

Species of the genus *Syneches* Macquart from Tibet, China (Diptera: Empididae)

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ABSTRACT

Previously only two species of the genus *Syneches* were reported from Tibet. Here the following six species from Tibet are described as new to science: *Syneches astigma* sp. nov., *Syneches distinctus* sp. nov., *Syneches flavicoxa* sp. nov., *Syneches flavitibia* sp. nov., *Syneches indistinctus* sp. nov., and *Syneches wangae* sp. nov. A key to the species of the genus *Syneches* from Tibet is provided for the first time.

INTRODUCTION

Syneches Walker, 1852 is a large genus and distributed worldwide with 138 known species, of which 7 species are distributed in the Palaearctic Region and 57 species in the Oriental Region (Yang et al. 2007). The generic concept of *Syneches* has been controversial (Saigusa 1963), as *Syneches* has been divided into 3-4 subgenera (Melander 1928; Smith 1975, 1989) or three different genera (Yang & Yang 2004; Yang et al. 2007) and treated as a single genus without separation of the subgenera (Sinclair 2011).

This genus is characterized by the following features: eyes with upper facets enlarged; palpus rather short and thin; Rs rather long; anal cell nearly as long as basal cells; hind femur weakly to distinctly thickened, with distinct ventral setae; male genitalia symmetrical (Chvála 1983; Yang & Yang 2004). The major references dealing with the Palaearctic and Oriental species of the genus *Syneches* are as follows: Bezzi 1904, 1912; Brunetti 1913, 1920; Chvála 1983; Chvála & Kovalev 1989; Collin 1941, 1961; Frey 1938, 1953, 1954; Melander 1928; Smith 1975; Saigusa 1963, 1964; Yang & Yang 2004.

The Chinese species were revised with 18 known species by Yang and Yang (2004). Only the following two species of the genus *Syneches* from Tibet were reported by Yang and Yang (1987): *Syneches tibetanus* Yang et Yang, 1987 and *Syneches xanthochromus* Yang et Yang, 1987 (Yang & Yang 2004). Since then no *Syneches* species has been reported from Tibet again. In the present paper, six new species are added to the fauna of Tibet based on the specimens collected by Ms. Lihua Wang in 2011. A key to the known species of *Syneches* from Tibet is provided.

MATERIALS AND METHODS

The type specimens are deposited in the Entomological Museum of China Agricultural University, Beijing (CAU). Terms used for adult structures and male genitalia follow those of McAlpine (1981) and Sinclair and Cumming (2006), respectively. The following abbreviations are used: acr = acrostichal seta(e), ad = anterodorsal seta(e), av = anteroventral seta(e), dc = dorsocentral seta(e), h = humeral seta(e), npl = notopleural seta(e), oc = ocellar seta(e), p = posterior seta(e), pd = posterodorsal seta(e), psa = postalar seta(e), pv = posteroventral seta(e), v = ventral seta(e).

TAXONOMY

Key to species of *Syneches* from Tibet

- 1 Thorax black; antenna at most partly pale **2**
 — Thorax brownish yellow; antenna entirely yellow; pterostigma indistinct. **S. xanthocromus**
- 2 Wing hyaline; first flagellomere at most with 6 dorsal setulae **3**
 — Wing slightly tinged gray; first flagellomere with 8 dorsal setulae; femora black with yellow apex **S. distinctus**, sp. nov.
- 3 Pterostigma present **4**
 — Pterostigma absent **7**
- 4 First flagellomere with 6 dorsal setulae; pterostigma not filling apex of cell R1 **5**
 — First flagellomere with 1 dorsal setula; pterostigma filling apical 1/3 of cell R1 **S. flavicoxa**, sp. nov.
- 5 Femora and tibiae black except extreme tips of tibiae brownish or brownish yellow **6**
 — Femora and tibiae dark brownish yellow except extreme bases and tips of femora and extreme bases of tibiae brown or dark brown **S. indistinctus**, sp. nov.
- 6 First flagellomere dark yellow; palpus brownish yellow; all tarsi uniformly dark yellow **S. tibetanus**
 — Antenna entirely black; palpus black; fore tarsus brown except tarsomere 5 dark brown, mid and hind tarsi dark yellow except tarsomeres 3-5 brown to dark brown **S. wangae**, sp. nov.
- 7 Hind coxa and trochanter yellow; hind tibia black; hind femur with only one row of av; wing hyaline **S. astigma**, sp. nov.
 — Hind coxa and trochanter black; hind tibia yellow; hind femur with two close rows of av; wing indistinctly tinged grayish **S. flavitibia**, sp. nov.

1. *Syneches astigma*, sp. nov.

Figs. 1–3

urn:lsid:zoobank.org:act:A33AEEEF-4DAF-44DF-A200-031179C976EC

Diagnosis.—Antenna dark brown except pedicel brownish; first flagellomere with 2 dorsal setulae. Wing hyaline, stigma absent. Fore and mid femora dark black with yellow apex, hind femur yellow with dark black extreme tip. Epandrial lobe with short acute apico-dorsal corner and apico-ventral corner. Hypandrium apically distinctly incised, nearly trapezoid, and with subtriangular lateral process.

Description.—Male. Body length 4.9 mm, wing length 4.0 mm.

Head dark black with gray pollen. Eyes contiguous on frons for a long distance, dark yellow with enlarged upper facets yellow. Setulae and setae on head black; ocellar tubercle distinct, with 2 setula-like oc and 4 posterior setulae (of which 2 setulae are as long as oc). Antenna dark brown except pedicel brownish; scape without setulae; pedicel with circlet of subapical setulae; first flagellomere somewhat quadrate with 2 dorsal setulae; arista dark brown, indistinctly pubescent except apical 1/6 or so thin and bare. Proboscis brownish; palpus brownish with black setulae and 2 long black ventral setae (each located at middle and extreme tip).

