## Research article

# Two new species of the genus Trilacuna (Araneae: Oonopidae) from Jinyun Mountain of Chongqing, China 

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#### Abstract

Two new species of the genus Trilacuna Tong \& Li, 2007, T. jinyun Tong, Zhang \& Li, sp. nov. ( $\delta^{\top}$ ) and $T$. jiuchi Tong, Zhang \& Li sp. nov. ( ${ }^{\top}$ q), are described from Chongqing, China. Photos of the habitus and copulatory organs are provided.


Keywords. Biodiversity, goblin spider, morphology, taxonomy.
Huang Y., Bian D.-J., Tong Y.-F., Zhang Z.-S. \& Li S.-Q. 2021. Two new species of the genus Trilacuna (Araneae: Oonopidae) from Jinyun Mountain of Chongqing, China. European Journal of Taxonomy 748: 1-14. https://doi.org/10.5852/ejt.2021.748.1337

## Introduction

The family Oonopidae is a diverse group of spiders with 1872 extant described species in 114 genera. Oonopids are small ( $1-3 \mathrm{~mm}$ ), two-clawed, ecribellate spiders that can be abundant in leaf litter, under bark of trees, in forest canopies and in subterranean habitats (Saaristo 2001; Tong 2013). Trilacuna Tong \& Li, 2007 is a larger genus of the family. Currently, a total of 35 species have been reported. All the species
are known from Asia and occur in Iran and from the Korean Peninsula south to Sumatra (Li 2020; WSC 2020).

In China the genus is represented by 13 species, of which only three are known in Chongqing Municipality, China, i.e., T. angularis Tong \& Li, 2007, T. simianshan Tong \& Li, 2018 and T. songyuae Tong \& Li, 2018 (Tong \& Li 2007; Tong et al. 2018, 2019; Liu et al. 2019; Huang et al. 2020). In this paper two new Trilacuna species, T. jinyun Tong, Zhang \& Li sp. nov. and T. jiuchi Tong, Zhang \& Li sp. nov., collected from Chongqing, are described and illustrated.

## Material and methods

The specimens were examined using a Leica M205C stereo microscope. Details were studied under an Olympus BX51 compound microscope. Photos were made with a Canon EOS 750D zoom digital camera (18 megapixels) mounted on an Olympus BX51 compound microscope. Vulvae were cleared in lactic acid. For scanning electron microscopy (SEM), specimens were air-dried, sputter coated using IXRF SYSTEMS and imaged with a Hitachi TM3030 SEM. Photos were stacked using Helicon Focus 7.6.1 and processed using Adobe Photoshop ver. 21.1.2. All measurements were taken using an Olympus BX51 compound microscope and are in millimeters. Measurements of palps are given as follows: total length (femur + patella + tibia + tarsus ).

The following abbreviations are used in the text and figures:

| ab | $=$ anterior branch |
| :--- | :--- |
| ALE | $=$ anterior lateral eyes |
| ap | $=$ apodeme |
| as | $=$ anterior sclerite |
| bp | $=$ basal protrusion |
| cp | $=$ circular projection |
| db | $=$ dorsal branch |
| ehb | $=$ elevated hair base |
| flp | $=$ flag like protrusion |
| fls | $=$ fork like sclerite |
| lb | $=$ lateral branch |
| ldi | $=$ labium deep incision |
| mb | $=$ median branch |
| pe | $=$ posterior extension |
| PME | $=$ posterior median eyes |
| PLE | $=$ posterior lateral eyes |
| psp | $=$ posterior spiracle |
| rls | $=$ nine-teeth-rake like sclerite |
| rss | $=$ rectangular shaped structure |
| sar | $=$ sclerotized, recurved arches |
| sdb | $=$ strongly curved distal branch |
| sls | $=$ slender line-like structure |
| tba | $=$ transverse bars |
| tsc | $=$ transverse sclerite |
| vb | $=$ ventral branch |
| wss | $=$ worm-shaped structure |

All material studied is deposited at the Shenyang Normal University, Shenyang, China (SYNU) and Southwest University, Chongqing, China (SWUC).

