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Wei Xiao^{1, 2)}, Jianhua Huang^{1, 2 *)}. TETTIGONIIDAE (ORTHOPTERA: TETTIGONIOIDEA) FROM HUNAN PROVINCE, CHINA. PART I. SUBFAMILIES MECOPODINAE, PHANEROPTERINAE, PSEUDOPHYLLINAE TETTIGONIINAE AND LIPOTACTINAE. – *Far Eastern Entomologist*. 2015. N 298: 11-16.

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Summary. A checklist of 52 species in five subfamilies of Tettigoniidae recorded from Hunan Province of China is given.

Key words: Orthoptera, Tettigoniidae, fauna, Hunan province, China.

В. Цяо, Я. Хуанг. Tettigoniidae (Orthoptera: Tettigonioidae) провинции Хунань, Китай. Часть 1. Подсемейства Mecopodinae, Phaneropterinae, Pseudophyllinae Tettigoniinae и Lipotactinae // Дальневосточный энтомолог. 2015. N 298. С. 11-16.

Резюме. Приведен аннотированный список 52 видов пяти подсемейств кузнечиковых, отмеченных из китайской провинции Хунань.

Hunan is located at the central part of South China, covering an area of about 210000 square kilometers between 24°39'–30°38' N and 108°47'–114°15', and having a common boundary with Jiangxi, Hubei, Chongqing, Guizhou, Guangxi, Guangdong respectively in the east, north, west and south. It is in the region of the continental subtropical monsoon moist climate and mostly composed of broad mountainous region harboring extremely high biodiversity. However, it is the only special survey of the insects of Hunan that was conducted more than twenty years ago (Peng & Liu, 1992), and 33 species of Tettigoniidae were recorded at that time (Kang, 1992). The additional data on the Tettigoniidae were published in the regional survey of insect fauna (Xia & Liu, 1993) or in taxonomic papers (Kang & Yang, 1992; Liu & Jin, 1999; Gorochov & Kang, 2002; Gorochov & Kang, 2004; Du & Shi, 2005; Liu & Kang, 2007; Shi & Li, 2009; Wang *et al.*, 2012; Liu, 2013). Here we summarized all published data on the family Tettigoniidae (excluding subfamilies Conocephalinae and Meconematinae) from Hunan Province in tabular checklist.

A CHECKLIST OF TETTIGONIIDAE (EXCLUDING CONOCEPHALINAE AND MECONEMATINAE) RECORDED FROM HUNAN PROVINCE

No.	Taxa	Records from Hunan	Distribution
	Subfamily Mecopodinae		
1.	<i>Mecopoda elongata</i> (Linnaeus, 1758)	Kang, 1992; Xia & Liu, 1993.	South China, Southeast Asia.
2.	<i>Mecopoda nipponensis</i> (De Haan, 1842)	Kang, 1992.	Central and South China, Korea, Japan.

No.	Taxa	Records from Hunan	Distribution
	Subfamily Phaneropterinae		
3.	¹⁾ <i>Abaxisotima multipunctata</i> (Kang et Yang, 1989)	Kang, 1992.	China (Hunan, Guizhou).
4.	<i>Deflorita apicalis</i> (Shiraki, 1930)	Kang <i>et al</i> , 2014	Central and East China, Taiwan.
5.	<i>Deflorita deflorita</i> (Brunner von Wattenwyl, 1878)	Xia & Liu, 1993.	East, South and Southwest China, Sri Lanka.
6.	<i>Ducetia japonica</i> (Thunberg, 1815)	Kang, 1992; Xia & Liu, 1993.	China, Korea, Japan, Cambodia, Thailand, Nepal, Singapore, Indonesia, Malaysia Philippines, Australia.
7.	<i>Elimaea (Elimaea) berezovskii</i> Bey-Bienko, 1951	Kang <i>et al</i> , 2014.	Central and South China.
8.	<i>Elimaea (Elimaea) chloris</i> (Haan, 1842)	Xia & Liu, 1993.	South and Southwest China.
9.	<i>Elimaea (Elimaea) nautica</i> Ingrisch, 1998	Kang <i>et al</i> , 2014.	China (Hunan), Thailand, Vietnam, Cambodia.
10.	<i>Elimaea (Elimaea) punctifera</i> (Walker, 1869)	Xia & Liu, 1993.	China, Vietnam, Thailand, India, Bangladesh, Pakistan.
11.	<i>Elimaea (Elimaea) terminalis</i> Liu, 1993	Kang <i>et al</i> , 2014.	East, Central and South China.
12.	<i>Elimaea (Rhaebelimaema) cheni</i> Kang et Yang, 1992	Kang & Yang, 1992; Kang, 1992; Xia & Liu, 1993.	Central and Southwest China.
13.	<i>Elimaea (Rhaebelimaema) hunanensis</i> Kang et Yang, 1992	Kang & Yang, 1992; Kang, 1992.	China (Hunan).
14.	<i>Elimaea (Rhaebelimaema) parva</i> Liu, 1993	Liu & Jin, 1999.	East and Central China.
15.	<i>Hemielimaema chinensis</i> Brunner von Wattenwyl, 1878	Kang, 1992; Xia & Liu, 1993.	China
16.	<i>Holochlora japonica</i> Brunner von Wattenwyl, 1878	Kang, 1992; Xia & Liu, 1993.	China, Korea, Japan, Ryukyu, Vietnam, America.
17.	<i>Isopsera denticulata</i> Ebner, 1939	Kang, 1992; Xia & Liu, 1993.	China, Japan.
18.	<i>Isopsera nigroantennata</i> Hsia et Liu, 1993	Xia & Liu, 1993.	East, South and Central China
19.	<i>Isopsera sulcata</i> Bey-Bienko, 1955	Xia & Liu, 1993.	East, Central, South and Southwest China

