae and Cu2 bare. **Legs.** Foretibia with a comb of 8 setae (Fig. 4D). Length of spur/width of foretibia 1.84. Length of femur/length of metatarsus: foreleg 0.95. Length of metatarsus/length of tibia: foreleg 0.72, hind leg 0.52. Length of hind tibia/length of thorax 1.92. Foretibia with 0 dorsal, 0 ventral, 2 prolateral and 2 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 4A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Zhejiang, Fig. 24).

Remarks. By its wing length, setose M and Cu1, and subapically located dorsal lobe with four megasetae, the new species resembles *P. latilingula* Hippa & Vilkamaa, 1991, *P. ungulata* (Winnertz, 1867) and *P. producta* (Tuomikoski, 1960). But the former two species differ from the latter two species in slightly larger body size. Moreover, *P. angusta* differs from *P. latilingula* by having a much slender 4th flagellomere, a narrower gonostylus, a narrower tegmen, and a sharper intercoxal lobe on the hypopygium.

Etymology. This species is named after its narrow gonostylus, from the Latin adjective *angustus*, meaning narrow.

***Prosciara falcicula* Vilkamaa & Hippa, 1996**

Vilkamaa & Hippa 1996: 14.

New material. 1 male, China, Sichuan, Wanglang, 2500 m, sweep-net, 25.VII.2006, Zhuan Lu [SM01163].

Diagnosis. The species is characterized by setose M and Cu1 on wings; a short subapical dorsal lobe on the nearly evenly wide gonostylus; a large intercoxal lobe with relatively short setae on the hypopygium.

Distribution. China (Sichuan, Fig. 24), Malaysia (Borneo).

Remarks. This species was first recorded in Borneo, Malaysia (Vilkamaa & Hippa 1996) and is new to China (Sichuan province). The Chinese specimen examined shows some slight differences from the type specimen: r-m bears 5–6 setae and stM bears 6–8 setae in the Chinese specimen, while both veins are bare in the type specimen; the tegmen has an apical break in the Chinese specimen, while it is entire in the type specimen. Additionally, Sternite 10 has three setae on each half in the Chinese specimen, whereas there is only one seta in the type specimen.

***Prosciara euryacantha* Shi & Huang, sp. nov.**

(Figs. 5, 24)

Specimens examined. *Holotype*, male. China, Guangxi province, Nanning, Mt. Damingshan, sweep-net, 25.V.2011, Ting-Ting Zhang [SM01121].

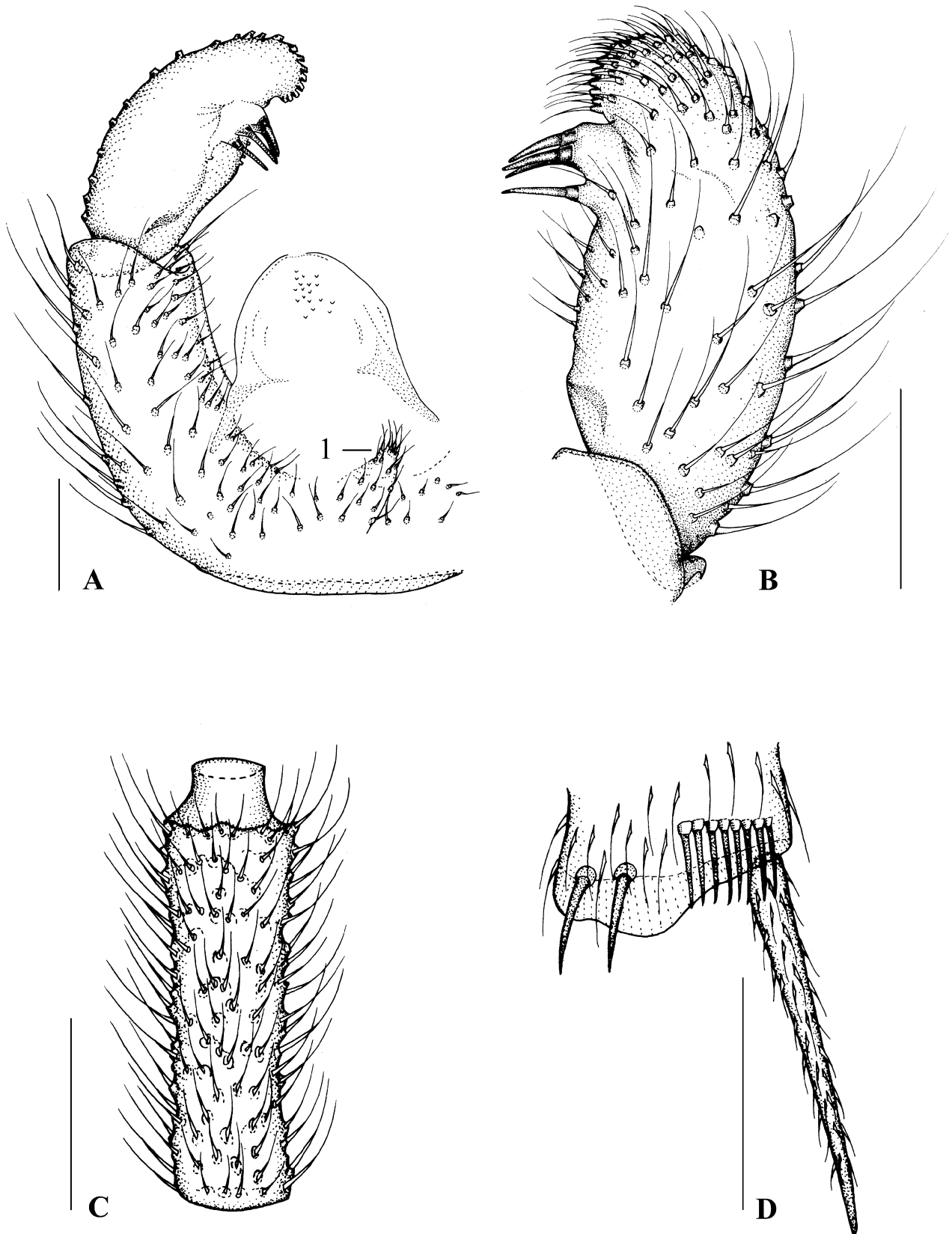


FIGURE 4. *Prosciara angusta* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; A-1: intercoxal lobe on hypopygium; B, right gonostylus, ventral view; C, 4th flagellomere, lateral view; D, apex of foretibia, prolateral view. Scale 0.10 mm.

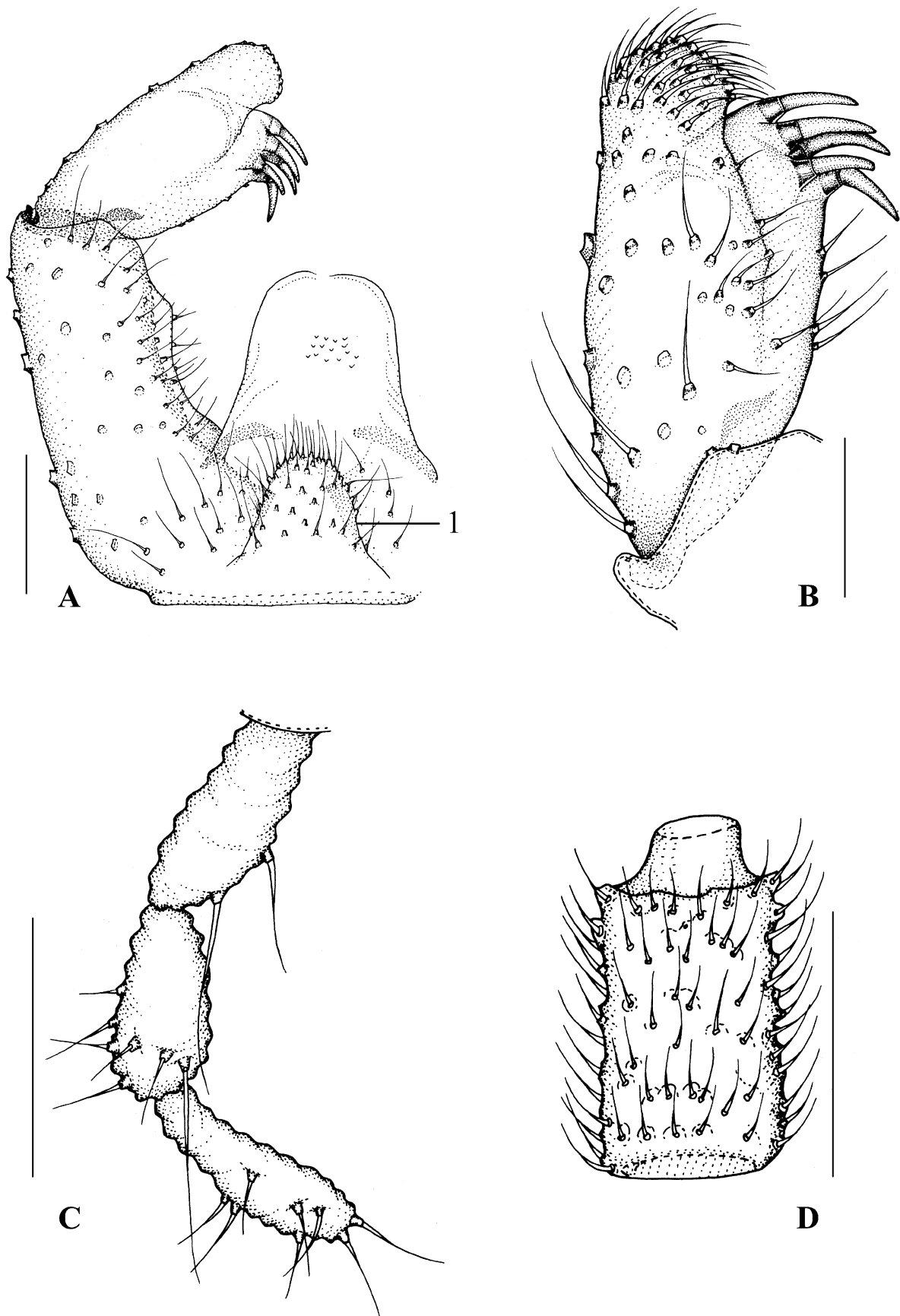


FIGURE 5. *Prosciara euryacantha* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; A-1: intercoxal lobe on hypopygium; B, left gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view. Scale 0.10 mm.

Description (Male). **Color.** Head dark brown; antenna, thorax, abdomen and hypopygium yellowish-brown, the mesonotum brown; palpus and legs yellow; wing fumose. **Head** (Fig. 5C, D). Eye bridge with 3 rows of facets. Head in poor condition in the specimen studied, prefrons and clypeus not well seen. Basal segment of palpus with 2 setae; 2nd segment with 8 setae; 3rd segment with 9 setae. Length/width of 4th flagellomere: 1.53. **Thorax.** Anterior pronotum with 3 setae, episternum 1 with 5 setae. **Wings.** Wing length 1.94 mm, width/length: 0.39. c/w: 0.51. R1/R: 1.04. r-m with 2 setae, stM with 1 seta, M1 and M2 with numerous setae, Cu1 with numerous setae and Cu2 bare. **Legs.** Foretibia with a comb of 8 setae. Length of spur/width of foretibia 1.67. Length of femur/length of metatarsus: foreleg 1.13. Length of metatarsus/length of tibia: foreleg 0.66, hind leg 0.49. Length of hind tibia/length of thorax 1.66. Foretibia with 0 dorsal, 0 ventral, 2 prolateral and 2 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 5A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Guangxi, Fig. 24).

Remarks. By its setose M and Cu1, subapically located dorsal lobe on the gonostylus, the arrangement of the megasetae on the dorsal lobe and the shape of the intercoxal lobe on the hypopygium, the new species resembles *P. ligulifera* Vilkamaa & Hippa, 1996. But it differs from *P. ligulifera* by its robust 4th flagellomere, shorter wings and wider dorsal lobe on an inflated gonostylus.

Etymology. This species is named after its thick megasetae on the dorsal lobe on the gonostylus, from the Latin adjective *eurycanthus*, meaning wide megasetae.

***Prosciara ellipsoidea* Shi & Huang, sp. nov.**

(Figs. 6, 24)

Specimens examined. *Holotype*, male. China, Sichuan province, Labahe, 1200 m, sweep-net, 16.VII.2006, Xiao-Ling Niu, [SM01146].

Description (Male). **Color.** The head is bleached, pale brown; thorax, abdomen and hypopygium yellowish-brown; antenna, palpus and legs yellow; wing fumose. **Head** (Fig. 6C, D). Eye bridge with 3 rows of facets. Prefrons with 41 setae. Clypeus with 1 seta. Basal segment of palpus with 2 setae; 2nd segment with 4 setae; 3rd segment with 5 setae. Length/width of 4th flagellomere: 2.73. **Thorax.** Anterior pronotum with 5 setae, episternum 1 with 12 setae. **Wings.** Wing length 2.99 mm, width/length: 0.35. c/w: 0.63. R1/R: 0.89. r-m with 3 setae, stM bare, M1 and M2 with numerous setae, Cu1 with numerous setae and Cu2 bare. **Legs.** Foretibia with a comb of 9 setae (Fig. 6E). Length of spur/width of foretibia 1.73. Length of femur/length of metatarsus: foreleg 0.82. Length of metatarsus/length of tibia: foreleg 0.80, hind leg 0.55. Length of hind tibia/length of thorax 1.70. Foretibia with 0 dorsal, 0 ventral, 2 prolateral and 2 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 6A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Sichuan, Fig. 24).

Remarks. By its wing length, setose M and Cu1, and the shape of the intercoxal lobe on the hypopygium, the new species resembles *P. latilingula*. They may be distinguished by an apically located dorsal lobe on the gonostylus and its six megasetae, and a narrower tegmen in the hypopygium in *P. ellipsoidea*; a subapically located dorsal lobe on the gonostylus and its five megasetae in *P. latilingula*. By its apically located dorsal lobe on the gonostylus, *P. ellipsoidea* is also similar to *P. plusiochaeta* Hippa & Vilkamaa, 1991 and *P. prosciaroides* Hippa & Vilkamaa, 1991, but the latter two species have bare M and Cu wing veins.

Etymology. This species is named after its oval shape of the gonostylus, from the Latin adjective *ellipsoideus*, meaning oval.

***Prosciara latilingula* Hippa & Vilkamaa, 1991**

Hippa & Vilkamaa 1991: 125.

New material. 1 male, China, Zhejiang province, Lishui, Mt. Fengyanshan, malaise trap, 21.IX.2007, Sheng-Long Liu [SM00304]; 1 male, the same data but 2.V.2008 [SM00291]; 2 males, Zhejiang province, Mt. Wuyanling, 700 m, malaise trap, 20.VII.2005 [SM01155, SM01156].

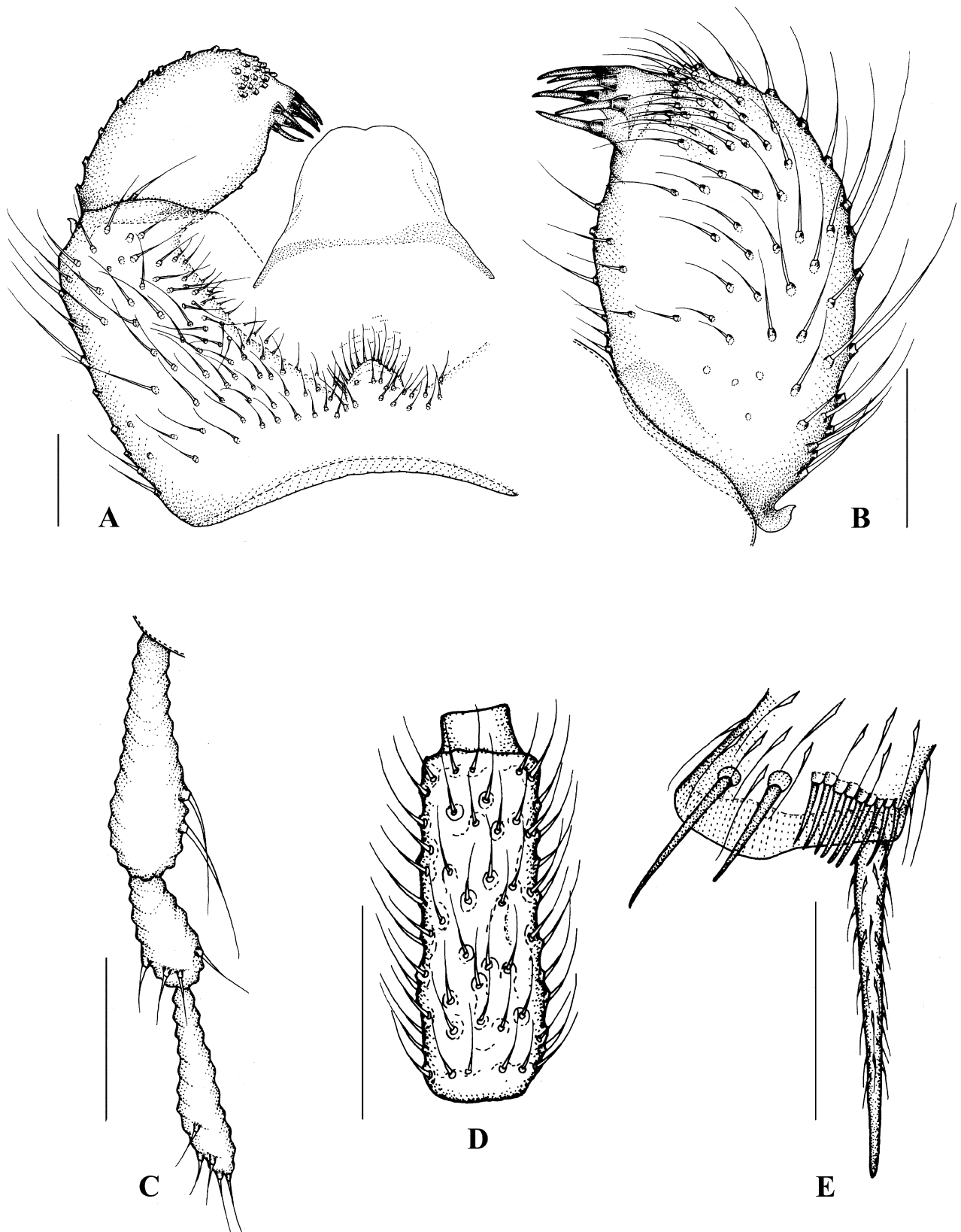


FIGURE 6. *Prosciara ellipsoidea* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

Diagnosis. The species is distinguished by setose M and Cu1 on wings; a robust gonostylus, four megasetae on the dorsal lobe; a wide tegmen and a short and wide intercoxal lobe on the hypopygium.

