

**CRICKETS (ORTHOPTERA: GRYLLOIDEA) FROM HUNAN PROVINCE,
CHINA**

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Summary. A checklist of 43 species from 27 genera, 10 subfamilies and two families of crickets recorded from Hunan province of China is given based on the published data and the material deposited in the Shanghai Entomological Museum and the Museum of Hebei University. *Polionemobius flavoantennalis* (Shiraki, 1911) is recorded from Hunan province for the first time.

Key words: Ensifera, Gryllidae, Phalangopsidae, fauna, new record, Hunan, China.

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Резюме. Для провинции Хунань приводится аннотированный список 43 видов из 27 родов, 10 подсемейств и 2 семейств сверчковых, составленные на основе литературных данных и коллекций Шанхайского энтомологического музея и Музея Хэбейского университета. Впервые для провинции Хунань приводится *Polionemobius flavoantennalis* (Shiraki, 1911).

INTRODUCTION

Up to now, there are nearly 6000 species of the superfamily Grylloidea in the world (Cigliano *et al.*, 2018), and more than 300 species are known from China (He, 2018). Hunan province of China is a geographical region with extremely high biodiversity because of its characteristic climate and landscapes. As for Orthoptera, the checklists including 100 species of the family Tettigoniidae in total have been published a few years ago (Xiao & Huang, 2015; Xiao *et al.*, 2016). However, the crickets of Hunan province have been reported sporadically only (Woo *et al.*, 1992; Xia & Liu, 1993; Liu *et al.*, 1994; Yin & Liu, 1995; Liu & Shi, 2007; Liu *et al.*, 2016; He, 2018), and no complete list can be found in any single reference, though the highest number of species run up to 29 in two references (Yin & Liu, 1995; He, 2018). Here we prepare an annotated list of species of Grylloidea based on the published data and the materials collected in Hunan province and deposited in the Shanghai Entomological Museum (SEM) and the Museum of Hebei University (MHU).

LIST OF THE SPECIES

Family Gryllidae Laicharting, 1781

Subfamily Eneopterinae Saussure, 1874

Xenogryllus marmoratus (Haan, 1844)

DISTRIBUTION. China (Hunan, Anhui, Jiangsu, Shanghai, Zhejiang, Fujian, Taiwan, Hainan, Guangxi), Korea, Japan, India, Sri Lanka, Myanmar (Woo *et al.*, 1992; Shishodia *et al.*, 2010; Storozhenko *et al.*, 2015; He, 2018).

NOTES. This species was recorded from Hunan province only by Woo *et al.* (1992). For the distribution of the species in other regions of China, different authors provided a little different data. Woo *et al.* (1992) recorded its distribution in Hunan, Jiangsu, Zhejiang, Taiwan, Hainan and Guangxi. Yin & Liu (1995) expanded its distribution to Anhui, Shanghai and Fujian. However, He (2018) constricted its distribution to Anhui, Fujian, Guangxi, Jiangsu and Zhejiang at last. Therefore, further faunistic survey is necessary to clarify the actual distribution of this species in China. The subspecies *X. marmoratus unipartitus* (Karny, 1915) is known from Taiwan (Ichikawa *et al.*, 2000).

Subfamily Euscyrtinae Gorochoy, 1985

Beybienkoana formosana (Shiraki, 1930)

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 3–5.X 1986, 9 specimens, leg. Xianwei Liu (SEM); Suoxiyu, Cili County, 1–5.IX 1988, 10 specimens, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Zhejiang, Anhui, Fujian, Guangdong, Guangxi, Hainan, Yunnan, Taiwan) (He, 2018).

NOTE. This species was recorded from Hunan province as *Patiscus formosanus* by Yin & Liu (1995), but really it has been transferred to the genus *Beybienkoana* (Gorochoy, 1988).

Euscyrtus (Osus) hemelytrus (Haan, 1844)

MATERIAL EXAMINED. **Hunan province:** Yuanling County, 18.VIII 1957, 1 specimen, collector unknown (SEM); Zhangjiajie, 2.X 1986, 12.IX 1988, 3 specimens, Xianwei Liu leg. (SEM); Jishou City, 29.IX 1988, 1 specimen, Xianwei Liu leg. (SEM).

DISTRIBUTION. China (He, 2018), India, Sri Lanka, Vietnam, Indonesia, Malaysia (Cigliano *et al.*, 2018).

NOTE. This species has been recorded from Hunan by Xia & Liu (1993).