## Results

Class Arachnida Cuvier, 1812<br>Order Araneae Clerck, 1757<br>Family Oonopidae Simon, 1890<br>Genus Trilacuna Tong \& Li, 2007

Trilacuna Tong \& Li, 2007: 333.

## Type species

Trilacuna rastrum Tong \& Li, 2007.

## Differential diagnosis

See Tong et al. (2020).
Trilacuna jinyun Tong, Zhang \& Li sp. nov. urn:lsid:zoobank.org:act:7B177C33-6884-40B3-BB08-A61DFACE5190

Figs 1-3, 4A-B, E-F, 8

## Differential diagnosis

This new species is similar to Trilacuna simianshan Tong \& Li, 2018, but males can be distinguished by the large flag like protrusion and the broad dorsal branch of embolus system (Fig. 2E, F, H), and females by the rectangular shaped structure of endogyne (Fig. 4F). Males of T. simianshan have a rectangular projection and narrow dorsal branch of embolus system, and females have a cone-shaped structure of endogyne (Tong et al. 2018: figs 3a-f, 5i).

## Etymology

The specific name is a noun in apposition and refers to the type locality.

## Material examined

## Holotype

CHINA • ${ }^{\text {T }}$; Chongqing Municipality, Beibei District, Jinyun Mountain, Caijiagou; 12 Oct. 2008; Zhisheng Zhang et al. leg.; SYNU-291.

## Paratypes

CHINA • 4 \& \&; same collection data as for holotype; SYNU-292 to $295 \cdot 1$ § ; Jinyun Mountain, Canal Protection Station; 4 Dec. 2010; Zhong Li and Zongxu Li leg.; SWUC-T-OO-01-1 • 3 q $q$; Jinyun Mountain; 12 Apr. 2010; Luyu Wang leg.; SWUC-T-OO-01-2 to 4.

## Description

Male (holotype)
Body. Yellow; habitus as in Fig. 1A-C; body length 2.39. Carapace (Fig. 1D, F-G): 1.23 long, 0.97 wide; sides granulate; lateral margin rebordered.

Eyes (Fig. 1A, G). Well developed, arranged in a compact group; ALE, PME and PLE subequal; ALEPLE separated by less than ALE radius, PME touching each other; posterior row recurved from above, procurved from front.

Clypeus (Fig. 1G). Sinuous in frontal view, ALE separated from edge of carapace by about 1.8 times their diameter.

Mouthparts (Fig. 1E, G). Chelicerae straight; labium rectangular, anterior margin deeply incised; endites slender, distally strongly curved branched.

Sternum (Fig. 1E). With radial furrows between coxae I-II, II-III, III-IV; surface medially strongly rugose.

Abdomen (Fig. 1A-C). Abdomen 1.30 long, 0.92 wide; booklung covers ovoid, surface smooth; dorsal scutum not fused to epigastric scutum; apodemes present, posterior spiracles connected by a shallow groove; sperm pore oval, situated between anterior spiracles.

Leg spination (all spines longer than segment width). Legs I-II: tibia: v2-2-2-2-0, metatarsus: v2-2-0.
Palp (Figs 2, 4A-B). Orange; 0.67 long ( $0.21,0.12,0.17,0.17$ ); femur greatly swollen (width/length $=$ 0.67 ); bulb oval, tapering apically; embolus system (Fig. 2C-H) with a broad dorsal branch (db), a very


Fig. 1. Trilacuna jinyun Tong, Zhang \& Li sp. nov., holotype, $\overparen{\overparen{c}}$ (SYNU-291). A-C. Habitus in dorsal, ventral, and lateral views. D-G. Prosoma in dorsal, ventral, lateral, and anterior views. Abbreviations: ehb = elevated hair base; ldi = labium deep incision; $\mathrm{sdb}=$ strongly curved distal branch. Scale bars: 0.4 mm .