Distribution. China (Zhejiang, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippra & Vilkamaa 1991) and is new to China (Zhejiang province). The Chinese specimens examined show no distinct differences from the type specimen. However, the type specimen has two setae on the basal segment of the palpus, the length/width of 4th flagellomere is 2.0, and has 1–2 setae on each half of sternite 10 while the Chinese specimens have 3–4 setae on the basal segment of the palpus, the length/width of 4th flagellomere is 2.3–2.9, and have 2–3 setae on each half of sternite 10.

***Prosciara furtiva* Vilkamaa & Hippra, 1996**

Vilkamaa & Hippra 1996: 40.

New material. 3 males, China, Sichuan, Wolong, 2000 m, sweep-net, 22.VII.2006, Zhuan Lu [SM01157, SM01158, SM01159]; 2 males, the same data but 21.VII.2006, Xiao-Ling Niu [SM01160, SM01161]; 1 male, China, Sichuan, Wanglang, 2500 m, sweep-net, 25.VII.2006, Zhuan Lu [SM01162].

Description (Male). **Color.** The head is bleached, pale brown; antenna and thorax pale brown, abdomen and hypopygium yellowish-brown; palpus and legs yellow; wing fumose. **Head.** Eye bridge with 4 rows of facets. Prefrons with 11–13 setae. Clypeus with 1–2 setae. Basal segment of palpus with 1–2 setae; 2nd segment with 7–10 setae; 3rd segment with 7–10 setae. Length/width of 4th flagellomere: 1.40–2.05 (1.50, the holotype). **Thorax.** Anterior pronotum with 5–6 setae, episternum 1 with 7–8 setae. **Wings.** Wing length 2.27–2.52 (2.40, the holotype) mm, width/length: 0.35–0.40. c/w: 0.39–0.63 (0.85, the holotype). R1/R: 0.72–0.82. r-m bare, stM with a few of setae, M1 and M2 with numerous setae, Cu1 with numerous setae and Cu2 bare. **Legs.** Foretibia with a comb of 4–7 setae. Length of spur/width of foretibia 1.83–2.16. Length of femur/length of metatarsus: foreleg 1.03–1.36. Length of metatarsus/length of tibia: foreleg 0.60–0.73, hind leg 0.51–0.63. Length of hind tibia/length of thorax 0.97–1.40. Foretibia with 0 dorsal, 2–5 ventral, 2 prolateral and 2 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium.** Sternite 10 with 2 (2–3, the holotype) setae on each half.

Diagnosis. The species is distinguished by setose M and Cu1 on wings; a dorsal lobe on the gonostylus located completely in dorsal side, not visible in ventral view except its three megasetae; a short and wide intercoxal lobe on the hypopygium.

Distribution. China (Sichuan, Taiwan, Fig. 24).

Remarks. This species was first recorded in Mt. Alishan, Taiwan (Vilkamaa & Hippra 1996). It was also described as *Phytosciara (Prosciara) flexa* Rudzinski, 1996, which was regarded as a junior synonym of *P. furtiva* by Menzel and Heller (2006). Vilkamaa & Hippra (1996) described the species based on a single type. The description provided was not comprehensive because many parts of the holotype were distorted or missing. Here we describe the species based on new materials from Sichuan province.

***Prosciara scopulifera* Vilkamaa & Hippra, 1996**

Vilkamaa & Hippra 1996: 27.

New material. 1 male, China, Yunnan province, Tengchong, Jietou, Shaba, Mt. Tiantaishan, 2142 m, sweep-net, 25°24.254'N, 98°42.735'E, 13.V.2009, Su-Jiong Zhang [SM00884].

Diagnosis. The species is distinguished by its setose M and Cu1 on wings; four megasetae on the dorsal lobe on the gonostylus; and a long intercoxal lobe entire at apex, which has more than five setae in the subbasal part on the hypopygium.

Distribution. China (Yunnan, Fig. 24), Indonesia (Sumatera Utara).

Remarks. This species was first recorded in Indonesia (Vilkamaa & Hippra 1996) and is new to China (Yunnan province).

Prosciara duplicidens Vilkamaa & Hippa, 1996

Vilkamaa & Hippa 1996: 27.

New material. 3 males, China, Yunnan province, Tengchong, Jietou, Shaba, Mt. Tiantaishan, 1879 m, sweep-net, 25°24.115'N, 98°42.615'E, 12.V.2009, Su-Jiong Zhang [SM00853b, SM00863, SM00860]; 2 males, China, Guizhou province, Libo, Maolan, Yaozhai, sweep-net, 29.V.2011, Yan Li [SM01116, SM01114].

Diagnosis. The species is distinguished by setose M and Cu1 on wings; four megasetae in two pairs on a submedially located dorsal lobe on the gonostylus; and a long and narrow intercoxal lobe on the hypopygium.

Distribution. China (Yunnan, Guizhou, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Vilkamaa & Hippa 1996) and is new to China (Yunnan and Guizhou province). The Chinese specimens from Guizhou are nearly the same as the type specimen. However, the specimens from Yunnan show some slight differences. The type specimen has two setae on the basal segment of the palpus and a setose stM, while the specimens from Yunnan have 3–4 setae on the basal segment of the palpus, a bare stM and a slightly wider intercoxal lobe on the hypopygium.

Prosciara megachaeta Hippa & Vilkamaa, 1991

Hippa & Vilkamaa 1991: 135.

New material. 1 male, China, Guangxi province, Nanning, Mt. Damingshan, sweep-net, 23.V.2011, Ting-Ting Zhang [SM01123].

Diagnosis. The species is distinguished by setose M and Cu1 on wings; four strong megasetae on the dorsal lobe, which located at the apical third of the gonostylus; a relatively short and wide tegmen with a break on apical rim, a long and wide intercoxal lobe on the hypopygium.

Distribution. China (Guangxi, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippa & Vilkamaa 1991) and is new to China (Guangxi province). The Chinese specimen examined shows no distinct differences from the type specimen. However, the intercoxal lobe on the hypopygium is slightly shorter in the Chinese specimen.

Prosciara pentadactyla Hippa & Vilkamaa, 1991

Hippa & Vilkamaa 1991: 132.

New material. 1 male, China, Sichuan, Wanglang, 2500 m, sweep-net, 24.VII.2006, Zhuan Lu [SM01165]; 1 male, the same data but 25.VII.2006 [SM01164], 1 male, China, Sichuan, Wolong, 2000 m, sweep-net, 21.VII.2006, Xiao-Ling Niu [SM01166].

Diagnosis. The species is distinguished by setose M and Cu1 on wings; five megasetae directed obliquely ventrad on the dorsal lobe on the gonostylus; and an indistinct intercoxal lobe with long setae on the hypopygium.

Distribution. China (Sichuan, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippa & Vilkamaa 1991) and is new to China (Sichuan province). The Chinese specimens examined show no distinct differences from the type specimen. However the tegmen has an apical break in the Chinese specimens, while it's completed in the type specimen. Additionally, two specimens ([SM01165], [SM01166]) from Sichuan have a few of setae on Cu2, while all the other specimens including the type have a bare Cu2.

Prosciara pollex Hippa & Vilkamaa, 1991

(Figs. 7, 23F, 24)

Hippa & Vilkamaa 1991: 144.

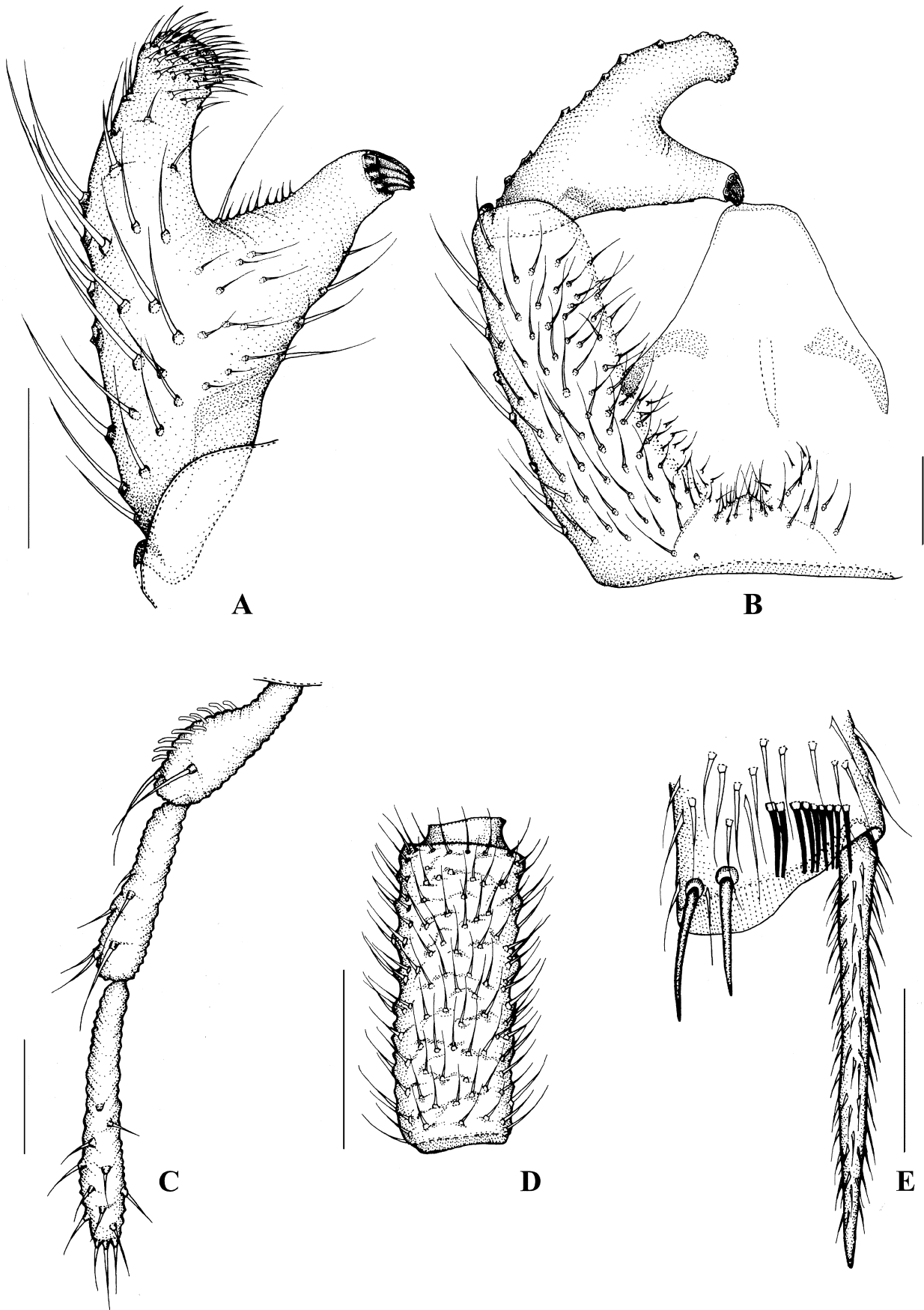


FIGURE 7. *Prosciara pollex* Hippa & Vilkkamaa, 1991, male. A, left gonostylus, ventral view; B, part of hypopygium, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

New material. 1 male, China, Yunnan province, Baoshan, Nankang, Gaoligong Nature Park, sweep-net, 24°49.729'N, 98°46.074'E, 11.V.2009, Su-Jiong Zhang [SM00900]; 1 male, China, Yunnan province, Tengchong, Jietou, Shaba, Mt. Tiantaishan, 1879 m, sweep-net, 25°24.115'N, 98°42.615'E, 12.V.2009, Su-Jiong Zhang [SM00867]; 1 male, 2142 m, 25°24.254'N, 98°42.735'E, 13.V.2009 [SM00873].

Diagnosis. The species may be distinguished by setose M and Cu1 on wings; the gonostylus deeply bilobed and having a long dorsal lobe with thick megasetae; and a distinct setose intercoxal lobe on the hypopygium.

Distribution. China (Yunnan, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippra & Vilkamaa 1991) and is new to China (Yunnan province). The Chinese specimens examined show no distinct differences from the type specimen, but have more megasetae on a wider dorsal lobe, a much wider tegmen and a smaller intercoxal lobe on the hypopygium.

Prosciara paucispina Shi & Huang, sp. nov.

(Figs. 8, 23C, 24)

Specimens examined. *Holotype*, male. China, Yunnan province, Yingjiang, Tongbiguan, Jinshan–Liaowangtashan, light trap, 24°37.678'N, 97°37.901'E, 19.V.2009, Su-Jiong Zhang [SM00595].

Description (Male). **Color.** Head dark brown; antenna bicolored, flagellomeres brown, scape and pedicel yellow; abdomen and hypopygium yellowish-brown; palpus, thorax and legs yellow; wing fumose. **Head** (Fig. 8C, D). Eye bridge with 3 rows of facets. Prefrons with 12 setae. Basal segment of palpus with 5 setae; 2nd segment with 12 setae; 3rd segment with 13 setae. Length/width of 4th flagellomere: 2.95. **Thorax.** Anterior pronotum with 5 setae, episternum 1 with 9 setae. **Wings.** Wing length 3.50 mm, width/length: 0.35. c/w: 0.38. R1/R: 0.91. r-m bare, stM with 2 setae, M1 and M2 with numerous setae, Cu1 with numerous setae and Cu2 bare. **Legs.** Foretibia with a comb of 11 setae (Fig. 8E). Length of spur/width of foretibia 2.22. Length of femur/length of metatarsus: foreleg 0.92. Length of metatarsus/length of tibia: foreleg 0.67, hind leg 0.53. Length of hind tibia/length of thorax 2.67. Foretibia with 2 dorsal, 3 ventral, 2 prolateral and 3 retrolateral spinose setae. Midtibia with 2 dorsal spinose setae. **Hypopygium** (Fig. 8A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Yunnan, Fig. 24).

Remarks. By its setose M and Cu1, and the form of the hypopygium, the new species is similar to *P. Parallela* Vilkamaa & Hippra, 1996. But the two species may be distinguished by three megasetae on a slender dorsal lobe on the gonostylus, and a much longer tegmen with weak medial shoulders in *P. paucispina*, while four megasetae on a wide dorsal lobe on the gonostylus, and a short tegmen in *P. parallela*.

Etymology. This species is named after its few megasetae, only three ones on the dorsal lobe on the gonostylus, from the Latin adjective *paucispinus*, meaning few megasetae.

Prosciara myriacantha Shi & Huang, sp. nov.

(Figs. 9, 23D, 24)

Specimens examined. *Holotype*, male. China, Zhejiang province, Lishui, Mt. Fengyangshan, plant nursery, malaise trap, 07.IV.2008, Sheng-Long Liu [SM00294].