Patiscus malayanus Chopard, 1969

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili City, 1–3.IX 1988, 2 specimens, leg. Xianwei Liu (SEM); Zhangjiajie, 3.X 1986, 1 specimen, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Guangxi, Guizhou, Yunnan), Andaman Islands.

NOTE. This species was firstly recorded from Hunan by Xia & Liu (1993).

Subfamily Gryllinae Laicharting, 1781

Goniogryllus asperopunctatus Wu et Wang, 1992

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, Zhushitou forestry station, 14.VI 1988, 1 specimen, leg. Zuyao Liu (SEM).

DISTRIBUTION. China (Hunan, Zhejiang, Guangxi, Yunnan).

NOTE. This species was recorded from Hunan by Yin & Liu (1995).

***Goniogryllus punctatus* Chopard, 1936**

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 30.IX 1986, 2.X 1986, 4 specimens, leg. Xianwei Liu (SEM); Zhangjiajie, Zhushitou forestry station, 14.VI 1988, 1 specimen, leg. Zuyao Liu (SEM); Sangzhi County, Xishaping Twonship, Jiangxiping, 12.X 2014, 1 specimen, leg. Jianhua Huang (MHU).

DISTRIBUTION. Endemic to China (Hunan, Henan, Hubei, Zhejiang, Fujian, Guangxi, Sichuan, Guizhou, Yunnan).

NOTE. This species was firstly recorded from Hunan by Xia & Liu (1993).

***Grylloides sigillatus* (Walker, 1869)**

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili County, 4–6.IX 1988, 12 specimens, leg. Xianwei Liu (SEM); Cili County, Suoxiyu, 2.IX 1988, 1 specimen, leg. Xianwei Liu (SEM); Hengshan, 16.VII 1985, 1 specimen, leg. Yalin Zhang & Yonghui Cai (Northwest A & F University).

DISTRIBUTION. China (Hunan, Heilongjiang, Liaoning, Shannxi, Shandong, Jiangsu, Anhui, Jiangxi, Yunnan, Guizhou, Guangxi, Guangdong, Fujian, Hainan), Nepal, India, Sri Lanka, Thailand, Malaysia, Korea, Japan, Russian Far East, Australia, Africa, North and South America (Storozhenko *et al.*, 2015; He, 2018; Cigliano *et al.*, 2018).

NOTE. This species was firstly recorded from Hunan by Woo *et al.* (1992).

***Loxoblemmus appendicularis* Shiraki, 1930**

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie (previous Dayong City), Zhushitou Forestry Station, 12–14.VI 1988, 17 specimens, leg. Zuyao Liu (SEM).

DISTRIBUTION. Endemic to China (Hunan, Shannxi, Sichuan, Yunnan, Jiangxi, Fujian, Taiwan, Guangxi, Hainan).

NOTE. Yin & Liu (1995) recorded from Hunan province *Loxoblemmus angulatus* Bey-Bienko, 1956, but now it has been treated as a junior synonym of *L. appendicularis* (He, 2018).

***Loxoblemmus aomoriensis* Shiraki, 1930**

MATERIAL EXAMINED. **Hunan province:** Cili City, Suoxiyu, 1–3.IX 1988, 3 specimens, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Shannxi, Henan, Sichuan, Yunnan, Anhui, Zhejiang, Hubei, Fujian, Hainan), Japan.

NOTE. This species has been recorded from Hunan by Xia & Liu (1993).

***Loxoblemmus doenitzi* Stein, 1881**

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 30.IX 1986, 2 specimens, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (He, 2018), Japan, Korea (Storozhenko *et al.*, 2015).

NOTE. This species was firstly recorded from Hunan by Woo *et al.* (1992).

***Loxoblemmus equestris* Saussure, 1877**

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 30.IX – 3.X 1986, 2 specimens, leg. Xianwei Liu (SEM); the same locality, 12.IX 1988, 3 specimens, leg. Xianwei

Liu (SEM); Cili City, Suoxiyu, 30.VIII - 2.IX 1988, 7 specimens, leg. Xianwei Liu (SEM); Yongshun County, Xiaoxi, 27.VII 2015, 2 specimens, leg. Qiong Song (MHU); Sangzhi County, Wudaoshui, 13.X 2014, 2 specimens, leg. Jianhua Huang (MHU).

DISTRIBUTION. China (He, 2018), Japan, Korea, India, Sri Lanka, Myanmar, Malaysia, Indonesia, the Philippines.

