Sparassidae in China 2. Species from the Collection in Changchun (Arachnida: Araneae)

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Abstract — Two new species of the spider family Sparassidae are described from China: Sinopoda angulata (female; Hubei Prov.) and Sinopoda fasciculata (male; Guizhou Prov.). Pseudopoda sp. cf. exiguoides (Song & Zhu 1999) is recorded from Hunan Prov. (females). One undetermined Pseudopoda species is recorded from Sichuan Prov. (female). Heteropoda venatoria (Linnaeus 1767) is recorded from Guangdong Prov. and Yunnan Prov. respectively. Micrommata virescens (Clerck 1757) is recorded for the first time in Jilin Province. Two males of Olios sp. are recorded from Jiangsu Prov. and Hunan Prov. respectively, probably conspecific with Olios tiantongensis (Zhang & Kim 1996). One female of Olios sp. is recorded from Yunnan Prov., probably conspecific with Olios menghaiensis (Wang & Zhang 1990). Olios sanguinifrons (Simon 1906) COMB. NOV. is transferred from the genus Eusparassus to Olios. The female is described for the first time. Genitalia of all species are illustrated.

Key words — Araneae, Sparassidae, Sinopoda, Pseudopoda, Heteropoda, Micrommata, Olios, China, new species, new transfer

Introduction

Recently Jäger & Yin (2001) started a revision on Chinese Sparassidae. They compiled a revised check-list of known records, listed new combinations and new synonyms and designated type material, when necessary. From this revised basis future work can be done. The present paper reports on results of the examination of material of the Changchun collection. The senior author had the opportunity to examine and illustrate this material during a stay in Beijing (Chinese Academy of Sciences). As Sparassidae in general are mostly caught only by single individuals (and not in larger series), taxonomical work is not easy and thus, only in some cases clear taxonomical statements can be done. Therefore some determinations of specimens and their classification are here made provisionally, until more material is available.

Material and methods

Abbreviations and style of descriptions are the same as performed in Jäger & Ono (2000). For diagnoses and descriptions of family, subfamilies and genera see Jäger (1998, 2001) and Jäger & Ono (2000). In all illustrations hairs are omitted, except for spines on legs or palps. All specimens are deposited in the collection of Jilin University in Changchun, only exceptions are marked (HNUC, Hunan Normal University, Changsha; IOZB, Institute of Zoology, Chinese Academy of Sciences, Beijing; MNHN, Musé National d'Histoire Naturelle, Paris; NSMT, National Science Museum, Tokyo). # - numbers refer to the particular collection number of examined Sparassidae (CC = Changchun Coll.).

Taxonomy

Family Sparassidae Bertkau 1872
Subfamily Heteropodinae Thorell 1873
Genus Sinopoda Jäger 1999

Sinopoda angulata sp. nov.
Figs. 1–5

Type material. 1♀ holotype (PJ 1637, label: Liujiawu, Shennongjia, Hubei Prov., 29.7.1986, #3CC, 86–333, 912).

Diagnosis. ♀ with anterior part of vulva massive and angled. Anterior appendices touching almost the posterior spermathecae. Internal ducts running parallel along the median line (Figs. 2–3).

Description. ♀ PL 6.0, PW 5.4, AW 3.6, OL 6.8, OW 4.8. Spination (leg II missing): Pp 131,101,2121,1014, Fe I/III 323, IV 321, Pa 001, Ti I 2026, III-IV 2126, Mt I 1014, III 3026, IV 3036. Leg measurements of leg IV: Fe 5.4, Pa 2.4, Ti 5.0, Mt 4.9, Ta 1.8. Epigyneal field with distinct and short anterior bands, these slightly converging. Lobal
epigyneal pockets situated far from each other, connected by an anterior rim. Margins of lobal pockets running not parallel to posterior margin of lateral lobes (Fig. 1). Anterior vulval appendices extending laterally beyond posterior spermathecae (Fig. 2).