Description (Male). **Color.** Head dark brown; antenna, thorax, abdomen and hypopygium yellowish-brown; palpus and legs yellow; wing fumose. **Head** (Fig. 9C, D). Eye bridge with 3 rows of facets. Prefrons with 25 setae. Clypeus with 1 seta. Basal segment of palpus with 2 setae; 2nd segment with 14 setae; 3rd segment with 14 setae. Length/width of 4th flagellomere: 2.57. **Thorax.** Anterior pronotum with 5 setae, episternum 1 with 7 setae. **Wings** (Fig. 23D). Wing length 3.28 mm, width/length: 0.37. c/w: 0.45. R1/R: 0.94. r-m with 2 setae, stM with 2 setae, M1 and M2 with numerous setae, Cu1 and Cu2 with numerous setae. **Legs.** Foretibia with a comb of 9 setae (Fig. 9E). Length of spur/width of foretibia 1.73. Length of femur/length of metatarsus: foreleg 0.73. Length of metatarsus/length of tibia: foreleg 0.84, hind leg 0.64. Length of hind tibia/length of thorax 2.15. Foretibia with 2 dorsal, 1 ventral, 2 prolateral and 2 retrolateral spinose setae. Midtibia with 1 dorsal spinose setae. **Hypopygium** (Fig. 9A, B). Sternite 10 with 2 setae on each half.

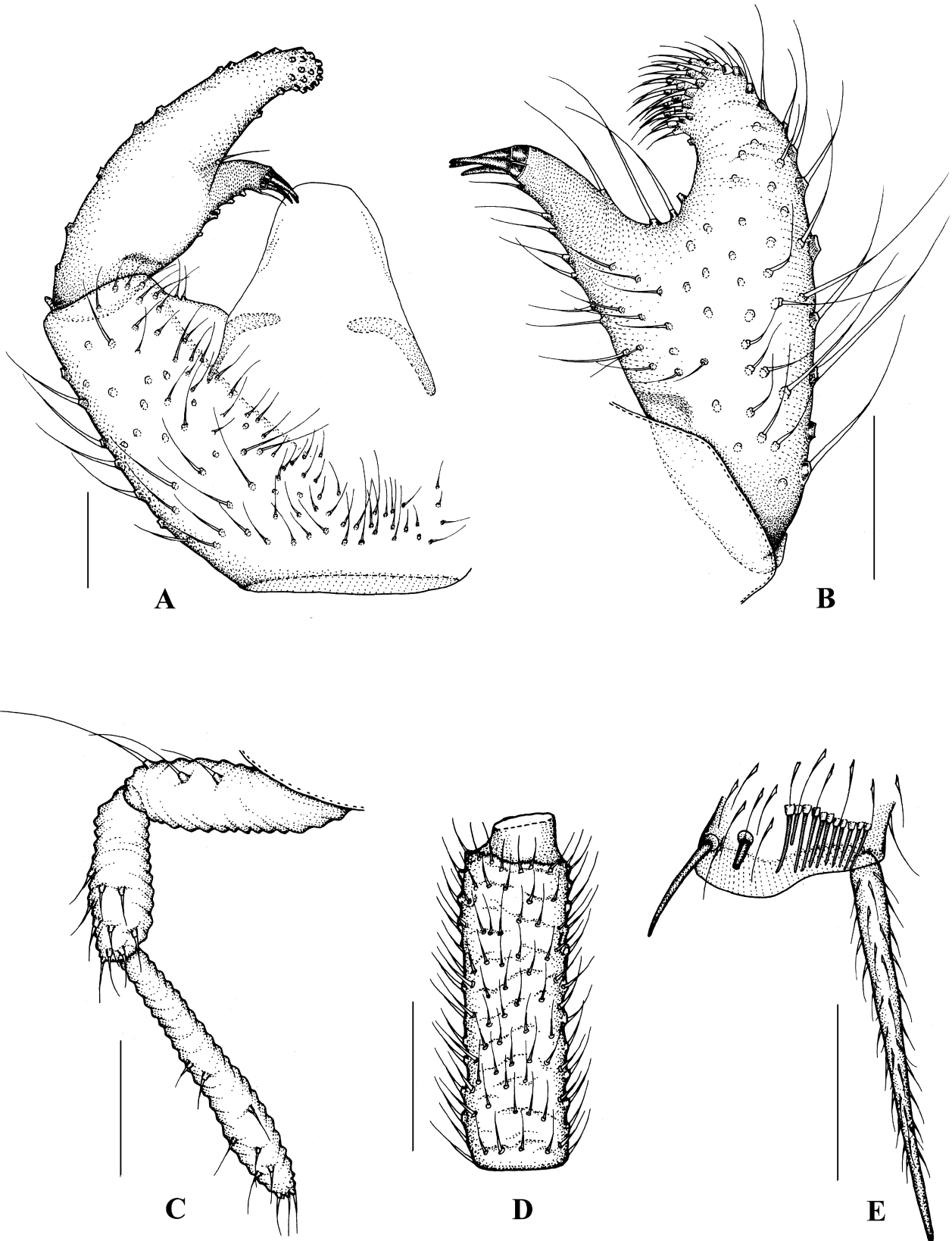


FIGURE 8. *Prosciara paucispina* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

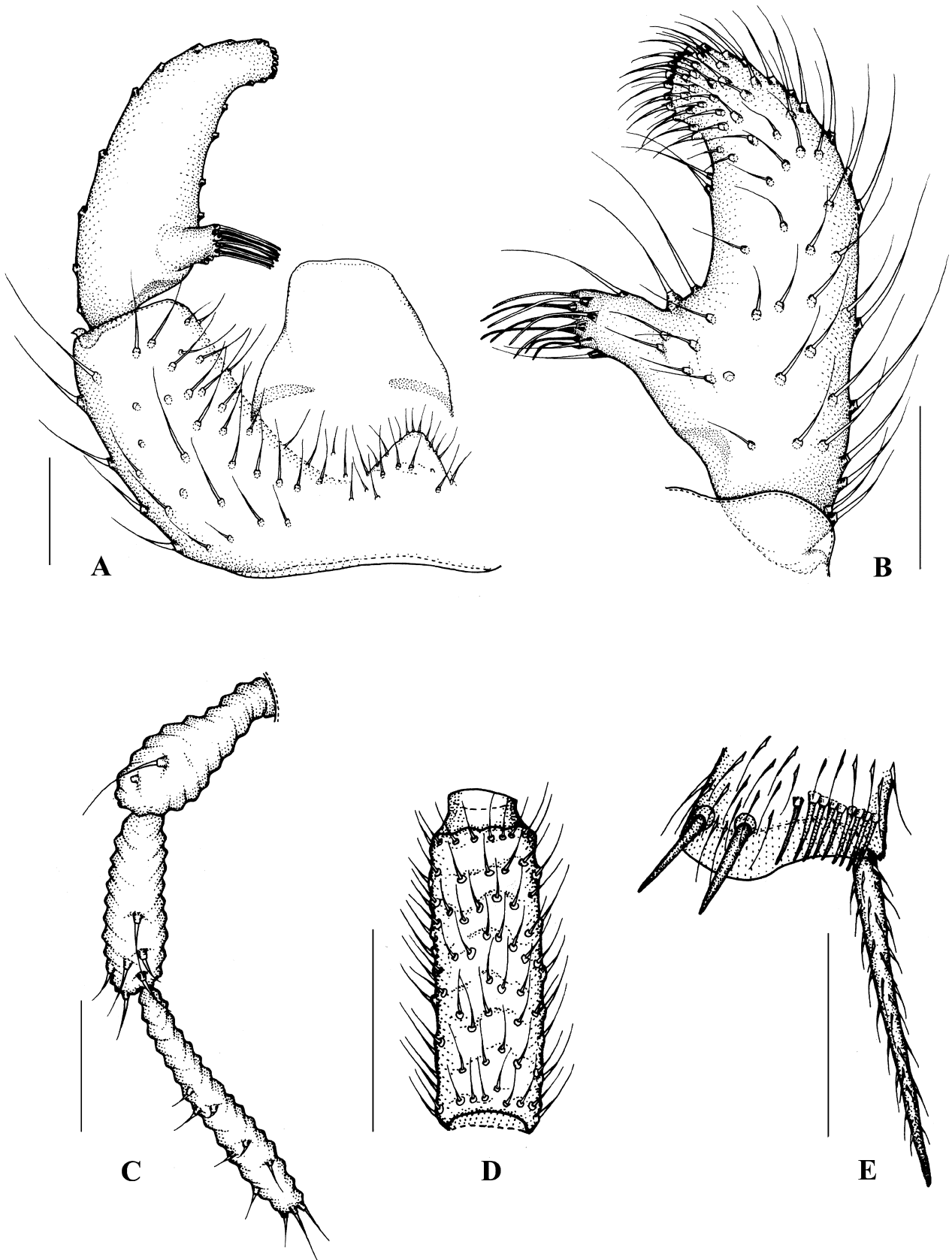


FIGURE 9. *Prosciara myriacantha* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

Distribution. China (Zhejiang, Fig. 24).

Remarks. By its numerous slender megasetae on a subbasally located dorsal lobe on the gonostylus, the new species resembles *P. filichaeta* Hippa & Vilkamaa, 1991 and *P. decamera* Hippa & Vilkamaa, 1991. But it differs from *P. filichaeta* by a distinct intercoxal lobe on the hypopygium; and from *P. decamera* by setose M and Cu, and nine megasetae on the dorsal lobe, while more than ten in *P. decamera*.

Etymology. This species is named after its numerous megasetae on the dorsal lobe on the gonostylus, from the Latin adjective *myriacanthus*, meaning numberless megasetae.

***Prosciara columellata* Shi & Huang, sp. nov.**

(Figs. 10, 24)

Specimens examined. *Holotype*, male. China, Yunnan province, Yingjiang, Tongbiguan, 1513 m, light trap, 24°37.667'N, 97°37.893'E, 16.V.2009, Su-Jiong Zhang [SM00845].

Description (Male). **Color.** The head is bleached, pale brown; abdomen yellowish-brown; antenna, palpus, thorax, hypopygium and legs yellow; wing fumose. **Head** (Fig. 10C, D). Eye bridge with 3 rows of facets. Prefrons with 20 setae. Clypeus with 3 setae. Basal segment of palpus with 6 setae; 2nd segment with 6 setae; 3rd segment with 9 setae. Length/width of 4th flagellomere: 3.72. **Thorax.** Anterior pronotum with 3 setae, episternum 1 with 6 setae. **Wings.** Wing length 2.25 mm, width/length: 0.38. c/w: 0.66. R1/R: 0.95. r-m bare, stM with 1 seta, M1 and M2 with numerous setae, Cu1 and Cu2 with numerous setae. **Legs.** Foretibia with a comb of 7–8 setae (Fig. 10E). Length of spur/width of foretibia 1.85. Length of femur/length of metatarsus: foreleg 1.02. Length of metatarsus/length of tibia: foreleg 0.66, hind leg 0.55. Length of hind tibia/length of thorax 1.78. Foretibia with 0 dorsal, 1 ventral, 2 prolateral and 4 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 10A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Yunnan, Fig. 24).

Remarks. By its setose M and Cu, slightly elongated necks and setae on the flagellomeres and the form of the gonostylus, the new species is most similar to *P. crassidens* Hippa & Vilkamaa, 1991. However, they may be distinguished by three longer megasetae on the dorsal lobe on a parallel-sided gonostylus in *P. columellata*, while more than three megasetae on a slightly inflated gonostylus in *P. crassidens*.

Etymology. This species is named after its parallel-sided gonostylus, which looks like a pillar, from the Latin adjective *columellatus*, meaning pillar.

***Prosciara crassidens* Hippa & Vilkamaa, 1991**

Hippa & Vilkamaa 1991: 128.

New material. 4 males, China, Yunnan province, Yingjiang, Tongbiguan, 1513 m, light trap, 24°37.667'N, 97°37.893'E, 16.V.2009, Su-Jiong Zhang [SM00843, SM00844, SM00846, SM00847]; 1 male, the same data but sweep-net [SM00800]; 1 male, China, Yunnan province, Yingjiang, Tongbiguan, Langsu, 1366 m, sweep-net, 24°37.112'N, 97°38.418'E, 17.V.2009, Junhao Huang [SM00573]; 1 male, the same data but Jie Zeng [SM00564]; 1 male, China, Yunnan province, Yingjiang, Tongbiguan, Mulianhuatang, 1341 m, sweep-net, 24°36.004'N, 97°39.139'E, 20.V.2009, Su-Jiong Zhang [SM00689]; 1 male, China, Yunnan province, Yingjiang, Nabang, 373 m, sweep-net, 24°42.140'N, 97°34.363'E, 15.V.2009, Man-Man Wang [SM00842].

Diagnosis. The species is distinguished by its slightly elongated necks and setae of the flagellomeres; setose M and Cu on wings; a characteristic short row of spinose setae dorsolaterally on the hind tibia; and a subapically located dorsal lobe on the gonostylus.

Distribution. China (Yunnan, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippa & Vilkamaa 1991) and is new to China (Yunnan province). The Chinese specimens examined show no distinct differences from the type specimen. However, the type specimen has 2–3 setae on r-m on wings, and two setae on each half of sternite 10, while the Chinese specimens have a bare r-m, and 1–2 setae on each half of sternite 10. Moreover, the specimen [SM00843] shows variation in having the longest setae of 4th flagellomere much shorter than the apical width of the flagellomere, not as long as the apical width of the flagellomere in the type specimen.

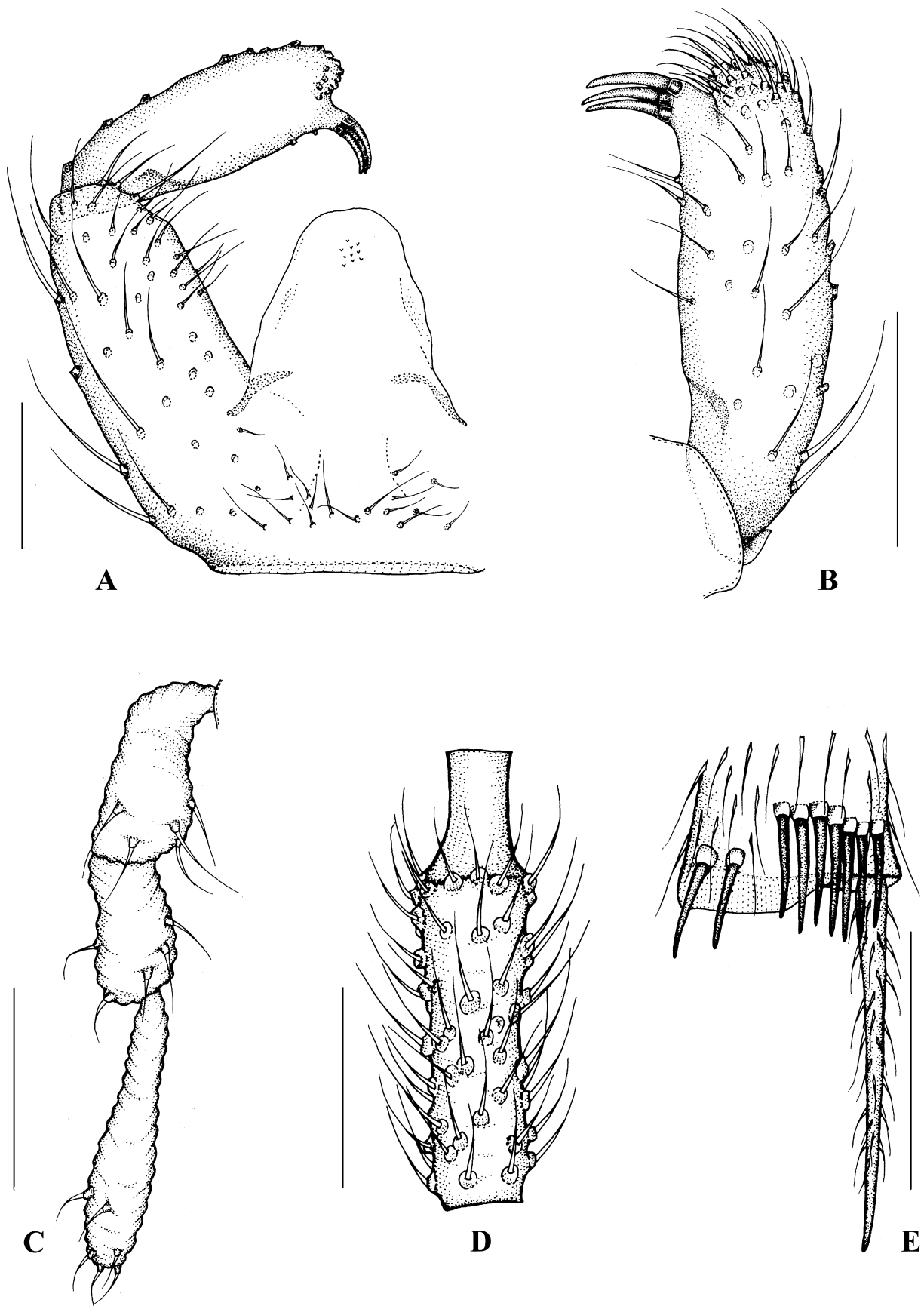


FIGURE 10. *Prosciara columellata* Shi & Huang, *sp. nov.*, male, holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

***Prosciara producta* (Tuomikoski, 1960)**

(Figs. 11, 23E, 24)

Phytosciara (Prosciara) producta Tuomikoski, 1960: 104.