Thorax dark black with gray pollen. Setulae and setae on thorax black; mesoscutum with short setulae except mid-posterior area with several long setulae and one transverse row of 2 prescutellar setae; h absent, 2 npl, 1 psa; scutellum with long marginal setulae (of which 4 setulae are seta-like). Fore and mid legs dark black except tips of femora yellow, tibiae and tarsi yellow except extreme base of fore femur and base of mid femur blackish, tarsomere 5 dark brown; hind leg yellow except extreme tip of femur dark black, tibia dark black, tarsomere 5 dark brown. Setulae and setae on legs black. Fore femur 1.1 times as wide as mid femur; hind femur 1.1 times as wide as mid femur, with 7-8 av (of which 4 av are very long). Fore tibia with 2-3 weak ad, apically with 1 weak ad. Mid tibia with 1 long ad at base, apically with 3 dark yellow v including 1 very long v. Hind tibia apically slightly thickened, with distinct setula-like pd, apically with 4 setae.

Fore tarsomere 1 with 2 dark yellow pv at base. Mid tarsomere 1 with 1 dark yellow pv at base. Wing hyaline, stigma absent; veins dark brown, M1 apically bent, R4+5 and M1 distinctly convergent apically. Squama brown with brown setulae. Halter dark brown with yellow base.

Abdomen nearly straight, dark blackish with gray pollen. Setulae and setae on abdomen black. Male genitalia (Figs. 2-3): Epandrial lobe narrowing toward tip in lateral view, its outer apical margin concave, and with short acute apico-dorsal corner and apico-ventral corner. Hypandrium about 3 times longer than wide, with apical portion indistinctly narrowed; its apical margin distinctly incised, nearly trapezoid, and with subtriangular lateral process. Aedeagus with wide apical margin nearly truncate and short curved subapical lateral process finger-like.

Female. Body length 5.1-5.3 mm, wing length 4.2-4.7 mm. Similar to male.

Material.—Holotype male, CHINA, Tibet: Nyingchi (N29°39'6.53" E94°21'37.17"), Hanmi, 2011. VIII. 5, Lihua Wang (CAU). Paratypes 3 females, same data as holotype (CAU).

Distribution.—China (Tibet).

Remarks.—The new species is somewhat similar to *Syneches xanthochromus* Yang et Yang from Tibet of China, but can be easily separated from the latter by the dark black thorax and dark brown antenna. In *S. xanthochromus*, the thorax is brownish yellow, and the antenna is entirely yellow (Yang & Yang 2004). It is similar to *S. flavitibia* sp. nov., but may be separated by the following features: hind coxa and trochanter yellow; hind tibia black; hind femur with only one row of av; wing hyaline.

Etymology.—The specific name refers to the prostostigma absent.

2. *Syneches distinctus*, sp. nov.

Figs. 4-5

urn:lsid:zoobank.org:act:B2CDCFB9-1080-48B1-9AD6-9986F6114588

Diagnosis.—Antenna black; first flagellomere with 8 dorsal setulae. Wing tinged grayish brown. Femora and tibiae dark black except knees brownish, extreme tips of tibiae brownish or brownish yellow. Epandrial lobe with two middle denticles

on outer apical margin and with short apico-dorsal corner and long apico-ventral corner. Hypandrium apically distinctly narrowed, with subtriangular apical incision at middle.

Description.—Male. Body length 3.2-4.1 mm, wing length 3.7-3.8 mm.

Head dark black with gray pollen. Eyes contiguous on frons for a long distance, brownish yellow with enlarged upper facets yellow. Setulae and setae on head black; ocellar tubercle distinct, with 2 long oc and 4 short posterior setulae. Antenna black; scape without setulae; pedicel with circlet of subapical setulae; first flagellomere nearly quadrate with 8 dorsal setulae; arista black, very short pubescent except apical 1/5 thin and bare. Proboscis blackish; palpus black with black setulae and 1 long black apical seta.

Thorax dark black with gray pollen. Setulae and setae on thorax black; mesoscutum with short setulae except mid-posterior area with several long setulae and one transverse row of 3 prescutellar setae; h absent, 2 npl, 1 psa; scutellum with long marginal setulae. Legs dark black except knees brownish, extreme tips of tibiae brownish or brownish yellow, fore tarsus dark brown, mid tarsus dark brownish yellow, hind tarsus dark brown except tarsomere 1 brownish. Setulae and setae on legs black. Fore femur 1.1 times as wide as mid femur, with two rows of weak close pv; mid femur with row of long av and nearly two rows of long weak pv; hind femur 1.1 times as wide as mid femur, with row of 6 long av. Fore tibia apically with 1 ad and 1 pd. Mid tibia with 2 long ad and one row of p, apically with 5 setae including 1 long av and 1 long pv dark yellow. Hind tibia with 1 ad near base, apically with 5 setae. Wing tinged grayish brown; stigma long and dark brown; veins dark brown, R4+5 and M1 distinctly convergent apically. Squama dark brown with dark yellow setulae. Halter dark brown.

Abdomen slightly or distinctly curved downward, dark blackish with gray pollen. Setulae and setae on abdomen dark yellow. Male genitalia (Figs. 4-5): Epandrial lobe narrowing toward tip in lateral view, its outer apical margin concave with two denticles at middle, and with short apico-dorsal corner and long apico-ventral corner. Hypandrium about 2 times longer than wide, with apical portion distinctly narrowed; its apical margin with subtriangular

gular incision at middle, but without lateral process; aedeagus with short wide apical margin and short acute subapical lateral process.

Female. Unknown.

Material.—Holotype male, CHINA, Tibet: Nyingchi, Bayizhen (N29°38'32.58" E94°21'32.55"), Gadinggou, 2011. VIII. 1, Lihua Wang (CAU).

Paratype 1 male, same data as holotype (CAU).

Distribution.—China (Tibet).

Remarks.—The new species is similar to *Syneches indistinctus* sp. nov. from Tibet of China, but may be separated from the latter by the legs mostly dark black, wing tinged grayish brown and hypandrium apically distinctly incised. In *S. indistinctus*, the legs are mostly brownish yellow, the wing is nearly hyaline, and the hypandrium apically indistinctly incised.