NOTE. This species was firstly recorded from Hunan by Woo *et al.* (1992).

***Loxoblemmus intermedius* Chopard, 1929**

MATERIAL EXAMINED. **Hunan province:** Sangzhi City, Tianzishan Forestry Station, VI 1988, 1 specimen, leg. Guanghua Liu (SEM); Zhangjiajie, Zhushitou Forestry Station, 13.VI 1988, 2 specimens, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Jiangxi, Hainan, Yunnan), India, Vietnam, Indonesia (Cigliano *et al.*, 2018).

NOTE. This species has been recorded from Hunan by Yin & Liu (1995).

***Loxoblemmus jacobsoni* Chopard, 1927**

DISTRIBUTION. China (Hunan, Sichuan), Thailand, Malaysia, Indonesia (Cigliano *et al.*, 2018).

NOTE. This species has been recorded from Hunan by Xia & Liu (1993).

***Phonarellus (Phonarellus) minor* (Chopard, 1959)**

DISTRIBUTION. China (Hunan, Guangxi, Guizhou, Yunnan), Pakistan, India, Myanmar, Vietnam, Indonesia.

NOTE. This species was recorded from Hunan province by Woo *et al.* (1992).

***Tarbinskiellus portentosus* (Lichtenstein, 1796)**

DISTRIBUTION. China (Hunan, Zhejiang, Jiangxi, Sichuan, Taiwan, Fujian, Guangdong, Hainan, Guangxi, Yunnan), India, Pakistan, Malaysia, Singapore, Indonesia.

NOTE. This species has been recorded from Hunan by Woo *et al.* (1992).

***Teleogryllus (Brachyteleogryllus) emma* (Ohmachi et Matsuura, 1951)**

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, Hunan Province, 30.IX 1986, 5 specimens, leg. Xianwei Liu (SEM); Suoxiyu, Cili County, 30.VIII 1988, 1 specimen, leg. Xianwei Liu (SEM); Suoxiyu, Cili County, 1-4.IX 1988, 3 specimens, leg. Xianwei Liu (SEM); Xiaoxi, Yongshun County, 29 July 2015, 1♂, 4♀, leg. Qiong Song (MHU); Wudaoshui, Sangzhi County, 13.X 2014, 1♂, 4♀, leg. Jianhua Huang (MHU).

DISTRIBUTION. China (Hunan, Hebei, Shanxi, Shannxi, Shandong, Jiangsu, Anhui, Shanghai, Zhejiang, Hubei, Fujian, Guangdong, Guangxi, Sichuan, Guizhou, Yunnan, Hainan) (He, 2018), Korea, Japan (Storozhenko *et al.*, 2015).

NOTE. This species was firstly recorded from Hunan province by Woo *et al.* (1992).

***Teleogryllus (Brachyteleogryllus) occipitalis* (Serville, 1838)**

MATERIAL EXAMINED. **Hunan province:** Zhushitou Forestry Station, Zhangjiajie, 14.VI 1988, 1 specimen, leg. Zuyao Liu (SEM); Zhangjiajie, 30.IX 1986, 3 specimens, leg. Xianwei Liu (SEM); Zhangjiajie, 2.X 1986, 5 specimens, leg. Xianwei Liu (SEM); Zhangjiajie, 10.IX 1988, 1 specimen, leg. Xianwei Liu (SEM); Suoxiyu, Cili County, 7.X 1986, 2 specimens, leg. Xianwei Liu (SEM); Suoxiyu, Cili County, 1.IX 1988, 2 specimens, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Zhejiang, Hubei, Jiangxi, Sichuan, Guizhou, Yunnan, Xizang, Guangdong, Guangxi, Fujian, Hainan, Taiwan), Japan, the Philippines, Malaysia.

NOTE. This species was firstly recorded from Hunan by Yin & Liu (1995).

Teleogryllus (Macroteleogryllus) mitratus (Burmeister, 1838)

DISTRIBUTION. China (Hunan, Guangxi, Yunnan, Hainan, Fujian, Taiwan, Guangdong), India, Malaysia.

NOTES. Woo *et al.* (1992) recorded *Gryllus testaceus* Walker, 1869 and *Gryllus chinensis* (Weber, 1801) from Hunan province. *Gryllus testaceus* Walker, 1869 has been treated as a junior synonym of *Teleogryllus mitratus* by Townsend (1980), while the record of *Gryllus chinensis* from Hunan has been considered as misidentification of *T. mitratus* (Wang & Wu, 1992; Ma *et al.*, 2015).