New material. 1 male, China, Heilongjiang province, Wuyingqu, Fenglin14–16, sweep-net, 20.VII.2008, Su-Jiong Zhang [SM00218].

Diagnosis. The species is distinguished by setose M and Cu, a subapically located dorsal lobe with four megasetae on the gonostylus, and a distinct intercoxal lobe on the hypopygium.

Distribution. China (Heilongjiang, Fig. 24), Finland (Vihti).

Remarks. This species was first recorded in Vihti, Finland (Hippon & Vilkkamaa 1991) and is new to China (Heilongjiang province). The Chinese specimen examined shows no distinct differences from the type specimen. However, The Chinese specimen differs from the type specimen by a bare stM, a wider base of the dorsal lobe on the gonostylus, a narrower intercoxal lobe with less setae on the hypopygium and a break on the apical rim of the tegmen.

***Prosciara fossulata* Shi & Huang, sp. nov.**

(Figs. 12, 24)

Specimens examined. *Holotype*, male. China, Taiwan, Xuanlan, Fushan, Botanical Garden, 635 m, sweep-net, 13.XI.2010, Ding Yang [SM01134].

Description (Male). **Color.** Head dark brown; antenna bicolored, flagellomeres brown, scape and pedicel yellow; palpus, thorax, abdomen and hypopygium yellowish-brown; legs yellow; wing fumose. **Head.** Eye bridge with 3 rows of facets. Head in poor condition in the specimen studied, prefrons, clypeus and basal segment of palpus not well seen. 2nd segment of palpus with 13 setae; 3rd segment with 10 setae. Length/width of 4th flagellomere: 3.58 (Fig. 12C). **Thorax.** Anterior pronotum with 8 setae, episternum 1 with 6 setae. **Wings.** Wing length 3.14 mm, width/length: 0.36. c/w: 0.51. R1/R: 0.60. r-m with 1 seta, stM with 3 setae, M1 and M2 with numerous setae, Cu1 and Cu2 with numerous setae. **Legs.** Foretibia with a comb of 8 setae (Fig. 12D). Length of spur/width of foretibia 1.97. Length of femur/length of metatarsus: foreleg 0.73. Length of metatarsus/length of tibia: foreleg 0.76, hind leg 0.56. Length of hind tibia/length of thorax 2.51. Foretibia with 0 dorsal, 5 ventral, 12 prolateral and 6 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 12A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Taiwan, Fig. 24).

Remarks. The new species is similar to *P. meracula* Vilkkamaa & Hippon, 1996 in the gonostylus form, but other characters are distinctively different from *P. meracula* and the other species by the slightly elongated flagellomeres, four megasetae on a wide apex of a medially located short dorsal lobe on the gonostylus, lacking the intercoxal lobe on the hypopygium and bare ventral membraneous area between the gonocoxites.

Etymology. This species is named after the ventral membraneous area between the gonocoxites that looks like a ditch, from the Latin adjective *fossulatus*, meaning ditch.

***Prosciara exsecta* Vilkkamaa & Hippon, 1996**

(Figs. 13, 24)

Vilkkamaa & Hippon 1996: 45.

New material. 2 males, China, Yunnan province, Baoshan, Nankang, Gaoligong Nature Park, 2181 m, sweep-net, 24°49.729'N, 98°46.074'E, 10.V.2009, Su-Jiong Zhang [SM00911, SM00914].

Diagnosis. The species may be distinguished by setose M and Cu on wings; the gonostylus deeply bilobed and a long dorsal lobe with four long megasetae; and lacking the intercoxal lobe on the hypopygium.

Distribution. China (Yunnan, Fig. 24), Burma (Kambaiti).

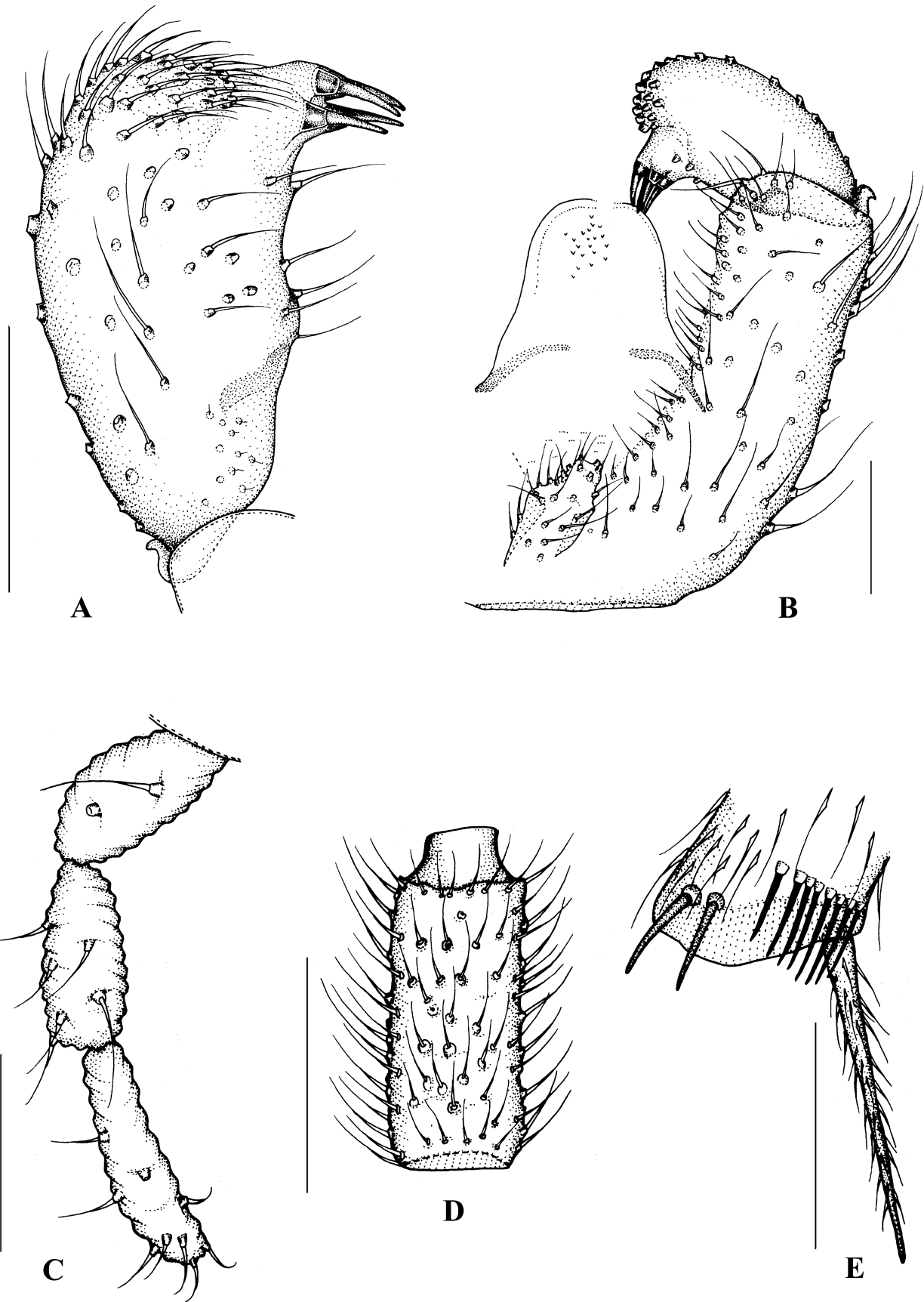


FIGURE 11. *Prosciara producta* (Tuomikoski, 1960), male. A, left gonostylus, ventral view; B, part of hypopygium, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

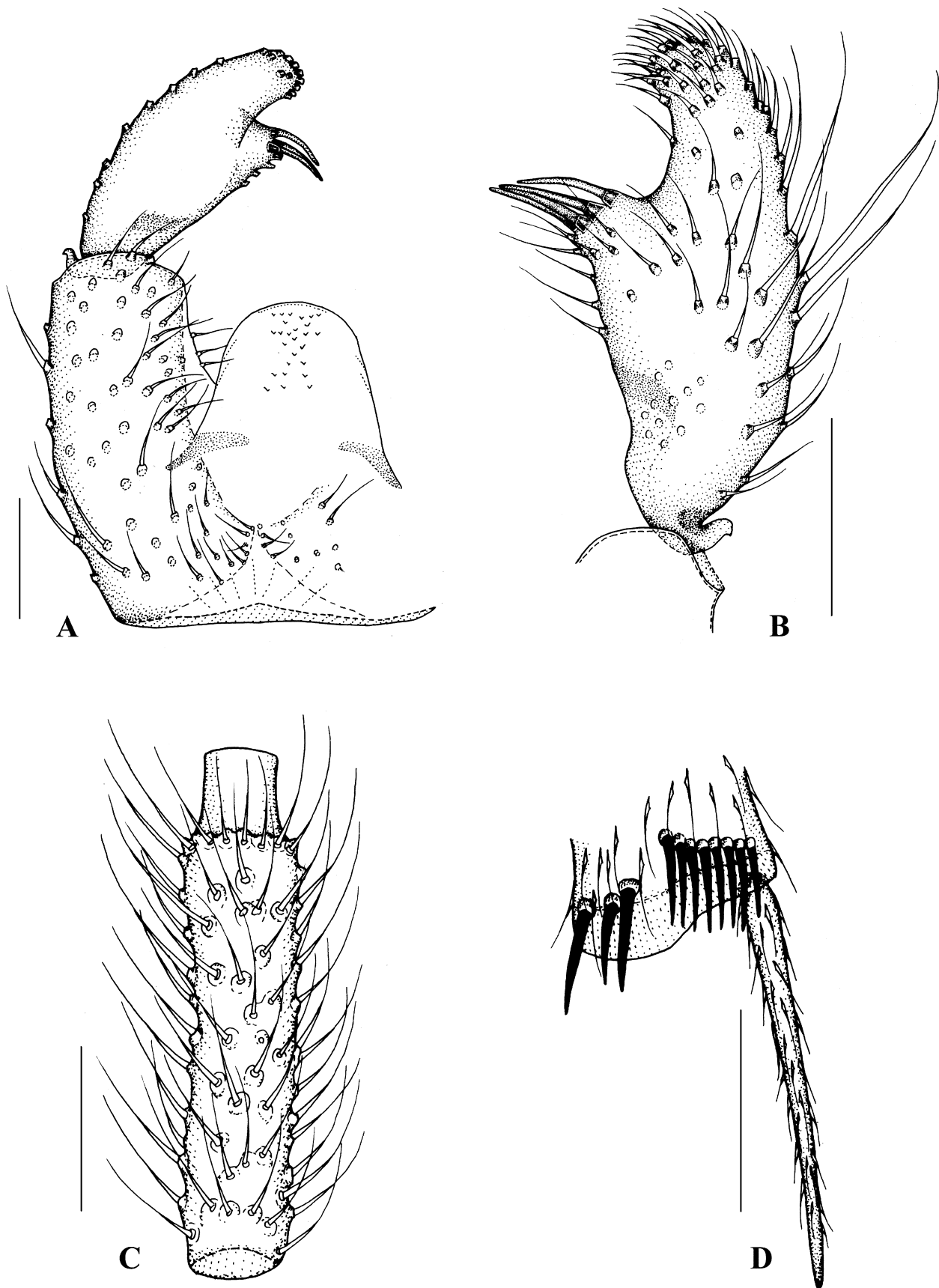


FIGURE 12. *Prosciara fossulata* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, 4th flagellomere, lateral view; D, apex of foretibia, prolateral view. Scale 0.10 mm.

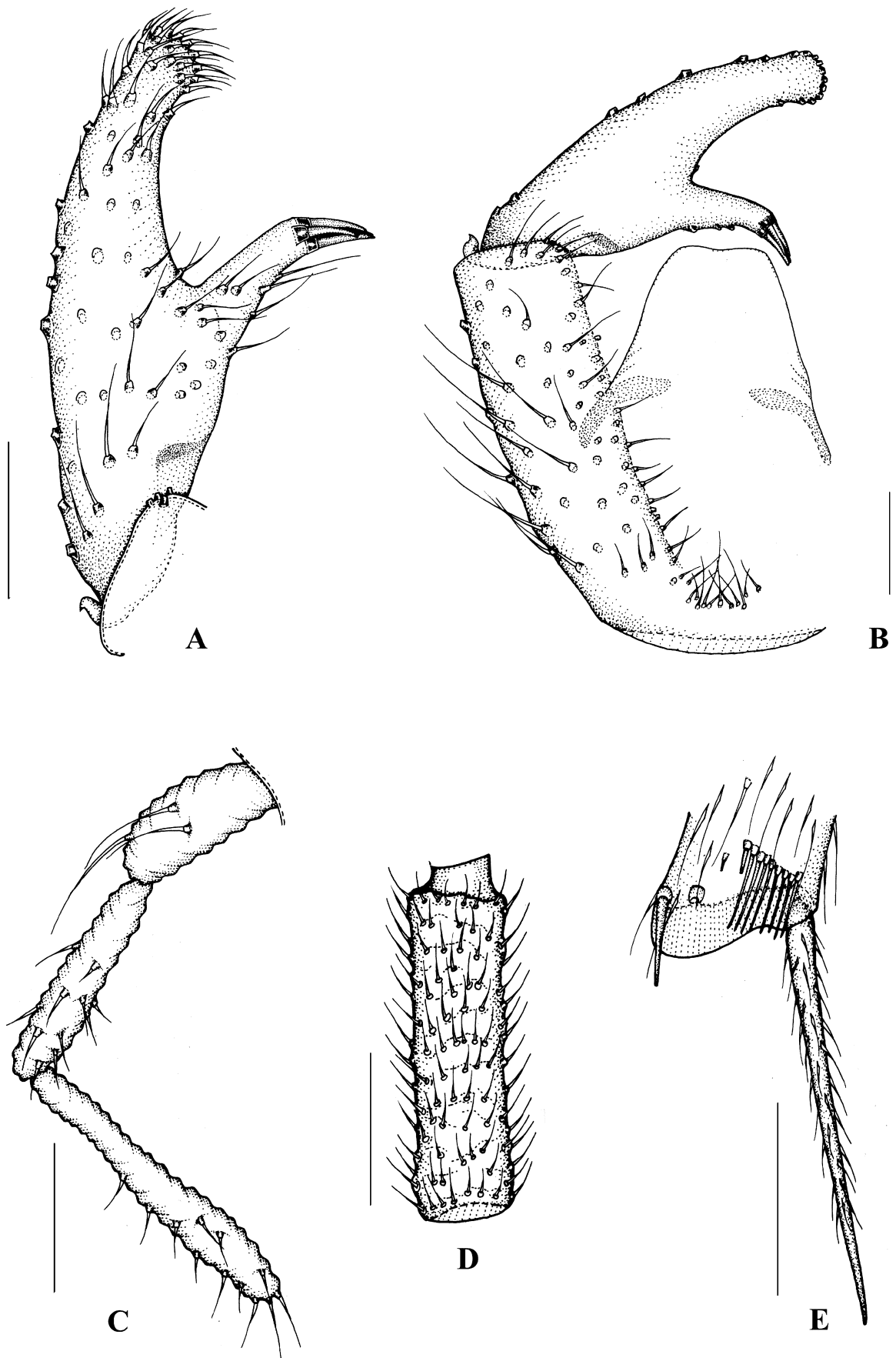


FIGURE 13. *Prosciara exsecta* Vilkamaa & Hippa, 1996, male. A, left gonostylus, ventral view; B, part of hypopygium, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

Remarks. This species was first recorded in Kambaiti, Burma (Vilkamaa & Hippa 1996) and is new to China (Yunnan province). The Chinese specimens examined show no distinct differences from the type specimen, but lack sensilla on the maxillary palpus, have a narrower gonostylus and have four megasetae on a slender dorsal lobe, while there are more than five megasetae in the type specimen.

Prosciara bisulcata Vilkamaa & Hippa, 1996

Vilkamaa & Hippa 1996: 48.

New material. 1 male, China, Yunnan province, Baoshan, Nankang, Gaoligong Nature Park, 2181 m, sweep-net, 24°49.729'N, 98°46.074'E, 10.V.2009, Su-Jiong Zhang [SM00909].