Figs. 1–9. 1–5. Sinopoda angulata sp. nov., ♀ holotype (#3CC, 86–333, 912) from Liujiawu, Shennongjia, Hubei Prov. 6–7. S. shennonga (Peng, Yin & Kim 1996), ♀ holotype (HNUC #53) from Shennongjia, Hubei Prov. 8–9. S. wangi Song & Zhu 1999, ♀ syntype (HNUC #56) from Mt. Lu, Jiangxi Province. — 1,6,8, Epigyne, ventral view; 2–3,7,9, vulva (2,7,9, dorsal view; 3, anterior view); 4, left leg IV, prolateral view; 5, prosoma, dorsal view. (Scales in mm)
Color. Dark yellow-brown. Legs without pattern, becoming darker distally (Fig. 4). Chelicerae dark red-brown, with dark longitudinal bands frontally. PS with broad and bright median band (Fig. 5). Head region and marginal bands red-brown. Dorsal OS dark red-brown, with bright median patch above heart, which becoming darker posterior. OS in posterior half with indistinct bright patch. Lateral OS spotted with oblong patches. Ventral OS with some irregular patches.

Distribution. Only known from the type locality.

Etymology. The species name refers to the angled shape of anterior vulva in a dorsal view (Latin - *angulatus*: angled); adjective.

Type material. 1 ♀ holotype (PJ 1638, label: Fanjingshan, Guizhou Prov., 24.6.1985, #2CC, 85–295)

Diagnosis. Closely related to *S. okinawana* Jäger & Ono 2000 and *S. wangi* Song & Zhu 1999 in Song et al. (1999) (Figs. 8–9, 13–15), but differs in the following characters: 1. Margins of lobal pockets parallel to the posterior margin of lateral lobes, 2. anterior appendices of vulva do clearly not reaching posterior spermathecae, 3. anterior appendices do not extending beyond the posterior spermathecae, 4. anterior vulva without a massive and angled structure, 5. internal ducts running not parallel along the median line, but diverging in their anterior and posterior part, 6. epigynial field with indistinct anterior bands, 7. lobal pockets not connected by an anterior rim.

The new species can also be distinguished from other *Sinopoda* spp., e.g. *S. wangi* Song & Zhu 1999 (compare Figs. 8–9), by comparing carefully external and internal female genitalia.

*Sinopoda fasciculata* sp. nov.

Figs. 10–12

Note. This species can only be identified by preparing the internal female genitalia. From the type locality another *Sinopoda* species is described: *S. shennonga* (Peng, Yin & Kim 1996) (Figs. 6–7). This shows several differences to the here described species: 1. Margins of lobal pockets parallel to the posterior margin of lateral lobes, 2. anterior appendices of vulva do clearly not reaching posterior spermathecae, 3. anterior appendices do not extending beyond the posterior spermathecae, 4. anterior vulva without a massive and angled structure, 5. internal ducts running not parallel along the median line, but diverging in their anterior and posterior part, 6. epigynial field with indistinct anterior bands, 7. lobal pockets not connected by an anterior rim.

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Distribution. Only known from the type locality.

Etymology. The specific epithet refers to the hair tuft at the base of the retrolateral tibial apophysis (Latin -fasciculatus: with a small tuft of hairs); adjective.

Genus Pseudopoda Jager 2000

Pseudopoda sp. cf. exiguoides (Song & Zhu 1999)


Diagnosis. ♀ anterior margin of epigynal field trilobate, with distinct and short bands. Epigyneal field with characteristic lateral indentations. Posterior margins of lat-

eral lobes with median indentation. (Figs. 16, 20–21). Internal duct system with transversal loops (ventral view) (Fig. 16).


**Color.** Yellow-brown with red-brown markings. PS with distinct pattern (Fig. 19). Sternum with single spots near each coxa. Legs with spine patches and ventral femora with many spots (Fig. 18). Dorsal OS with distinct pattern. Lateral OS irregularly spotted. Ventral OS with few spots and with triangle-shaped patch in front of spinnerets.

**Distribution.** China: Hunan Prov. (Huangshizhai, Zhangjiagiajie)

**Relationships.** Some characters point to conspecificity with *Pseudopoda exiguoides* Song & Zhu 1999 in Song et al. (1999): 1. Shape and structure of external and internal female genitalia, 2. shape of epigyneal field, 3. coloration and pattern of dorsal OS, 4. closely situated sampling localities of the present female and the types of *P. exiguoides*.

The following female of the genus *Pseudopoda* cannot clearly associated to any species at present. Within this genus females of different species may be very similar in external and internal genital characters (compare Jäger 2001). Conspecific males and larger series of each species are necessary to make taxonomical statements.