Turanogryllus eous Bey-Bienko, 1956

DISTRIBUTION. China (Hunan, Shandong, Guangxi), Korea.

NOTES. This species was recorded from Hunan only by Woo *et al.* (1992). Although Yin & Liu (1996) recorded this species from Guangxi, He (2018) limited its distribution only in type locality (Shandong) without any explanation, while Storozhenko *et al.* (2015) recorded this species from North Korea.

Velarifictorus (Velarifictorus) aspersus (Walker, 1869)

DISTRIBUTION. China (Hunan, Beijing, Hebei, Shandong, Jiangsu, Anhui, Taiwan, Fujian, Hainan, Guizhou, Yunnan, Hongkong), Japan, Korea, Sri Lanka, India, Myanmar, Indonesia, the Philippines, Singapore.

NOTE. This species was firstly recorded from Hunan by Woo *et al.* (1992).

Velarifictorus (Velarifictorus) khasiensis Vasanth & Ghosh, 1975

DISTRIBUTION. China (Hunan, Henan, Zhejiang, Jiangxi, Fujian, Hainan, Guangxi, Guizhou, Yunnan), India.

NOTE. This species was recorded from Hunan province by Woo *et al.* (1992).

Velarifictorus (Velarifictorus) micado (Saussure, 1877)

DISTRIBUTION. China (Hunan, Hebei, Beijing, Shanxi, Shandong, Shanxi, Henan, Jiangsu, Shanghai, Zhejiang, Jiangxi, Hubei, Sichuan, Guizhou, Yunnan, Guangdong, Guangxi, Fujian), Russian Far East, Korean Peninsula, Japan, Vietnam, Indonesia.

NOTES. *Velarifictorus micado* was firstly recorded from Hunan by Xia & Liu (1993). *Gryllus latefasciatus* Chopard, 1933 was recorded from Hunan by Yin & Liu (1995), but this species is treated now as a junior synonym of *Velarifictorus micado* (He, 2018).

Velarifictorus (Velarifictorus) ornatus (Shiraki, 1911)

DISTRIBUTION. China (Hunan, Jiangsu, Shanghai, Zhejiang, Jiangxi, Sichuan, Guizhou, Yunnan, Shandong, Henan, Hubei, Fujian, Taiwan), Japan, Korea.

NOTE. This species has been recorded from Hunan by Yin & Liu (1995).

Velarifictorus (Velarifictorus) ryukyuensis Oshiro, 1990

DISTRIBUTION. China (Hunan, Fujian, Guangdong, Sichuan, Guizhou), Japan.

NOTES. Wang *et al.* (1999) recorded *Velarifictorus ryukyuensis* from Hunan province. He (2018) considered it identical with *V. micado*, but not formally synonymized these species. Therefore, nowadays *V. ryukyuensis* is considered as valid species (Cigliano *et al.*, 2018).

Subfamily Nemobiinae Saussure, 1877

Dianemobius fascipes (Walker, 1869)

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 30.IX 1986, 1 specimen, leg. Xianwei Liu (SEM); Suoxiyu, Cili County, 7.X 1986, 1 specimen, leg. Xianwei Liu (SEM); Xiaoxi, Yongshun County, 27.VII 2015, 2♂, 3♀, leg. Qiong Song (MHU); Jiangxiping, Xishaping Township, Sangzhi County, 12.X 2014, 2♂, 3♀, leg. Jianhua Huang (MHU).

DISTRIBUTION. China (Hunan, Gansu, Hebei, Henan, Shandong, Anhui, Shanghai, Zhejiang, Fujian, Jiangxi, Guangdong, Hainan, Hubei, Sichuan, Guangxi, Yunnan, Xizang, Guizhou, Shanxi, Taiwan), Japan, India, Sri Lanka, Southeast Asia, Myanmar, Singapore, Indonesia.

NOTE. This species was firstly recorded from Hunan by Liu *et al.* (2016).

Polionemobius flavoantennalis (Shiraki, 1911)

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 2.X 1986, 6 specimens, leg. Xianwei Liu (SEM); Zhangjiajie, 3.IX 1986, 1 specimen, leg. Xianwei Liu (SEM); Suoxiyu, Cili County, 7.X 1986, 2 specimens, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Shandong, Shanghai, Taiwan, Zhejiang, Fujian, Jiangxi, Sichuan), Japan, South Korea.

NOTES. Here this species is recorded from Hunan province for the first time.