Diagnosis. The species is distinguished by setose M and Cu on relatively short wings; five short and thick megasetae on a subbasally located and long dorsal lobe on the gonostylus; and a relatively long and narrow intercoxal lobe on the hypopygium.

Distribution. China (Yunnan, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Vilkamaa & Hippa 1996) and is new to China (Yunnan province).

Prosciara furcifera Hippa & Vilkamaa, 1991

Hippa & Vilkamaa 1991: 139.

New material. 1 male, China, Yunnan province, Tengchong, Jietou, Shaba, Mt. Tiantaishan, 1879 m, sweep-net, 25°24.115'N, 98°42.615'E, 12.V.2009, Su-Jiong Zhang [SM00866]; 5 males, China, Yunnan province, Honghe, Jinping, Fenshuiling, sweep-net, 4.V.2011, Li-Hua Wang [SM01112, SM01113, SM01127, SM01128, SM01131].

Diagnosis. The species is distinguished by bare M and Cu wing veins; all megasetae closely arranged in one group on the dorsal lobe, except one megaseta shifted basally away from apex of the dorsal lobe; a long and narrow tegmen, and strong setae in the ventral membranous area between the gonocoxites.

Distribution. China (Yunnan, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippa & Vilkamaa 1991) and is newly recorded from China (Yunnan province). The six Chinese specimens examined do not show distinct difference, but the numbers of setae on some special parts show variation. The type specimen has two setae on the basal segment of the palpus, one seta on each half of sternite 10, and a couple of strong setae in the ventral membranous area between the gonocoxites, while the Chinese specimens have 2–3 setae on the basal segment of the palpus, 1–2 setae on each half of sternite 10, and 0–5 slightly strong setae in the ventral membranous area between the gonocoxites. Additionally, the Chinese specimens have a tegmen wider than the type.

Prosciara latifurca Hippa & Vilkamaa, 1991

Hippa & Vilkamaa 1991: 142.

New material. 1 male, China, Yunnan province, Baoshan, Nankang, Gaoligong Nature Park, 2181 m, sweep-net, 24°49.729'N, 98°46.074'E, 10.V.2009, Su-Jiong Zhang [SM00906].

Diagnosis. The species is distinguished by bare M and Cu on the relatively longer wings; a dorsal lobe wide at the base and fairly abruptly narrowed toward its apex on the gonostylus; and a long tegmen in the hypopygium.

Distribution. China (Yunnan, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippa & Vilkamaa 1991) and is new to China (Yunnan province). The Chinese specimen examined shows no distinct intraspecific variation, but the type specimen has 1–3 setae on the r-m on wings, and a comb of 13 setae on the apex of the foretibia, while the Chinese specimen has 5–6 setae on the r-m on wings, and a comb of 8 setae on the apex of the foretibia.

Prosciara anfracta Vilkamaa & Hippa, 1996

Vilkamaa & Hippa 1996: 39.

Diagnosis. The species is distinguished by bare M and Cu wing veins; all megasetae closely arranged in one group on a dorsal lobe, which evenly narrowed towards its apex on the gonostylus.

Distribution. China (Taiwan, Fig. 24), Malaysia (Pahang).

Prosciara quadridigitata (Yang, Zhang & Yang, 1995), new combination

(Figs. 14, 24)

Manusciara quadridigitata Yang, Zhang & Yang, 1995: 457.

Specimens examined. *Holotype*, male. China, Zhejiang province, Qingyuan, Mt. Baishanzu, 1500 m, sweep-net, 8.V.1994, Hong Wu [SM01148]. *Paratypes*, 1 male, the same data as holotype [SM01149]; 2 males, the same data, but 1720 m, 16.VIII.1993, Chi-Kun Yang & Chun-Qing Yang [SM01150, SM01151].

Description (Male). **Color.** Head dark brown; antenna brown; thorax, abdomen and hypopygium yellowish-brown; palpus and legs yellow; wing fumose. **Head** (Fig. 14C, D). Eye bridge with 3–4 rows of facets. Prefrons with 22 setae. Clypeus with 6–8 setae. Basal segment of palpus with 4–5 setae; 2nd segment with 16–19 setae; 3rd segment with 13–16 setae. Length/width of 4th flagellomere: 1.26–1.77. **Thorax.** Anterior pronotum with 6–10 setae, episternum 1 with 8–12 setae. **Wings.** Wing length 2.77–3.35 mm, width/length: 0.38–0.40. c/w: 0.48. R1/R: 0.90–1.07. r-m with 2–9 setae, stM bare, M1 and M2 bare, Cu1 and Cu2 bare. **Legs.** Foretibia with a comb of 6–8 setae. Length of spur/width of foretibia 1.17–1.29. Length of femur/length of metatarsus: foreleg 1.07–1.11. Length of metatarsus/length of tibia: foreleg 0.67–0.72, hind leg 0.47–0.49. Length of hind tibia/length of thorax 1.34–1.35. Foretibia with 0 dorsal, 0 ventral, 2 prolateral and 4–6 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 14A, B). Sternite 10 with 1–2 setae on each half.

Distribution. China (Zhejiang, Fig. 24).

Remarks. Yang et al (1995) described the monotypic genus *Manusciara* based on the type species *M. quadridigitata* Yang, Zhang & Yang, 1995 from Mt. Baishanzu, Qingyuan, Zhejiang province, China. The characteristics of this genus was provided as follows: male eyes with interfacetal hairs, 4th flagellomere longer than wide, maxillary palp three segmented, tibial spurs 1:2:2, foretibial comb 1-rowed, veins C, R, R1, Rs and r-m with macrotrichia; distimere of genitalia with a long arm-like process. The authors considered the arm-like process, which is called dorsal lobe on the gonostylus in *Prosciara*, as a unique characteristic of *Manusciara* and therefore named after it. Moreover, all the other diagnostic traits of *Manusciara* are also common in *Prosciara* and the type species *M. quadridigitata* shows all the characters as a *Prosciara* member. Therefore, we treat *Manusciara* as a synonym of *Prosciara*. Additionally, by sharing the very similar form of the gonostylus and its dorsal lobe, and also the arrangement of the megasetae, the species resembles *P. tetracantha* sp. nov. (Fig. 22B). For their differential diagnosis, see under *P. sinensis* sp. nov.

Prosciara prolixa Vilkamaa & Hippa, 1996

(Figs. 15, 24)

Vilkamaa & Hippa 1996: 35.

New material. 1 male, China, Taiwan, Pingdong, Mt. Dahanshan, 1500–1600 m, sweep-net, 7.VI.2011, Xiao-Yan Liu [SM01111].

Diagnosis. The species is distinguished by bare M and Cu wing veins; a submedially located and long dorsal lobe which is longer and wider than the apex of the gonostylus; and a tegmen slightly longer than wide.

Distribution. China (Taiwan, Fig. 24), Indonesia (Sulawesi).

Remarks. This species was first recorded in Indonesia (Vilkamaa & Hippa 1996) and is new to China (Taiwan). The Chinese specimen examined shows no distinct differences from the type specimen, but the Chinese specimen has more setae on the ventral membrane area between the gonocoxites.

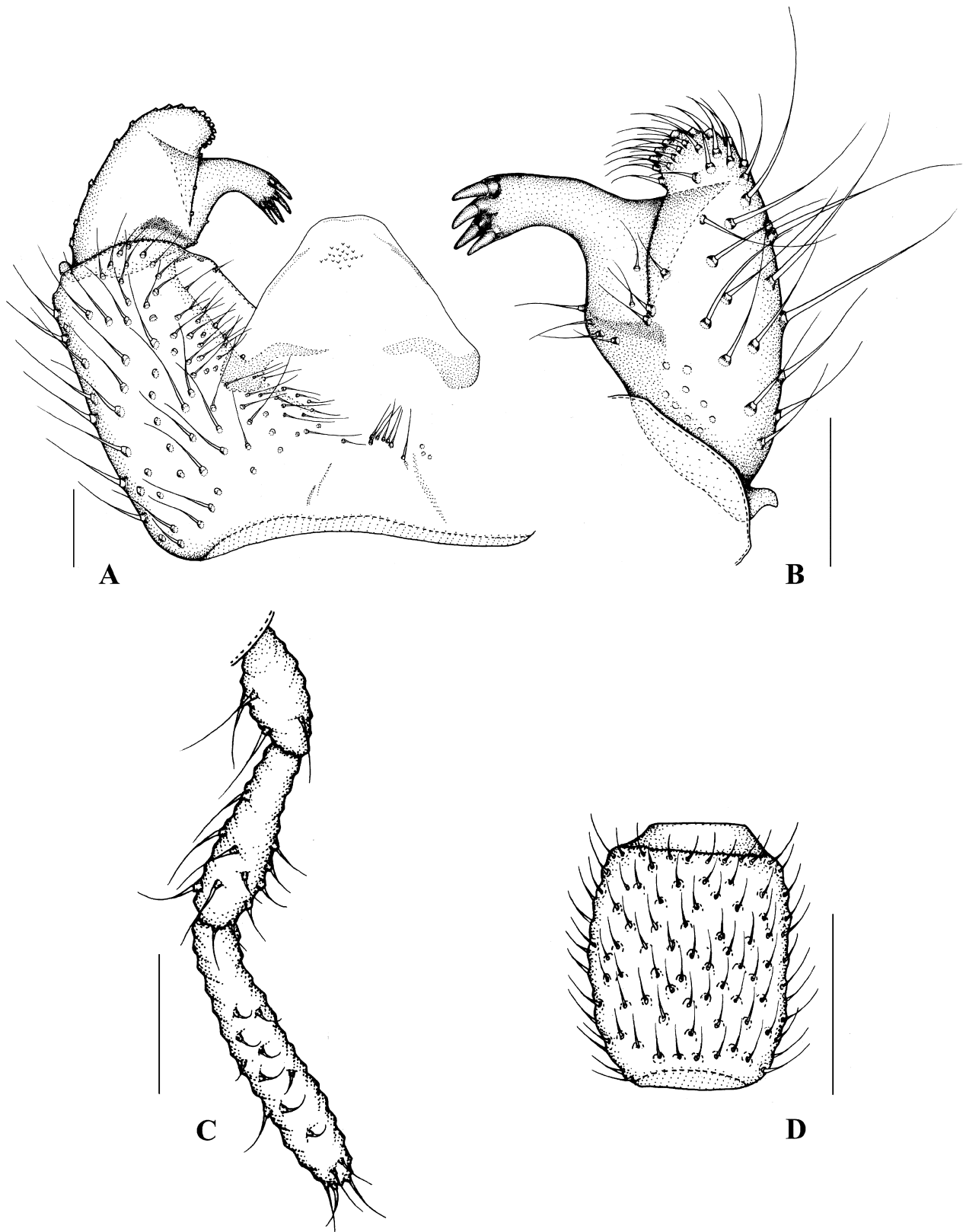


FIGURE 14. *Prosciara quadridigitata* (Yang, Zhang & Yang, 1995), male, A and B paratype, C and D holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view. Scale 0.10 mm.

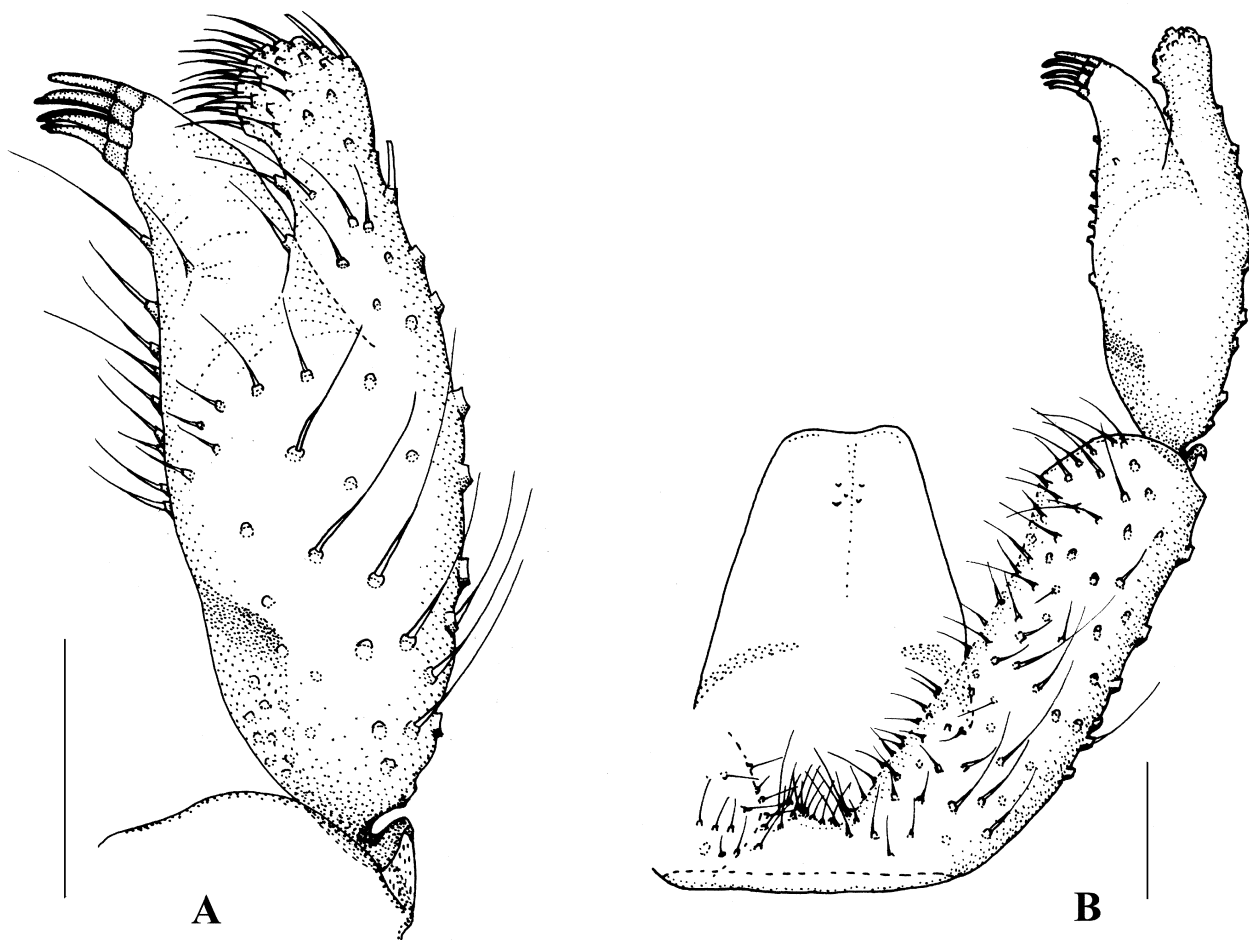


FIGURE 15. *Prosciara prolixa* Vilkamaa & Hippa, 1996, male. A, right gonostylus, ventral view; B, part of hypopygium, ventral view. Scale 0.10 mm.

***Prosciara ternidigitata* Shi & Huang, sp. nov.**

(Figs. 16, 24)

Specimens examined. *Holotype*, male. China, Zhejiang province, Mt. Wuyanling, 1200 m, malaise trap, 6.VII.2005 [SM01142]. *Paratypes*, 2 males, the same data as holotype [SM01143, SM01144].

Description (Male). **Color.** The head, thorax brown; antenna, abdomen, palpus, legs and hypopygium yellowish-brown; wing fumose. **Head** (Fig. 16C, D). Eye bridge with 4 rows of facets. Prefrons with 28–29 setae. Clypeus with 2 setae. Basal segment of palpus with 9–16 setae and a sensory pit; 2nd segment with 13–14 setae; 3rd segment with 11–14 setae. Length/width of 4th flagellomere: 2.45–2.76. **Thorax.** Anterior pronotum with 12–14 setae, episternum 1 with 8–13 setae. **Wings.** Wing length 3.97–4.01 mm, width/length: 0.38–0.39. *c/w*: 0.51–0.52. *R1/R*: 0.80–0.94. *r-m* with 2–4 setae, *stM* bare, *M1* and *M2* bare, *Cu1* and *Cu2* bare. **Legs.** Foretibia with a comb of 10–11 setae (Fig. 16E). Length of spur/width of foretibia 1.18–1.38. Length of femur/length of metatarsus: foreleg 1.44–1.64. Length of metatarsus/length of tibia: foreleg 0.55–0.60, hind leg 0.51–0.54. Length of hind tibia/length of thorax 1.30–1.32. Foretibia with 0 dorsal, 8–9 ventral, 2–3 prolateral and 4–6 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 16A, B). Sternite 10 with 1–2 setae on each half.

Distribution. China (Zhejiang, Fig. 24).

Remarks. The gonostylus of this species is unique by having three straight megasetae arranged strictly in one row on a very short dorsal lobe which is slightly pronounced from the gonostylus. Hippa & Vilkamaa (1991) provided a description of *Prosciara* without a sensory pit on the basal segment of the palpus. However, here we discovered two species with a sensory pit, *P. ternidigitata* and *P. globoidea* sp. nov. (Fig. 17C). Since the two species show

almost all the characters of *Prosciara*, including a characteristic dorsal lobe that bears megasetae on the gonostylus, we believe that they belong to the genus *Prosciara*.