Fig. 2. Trilacuna jinyun Tong, Zhang \& Li sp. nov., left male palp, SEM, holotype, đ̂ (SYNU-291). A-B, G. Prolateral, retrolateral, and dorsal views. C-D. Palpal bulb in prolateral and retrolateral views. E-F, H. Distal part of palpal bulb in prolateral, retrolateral, and dorsal views. Abbreviations: $a b=$ anterior branch; $\mathrm{cp}=$ circular projection; $\mathrm{db}=$ dorsal branch; flp = flag like protrusion; $\mathrm{vb}=$ ventral branch.
narrow thread-like ventral branch (vb), and a broad anterior branch (ab) in prolateral view, a flag like protrusion (flp) in dorsal view, and a circular projection (cp) in retrolateral view.

Female (SYNU-292)
Same as male except as noted; slightly larger than male. Body: length 2.44; habitus as in Fig. 3AC. Carapace: 1.02 long, 0.89 wide. Endites: unmodified. Abdomen: 1.53 long, 0.98 wide. Epigaster


Fig. 3. Trilacuna jinyun Tong, Zhang \& Li sp. nov., paratype, $q$ (SYNU-292). A-C. Habitus in dorsal, ventral, and lateral views. D-G. Prosoma in dorsal, ventral, lateral, and anterior views. Abbreviations: ehb $=$ elevated hair base; ldi = labium deep incision. Scale bars: 0.4 mm .


Fig. 4. A-B. Trilacuna jinyun Tong, Zhang \& Li sp. nov., holotype, ô (SYNU-291). C-D. T. jiuchi Tong, Zhang \& Li, sp. nov., holotype, đ (SYNU-300). E-F. T. jinyun sp. nov., paratype, q (SYNU292). G-H. T. jiuchi sp. nov., paratype, $\uparrow$ (SYNU-303). A, C. Left palp, prolateral view. B, D. Left palp, retrolateral view. E, G. Epigaster, ventral view. F, H. Endogyne, dorsal view. Abbreviations: ap = apodeme; as = anterior sclerite; pe = posterior extension; psp = posterior spiracle; rss = rectangular shaped structure; sar = sclerotized, recurved arches; sls = slender line-like structure; tba = transverse bars; tsc = transverse sclerite; wss = worm-shaped structure. Scale bars: 0.2 mm .
(Figs 3B, 4E): middle part of posterior margin of epigastric scutum (pe) much extended posteriorly, with sclerotized recurved arches (sar) between posterior spiracles (psp). Endogyne (Fig. 4F): with a rectangular shaped structure (rss), at the posterior end of the rectangular shaped structure is a slender line-like structure (sls) extending anteriorly; with two lateral apodemes (ap).

## Distribution

China (Chongqing) (Fig. 8).
Trilacuna jiuchi Tong, Zhang \& Li sp. nov. urn:1sid:zoobank.org:act:40D388B1-B955-48EA-860B-01C7D9A6EBD2

Figs 4C-D, G-H, 5-8

## Differential diagnosis

Males of this new species are similar to the males of Trilacuna angularis Tong \& Li, 2007 and T. rastrum Tong \& Li, 2007, but can be distinguished by the nine-teeth-rake like sclerite and the fork like sclerite of the embolus system (Fig. 6E-H). Males of T. angularis and T. rastrum both have a four-teeth-rake like sclerite but lack the fork like sclerite (Tong \& Li 2007: figs 5-10, 15-18). Females of this new species are similar to the females of Trilacuna rastrum Tong \& Li, 2007, but can be separated by the wormshaped structure of the endogyne, which is not present in T. rastrum (Tong \& Li 2007: fig. 6).

## Etymology

The specific name is derived from the Chinese pinyin, 'jiuchi', which means 'nine teeth', referring to the nine-teeth-rake like sclerite of the male embolus system.

## Material examined

## Holotype

CHINA • ${ }^{\top}$; Chongqing Municipality, Beibei District, Jinyun Mountain, Caijiagou; $29^{\circ} 50^{\prime} 19.368^{\prime \prime} \mathrm{N}$, $106^{\circ} 21^{\prime} 47.142^{\prime \prime}$ E; 15 Oct. 2014; Yanfeng Tong and Songyu Lv leg.; SYNU-300.