Etymology.—The specific name refers to the distinct apical incision of the hypandrium.

3. *Syneches flavicoxa*, sp. nov.

Figs. 6-8

urn:lsid:zoobank.org:act:2063E6BA-1971-4B0E-AB6E-211188D80583

Diagnosis.—Antenna brown; first flagellomere distinctly longer than wide, with 1 dorsal setula. Wing nearly hyaline, stigma entirely filling apical 1/3 of cell R1. Coxae and trochanters yellow. Hind femur with row of 5 brownish yellow av. Epandrial lobe with short acute apico-dorsal corner and apico-ventral corner. Hypandrium apically shallowly incised, nearly trapezoid, and with subtriangular lateral process. Aedeagus with short curved subapical lateral process finger-like.

Description.—Male. Body length 5.0-5.2 mm, wing length 4.8-5.0 mm.

Head black with gray pollen. Eyes contiguous on frons for a long distance, brownish yellow with enlarged upper facets yellow. Setulae and setae on head black; ocellar tubercle distinct, with 6 setulae (oc not distinguished from other setulae). Antenna brown; scape without setulae; pedicel with circlet of subapical setulae; first flagellomere somewhat quadrate, distinctly longer than wide, with 1 dorsal setula; arista dark brown, indistinctly pubescent except apical 1/7 thin and bare. Proboscis brownish yellow; palpus brownish yellow with black setu-

lae and 2 long black ventral setae (each located at middle and extreme tip).

Thorax blackish with gray pollen. Setulae and setae on thorax black; mesoscutum with very short and sparse setulae except mid-posterior area with several mostly slightly long setulae and one transverse row of 1 long and 1 short prescutellar setae; acr nearly sexiseriate, uniseriate dc separated from acr, h absent, 2 npl, 1 psa; scutellum with long marginal setulae (of which 4 setulae are seta-like). Legs yellow, but knees brown or dark brown, fore coxa and fore femur (except apex) dark yellow or brownish yellow, and tarsomere 5 dark brown. Setulae and setae on legs blackish. Fore femur 1.1 times as wide as mid femur; hind femur 1.1 times as wide as mid femur, with row of 5 brownish yellow av. Fore tibia apically with 3 thin setae. Mid tibia apically with 1 av and 1 pv brownish yellow. Hind tibia apically weakly thickened, with 6-7 short thin ad; apically with 4 thin setae. Wing nearly hyaline; stigma nearly dark brown, entirely filling apical 1/3 of cell R1; veins dark brown, R4+5 and M1 apically slightly curved and distinctly convergent. Squama brown with brown setulae. Halter dark brown with yellow base.

Abdomen weakly or distinctly curved downward, dark brown with gray pollen. Setulae and setae on abdomen blackish except tergite 1 with several dark yellow lateral setulae. Male genitalia (Figs. 7-8): Epandrial lobe narrowing toward tip in lateral view, its outer apical margin concave, and with short acute apico-dorsal corner and apico-ventral corner. Hypandrium about 2.5 times longer than wide, with apical portion slightly narrowed; its apical margin shallowly incised, nearly trapezoid, and with subtriangular lateral process. Aedeagus with wide apical margin and short curved subapical lateral process finger-like.

Female. Body length 5.2 mm, wing length 5.1 mm. Similar to male.

Material.—Holotype male, CHINA, Tibet: Nyingchi (N29°39'6.53" E94°21'37.17"), 80K, 2011. VIII. 18, Lihua Wang (CAU). Paratypes 1 male 1

female, same data as holotype (CAU).

Distribution.—China (Tibet).

Remarks.—The new species is somewhat similar to *S. singularis* Yang et Yang from Henan of China, but can be easily separated from the latter by the coxae and trochanters yellow, pterostigma entirely filling apical 1/3 of cell R1, and epandrial lobe with short acute apico-ventral corner. In *S. singularis*, the coxae and trochanters are black, the pterostigma is not filling apical 1/3 of cell R1, and the epandrial lobe has no apico-ventral corner (Yang & Yang, 2004).

Etymology.—The specific name refers to the yellow coxae.

4. *Syneches flavitibia*, sp. nov.

Figs. 9-10

urn:lsid:zoobank.org:act:56194EFC-541A-4093-BA71-83DE819528B8

Diagnosis.—Antenna dark brown; first flagellomere with 1 dorsal setula. Wing hyaline, indistinctly tinged grayish, stigma indistinct. Fore and mid femora dark black with yellow apex, hind femur yellow with dark black extreme tip. Hind femur with two close rows of av.

Description.—Female. Body length 6.9 mm, wing length 5.9 mm.

Head dark black with gray pollen. Eyes contiguous on frons for a long distance, brown with enlarged upper facets dark yellow. Setulae and setae on head black; ocellar tubercle distinct, with 2 setula-like oc and 4 posterior setulae (of which 2 setulae as long as oc). Antenna dark brown; scape without setulae; pedicel with circlet of subapical setulae; first flagellomere somewhat quadrate with 1 dorsal setula; arista dark brown, indistinctly pubescent except apical 1/6 or so thin and bare. Proboscis brownish yellow; palpus brownish yellow with black setulae and 2 long black ventral setae (each located at middle and extreme tip).