No.	Taxa	Records from Hunan	Distribution
20.	²⁾ <i>Kuwayamaea chinensis</i> (Brunner von Wattenwyl, 1878)	Kang, 1992; Xia & Liu, 1993.	East and Central China.
21.	<i>Kuwayamaea hunani</i> Gorochov et Kang, 2002	Gorochov & Kang, 2002.	China (Hunan).
22.	<i>Kuwayamaea inflata</i> Gorochov et Kang, 2002	Gorochov & Kang, 2002.	China (Hunan).
23.	³⁾ <i>Letana rubescens</i> (Stål, 1861)	Xia & Liu, 1993.	Central, South and Southwest China.
24.	<i>Mirollia bispinosa</i> Gorochov et Kang, 2004	Gorochov & Kang, 2004.	Central and South China
25.	<i>Mirollia formosana</i> Shiraki, 1930	Xia & Liu, 1993.	China (Hunan, Taiwan).
26.	<i>Mirollia liui</i> Bey-Bienko, 1957	Kang, 1992.	China (Hunan, Yunnan).
27.	<i>Parapsyra nigrovittata</i> Hsia et Liu, 1993	Xia & Liu, 1993.	East, South, Central and Southwest China.
28.	<i>Phaneroptera (Phaneroptera) falcata</i> (Poda, 1761)	Kang, 1992.	China, Palaearctic Region.
29.	<i>Phaneroptera (Phaneroptera) gracilis</i> Burmeister, 1838	Xia & Liu, 1993.	China, Oriental Region, Palaearctic Region, Africa.
30.	<i>Phaneroptera (Phaneroptera) nigroantennata</i> Brunner von Wattenwyl, 1878	Xia & Liu, 1993.	China, Taiwan, Japan, Korea.
31.	⁴⁾ <i>Prohimerta (Anisotima) dispar</i> (Bey-Bienko, 1951)	Xia & Liu, 1993.	Central and Southwest China.
32.	<i>Prohimerta (Anisotima) yunnanea</i> (Bey-Bienko, 1962)	Liu & Jin, 1999.	Central and Southwest China.
33.	⁵⁾ <i>Ruidocollaris convexipennis</i> (Caudell, 1935)	Kang, 1992; Xia & Liu, 1993.	East, Central, South and Southwest China.
34.	⁶⁾ <i>Ruidocollaris sinensis</i> Liu et Kang, 2014	Kang <i>et al.</i> , 2014.	East, Central, South and Southwest China.
35.	<i>Sinochlora longifissa</i> (Matsumura et Shiraki, 1908)	Kang, 1992; Xia & Liu, 1993.	Central, South and Southwest China, Korea, Japan.
36.	<i>Sinochlora mesominora</i> Liu et Kang, 2007	Liu & Kang, 2007	China (Hunan).
37.	<i>Sinochlora sinensis</i> Tinkham, 1945	Xia & Liu, 1993.	East, Central, South and Southwest China.
38.	<i>Sinochlora szechwanensis</i> Thinkham, 1945	Xia & Liu, 1993.	East, Central, South and Southwest China.