## Paratypes

 Mountain, Baiyunguan Temple; 20 Mar. 2010; Zongxu Li, Luyu Wang, Hupeng Wang and Kaiyi Xu leg.; SYNU-306 to 311•2 オ, 26 ¢ $\uparrow$; Jinyun Mountain; 7 Jun. 2011; Zhisheng Zhang, Zhong Li and Luyu Wang leg.; SWUC-T-OO-02-1 to $28 \cdot 2$ §, 15 q $\uparrow$; Jinyun Mountain; 10 Apr. 2010; Zongxu Li, Luyu Wang and Kaiyi Xu leg.; SYNU-340 to 356.

## Other material

CHINA • $2 \widehat{\top}, 1$ q; Jinyun Mountain, Caijiagou; 12 Dec. 2010; Zhisheng Zhang et al. leg.; SYNU357 to 359 • 3 우; Jinyun Mountain, Canal Protection Station; 4 Dec. 2010; Zhong Li and Zongxu Li leg.; SYNU-360 to $362 \cdot 1$ §, 1 q; Jinyun Mountain; 16 Oct. 2011; Zongxu Li, Zhong Li, Luyu Wang, Dong Wang and Mingxin Liu leg.; SYNU-363 to $364 \cdot 1$ q; Jinyun Mountain, Canal Protection Station; 11 May 2008; Zhisheng Zhang leg.; SYNU-365•1 ; Jinyun Mountain, Jinyun Village, bamboo forest; 28 Jun. 2009; Luyu Wang and Hupeng Wang leg.; SYNU-366 • 1 q; Jinyun Mountain, Caijiagou; 12 Dec. 2010; Zhisheng Zhang leg.; SYNU-367•1 q; Jinyun Mountain; 3 Nov. 2011; Luyu Wang and Mingxin Liu leg.; SYNU-368.

## Description

Male (holotype)
Body. Yellow; habitus as in Fig. 5A-C; body length 1.70.


Fig. 5. Trilacuna jiuchi Tong, Zhang \& Li sp. nov., holotype, $\begin{gathered} \\ \text { (SYNU-300). A-C. Habitus in dorsal, }\end{gathered}$ ventral, and lateral views. D-G. Prosoma in dorsal, ventral, lateral, and anterior views. Abbreviations: ehb = elevated hair base; ldi = labium deep incision; $\mathrm{sdb}=$ strongly curved distal branch. Scale bars: 0.4 mm .


Fig. 6. Trilacuna jiuchi Tong, Zhang \& Li sp. nov., left male palp, SEM, holotype, đ̋ (SYNU-300). $\mathbf{A}-\mathbf{B}, \mathbf{G}$. Prolateral, retrolateral, and dorsal views. $\mathbf{C}-\mathbf{D}$. Palpal bulb in prolateral and retrolateral views. $\mathbf{E}-\mathbf{F}, \mathbf{H}$. Distal part of palpal bulb in prolateral, retrolateral, and dorsal views. Abbreviations: $b p=b a s a l$ protrusion; fls $=$ fork like sclerite; $\mathrm{lb}=$ lateral branch; $\mathrm{mb}=$ median branch; rls $=$ nine-teeth-rake like sclerite.


Fig. 7. Trilacuna jiuchi Tong, Zhang \& Li sp. nov., paratype, q (SYNU-303). A-C. Habitus in dorsal, ventral, and lateral views. D-G. Prosoma in dorsal, ventral, lateral, and anterior views. Abbreviations: ehb $=$ elevated hair base; ldi = labium deep incision. Scale bars: 0.4 mm .

CARAPACE (Fig. 5D, F-G). 0.86 long, 0.73 wide; sides granulate; lateral margin rebordered.
Eyes (Fig. 5D, G). Well developed, arranged in a compact group; ALE largest, PLE smallest; ALEPLE separated by less than ALE radius, PME touching each other; posterior row recurved from above, procurved from front.

Clypeus (Fig. 5G). Nearly straight in frontal view, ALE separated from edge of carapace by about 1.3 times their diameter.