Thorax dark black with gray pollen. Setulae and setae on thorax black; mesoscutum with short setulae except mid-posterior area with several long setulae and one transverse row of 2 prescutellar setae; h absent, 2 npl, 1 psa; scutellum with long marginal setulae (of which 6 setulae are seta-like). Fore and mid legs dark black except tips of femora

yellow, tibiae and tarsi yellow except tarsomere 5 dark brown; hind leg yellow except coxa and trochanter and extreme tip of femur dark black, tarsomere 5 dark brown. Setulae and setae on legs black. Fore femur 1.1 times as wide as mid femur; hind femur 1.1 times as wide as mid femur, with two close rows of av (setae of outer row mostly very long, setae of inner row short). Fore tibia with 3 thin ad, apically with 3-4 thin setae. Mid tibia with row of 6-7 ad and 1 pv at middle, apically with 3 brownish or dark yellow v (of which 1 seta is very long). Hind tibia apically slightly thickened, with distinct setula-like pd on apical 1/4, apically with 4 setae. Fore tarsomere 1 with long setula-like pv. Wing hyaline, indistinctly tinged grayish, stigma indistinct; veins dark brown, M1 apically bent, R4+5 and M1 distinctly convergent apically. Squama brown with brown setulae. Halter dark brown with brownish yellow base.

Abdomen nearly straight, dark blackish with gray pollen. Setulae and setae on abdomen black except tergites 1-4 laterally with long dark yellow setulae.

Male. Unknown.

Material.—Holotype female, CHINA, Tibet: Nyingchi (N29°39'6.53" E94°21'37.17"), 80K, 2011. VIII. 19, Lihua Wang (CAU).

Distribution.—China (Tibet).

Remarks.—The new species is similar to *S. astigma* sp. nov., but can be easily separated from the latter in the following points: hind coxa and trochanter black, hind tibia yellow; hind femur with two close rows of av; wing indistinctly tinged grayish. In *astigma*, the hind coxa and trochanter are yellow, the hind tibia is black, the hind femur has only one row of av, and the wing is hyaline.

Etymology.—The specific name refers to the yellow hind tibia.

5. *Syneches indistinctus*, sp. nov.

Figs. 11–12

urn:lsid:zoobank.org:act:3ECADD3C-DC0C-40AE-AF3D-70848388D82F

Diagnosis.—Antenna black; first flagellomere with 6 dorsal setulae. Wing nearly hyaline. All femora brownish yellow with extreme bases and tips brown to dark brown. Epandrial lobe with outer apical margin irregularly concave with three denticles at middle, and with short apico-dorsal corner and long apico-ventral corner. Aedeagus with short curved subapical lateral process acute.

Description.—Male. Body length 3.3 mm, wing length 3.6 mm.

Head brownish black with gray pollen. Eyes contiguous on frons for a long distance, brownish yellow with enlarged upper facets yellow. Setulae and setae on head black; ocellar tubercle distinct, with 2 short setulae and 2 long oc. Antenna black; scape without setulae; pedicel with cirlet of subapical setulae; first flagellomere nearly quadrate with 6 dorsal setulae; arista black, very short pubescent except apical 1/5 thin and bare. Proboscis reddish black; palpus blackish with blackish setulae and 2 long ventral setae apically.

Thorax brownish black with gray pollen. Setulae on thorax blackish, setae black; mesoscutum with short setulae except mid-posterior area with several long setulae and one transverse row of 3 prescutellar setae; h absent, 2 npl, 1 psa; scutellum with long marginal setulae (of which 8 setulae are seta-like). Legs dark brownish yellow except coxae and trochanters brown, extreme bases and tips of femora brown or dark brown, tarsi dark yellow except tarsomeres 3–5 brown to dark brown. Setulae and setae on legs black. Fore femur 1.1 times as wide as mid femur, with row of weak pv; mid femur with row of weak av and nearly two rows of long weak pv; hind femur 1.1 times as wide as mid femur, with row of 8 long av (of which 6 setae are very long). Fore tibia apically with 2 thin setae. Mid tibia with 2 long ad and two rows of close pd, apically with 5 setae including 1 long av and 1 long pv dark yellow. Hind tibia with 1 ad near base, apically with 5 setae. Wing hyaline, indistinctly tinged grayish; stigma long and dark brown; veins dark brown, R4+5 and M1 distinctly convergent api-

cally. Squama dark brown with dark yellow setulae. Halter dark brown.

Abdomen curved downward, dark brown with gray pollen. Setulae and setae on abdomen dark yellow. Male genitalia (Figs. 11–12): Epandrial lobe distinctly narrowing toward tip in lateral view, its outer apical margin irregularly concave with three denticles at middle, and with short apico-dorsal corner and long apico-ventral corner. Hypandrium about 2 times longer than wide, with apical portion slightly narrowed; its apical margin indistinctly incised, without lateral process. Aedeagus with moderated wide apical margin and short curved subapical lateral process acute.

Female. Unknown.

Material.—Holotype male, CHINA, Tibet: Nyngchi, Bayizhen (N29°38'32.58" E94°21'32.55"), Gadinggou, 2011. VIII. 1, Lihua Wang (CAU).

Distribution.—China (Tibet).

Remarks.—The new species is similar to *Syneches distinctus* sp. nov. from Tibet of China, but may be separated from the latter by the legs mostly brownish yellow, wing nearly hyaline, epandrial lobe irregularly concave on the outer apical margin, and hypandrium apically indistinctly incised.

Etymology.—The specific name refers to the weak apical incision of the hypandrium.

6. *Syneches tibetanus* Yang and Yang, 1987

Syneches tibetanus Yang and Yang, 1987: 171. Type locality: China: Tibet, Bomi.

Diagnosis.—Antenna black except first flagellomere dark yellow with 5–6 dorsal setulae. Palpus brownish yellow. Legs black except tips of tibia dark yellow or brownish yellow and all tarsi uniformly dark yellow. Hind femur with row of 5–6 long av; hind tibia with 1 d at middle.

Material.—Holotype male, allotype female, CHINA, Tibet, Bomi (N29°51'42.57"

E95°46'1.59"), Zhamu, 2700 m, 1978. VII. 10, Fasheng Li (CAU). Paratypes 1 female, same data as holotype (CAU); 2 males, CHINA, Tibet, Bomi (N29°51'42.57" E95°46'1.59"), Layuechachang, 2500 m, 1978. VI. 11, Fasheng Li (CAU); 1 male, CHINA, Tibet, Bomi (N29°51'42.57"

E95°46'1.59"), Yigong, 2300 m, 1978. VI. 11, Fasheng Li (CAU).