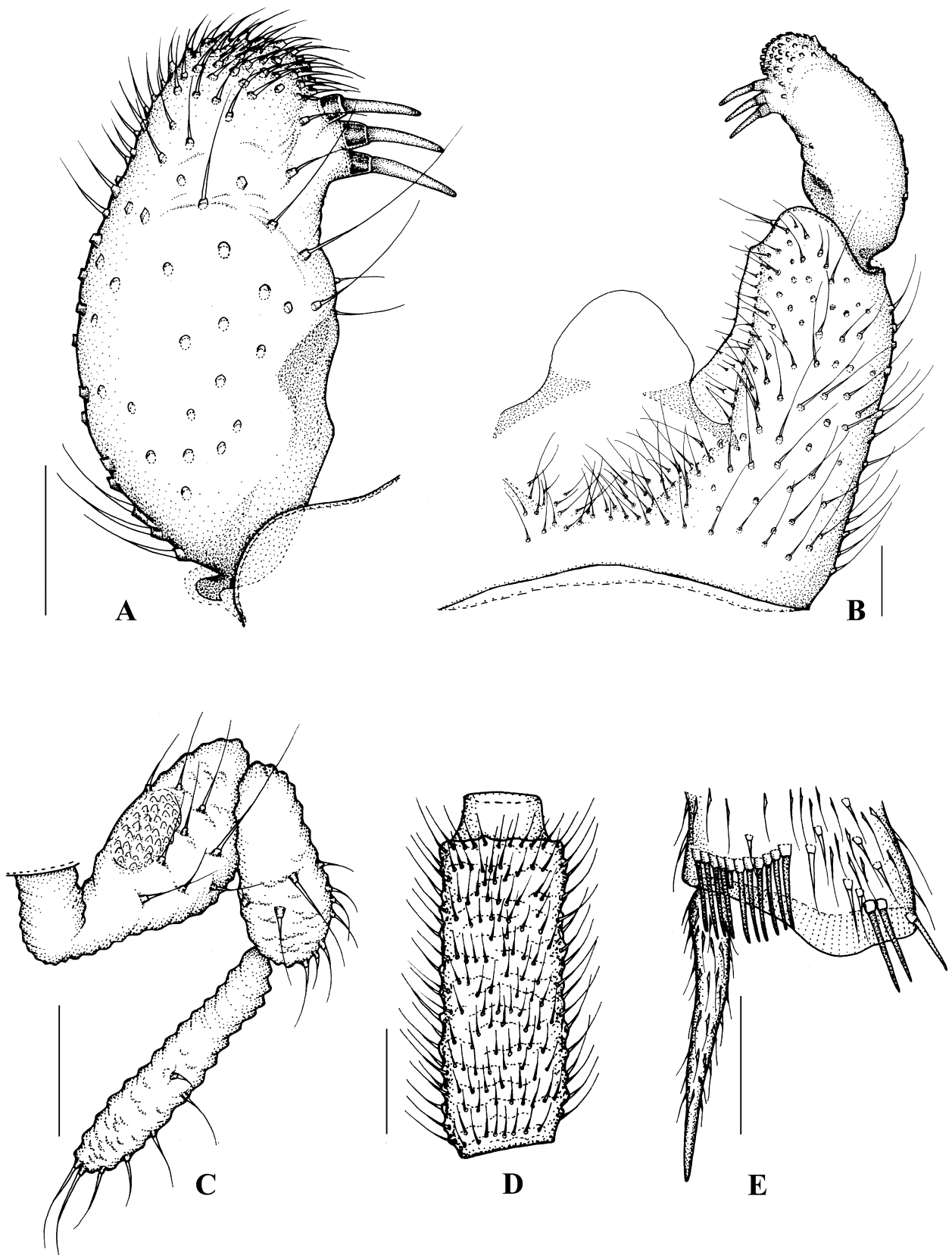


FIGURE 16. *Prosciara ternidigitata* Shi & Huang, **sp. nov.**, male, holotype. A, left gonostylus, ventral view; B, part of hypopygium, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

Etymology. This species is named after three megasetae on the dorsal lobe on the gonostylus, from the Latin adjective *ternidigitatus*, meaning three megasetae.

***Prosciara globoidea* Shi & Huang, sp. nov.**

(Figs. 17, 24)

Specimens examined. *Holotype*, male. China, Sichuan province, Labahe, 1200 m, sweep-net, 16.VII.2006, Jian Cao [SM01140]. *Paratype*, 1 male, the same data as holotype, but Xiao-Ling Niu [SM01141].

Description (Male). **Color.** The head brown; antenna, thorax, abdomen and hypopygium yellowish-brown; palpus and legs yellow; wing fumose. **Head** (Fig. 17C, D). Eye bridge with 3 rows of facets. Prefrons with 14 setae. Clypeus bare. Basal segment of palpus with 1–2 setae and a sensory pit; 2nd segment with 8–9 setae; 3rd segment with 7–8 setae. Length/width of 4th flagellomere: 3.15–3.81. **Thorax.** Anterior pronotum with 4–6 setae, episternum 1 with 3 setae. **Wings.** Wing length 1.95–2.27 mm, width/length: 0.34–0.39. c/w: 0.61–0.66. R1/R: 0.56–0.63. r-m, stM, M1 and M2 bare, Cu1 and Cu2 bare. **Legs.** Foretibia with a comb of 6 setae (Fig. 17E). Length of spur/width of foretibia 1.72–1.79. Length of femur/length of metatarsus: foreleg 1.10–1.13. Length of metatarsus/length of tibia: foreleg 0.64–0.68, hind leg 0.52–0.53. Length of hind tibia/length of thorax 1.30–1.62. Foretibia with 0 dorsal, 5–7 ventral, 2 prolateral and 2–4 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 17A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Sichuan, Fig. 24).

Remarks. By its bare M and Cu wing veins, a greatly inflated gonostylus and an apically located dorsal lobe, the new species is similar to *P. prosciarioides* (Tuomikoski, 1960). However, the two species may be distinguished by a sensory pit on the basal segment of the palpus, an globally inflated gonostylus, six megasetae on the dorsal lobe, bare ventral membraneous area between the gonocoxites, and a medially narrowed tegmen in *P. globoidea*; no sensory pit on the basal segment of the palpus, a fairly inflated gonostylus, five megasetae on the dorsal lobe, setose ventral membraneous area between the gonocoxites, and a tegmen evenly broadened from apex to base in *P. prosciarioides*. For discussion about the sensory pit, see under *P. ternidigitata*.

Etymology. This species is named after its spherically inflated gonostylus, from the Latin adjective *globoideus*, meaning spherical.

***Prosciara triloba* Hippa & Vilkamaa, 1991**

(Figs. 18, 23B, 24)

Hippa & Vilkamaa 1991: 152.

New material. 1 male, China, Taiwan, Xuanlan, Mingchi, 1150 m, sweep-net, 13.VI.2011, Xiao-Yan Liu [SM01122].

Diagnosis. The species is distinguished by bare M and Cu wing veins; two dorsal lobes that one apically located and the other submedially located and a setose intercoxal lobe on the hypopygium.

Distribution. China (Taiwan, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippa & Vilkamaa 1991) and is new to China (Taiwan). The placement of the apicodorsal lobe in Chinese specimen is slightly different from the holotype, but is exactly like some voucher specimens in Vilkamaa's collection. Moreover, Chinese specimen has three megasetae on the submedially located dorsal lobe, while five megasetae in the holotype.

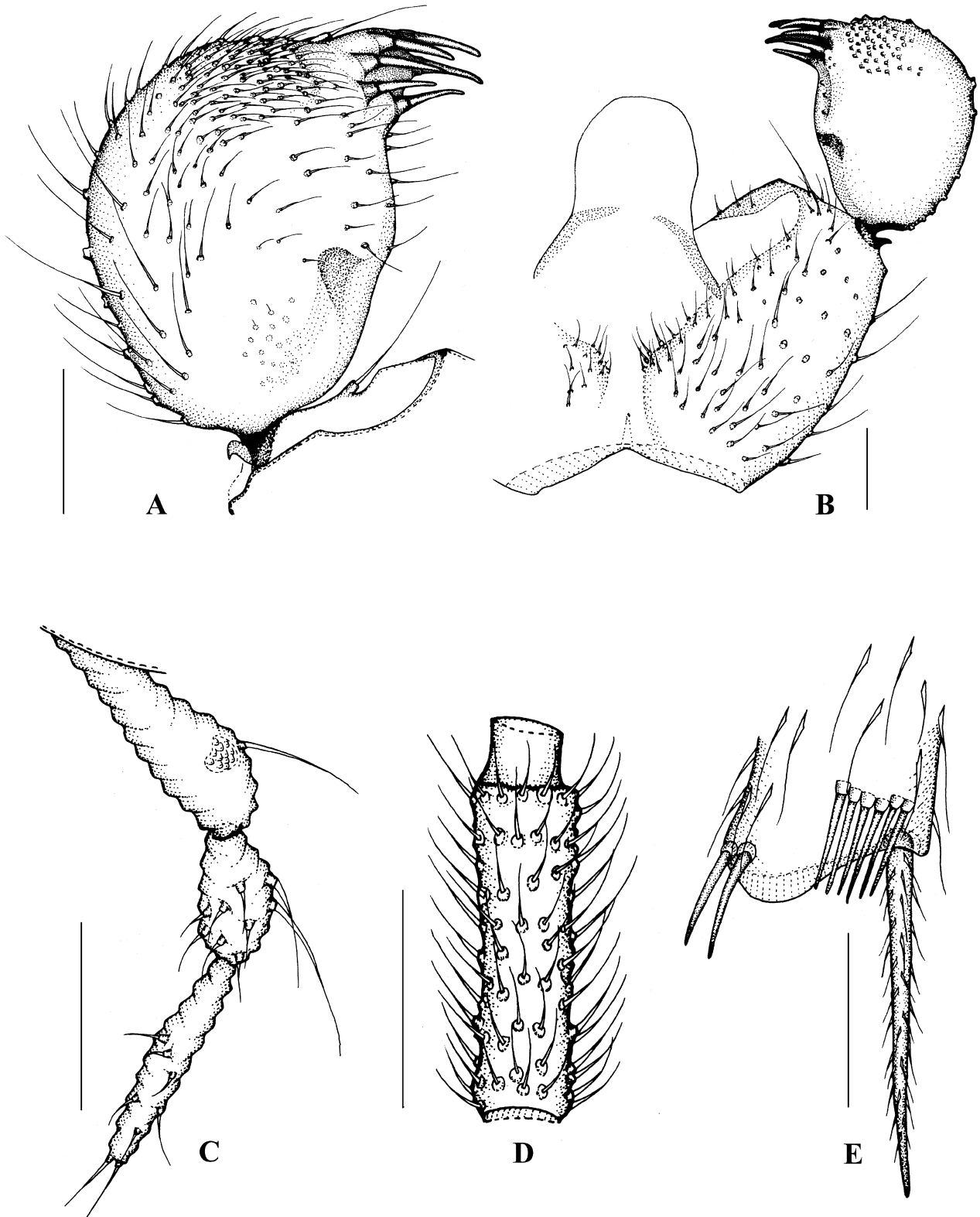


FIGURE 17. *Prosciara globoidea* Shi & Huang, **sp. nov.**, male, holotype. A, left gonostylus, ventral view; B, part of hypopygium, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

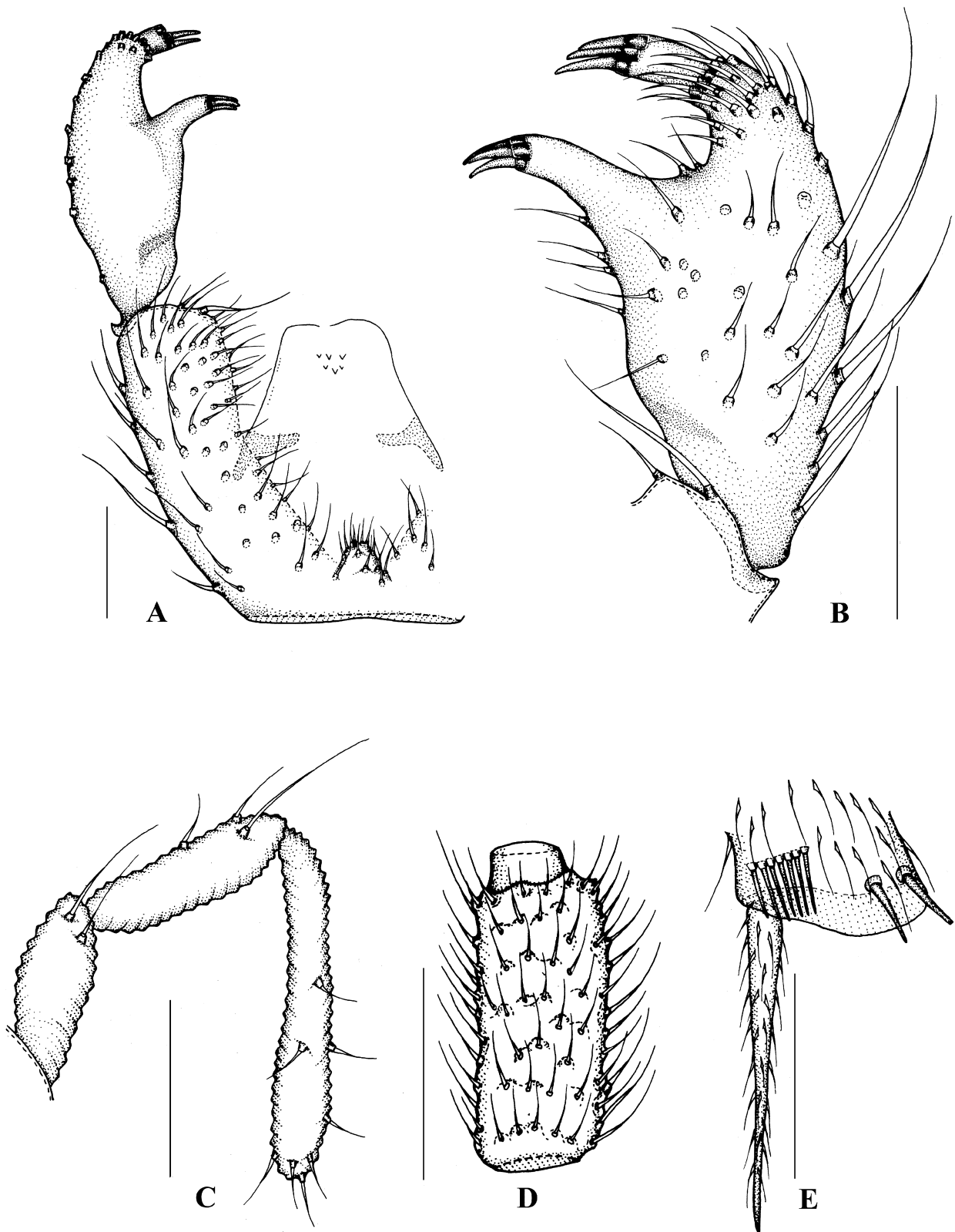


FIGURE 18. *Prosciara triloba* Hippa & Vilkkamaa, 1991, male, holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

***Prosciara sinensis* Shi & Huang, sp. nov.**

(Figs. 19, 23A, 24)

Specimens examined. *Holotype*, male. China, Zhejiang province, Qingyuan, Mt. Baishanzu, 27°45.866'N, 199°10.593'E, 1476–1800 m, sweep-net, 14.X.2011, Kai Shi [SM01104]. *Paratypes*. 2 males, the same data as holotype [SM01101, SM01105]; 1 male, Zhejiang province, Qingyuan, Baishanzu, Chameiwei, 1300 m, 24.IX.1993, Hong Wu [SM01153].

Description (Male). **Color.** Head dark brown; antenna, palpus, hypopygium brown; thorax and abdomen yellowish-brown, the mesonotum dark brown; and legs yellow; wing fumose. **Head** (Fig. 19C, D). Eye bridge with 3–4 rows of facets. Prefrons with 17 setae. Basal segment of palpus with 4–7 setae; 2nd segment with 20–21 setae; 3rd segment with 14–18 setae. Length/width of 4th flagellomere: 1.38–1.72. **Thorax.** Anterior pronotum with 6–9 setae, episternum 1 with 8–16 setae. **Wings** (Fig. 23A). Wing length 3.15–3.64 mm, width/length: 0.35–0.40. c/w: 0.47–0.49. R1/R: 0.99–1.05. r-m with 2–8 setae, stM bare, M1 and M2 bare, Cu1 and Cu2 bare. **Legs.** Foretibia with a comb of 7–9 setae (Fig. 19E). Length of spur/width of foretibia 1.30–1.55. Length of femur/length of metatarsus: foreleg 0.87–0.92. Length of metatarsus/length of tibia: foreleg 0.77–0.82, hind leg 0.49–0.72. Length of hind tibia/length of thorax 1.27–2.10. Foretibia with 0 dorsal, 2–4 ventral, 2 prolateral and 5–7 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 19A, B). Sternite 10 with 1–2 setae on each half.