Mouthparts (Fig. 5E, G). Chelicerae straight; labium rectangular, anterior margin deeply incised; endites slender, distally strongly curved branched.

Sternum (Fig. 5E). With radial furrows between coxae I-II, II-III, III-IV; surface reticulated.
Abdomen (Fig. 5A-C). 0.91 long, 0.64 wide; booklung covers ovoid, surface smooth; apodemes present, posterior spiracles not connected; sperm pore oval, situated between anterior spiracles.

Leg spination (all spines longer than segment width). Legs I-II: tibia: v2-2-2-2-0, metatarsus: v2-2-0.
Palp (Figs 6, 4C-D). Orange; 0.64 long ( $0.18,0.15,0.17,0.14$ ); femur strongly elongated (width/ length $=0.81$ ); bulb oval shaped, tapering apically; embolus system (Fig. 6E-F, H) with a protrusion on


Fig. 8. The type locality of the two new species, Jinyun Mountain, Chongqing.
base (bp) and a fork like sclerite (fls) in prolateral view, a broad median branch (mb) and a nine-teethrake like sclerite (rls) in dorsal view, and a lateral long curved branch (lb) in retrolateral view.

Female (SYNU-303)
Same as male except as noted; slightly larger than male. Body: length 2.05; habitus as in Fig. 7AC. Carapace: 0.91 long, 0.72 wide. Endites: unmodified. Abdomen: 1.22 long, 0.82 wide. Epigaster (Figs 4G, 7B): sclerotized recurved arches (sar) between posterior spiracles (psp) visible. Endogyne (Fig. 4H): with broad, transverse sclerite (tsc), a very long, nearly worm-shaped structure (wss) and an anterior sclerite (as), stick-shaped; transverse bar (tba) with two lateral apodemes (ap).

## Distribution

China (Chongqing) (Fig. 8).

## Discussion

Trilacuna was originally diagnosed by the enlarged male palpal femora, the very complicated embolus system, the branched endites and the notched labium (Tong \& Li 2007). These characters were later recognized as shared by a more inclusive group: the "Dysderoides complex", that includes Bannana Tong \& Li, 2015, Dysderoides Fage, 1946, Himalayana Grismado, 2014, and Trilacuna (Grismado et al. 2014; Tong \& Li 2015). Males of Trilacuna differ from those of the other genera of the "Dysderoides complex" by usually lacking the furrow connecting the posterior tracheal spiracles, and females differ by having a long postepigastric scutum covering almost the whole ventral abdomen (Tong et al. 2020).

However, as already discussed by Grismado et al. (2014) and Malek-Hosseini et al. (2015), some species, i.e., T. aenobarba (Brignoli, 1978), T. bangla Grismado \& Ramírez, 2014, T. hazara Grismado \& Ramírez, 2014, T. jinyun sp. nov., T. qarzi Malek Hosseini \& Grismado, 2015 and T. simianshan Tong \& Li, 2018, have a shallow groove connecting the tracheal spiracles in males; T. diabolica Kranz-Baltensperger, 2011 and T. werni Eichenberger, 2011 have a well-developed furrow connecting the spiracles in males (Eichenberger \& Kranz-Baltensperger 2011), indicating a variability of this trait.

Also worth mentioning are T. jinyun sp. nov. and T. simianshan. Both species have two very long branches on the embolus system (Figs 2C-D, 4A-B; Tong et al. 2018: fig. 2c-d), which make them quite different from all other species of Trilacuna. However, the enlarged male palpal femora and somatic features like the deeply incised labium and the branched endites make the placement in the genus Trilacuna reasonable.

## Acknowledgements

The manuscript benefitted greatly from comments by Rudy CAM Jocque and two anonymous referees. This study was supported by the National Natural Science Foundation of China (31750002, 31972867) and the Program for Liaoning Innovation Talents in University to Yanfeng Tong, and the Key Natural Science Foundation of Chongqing (cstc2019jcyj-zdxmX0006) to Zhisheng Zhang.