**Pseudopoda sp.**

**Material examined.** 1♀ (PJ 1643, label: Sichuan Prov., Qingshengshan, 30°09'N, 103°5'E, 26.10.1975, #4CC, 75–673).

**Diagnosis.** 5 ♀ anterior margins of lateral lobes forming a wide ‘U’. Anterior bands of epigynial field situated in the median field within the ‘U’. Internal ducts with spiral coils (ventral view) (Fig. 22).

**Description.** PL 4.3, PW 3.9, OL 4.8, OW 3.2. Spination: Pp 131,101,2121,1013, Fe I-III 323, IV 331, Pa I-II 101, III 1(0)01, IV 000, Ti I-II 2228, III-IV 2126, Mt I-II 2024, III 3024, IV 3036. Leg measurements of leg IV: Fe 5.3, Pa 1.8, Ti 4.4, Mt 4.5, Ta 1.5. Tibiae and metatarsi I and II with long spines.

**Color.** Yellowish with red-brown pattern. PS with pattern as in Fig. 25. Legs with spine patches and small spots on ventral femora (Fig. 24). Ventral OS with small spots and two rows of larger spots, these running parallel and running together in front of the spinnerets in the posterior half (Fig. 26).

**Distribution.** China: Sichuan Prov. (Qingshengshan)

**Note.** From the spiral coils of the copulatory ducts and the examination of other conspecific couples of *Pseudopoda* spp. (Jäger 2001) it is expected that males of the present species could have a comparably long embolus.

**Genus Heteropoda Latreille 1804**

**Heteropoda venatoria** (Linnaeus 1767)


**Subfamily Sparassinae Bertkau 1872**

**Genus Micrommata Latreille 1804**

**Micrommata virescens** (Clerck 1757)

**Material examined.** 1♀ (#6CC, 2428) from Changchun City, Jilin Province, coll. by Chuandian Zhu, 1962.

**Note.** The present female represents the first record of this species for Jilin Province.

**Genus Olios Walckenaer 1837**

**Olios sp. cf. tiantongensis** (Zhang & Kim 1996) Figs. 27–31

**Material examined.** 1♀ (PJ 1461, label: Nanjing City, Jiangsu Prov., 31.5.1959, #7CC, 7059). 1♀ (PJ 1462, label: China, Hunan Prov., Changsha, Yuelu Shan, Yu Shaojie, April 1986) HNUC.

**Diagnosis.** 5 tegular apophysis large and distinctly bent, sickle-shaped (Fig. 27). Distal RTA slender, pointed, its tip bent distally (in lateral view). Proximal RTA blunt (in lateral view) (Fig. 28).

**Description.** PL 4.5, PW 4.6, OL 4.8, OW 2.9. Spination: Pp 131,000,0000, Fe I-III 323, IV 321, Pa 000, Ti I-II 2024, III 2124, IV 2024, Mt I 1014, II-III 2024, IV 3035. Leg measurements of leg IV: Fe 7.0, Pa 2.5, Ti 7.0, Mt 7.2, Ta 2.0. Chelicerae with 2 anterior and 5 posterior teeth (Fig. 30). Eye arrangement as in Fig. 31. Palpal tibia with two retrolateral apophyses (Figs. 27–28).

**Color.** Bright yellowish. Chelicerae, distal parts of legs and labium a bit darker. Dorsal OS with indistinct pattern. Ventral OS with dark median band.

**Distribution.** China: Hunan Prov. (Changsha: Yuelu Shan), Jiangsu Prov. (Nanjing City)

**Relationships.** A set of characters points to conspecificity with *Olios tiantongensis* (Zhang & Kim 1996) (Figs. 36–37): 1. A comparison between male and female genital characters of the closely related species, *Olios sanguinifrons* (Simon 1906) COMB. NOV. (Figs. 32–35, 39–43), lets suggest that the male described above could be conspecific with the holotype of *O. tiantongensis*: both males and females of the two species share a combination of characters (♀: two retrolateral tibial apophyses with similar arrangement,
embolus and tegular apophysis with similar arrangement and shape; ♀: similar shape of epigynal field, median epigynal groove, vulva with anterior median indentation, course of internal ducts), 2. the coloration of the above described male and the holotype female of *O. tiantongensis* is similar (bright yellowish, without distinct markings, except for a dark median band on the ventral opisthosoma), 3. the eye arrangement of both, the present males and the female holotype of *O. tiantongensis* are almost the same, 4. the distribution of the two males and the holotype female of *O. tiantongensis* support a conspecificity (Note. according to the present knowledge *Olios* spp. generally have a wider distribution than *Pseudopoda* spp. or *Sinopoda* spp.).