Distribution. China (Zhejiang, Fig. 24).

Remarks. By its bare M and Cu wing veins, four short megasetae on a long dorsal lobe on the gonostylus, a tegmen with lateral membraneous prominence and a wide intercoxal lobe on the hypopygium, the new species resembles *P. tetracantha* sp. nov (Fig. 20A, B). The lateral membraneous prominence on tegmen is a unique character that we discovered in *Prosciara* for the first time in the two species. However, they may be distinguished by a dorsal lobe extended internally and apically in *P. sinensis*, while extended straightly and laterally in *P. tetracantha*. Furthermore, *P. tetracantha* resembles *P. quadridigitata* (Fig. 14B) by sharing the very similar form of the gonostylus and the dorsal lobe, and also the arrangement of the megasetae. But, *P. quadridigitata* may easily be recognized by its absence of both the membraneous prominence on tegmen and the intercoxal lobe on the hypopygium.

Etymology. This species is named after the country of origin, from the Latin adjective *sinensis*, meaning Chinese.

***Prosciara tetracantha* Shi & Huang, sp. nov.**

(Figs. 20, 24)

Specimens examined. *Holotype*, male. Sichuan province, Labahe, sweep-net, 1200 m, 16.VII.2006, Xiao-Ling Niu [SM01154].

Description (Male). **Color.** Head dark brown; antenna, palpus, hypopygium brown; thorax and abdomen yellowish-brown, the mesonotum dark brown; and legs yellow; wing fumose. **Head** (Fig. 20C, D). Eye bridge with 3 rows of facets. Prefrons with 18 setae. Clypeus with 9 setae. Basal segment of palpus with 6 setae; 2nd segment with 14 setae; 3rd segment with 14 setae. Length/width of 4th flagellomere: 1.94. **Thorax.** Anterior pronotum with 7 setae, episternum 1 with 11 setae. **Wings.** Wing length 3.62 mm, width/length: 0.34. c/w: 0.47. R1/R: 1.16. r-m with 6 setae, stM bare, M1 and M2 bare, Cu1 and Cu2 bare. **Legs.** Foretibia with a comb of 9 setae (Fig. 20E). Length of spur/width of foretibia 1.56. Length of femur/length of metatarsus: foreleg 1.05. Length of metatarsus/length of tibia: foreleg 0.75, hind leg 0.51. Length of hind tibia/length of thorax 1.56. Foretibia with 0 dorsal, 4 ventral, 2 prolateral and 4 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 20A, B). Sternite 10 with 2 setae on each half.

Distribution. China (Sichuan, Fig. 24).

Remarks. By the form of the hypopygium, the new species is closely related with *P. sinensis* (Fig. 19). For their differential diagnosis, see under *P. sinensis*.

Etymology. This species is named after its four megasetae on the dorsal lobe on the gonostylus, from the Latin adjective *tetracanthus*, meaning four megasetae.

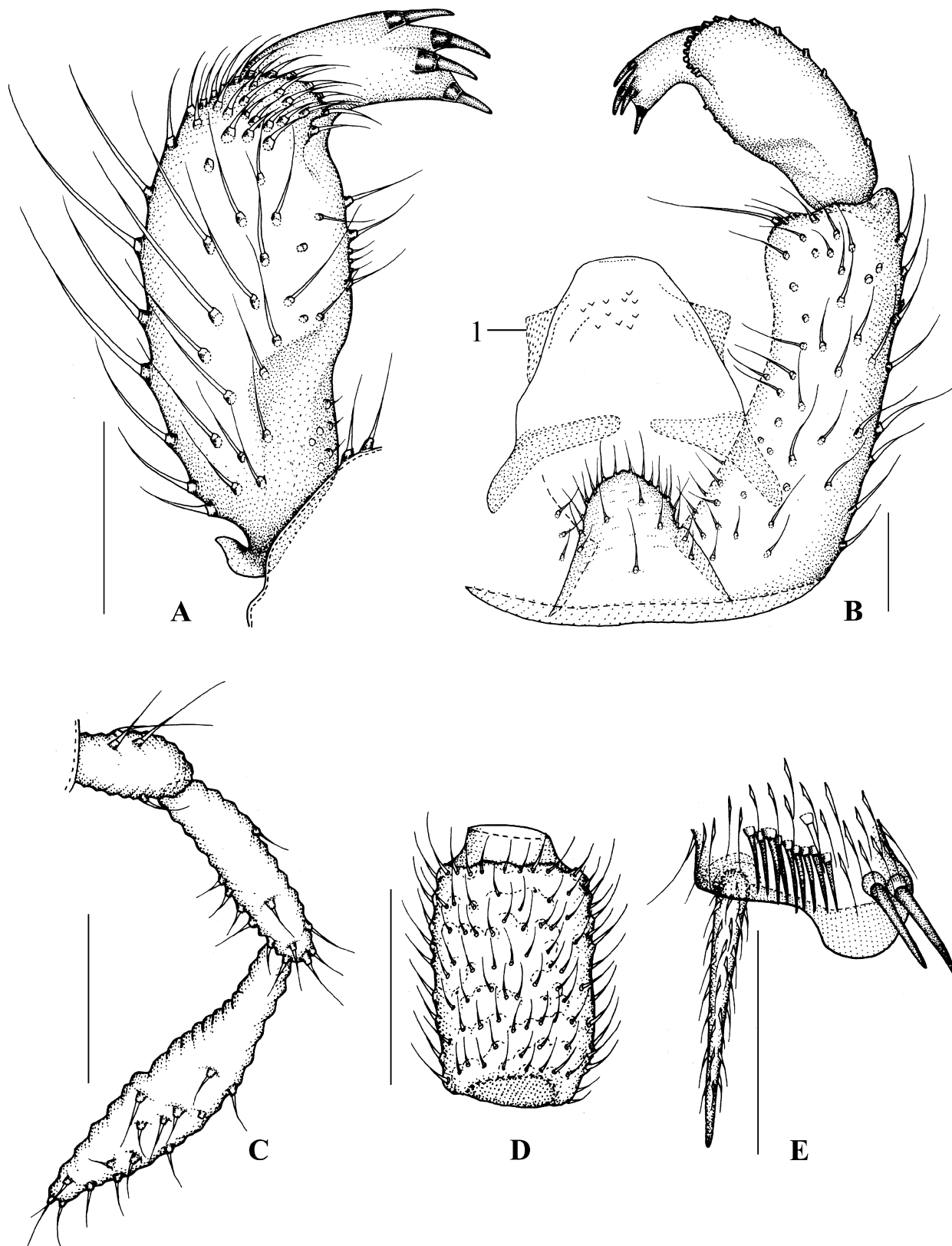


FIGURE 19. *Prosciara sinensis* Shi & Huang, **sp. nov.**, male, holotype. A, left gonostylus, ventral view; B, part of hypopygium, ventral view; B-1, lateral membrane-like prominence; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

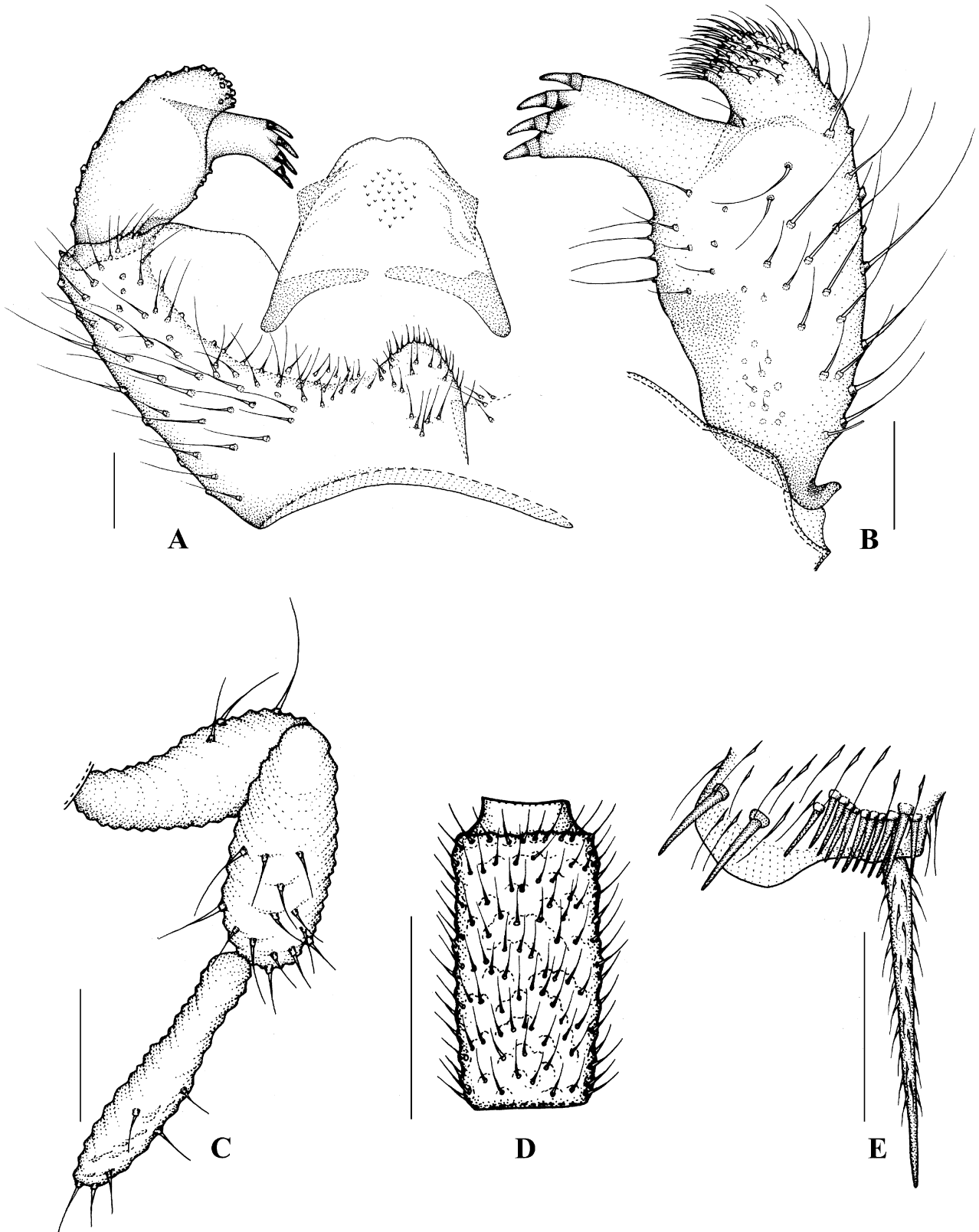


FIGURE 20. *Prosciara tetracantha* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

***Prosciara longispina* Shi & Huang, sp. nov.**

(Figs. 21, 24)

Specimens examined. *Holotype*, male. China, Sichuan province, Wolong, 2000 m, sweep-net, 22.VII.2006, Zhuan Lu [SM01152].

Description (Male). **Color.** The head is bleached, pale brown; antenna brown; thorax, abdomen and hypopygium yellowish-brown; palpus and legs yellow; wing fumose. **Head** (Fig. 21C, D). Eye bridge with 3 rows of facets. Prefrons and clypeus not well seen. Basal segment of palpus with 3 setae; 2nd segment with 6 setae; 3rd segment with 9 setae. Length/width of 4th flagellomere: 2.97. **Thorax.** Anterior pronotum with 9 setae, episternum 1 with 7 setae. **Wings.** Wing length 2.16 mm, width/length: 0.37. c/w: 0.43. R1/R: 0.80. r-m, stM, M1 and M2 bare, Cu1 and Cu2 bare. **Legs.** Foretibia with a comb of 8 setae (Fig. 21E). Length of spur/width of foretibia 1.67. Length of femur/length of metatarsus: foreleg 0.85. Length of metatarsus/length of tibia: foreleg 0.91, hind leg 0.53. Length of hind tibia/length of thorax 1.15. Foretibia with 1 dorsal, 4 ventral, 2 prolateral and 5 retrolateral spinose setae. Midtibia without dorsal spinose setae. **Hypopygium** (Fig. 21A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Sichuan, Fig. 24).

Remarks. By its bare M and Cu wing veins, an inflated gonostylus, an apically located dorsal lobe with five long megasetae, and a richly setose intercoxal lobe on the hypopygium, the new species is similar to *P. plusiochaeta* Hippa & Vilkamaa, 1991. But it differs from *P. plusiochaeta* by a wider dorsal lobe on a more strongly inflated gonostylus, five much longer megasetae on the dorsal lobe, a tegmen with medial shoulders and a narrower intercoxal lobe on the hypopygium.

Etymology. This species is named after its long megasetae on the dorsal lobe on gonostylus, from the Latin adjective *longispinus*, meaning long megasetae.

***Prosciara extumida* Shi & Huang, sp. nov.**

(Figs. 22, 24)

Specimens examined. *Holotype*, male. China, Yunnan province, Baoshan, Longyang, Lujiang, Nankang, 1847 m, sweep-net, 24°48.376'N, 98°47.342'E, 9.V.2009, Junhao Huang [SM00854].

Description (Male). **Color.** The head is bleached, pale brown; antenna, abdomen and hypopygium yellowish-brown; thorax, palpus and legs yellow, the mesonotum brown; wing fumose. **Head** (Fig. 22C, D). Eye bridge with 3 rows of facets. Prefrons with 37 setae. Clypeus with 3 setae. Basal segment of palpus with 6 setae; 2nd segment with 11 setae; 3rd segment with 6 setae. Length/width of 4th flagellomere: 2.24. **Thorax.** Anterior pronotum with 10 setae, episternum 1 with 7 setae. **Wings.** Wing length 3.15 mm, width/length: 0.37. c/w: 0.18. R1/R: 1.13. r-m with 7 setae, stM bare, M1 and M2 bare, Cu1 and Cu2 bare. **Legs.** Foretibia with a comb of 11 setae (Fig. 22E). Length of spur/width of foretibia 2.33. Length of femur/length of metatarsus: foreleg 0.97. Length of metatarsus/length of tibia: foreleg 0.77, hind leg 0.55. Length of hind tibia/length of thorax 2.06. Foretibia with 6 dorsal, 8 ventral, 7 prolateral and 8 retrolateral spinose setae. Midtibia with 8 dorsal spinose setae. **Hypopygium** (Fig. 22A, B). Sternite 10 with 1 seta on each half.

Distribution. China (Yunnan, Fig. 24).

Remarks. By the location and shape of the dorsal lobe, the new species resembles *P. cultrata* Vilkamaa & Hippa, 1996. But *P. extumida* has a distinctively larger intercoxal lobe on the hypopygium than in *P. cultrata* and the other species. Although the intercoxal lobe of the holotype was partly broken, the size of the lobe could be examined clearly.

Etymology. This species is named after its large intercoxal lobe on the hypopygium, from the Latin adjective *extumidus*, meaning swollen.