## References

Eichenberger B. \& Kranz-Baltensperger Y. 2011. New Trilacuna species from Thailand, Malaysia and Sumatra (Araneae, Oonopidae). Zootaxa 2823: 1-31. https://doi.org/10.11646/zootaxa.2823.1.1
Grismado C.J., Deeleman-Reinhold C.L., Piacentini L.N., Izquierdo M.A., Ramírez M.J. 2014. Taxonomic review of the goblin spiders of the genus Dysderoides Fage and their Himalayan relatives of the genera Trilacuna Tong and Li and Himalayana, new genus (Araneae, Oonopidae). Bulletin of the American Museum of Natural History 387: 1-108. https://doi.org/10.1206/843.1

Huang Y., Zhang W., Tong Y. \& Li S. 2020. A new species of the genus Trilacuna (Araneae, Oonopidae) from Guizhou Province, China. Acta Arachnologica Sinica 29 (2): 94-98.
https://doi.org/10.11865/zs. 202011
Li S. 2020. Spider taxonomy for an advanced China. Zoological Systematics 45 (2): 73-77.
Liu S., Yu S. \& Tong Y. 2019. A new species of the genus Trilacuna (Araneae, Oonopidae) from Yunnan Province, China. Acta Arachnologica Sinica 28 (1): 47-51.
Malek-Hosseini M.J., Grismado C.J., Sadeghi S., Bakhshi Y. 2015. Description of the first cave dwelling species of the spider genus Trilacuna Tong \& Li from Iran (Araneae: Oonopidae). Zootaxa 3972: 549561. https://doi.org/10.11646/zootaxa.3972.4.6

Saaristo M.I. 2001. Dwarf hunting spiders or Oonopidae (Arachnida, Araneae) of the Seychelles. Insect Systematics \& Evolution 32 (3): 307-358. https://doi.org/10.1163/187631201X00236
Tong Y. 2013. Haplogynae Spiders from Hainan, China, 25-26. Science Press, Beijing.
Tong Y. \& Li S. 2007. One new genus and four new species of oonopid spiders from southwest China (Araneae: Oonopidae). Annales Zoologici, Warszawa 57: 331-340.

Tong Y. \& Li S. 2015. One new genus and two new species of oonopid spiders from Xishuangbanna Rainforest, southwestern China (Araneae, Oonopidae). ZooKeys 494: 1-12.
https://doi.org/10.3897/zookeys.494.9183
Tong Y., Chen H., Bai S., Zhang Z. \& Li S. 2019. Seven new species of the genus Trilacuna Tong \& Li, 2007 from Yunnan, China (Araneae, Oonopidae). ZooKeys 821: 11-44. https://doi.org/10.3897/zookeys.821.29599
Tong Y., Guan X. \& Li S. 2018. Two new species of the genus Trilacuna from Chongqing, China (Araneae, Oonopidae). ZooKeys 771: 1-56. https://doi.org/10.3897/zookeys.771.23158
Tong Y., Li S. \& Bian D. 2020. Taxonomic studies on the genus Trilacuna (Araneae, Oonopidae) from Myanmar. ZooKeys 960: 39-62. https://doi.org/10.3897/zookeys. 960.54053
WSC. 2020. World Spider Catalog, version 21.5. Natural History Museum Bern. World Spider Catalog. http://doi.org/10.24436/2 (accessed 3 Dec. 2020).

Manuscript received: 3 December 2020
Manuscript accepted: 9 February 2021
Published on: 29 April 2021
Topic editor: Rudy Jocqué
Desk editor: Marianne Salaün

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Zoologisch-Botanische Datenbank/Zoological-Botanical Database
Digitale Literatur/Digital Literature
Zeitschrift/Journal: European Journal of Taxonomy
Jahr/Year: 2021
Band/Volume: 0748
Autor(en)/Author(s): Huang Ying, Bian Dongju, Tong Yan-Feng, Zhang Zhi-Sheng, Li Shu-Qiang

Artikel/Article: Two new species of the genus Trilacuna (Araneae: Oonopidae) from Jinyun Mountain of Chongqing, China 1-14