Polionemobius taprobanensis (Walker, 1869)

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 2.X 1986, 1 specimen, leg. Xianwei Liu (SEM); Xiaoxi Yongshun County, 25.VII 2015, 6♂, 10♀, leg. Jiyuan Feng (MHU); Jiangxiping, Xishaping Township, Sangzhi County, 12.X 2014, 6♂, 10♀, leg. Jianhua Huang (MHU).

DISTRIBUTION. China (Hunan, Heilongjiang, Jilin, Liaoning, Hebei, Henan, Shanghai, Zhejiang, Jiangxi, Hainan, Hubei, Sichuan, Guangxi, Yunnan, Guizhou, Shanxi, Taiwan), Russian Far East, Korea, Japan, India, Bangladesh, Vietnam, Malaysia, Indonesia.

NOTE. This species has been recorded from Hunan by Liu *et al.* (2016).

Pteronemobius (Pteronemobius) nitidus (Bolivar, 1901)

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili County, 4.IX 1988, 1 specimen, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Beijing, Hebei, Jiangsu, Zhejiang, Fujian, Jiangxi, Shandong, Hubei, Guangdong, Guangxi, Sichuan, Yunnan, Ningxia), Russian Far East, Korea.

NOTE. This species has been recorded from Hunan province by Xia & Liu (1993).

Subfamily Oecanthinae Blandchard, 1845

Oecanthus longicauda Matsumura, 1904

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 5.X 1986, 12 specimens, leg. Xianwei Liu (SEM); the same locality, 3.X 1986, 3 specimens, leg. Xianwei Liu (SEM); the same locality, 10–12.IX 1988, 3 specimens, leg. Xianwei Liu (SEM); Suoxiyu, Cili County, 1–5.IX 1988, 5 specimens, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Heilongjiang, Jilin, Liaoning, Shaanxi, Henan, Jiangsu, Jiangxi, Hubei, Sichuan, Guizhou, Taiwan), Korea, Japan, Russian Far East.

NOTE. This species was firstly recorded from Hunan by Xia & Liu (1993).

***Oecanthus rufescens* Serville, 1838**

MATERIAL EXAMINED. **Hunan province:** Jieshou, Hunan Province, 29.IX 1988, 1 specimen, leg. Xianwei Liu (SEM); the same locality, 19.IX 1988, 5 specimens, leg. Xianwei Liu (SEM); Hengshan, 1.X 1937, 3 specimens, collector unknown (SEM).

DISTRIBUTION. China (Hunan, Sichuan, Guizhou, Jiangsu, Shanghai, Anhui, Fujian, Zhejiang, Guangdong, Hubei, Guangxi, Yunnan, Hainan), India, Malaysia, Indonesia, Fiji.

NOTE. Xia & Liu (1993) recorded *Oecanthus indicus* Saussure, 1878 from Hunan province. However, it was considered as a misidentification of *Oe. rufescens* (Liu *et al.*, 1994).

Subfamily Pentacentrinae Saussure, 1878

***Parapentacetrus formosanus* Shiraki, 1930**

DISTRIBUTION. China (Hunan, Jiangxi, Sichuan, Fujian, Guangxi, Taiwan).

NOTE. Woo *et al.* (1992) recorded *Parapentacetrus lineaticeps* (Chopard, 1969) from Hunan province, but this species has been treated as a junior synonym of *P. formosanus* (Ichikawa *et al.*, 2000; Kim & Pham, 2014).

Subfamily Podoscirtinae Saussure, 1878

***Aphonoides tessellatus* Chopard, 1969**

DISTRIBUTION. China (Hunan), Malaysia.

NOTE. This species was recorded from Hunan by Yin & Liu (1995).

***Mnesibulus (Mnesibulus) bicolor* (Haan, 1844)**

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili City, 5.IX 1988, 1 specimen, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Anhui, Jiangxi, Hainan, Yunnan, Guizhou), Malaysia, Indonesia.

NOTE. This species was firstly recorded from Hunan by Xia & Liu (1993).

***Truljalia hibinonis* (Matsumura, 1917)**

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili County, 1–4.IX 1988, 5 specimens, leg. Xianwei Liu (SEM); Zhangjiajie, January 1985, 1 specimen, leg. Mingcai Zhang (SEM); Hupingshan, Shimen County, 17.VIII 2004, 1♂, leg. Jianfeng Wang & Jiliang Wang (MHU).