Distribution.—China (Tibet).

7. *Syneches wangae*, sp. nov.

Figs. 13–14

urn:lsid:zoobank.org:act:E2B59813-9F8B-4D1D-9732-E8EE9F63B97B

Diagnosis.—Antenna black; first flagellomere with 6 dorsal setulae. Wing nearly hyaline. Femora and tibiae black except extreme tips of tibiae brownish or brownish yellow. Epandrial lobe with outer apical margin concave with indistinct denticles at middle. Aedeagus with somewhat acute apical margin and short curved subapical lateral process acute.

Description.—Male. Body length 4.5–4.7 mm, wing length 3.6–4.2 mm.

Head brownish black with gray pollen. Eyes contiguous on frons for a long distance, entirely yellow, and with enlarged upper facets. Setulae and setae on head black; ocellar tubercle distinct, with 2 long oc and 2 slightly short setulae. Antenna black; scape without setulae; pedicel with cirlet of subapical setulae; first flagellomere nearly quadrate with 6 dorsal setulae; arista black, very short pubescent except apical 1/5 thin and bare. Proboscis reddish black; palpus black with blackish setulae and 2 long ventral setae apically.

Thorax brownish black with gray pollen. Setulae and setae on thorax black; mesoscutum with short setulae except mid-posterior area with several long setulae and one transverse row of 3 prescutellar setae; h absent, 2 npl, 1 psa; scutellum with long marginal setulae (of which 8 setulae are seta-like). Legs black except extreme tips of tibiae brownish or brownish yellow, fore tarsus brown except tarsomere 5 dark brown, mid and hind tarsi dark yellow except tarsomeres 3–5 brown to dark brown. Setulae and setae on legs black. Fore femur 1.1 times as wide as mid femur, with row of pv; mid femur with row of weak av and one row of long pv; hind femur 1.1 times as wide as mid femur, with row of about 10 av (of which 4 setae are very long). Fore tibia apically with 2 setae. Mid tibia with 2 long ad and two rows of close pv, apically with 5 setae including 1 long av and 1 long pv dark yellow. Hind tibia with

3 ad on basal half (of which only 1 seta is strong), apically with 5 setae. Wing hyaline, indistinctly tinged grayish; stigma long and dark brown; veins dark brown, R4+5 and M1 distinctly convergent apically. Squama dark brown with dark yellow setulae. Halter dark brown.

Abdomen nearly straight, dark brown with gray pollen. Setulae and setae on abdomen dark yellow. Male genitalia (Figs. 13–14): Epandrial lobe narrowing toward tip in lateral view, its outer apical margin concave with indistinct denticles at middle, and with short acute apico-dorsal corner and long finger-like apico-ventral corner. Hypandrium about 2 times longer than wide, with apical portion slightly narrowed; its apical margin indistinctly incised, and without lateral process. Aedeagus with somewhat acute apical margin and short curved subapical lateral process acute.

Female. Body length 3.6–3.9 mm, wing length 3.9–4.3 mm.

Material.—Holotype male, CHINA, Tibet: Ny-yingchi, Bayizhen (N29°38'32.58" E94°21'32.55"), Gadinggou, 2011. VIII. 1, Lihua Wang (CAU). Paratypes 1 male 11 females, same data as holotype (CAU).

Distribution.—China (Tibet).

Remarks.—The new species is similar to *Syneches tibetanus* Yang et Yang from Tibet of

China, but may be separated from the latter by the following features: antenna entirely black; palpus black; fore tarsus brown except tarsomere 5 dark brown, mid and hind tarsi dark yellow except tarsomeres 3–5 brown to dark brown. In *Syneches tibetanus*, the first flagellomere is dark yellow; the palpus is brownish yellow; all tarsi are uniformly dark yellow (Yang & Yang, 1987; Yang & Yang, 2004).

Etymology.—The specific name refers to the collector Ms. Lihua Wang.

8. *Syneches xanthochromus* Yang and Yang, 1987

Syneches xanthochromus Yang and Yang, 1987: 173. Type locality: China: Tibet, Bomi.

Diagnosis.— Antenna entirely yellow; first flagellomere with 1 dorsal setula. Thorax brownish yellow. Legs yellowish. Wing hyaline; stigma indistinct. Halter yellowish.

Material.—Holotype female, CHINA, Tibet, Bomi (N29°51'42.57" E95°46'1.59"), Yigong, 2300 m, 1978. VII. 31, Fasheng Li (CAU). Paratype 1 female, same data as holotype (CAU).