No.	Taxa	Records from Hunan	Distribution
39.	<i>Sinochlora trispinosa</i> Shi et Chang, 2004	Shi & Chang, 2004.	East, Central, South and Southwest China.
Subfamily Pseudophyllinae			
40.	<i>Phyllomimus klapperichi</i> Beier, 1954	Liu & Jin, 1999.	East, Central, South and Southwest China.
41.	⁷⁾ <i>Phyllomimus (Phyllomimus) sinicus</i> Beier, 1954	Kang, 1992.	East, Central, South and Southwest China.
42.	<i>Tegra novaehollandiae viridiotata</i> (Stål, 1874)	Kang, 1992; Xia & Liu, 1993.	East, Central, South and Southwest China, Vietnam, Burma, Thailand, India.
Subfamily Tettigoniinae			
43.	<i>Atlanticus (Atlanticus) hunanensis</i> Du et Shi, 2005	Du & Shi, 2005.	China (Hunan).
44.	<i>Atlanticus (Atlanticus) kulingensis</i> Tinkham, 1941	Xia & Liu, 1993.	China (Hunan, Jiangxi).
45.	<i>Atlanticus (Sinpacificus) ahunanensis</i> Liu, 2013	Liu, 2013.	China (Hunan).
46.	<i>Atlanticus (Sinpacificus) changi</i> Tinkham, 1941	Kang, 1992.	China (Hunan, Jiangxi).
47.	<i>Atlanticus (Sinpacificus) pieli</i> Tinkham, 1941	Kang, 1992.	East and Central China.
48.	<i>Gampsocleis sinensis</i> (Walker, 1869)	Kang, 1992; Xia & Liu, 1993.	East and Central China.
49.	⁸⁾ <i>Tettigonia viridissima</i> (Linnaeus, 1758)	Kang, 1992.	North China, Palaearctic Region.
50.	<i>Tettigonia chinensis</i> Willemse, 1933	Kang, 1992; Xia & Liu, 1993.	East, Central, South and Southeast China.
Subfamily Lipotactinae			
51.	⁹⁾ <i>Lipotactes sinicus</i> (Bey-Bienko, 1959)	Xia & Liu, 1993.	Central and South China.
52.	<i>Lipotactes tripyrga</i> Chang, Shi et Ran, 2005	Shi & Li, 2009.	China (Hunan, Guizhou, Chongqing).

NOTES. 1) This species was recorded from Hunan as *Ducetia multipunctata* (Kang, 1992), but now transferred to the genus *Abaxisotima* (Gorochoy, 2005); 2) this species was recorded from Hunan as *Ducetia chinensis* (Kang, 1992), but really belongs to the genus *Kuwayamaea* (Bey-Bienko, 1955); 3) *Letana melanotis* Bey-Bienko, 1956 recorded from Hunan (Kang, 1992) is the junior synonym of *Letana rubescens* (Stål, 1861) (Ingrisch, 1990); 4) *Anisotima dispar* is recently transferred to the genus *Prohimerta* (Kang et al, 2014); 5) *Liotrachelia convexipennis* recorded from Hunan (Kang, 1992) is transferred to the genus *Ruidocollaris* (Liu, 1993); 6) the records of *Sympaestria truncatolobata* (Brunner von Wattenwyl, 1878) (Kang, 1992) and *Ruidocollaris truncatolobata* (Liu, 1993; Liu & Kang, 2010) from Hunan are a result of misidentification and belongs to *Ruidocollaris sinensis* (Kang et al, 2014); 7) this species was recorded from Hunan as *Togona unicolor* Matsumura et Shiraki, 1908 (Kang, 1992), but this name is a secondary homonym of *Togona unicolor* Brunner von Wattenwyl, 1895 and replaced by *Phyllomimus sinicus* Beier, 1954; 8) the record

of *Tettigonia viridissima* from Hunan probably is result of missidentification and belongs to *T. chinensis*; 9) this species was recorded from Hunan as *Mortoniellus sinicus* (Xia & Liu, 1993) and later was transferred to the genus *Lipotactes* (Jin & Xia, 1994), but distribution of this species in Hunan and Fujian provinces is questionable and needs in confirmation (Shi & Li, 2009).

DISCUSSION

Thus, up to now 52 species in 22 genera of the subfamilies Mecopodinae, Phaneropterinae, Pseudophyllinae Tettigoniinae и Lipotactinae are recorded from Hunan province of China. The most diverse subfamilies are Phaneropterinae (37 species in 15 genera) and Tettigoniinae (8 species in 8 genera), while other subfamilies are represented each by 3–2 species in 1–2 genera.