DISTRIBUTION. China (Hunan, Shanghai, Jiangsu, Zhejiang, Fujian, Jiangxi, Guangxi, Sichuan, Yunnan), Japan, Korea, Vietnam.

NOTE. This species was firstly recorded from Hunan by Xia & Liu (1993). The subspecies *T. hibinonis amota* Gorochoy, 2002 is known from South China and Vietnam.

***Truljalia tylacantha* Wang et Woo, 1992**

MATERIAL EXAMINED. **Hunan province:** Zhangjiajie, 10.IX 1988, ♂ (holotype of *Truljalia sigmaparamera*), leg. Xianwei Liu (SEM); the same label, 3♂, 4♀ (paratypes of

Truljalia sigmaparamera), leg. Xianwei Liu (SEM); the same locality, 11.IX 1988, 3 specimens, leg. Xianwei Liu (SEM); Badagongshan, Sangzhi County, 10.VIII 2004, 1♂, leg. Jianfeng Wang & Jiliang Wang (MHU); Xiaoxi, Yongshun County, 26.VII 2015, 1♀, leg. Jiyuan Feng (MHU); the same locality, 26.VII 2015, 1♂, leg. Qiong Song (MHU).

DISTRIBUTION. China (Hunan, Zhejiang, Anhui, Fujian, Henan, Hubei, Guangxi, Sichuan, Guizhou).

NOTES. Xia & Liu (1993) described *Truljalia sigmaparamera* Xia et Liu as new species from Zhangjiajie, Hunan province. Later it has been treated as a junior synonym of *T. tylacantha* (Yin & Liu, 1995).

***Valiatrella pulchra* (Gorochov, 1985)**

MATERIAL EXAMINED. **Hunan province:** Mujiao, Tongdao County, 26.VII 2004, 1♂, leg. Jiliang Wang (MHU).

DISTRIBUTION. China (Hunan, Guangdong, Guangxi, Sichuan, Guizhou), Vietnam.

NOTE. This species was recorded from Hunan province by Liu & Shi (2007).

Subfamily Sclerogryllinae Gorochov, 1985

***Sclerogryllus punctatus* (Brunner von Wattenwyl, 1893)**

MATERIAL EXAMINED. **Hunan province:** Xiaoxi, Yongshun County, 26.VII 2015, 1♀, leg. Jiyuan Feng (MHU).

DISTRIBUTION. China (Hunan, Jiangsu, Anhui, Shanghai, Zhejiang, Taiwan, Hainan, Guangxi, Guizhou, Sichuan, Yunnan), Korea, Japan, India, Myanmar, Vietnam, Indonesia.

NOTE. This species was recorded from Hunan by Woo *et al.* (1992).

Subfamily Trigonidiinae Saussure, 1874

***Homoeoxipha nigripes* Xia et Liu, 1993**

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili County, 4.IX 1988, holotype ♂, leg. Xianwei Liu (SEM); Zhangjiajie, 12.X 1988, 2 ♀ (allotype and paratype), leg. Xianwei Liu (SEM); the same locality, 30.IX 1986, 1 specimen, leg. Xianwei Liu (SEM); the same locality, 2–3.X 1986, 3 specimens, leg. Xianwei Liu (SEM); Xiaoxi, Yongshun County, 25.VII 2015, 12♂, 16♀, leg. Junxia Di (MHU); the same locality, 29.VII 2015, 1♂, 2♀, leg. Jiyuan Feng (MHU); NanmuPing, Badagongshan, Sangzhi County, 14.X 2014, 12♂, 16♀, leg. Jianhua Huang (MHU); Jiangxiping, Xishaping Township, Sangzhi County, 12.X 2014, 1♂, 2♀, leg. Jianhua Huang (MHU); Jianfengling, Ledong County, 15.XI 2005, 2♂, 4♀, leg. Haoyu Liu (MHU).

DISTRIBUTION. China (Hunan, Zhejiang, Guangxi, Hainan, Sichuan, Guizhou, Yunnan), Japan.

NOTES. This species was described from Hunan, Zhejiang, and Guizhou. Yin & Liu (1995) expanded its distribution to Guangxi, Sichuan and Yunnan. Ichikawa *et al.* (2000) recorded it from Japan.

***Metioche (Metioche) haanii* (Saussure, 1878)**

DISTRIBUTION. China (Hunan, Shanghai, Zhejiang, Jiangxi, Hubei, Sichuan, Guizhou, Taiwan), Indonesia.