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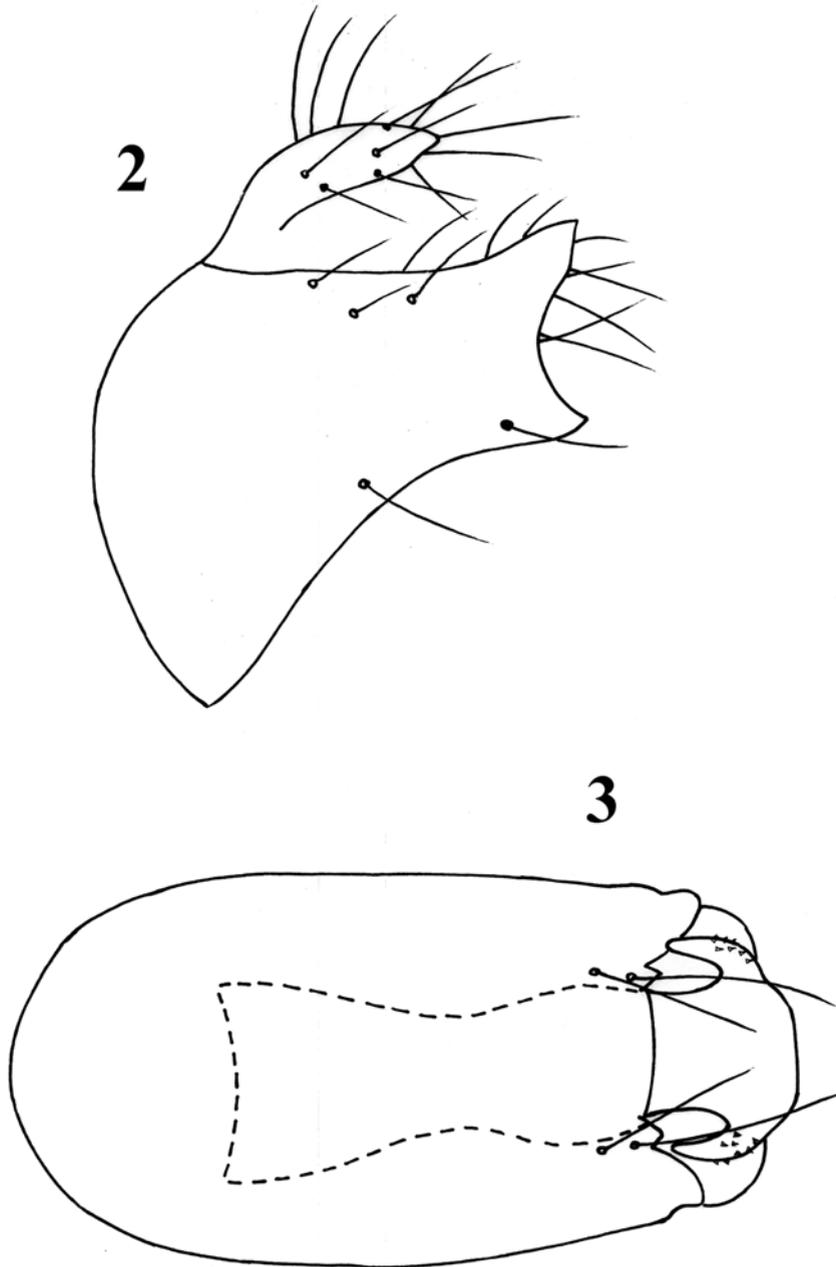
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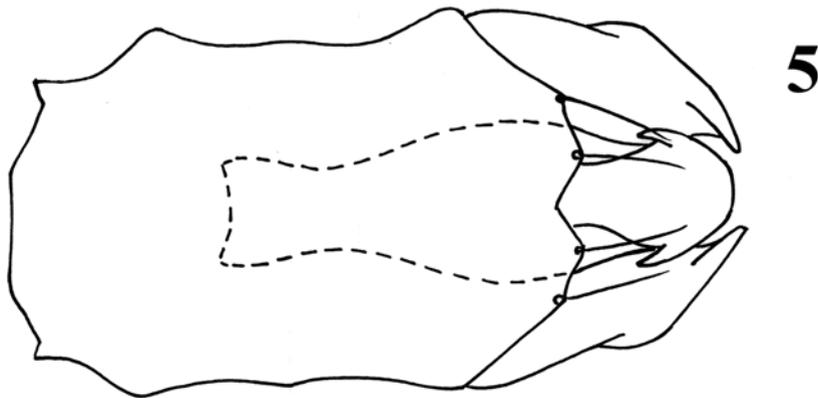
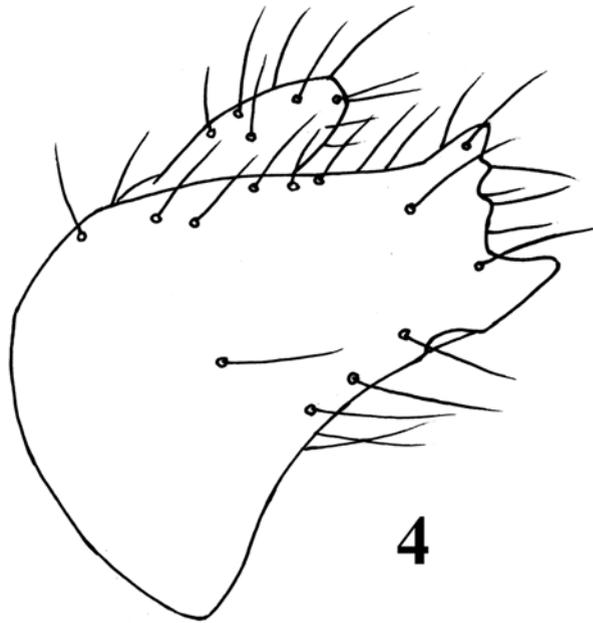
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Fig. 1. *Syneches astigma* sp. nov. (male). Adult.



Figs. 2–3. *Syneches astigma* sp. nov. (male). 2. Epandrium and cercus, lateral view; 3. hypandrium and phallus, ventral view.



Figs. 4–5. *Syneches distinctus* sp. nov. (male). 4. Epandrium and cercus, lateral view; 5. hypandrium and phallus, ventral view.