Until further unambiguous records of both sexes are

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available, no final statement on the taxonomical status of the two males can be made.

Olios sp. cf. menghaiensis (Wang & Zhang 1990)  
Figs 44–47

Material examined. 1 ♀ (PJ 1639, label: Menghai, Yunnan Prov., 15.7.1983, #1CC, 83–299).

Diagnosis. Epigyneal field almost rectangular (Fig. 44). Internal duct system with a bit more than three regular coils of each, copulatory duct and fertilisation duct. Posterior parts of fertilisation ducts close together (Figs. 45–46).


Color. Red-brown. PS with distinct pattern (Fig. 47) and bright hairs at its margins. Chelicerae dark red-brown. Gnathocoxae and labium dark with their inner margins distinctly brighter. Legs with bright oblong patches dorsally. Ventral tibiae with indistinct annulation, consisting of bright and dark hairs. Tarsi and metatarsi with thick scopulae. Dorsal OS dark with angle-shaped patches and brighter heart region. Ventral OS dark brown.

Distribution. China: Yunnan Prov. (Menghai)

Relationships. Some characters points to conspecifity with Olios menghaiensis (Wang & Zhang 1990) (Fig. 48), a species described from a single male from Menghai, Yunnan Prov.: 1. type locality of O. menghaiensis and the locality of the above described female are identical, 2. the screw-like course of the internal duct system of the above described female and the screw-shaped embolus of O. menghaiensis would fit together, thinking of copulatory mechanics.
Material examined for comparison.

Sinopoda wangi Song & Zhu 1999 (Figs. 8–9, 13–15): 2♂♂, 3♀♀ syntypes (#56) from Mt. Lu, Jiangxi Province, China, 7.8.1987, leg. by Jia-fu Wang; 10♀♀ syntypes (#57) from Mt. Lu, Jiangxi Province, China, 15.6.1987, leg. by Jia-fu Wang; 4♀♀ 3♀♀ syntypes (#11) from Mt. Lu, Jiangxi Province, China, August 1987, leg. by Jia-fu Wang; all HNUC.


Sinopoda shennonga (Peng, Yin & Kim 1996) (Figs. 6–7): 1♂ holotype (#53) from Shennongia, Xiangyang County, 32.1°N 112.1°E, Hubei Prov., China, 10.1990, leg.
by Jia-fu Wang; HNUC.

*Pseudopoda exiguoides* (Song & Zhu 1999) in Song et al. (1999): 1♂ lectotype, 1♀ paralectotype (#41) from Mt. Yuelu, Changsha City, Hunan Prov., China, 10.8.1980, by Jia-fu Wang; HNUC.

*Olios tiantongensis* (Zhang & Kim 1996) (Figs. 36-38): 1♂ holotype (#39): from Tiantong, Ningbo City, 29.9°N, 121.5°E, Zhejiang Province, China, 20.11.1994, leg. by Yong-jin Zhang. HNUC.

*Olios sanguinifrons* (Simon 1906) COMB. NOV. (Figs. 32-35, 39-43): 1♂ holotype, PJ 675, label: *Eusparassus sanguiniceps* E.S., bas pl. du l’Himalaya, {Type}. MNHN 15247; 1♀, PJ 676, with same data as holotype male. 1♂ (PJ 167) from Kabre, Nepal, 17.1.1967, M. Hubert leg.; all MNHN.

Notes. The species, described by Simon (1906) sub *Eusparassus* is explicitly transferred to the genus *Olios*. Both specimens clearly possess characters, which are also shared by other *Olios* spp. e.g. *O. tener* (Thorell 1891): typical, bent embolus, with reduced conductor, two tibial apophyses and synapomorphic characters of Sparassiniae: two anterior cheliceral teeth and a characteristic eye arrangement.

Simon wrote on the label and in the text of his original publication (1906: 312) a different name (*sanguiniceps*) than he published in the original description in the heading (*sanguinifrons*). From comparison of the male specimen (Figs. 32-33) and the original description (Simon 1906) it is clear that this specimen represents the holotype male. ‘*sanguinifrons*’ is considered the valid name.