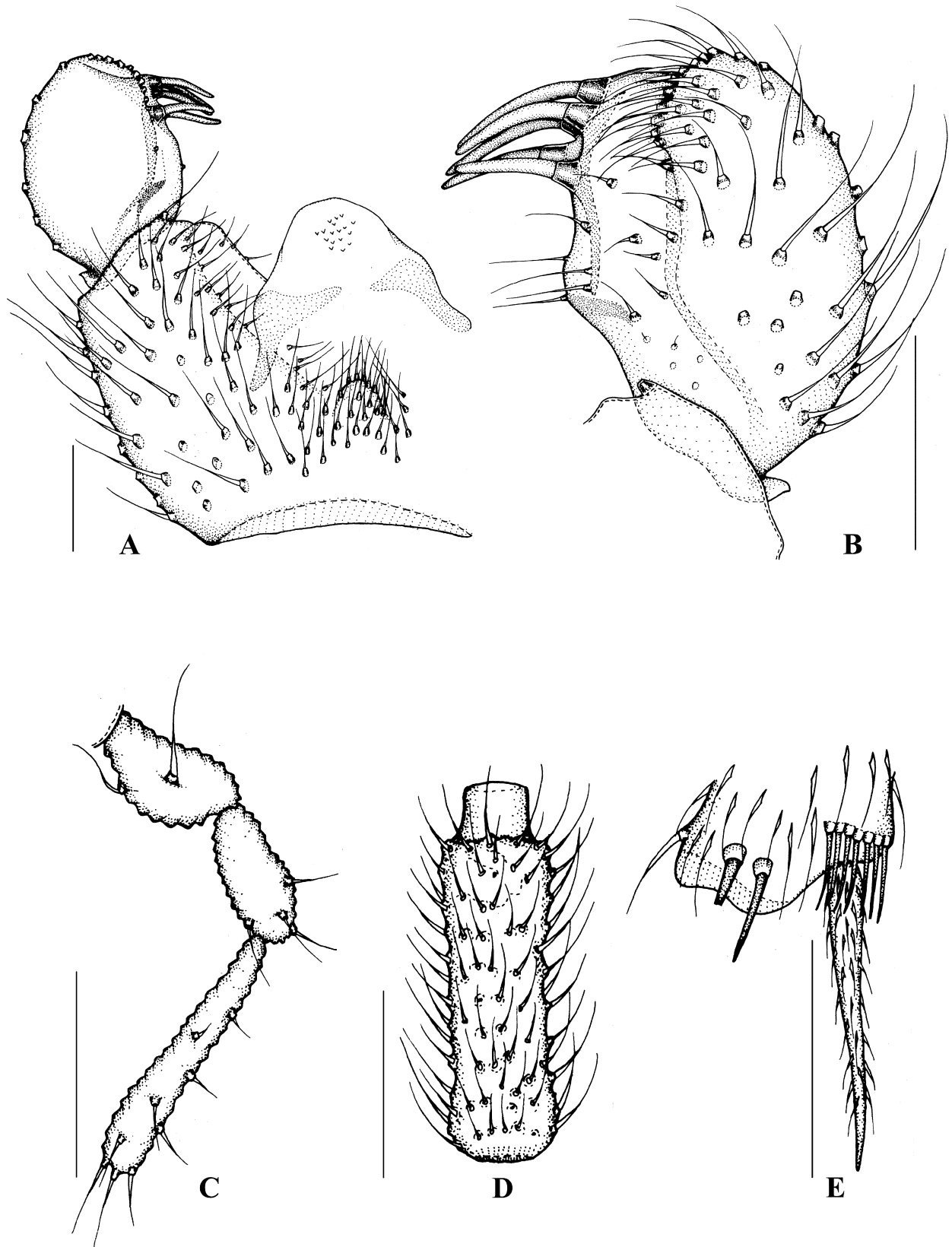


FIGURE 21. *Prosciara longispina* Shi & Huang, **sp. nov.**, male, holotype. A, part of hypopygium, ventral view; B, right gonostylus, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

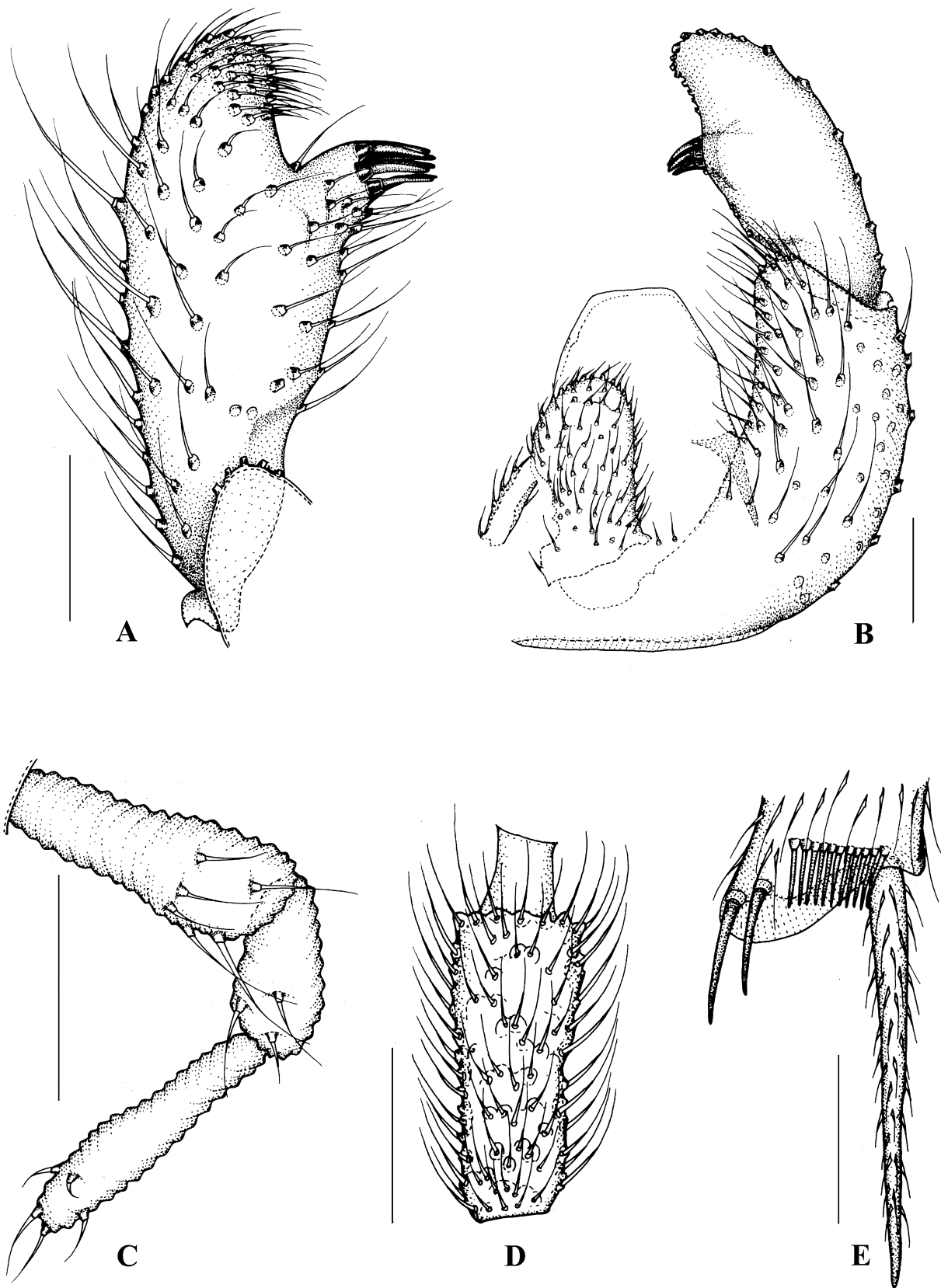


FIGURE 22. *Prosciara extumida* Shi & Huang, **sp. nov.**, male, holotype. A, left gonostylus, ventral view; B, part of hypopygium, ventral view; C, palpus, lateral view; D, 4th flagellomere, lateral view; E, apex of foretibia, prolateral view. Scale 0.10 mm.

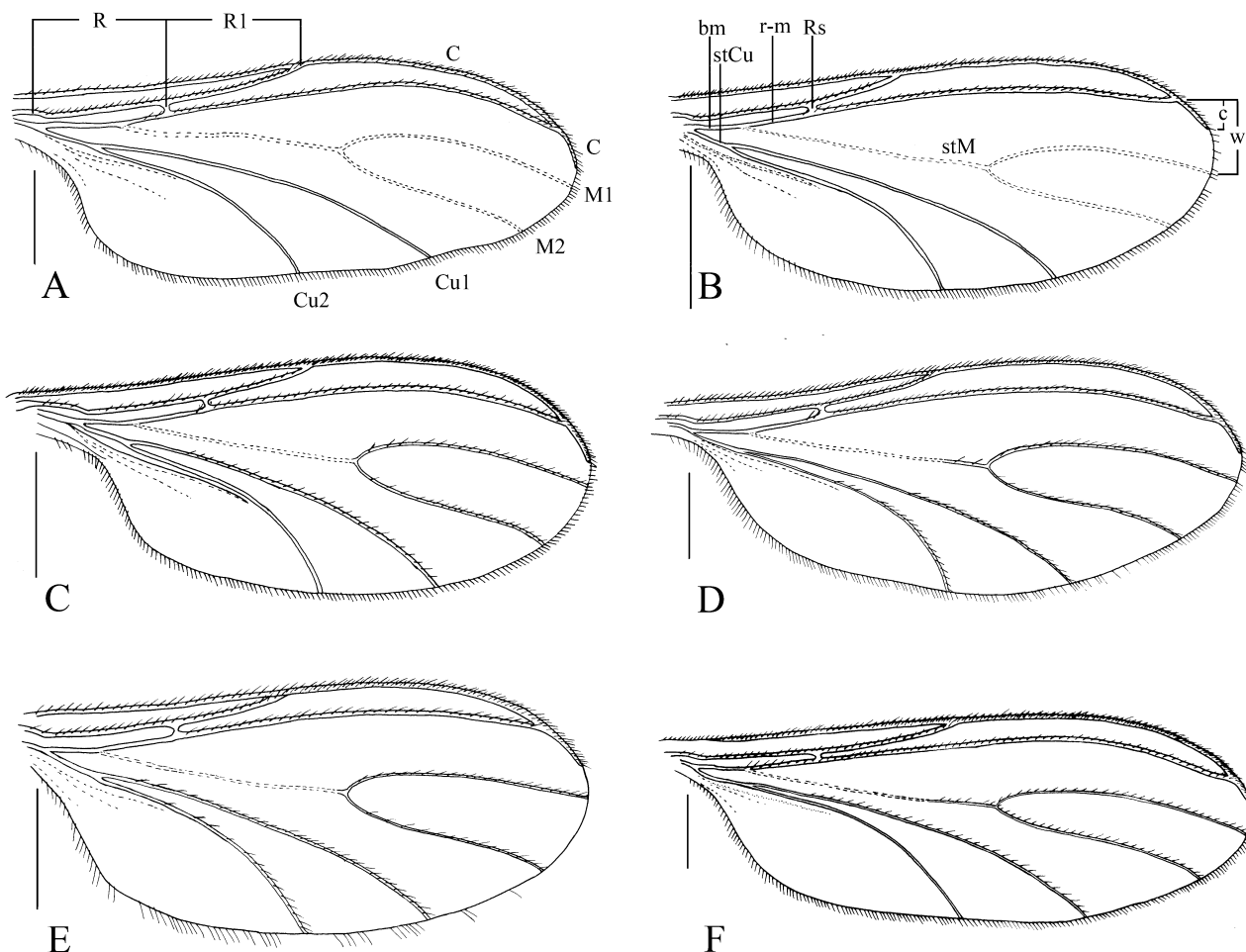


FIGURE 23. Wings, dorsal view. A, *Prosciara sinensis* sp. nov. (holotype); B, *P. triloba* Hippa & Vilkkamaa, 1991; C, *P. paucispina* sp. nov. (holotype); D, *P. myriacantha* sp. nov. (holotype); E, *P. producta* (Tuomikoski, 1960); F, *P. pollex* Hippa & Vilkkamaa, 1991. Scale 0.50 mm.

Prosciara meracula Vilkkamaa & Hippa, 1996

Vilkkamaa & Hippa 1996: 50.

Diagnosis. The species is distinguished by bare M and Cu wing veins; eight relatively short megasetae on a submedially located dorsal lobe on the gonostylus; and a relatively large intercoxal lobe on the hypopygium.

Distribution. China (Taiwan, Fig. 24)

Prosciara decamera Hippa & Vilkkamaa, 1991

Hippa & Vilkkamaa 1991: 146.

New material. 1 male, China, Yunnan province, Tengchong, Jietou, Shaba, Mt. Tiantaishan, sweep-net, 25°24.115'N, 98°42.615'E, 13.V.2009, Su-Jiong Zhang [SM00872]; 1 male, the same data but 2142 m, 25°24.254'N, 98°42.735'E [SM00874]; 1 male, the same data but 1879 m, 12.V.2009 [SM00864]; 2 males, China, Yunnan province, Baoshan, Nankang, Gaoligong Nature Park, 2181 m, sweep-net, 24°49.729'N, 98°46.074'E, 10.V.2009, Su-Jiong Zhang [SM00910, SM00913]; 1 male, China, Yunnan province, Baoshan, Longyang, Lujiang, Nankang, 1847 m, sweep-net, 24°48.376'N, 98°47.342'E, 9.V.2009, Su-Jiong Zhang [SM00835]; 1 male, China,

Yunnan province, Honghe, Lvchun, Mt. Huanglianshan, yakou, 1950 m, sweep-net, 5.V.2011, Li-Hua Wang [SM01120].

Diagnosis. The species is distinguished by bare M and Cu wing veins; more than ten unusually slender megasetae on the very basally located dorsal lobe on the gonostylus; and a setose intercoxal lobe on the hypopygium.

Distribution. China (Yunnan, Fig. 24), Burma (Kambaiti).

Remarks. This species was first recorded in Kambaiti, Burma (Hippra & Vilkkamaa 1991) and is new to China (Yunnan province). It doesn't show distinct variation between the holotype and the Chinese specimens but the number of setae on the basal segment of the palpus and r-m on wings, which is two and 0–1 in the holotype, and 2–3 and two in the Chinese specimens.

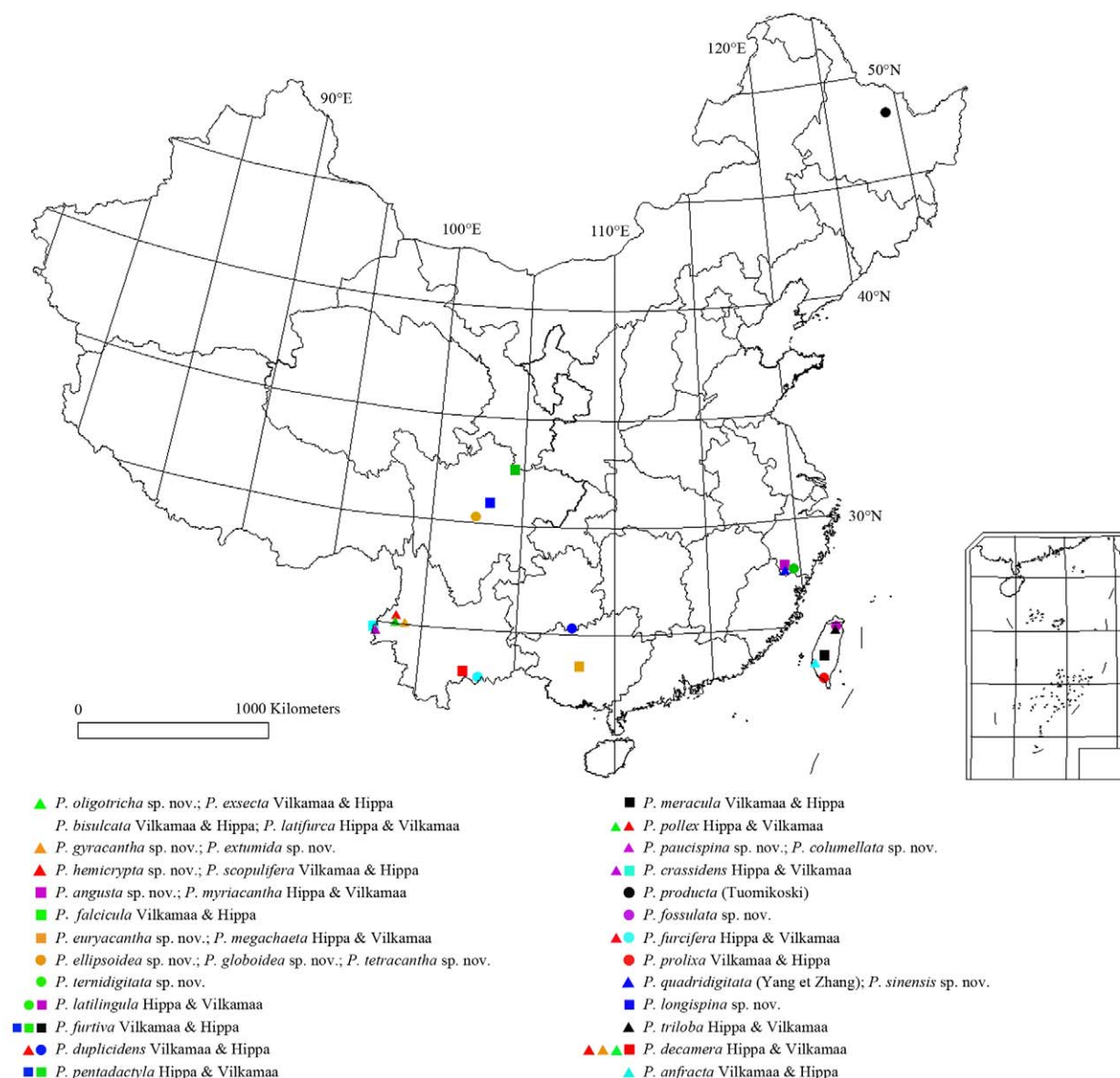


FIGURE 24. Geographical distribution of *Prosciara* from China.

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