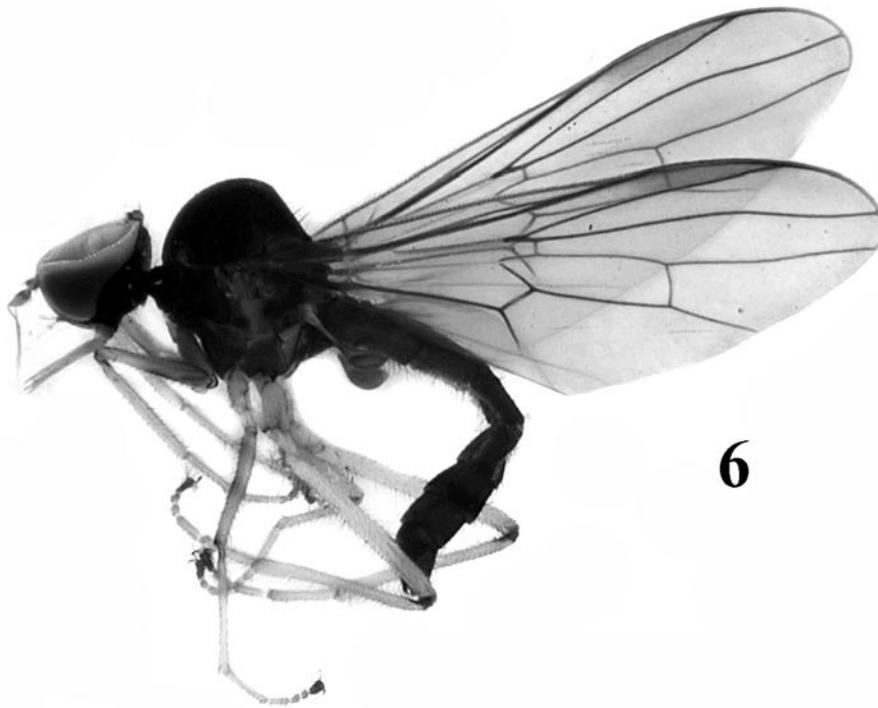
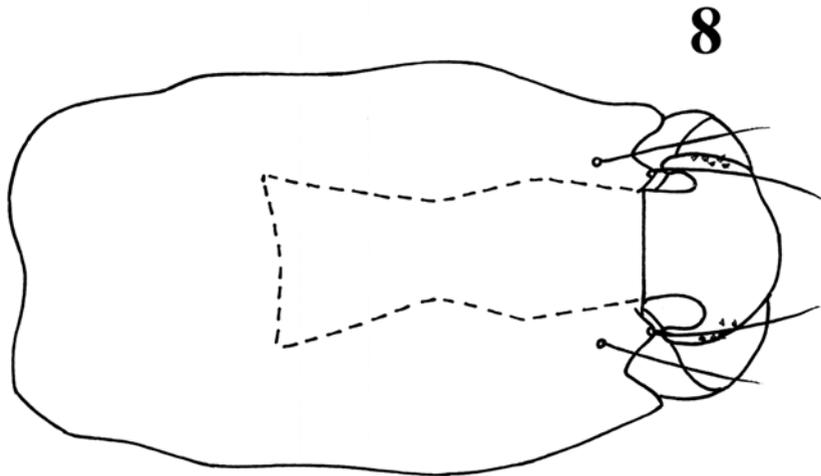
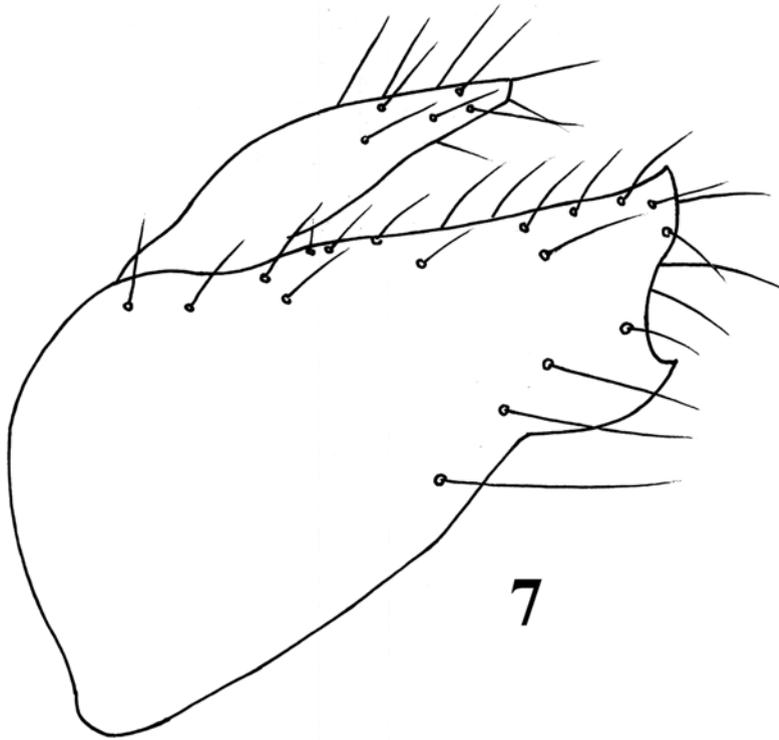


Fig. 6. *Syneches flavicoxa* sp. nov. (male). Adult.



Figs. 7–8. *Syneches flavicoxa* sp. nov. (male). 7. Epandrium and cercus, lateral view; 8. hypandrium and phallus, ventral view.

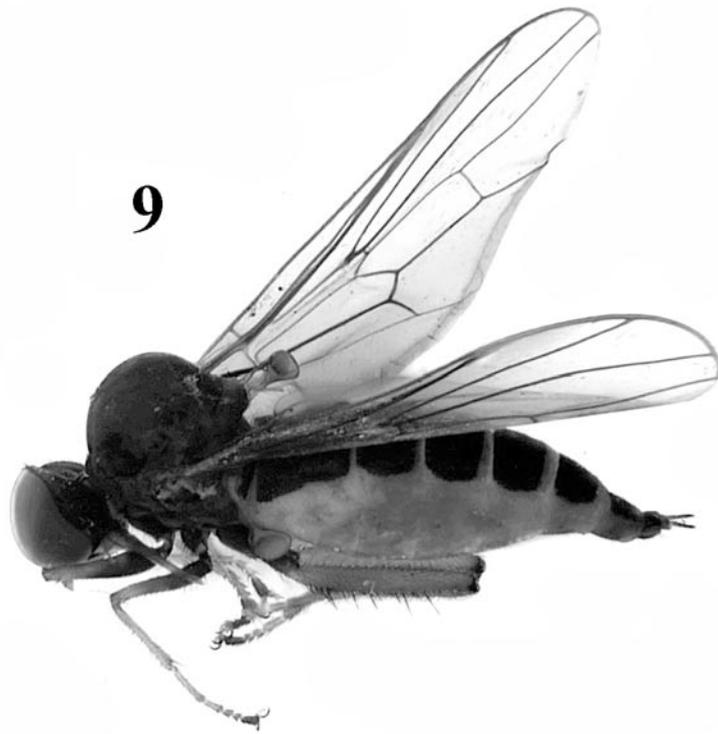


Fig. 9. *Syneches flavitibia* sp. nov. (female). Adult.