NOTE. This species has been recorded from Hunan as *Trigonidium (Metioche) haani* by Xia & Liu (1993).

Trigonidium (Trigonidium) cicindeloides Rambur, 1838

DISTRIBUTION. China (Hunan, Shanghai, Jiangsu, Fujian, Hubei, Guangdong, Guangxi, Sichuan, Guizhou, Yunnan, Hainan, Taiwan), India, Sri Lanka, Vietnam, Southern Europe, Africa, Madagascar.

NOTE. This species was firstly recorded from Hunan by Yin & Liu (1995).

Svistella bifasciata (Shiraki, 1911)

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili County, 1–4. IX 1988, 4 specimens, leg. Xianwei Liu (SEM); Zhangjiajie, 3.X 1986, 1 specimen, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Shanghai, Jiangsu, Zhejiang, Anhui, Jiangxi, Hainan, Sichuan, Taiwan), Japan, Korea, Vietnam.

NOTE. This species has been recorded from Hunan province as *Paratrigonidium bifasciatum* by Xia & Liu (1993).

Svistella rufonotata (Chopard, 1932)

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili County, 3.IX 1988, 2♂, 1 ♀, specimens, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Guizhou, Yunnan), Indonesia, India.

NOTES. This species has been recorded from Hunan as *Anaxipha rufonotata* by Xia & Liu (1993).

Family Phalangopsidae Blanchard, 1845

Subfamily Cachoplistinae Saussure, 1877

Meloimorpha japonica (Haan, 1844)

MATERIAL EXAMINED. **Hunan province:** Suoxiyu, Cili County, 3.IX 1988, 1♂, leg. Xianwei Liu (SEM).

DISTRIBUTION. China (Hunan, Hebei, Shandong, Jiangsu, Shanghai, Zhejiang, Hubei, Yunnan, Guangxi, Fujian, Taiwan, Hainan), India, Korea, Japan.

NOTES. This species has been recorded from Cili County in Hunan province as *Homoeogryllus japonicus* by Xia & Liu (1993). Later it has been transferred to the genus *Meloimorpha* (Ichikawa *et al.*, 2000).

Table 1. Composition of Grylloidea in Hunan Province, China.

Taxa	Number of genera	Number of species	Taxa	Number of genera	Number of species
Gryllidae	26	42	Podoscirtinae	4	5
Eneopterinae	1	1	Sclerogryllinae	1	1
Euscyrtinae	3	3	Trigonidiinae	4	5
Gryllinae	8	20	Phalangopsidae	1	1
Nemobiinae	3	4	Cachoplistinae	1	1
Oecanthinae	1	2			
Pentacentrinae	1	1	Total	27	43

CONCLUSION

The 43 species of Grylloidea recorded from Hunan Province at the present paper belong to 2 families 10 subfamilies and 27 genera (Table 1). The most diverse subfamily is Gryllinae with 8 genera and 20 species. The most diverse genus in Gryllinae is *Loxoblemmus* with 6 species, and then followed by *Velarifictorus*, *Teleogryllus* and *Goniogryllus* which have 5 species, 3 species and 2 species respectively, but all of the 5 remaining genera have only a single species each. Furthermore, most genera in other subfamilies have also only a single species except the genus *Polionemobius* in Nemobiinae, *Oecanthus* in Oecanthinae, *Truljalia* in Podoscirtinae, and *Svistella* in Trigonidiinae with 2 species each.