The female, which was stored together in the vial with the holotype male was subadult. Under the skin, which was almost coming off, a developed epigyne was present. Although a more sclerotized epigyne of an mature individual may show a different shape or coloration, the female genitalia are illustrated here for the first time (Figs. 39-41). A full description will be given later in a revisional paper on the genus *Olios*. It is not clear, whether the female was added later by Simon or a subsequent curator or whether it was already in the type series and Simon did not mention it, because it was not mature. However, both specimens are considered conspecific from their size and coloration.

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References


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アシナガダゴモの生活史（pp. 1–4）
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野外調査と観察によって、アシナガダゴモ（Tetragnatha praedonia）の生活史を調べた。野外では、新たに孵化したと思われる子孫が、6月から9月の間に繰り返し出現した。出のう直後に育てられた10頭のうち、頭（オス2頭とメス3頭）が成体となった。出のうから最終脱皮までの期間は、オスでは57–59日、メスでは47–51日であった。新たに孵化した子孫の重なる出現と短い生活史は、アシナガダゴモが年2–3世紀の回転数をもつことを示唆している。

アカクモヒメバチによるサツマノミダマシへの寄生の初記録
（pp. 5–6）
杉元敏也、清水 勇、小西和彦（〒522–2113 大津市上田上平野町字大架509-3 京都大学生態学研究センター；〒602–8555 札幌市豊平区羊羹丘1 独立行政法人 農業技術研究機構 北海道農業研究中心害虫研究室）

アカクモヒメバチ Eriostethus rufus（Uchida, 1932）は従来 Araneus 属のクモに寄生するとされていた。しかし、我々はこのハチが別属である Neoscona 属のクモに寄生することを発見した。アカクモヒメバチとその宿主であるクモの関係は再検討する必要がある。

日本産ミシングモ亜科（クモ目：ヒメグモ科）の属および種の検討（pp. 7–18）
吉田 則（〒990–2484 山形県鶴田2丁目7番16号）

日本産のミシングモ亜科 Hadrotarsinae Thorell 1881 の属および種の検討をおこなった。この亜科の特徴は、雌の受精のうが2対で雌の触肢の爪が背腹方向に扁平、第1歩脚節節腹面に特化した毛があることおよび糸状前中頭部の中央に測定板状の突出部があることである。


近隣地方でナス属を食害するナミハダニ属（ハダニ科）の1新種
（pp. 19–22）
江原誠正, 大橋和典（〒680–0001 鳥取市浜坂2丁目15–7；〒606–8502 京都府左京区北白川区分町 京都大学大学院農学研究科）

大阪・京都両市の市街地でナス属（Solanum）の3種の植物（イヌホオズキ、ワルナビおよびナス）に多発していたハダニを新種と認め、Tetranychus takafuji（ミツユビハダニ、新称）と命名・記載した（ホロタイプは大阪市福島区池川河川公園のイヌホオズキから採集した）。本種は、国外のT. evansi Baker & Pritchard を最もよく似ているが、の第2脚の爪間体の形態で異なる。採集地は国内のT. marianae McGregor のそれよりも似るが、のの脚の形態で相違する。脚の毛の配列は日本のアシナガハダニにも類似するが、採集地の形態で識別できる。このハダニは、日本国内でナス属の主な害虫の一つになる可能性を持っていると思われる。

中国のアシナガダゴモ科2. 長春コレクションに含まれる種
Peter Jäger¹, Jiuchun Gao², Rui Fei²（¹Institute für Zoologie, Johannes Gutenberg-Universität, Germany; ²Jilin University, P. R. China）（pp. 23–31）

アシナガダゴモ科の2新種：Sinopoda angulata と S. fasciculata を記載した。Pseudopoda sp. cf. exiguoides と Pseudopoda 属の種名未決定種をそれぞれ湖南省と四川省から記載した。アシナガダゴモ Heteropoda venatoria を広東省と雲南省から記載した。Eusparassus sanguinifrons Simon 1906 の雌を初記載し、Olios ヒマラヤを新種と分類し、Olios tiantongensis を同種とみられる2種をそれぞれ江蘇省と雲南省から記載した。O. menghaiensis を同種とみられる1種を雲南省から記載した。Eusparassus sanguinifrons Simon 1906 の雌を初記載し、Olios へ転属した。全種の生殖器を図示した。（和訳：編集委員会）

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