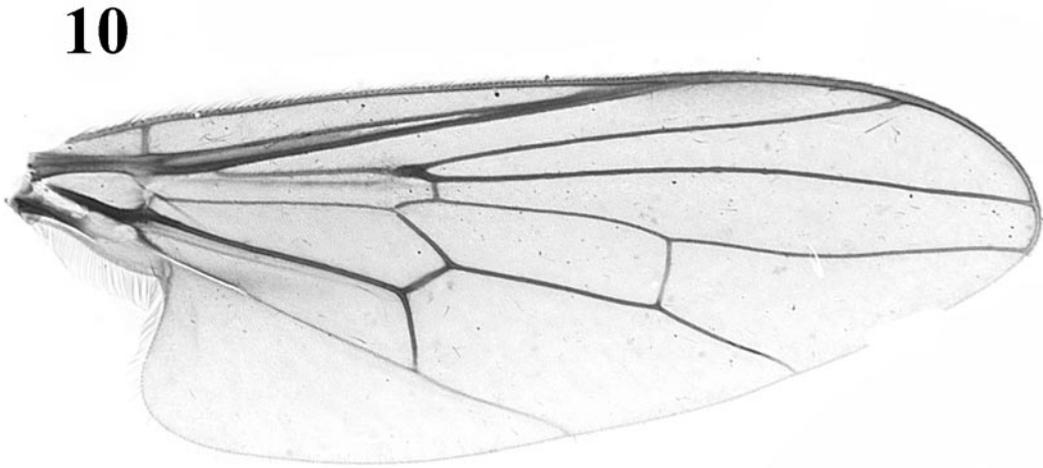
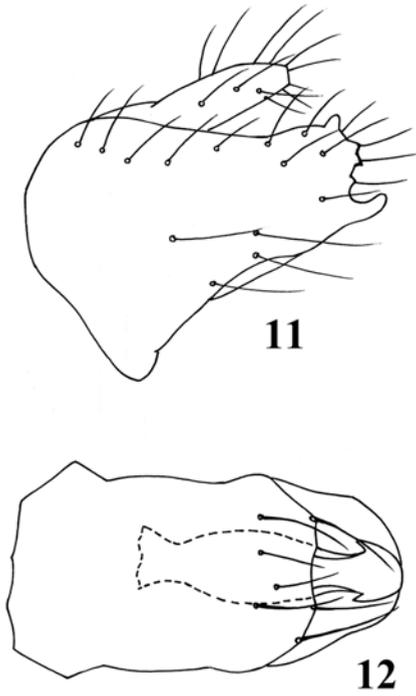
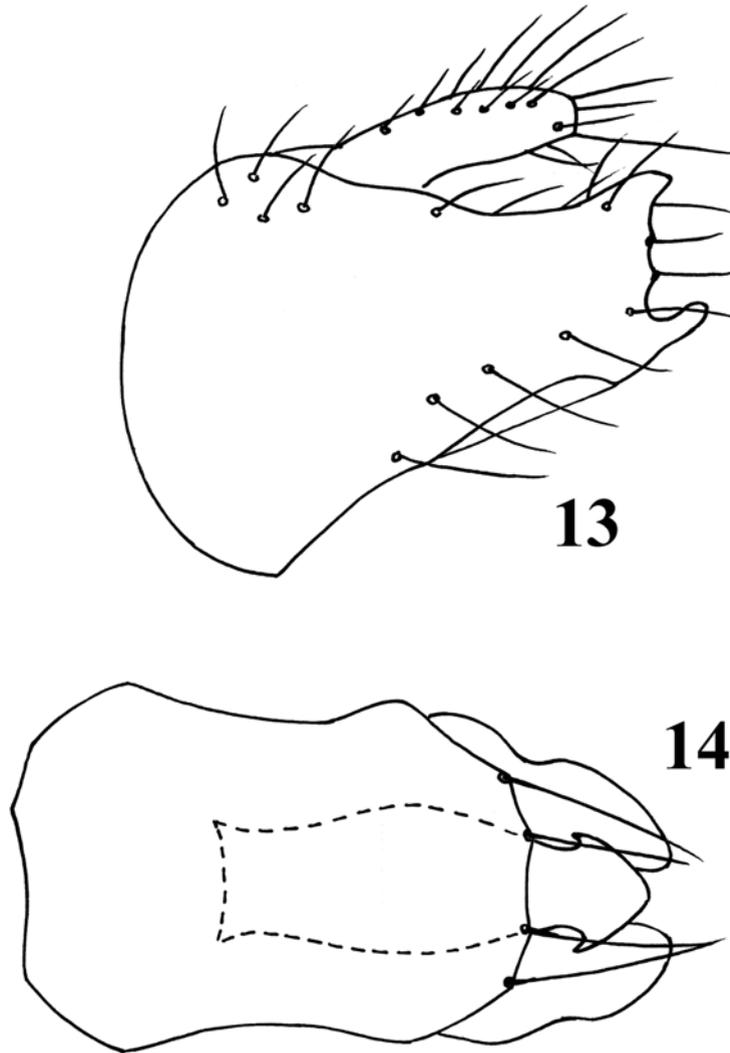


Fig. 10. *Syneches flavitibia* sp. nov. (female). Wing.



Figs. 11–12. *Syneches indistinctus* sp. nov. (male). 11. Epan-
drium and cercus, lateral view; 12. hypandrium and phallus,
ventral view.



Figs. 13–14. *Syneches wangaie* sp. nov. (male). 13. Epandrium and cercus, lateral view; 14. hypandrium and phallus, ventral view.