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REFERENCES

- Chopard, L. 1932. Dr. E. Mjöberg's zoological collections from Sumatra. 12. Gryllidae. *Arkiv för Zoologi*, 23A(9): 1–17.
- Cigliano, M.M., Braun, H., Eades, D.C., & Otte, D. 2018. *Orthoptera Species File Online. Version 5.0/5.0*. Available from: <http://Orthoptera.SpeciesFile.org>. (Accessed: 10 June 2018)
- Gorochoy, A.V. 1988. New and little known tropical Grylloidea (Orthoptera). *Proceedings of the Zoological Institute, Russian Academy of Sciences*, 178: 3–31. [In Russian]
- Gorochoy, A.V. 2003. Taxonomy of Podoscirtinae (Orthoptera: Gryllidae). Part 2: Indo-Malayan and Australo-Oceanian Podoscirtini. *Zoosystematica Rossica*, 11(2): 267–303.
- He, Z.Q. 2018. A checklist of Chinese crickets (Orthoptera: Gryllidae). *Zootaxa*, 4369(4): 515–535. DOI: <https://doi.org/10.11646/zootaxa.4369.4.4>
- Ichikawa, A., Murai, T. & Honda E. 2000. Monograph of Japanese crickets (Orthoptera: Grylloidea). *Bulletin of the Hoshizaki Green Foundation*, 4: 257–332.
- Kim, T.W. & Pham, H.T. 2014. Checklist of Vietnamese Orthoptera (Saltatoria). *Zootaxa*, 3811(1): 053–082.
- Liu, H.Y., Li, L.M. & Shi, F.M. 2016. Checklist of Nemobiinae from China (Orthoptera: Trigonidiidae). *International Journal of Fauna and Biological Studies*, 3(4): 103–108.
- Liu, H.Y. & Shi, F.M. 2007. A taxonomic review on the genus *Valiatrella* Gorochoy (Orthoptera: Gryllidae: Podoscirtinae) with descriptions of two new species. *Acta Entomologica Sinica*, 50: 281–285.
- Liu, X.W., Yin, H.S. & Hsia, K.L. 1994. Taxonomy on the genus *Oecanthus* (Orthoptera: Oecanthidae) from China. *Entomotaxonomia*, 16(3): 165–169.
- Ma, L.B., He, Z.Q. & Zhang, Y.L. 2015. Taxonomy of Chinese black field crickets *Teleogryllus* Chopard (Gryllidae, Gryllinae) with new distribution record of the exotic species *Teleogryllus commodus* (Walker). *Journal of Shaanxi Normal University (Natural Science Edition)*, 43(3): 57–63.
- Ma, L.B. & Zhang, Y.L. 2013. Taxonomic study of the cricket genus *Valiatrella* Gorochoy (Gryllidae, Podoscirtinae) from China. *Zootaxa*, 3669(4), 522–530.

- Shishodia, M.S., Chandra, K. & Gupta S.K. 2010. An annotated checklist of Orthoptera (Insecta) from India. *Records of the Zoological Survey of India, Occasional Paper*, 314: 1–366.
- Storozhenko, S.Yu., Kim, T.W. & Jeon, M.J. 2015. *Monograph of Korean Orthoptera*. National Institute of Biological Resources, Incheon. 377 pp.
- Townsend, B.C. 1980. A taxonomic study of two similar species of *Teleogryllus* (Orthoptera: Gryllidae). *Journal of Natural History*, 14: 153–162.
- Wang, Y. & Wu F.Z. 1992. Identification of Chinese species of the genus *Teleogryllus* with report of a new Chinese record species. *Plant Protection*, 4: 37–39.
- Wang, Y., Zheng, Y.F. & Woo, F.Z. 1999. Orthoptera: Grylloidea: Gryllidae. P. 107–119. In: Huang, B.K. (Ed.). *Fauna of Insects, Fujian Province of China. Volume I*. Fujian Science and Technology press, Fuzhou.
- Woo, F.C., Wang, Y. & Jiang, S.J. 1992. Orthoptera: Gryllidae. P. 71–75. In: Peng, J.W. & Liu, Y.Q. (Eds). *Iconography of forest insects in Hunan, China*. Hunan Science and Technology Press, Changsha.
- Wu, F.Z. & Wang, Y. 1992. Six new Species of the Genus *Goniogryllus* (Orthoptera: Gryllidae). *Zoological Research*, 13(3): 227–233.
- Xia, K.L. & Liu, X.W. 1993[1992]. Orthoptera: Tettigonioidae and Grylloidea. P. 87–113. In: Huang, F.S. (Ed.). *Insects of Wuling Mountains Area, southwest China*. Science Press, Beijing.
- Xiao, W. & Huang, J.H. 2015. Tettigoniidae (Orthoptera: Tettigonioidae) from Hunan Province, China. Part I. Subfamilies Mecopodinae, Phaneropterinae, Pseudophyllinae, Tettigoniinae and Lipotactinae. *Far Eastern Entomologist*, 298: 11–16.
- Xiao, W., Mao, S.L., Wang, J.F. & Huang, J.H. 2016. Tettigoniidae (Orthoptera: Tettigonioidae) from Hunan Province, China. Part 2. Subfamilies Conocephalinae, Hexacentrinae and Meconematinae. *Far Eastern Entomologist*, 305: 13–24.
- Yin, H.S. & Liu, X.W. 1995. *Synopsis on the classification of Grylloidea and Gryllotalpoidae from China*. Shanghai Scientific and Technological Literature, Shanghai. 237 pp.