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REFERENCES

- Beier, M. 1954. Revision der Pseudophyllinen 1. Hälfte. *Trabajos del Instituto Español de Entomología*, 1–479.
- Bey-Bienko, G.Y. 1955. Investigations on the fauna and systematics of the superfamily Tettigoniioidea (Orthoptera) from China. *Zoologicheskii Zhurnal*, 34(6): 1250–1271. [In Russian].
- Du, Z.G. & Shi, F.M. 2005. A new species of the genus *Atlanticus* Scudder from China (Orthoptera, Tettigoniidae). *Acta Zootaxonomica Sinica*, 30(3): 564–566.
- Gorochoy, A.V. 2005. A new genus of the tribe Ducetiini (Orthoptera: Tettigoniidae: Phaneropterinae). *Zoosystematica Rossica*, 13(2): 242.
- Gorochoy, A.V. & Kang, L. 2002. Review of the Chinese species of Ducetiini (Orthoptera: Tettigoniidae: Phaneropterinae). *Insect Systematics and Evolution*, 33(3): 337–360.
- Gorochoy A.V. & Kang, L. 2004. New species of the genus *Stictophaula* Stål and *Mirollia* Hebard (Orthoptera: Tettigoniidae: Phaneropterinae) from China. *Entomological News*, 115(5): 263–272.
- Ingrisch, S. 1990. Revision of the genus *Letana* Walker (Grylloptera: Tettigoniioidea: Phaneropteridae). *Entomologica Scandinavica*, 21(3): 241–276.
- Jin, X.B. & Xia, K.L. 1994. An index-catalogue of Chinese Tettigoniioidea (Orthoptera: Grylloptera). *Journal of Orthoptera Research*, 3: 15–41.
- Kang, L. 1992. Family Tettigoniidae. P. 77–86. In: Peng, J.W. & Liu, Y.Q. *Iconography of forest insects in Hunan, China*. Hunan Science and Technology Press, Changsha.
- Kang, L., Liu, C.X. & Liu, X.W. 2014. Fauna Sinica. Insecta 57. Orthoptera Tettigoniidae Phaneropterinae. Science Press, Beijing. 605 p.
- Kang, L. & Yang, C.K. 1992. Five new species of the genus *Elimaea* Stål from China (Orthoptera: Tettigoniidae: Phaneropterinae). *Acta Zootaxonomica Sinica*, 17(3): 325–332.
- Liu, C.X. 2013. Review of *Atlanticus* Scudder, 1894 (Orthoptera: Tettigoniidae: Tettigoniinae) from China, with description of 27 new species. *Zootaxa*, 3647(1): 1–42. DOI: 10.11646/zootaxa.3647.1.1

- Liu, C.X. & Kang, L. 2007. Revision of the genus *Sinochlora* Tinkham (Orthoptera: Tettigoniidae, Phaneropterinae). *Journal of Natural History*, 41(21), 1313–1341.
- Liu, C.X. & Kang, L. 2010. A review of the genus *Ruidocollaris* Liu (Orthoptera: Tettigoniidae), with description of six new species from China. *Zootaxa*, 2664: 36–60.
- Liu, X.W. 1993. Orthoptera: Tettigonioidae, Stenopelmatoidea. P. 41–55. In: Huang, C.M. [Ed.] *Animals of Longqi Mountain*. China Forestry Publishing House, Beijing.
- Liu, X.W. & Jin, X.B. 1999. Tettigonioidae. P. 119–174. In: Huang, B.K. [Ed.] *Fauna of insects, Fujian Province of China. Volume 1*. Fujian Science & Technology Publishing House, Fuzhou.
- Peng, J.W. & Liu, Y.Q. 1992. *Iconography of forest insects in Hunan, China*. Hunan Science and Technology Press, Changsha. 1473 p.
- Shi, F.M. & Li, R.L. 2009. A review of the genus *Lipotactes* Brunner v. W., 1898 (Orthoptera, Tettigoniidae, Lipotactinae) from China. *Zootaxa*, 2152: 36–42.
- Wang, G., Lu, R.S. & Shi, F.M. 2012. Remarks on the genus *Sinochlora* Tinkham (Orthoptera: Tettigoniidae, Phaneropterinae). *Zootaxa* 3526: 1–16.
- 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.