

荨麻科楼梯草属七种植物果实的补充描述

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摘要: 楼梯草属植物的果实形态特征是属下系的划分和种类鉴定的重要依据之一, 对于研究该属演化关系具有重要意义。通过标本查阅及野外调查, 为该属七种植物的果实进行了补充描述, 对该属的进一步分类修订提供有价值的信息。

关键词: 荨麻科; 楼梯草属; 果实; 补充描述

中图分类号: Q949 文献标识码: A 文章编号: 1000-3142(2012)05-0603-04

Supplementary description of achenes of seven species in *Elatostema* (Urticaceae)

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Abstract: The achene of *Elatostema* is one of the important morphological characters for delimiting infra-generic series and species, while it is significant for understanding the evolutionary relationship in *Elatostema*. In this paper, based on careful examinations of achenes from several voucher specimens including type, consulting literature and field observations, the descriptions of achenes of seven Chinese species in this genus are presented, this would provide some valuable information for further taxonomic revision of *Elatostema*.

Key words: Urticaceae; *Elatostema*; achenes; supplementary description

The genus *Elatostema* J. R. Forst. & G. Forst. belongs to Urticaceae, with about 500 species distributed in tropical and subtropical regions of Africa, Asia and Oceania; approximately 234 species, in which probably 205 endemic species, occur in China, particularly in south of the Qinling Mountain (Wang, 1995, 2012). Recently, several new taxa of this genus have been described (e. g. Wang, 2010a, b, 2011; Wang & Wei, 2007; Wei & Wang, 2009; Wu *et al.*, 2011a, b). Taxonomically, the morphology of achenes in *Elatostema* is

used as one of the important characters for delimiting series, and also is helpful in the study of evolutionary trends in infra-generic taxa of *Elatostema*. So far, seven types of achene have been recognized as: (1) ribbed, (2) ribbed and tuberculate, (3) tuberculate, (4) tuberculate and reticulate-striate, (5) punctulate, (6) smooth, and (7) smooth and winged, and (8) lineolate (Wang, 2012).

In this paper, supplementary description of achenes of seven species are herein given and illustrated.

* 收稿日期: 2012-03-28 修回日期: 2012-06-17

基金项目: 国家自然科学基金 (40830209) [Supported by the National Natural Science Foundation of China (40830209)]

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Description was based on several voucher specimens deposited in Chinese National Herbarium Institute of Botany, CAS(PE).

1 *E. asterocephalum* W. T. Wang in Bull. Bot. Lab. N. E. Forest. Inst. , 7: 40. 1980; et in Fl. Reip. Pop. Sin. 23: 238. 1995; Q. Lin *et al.* in Fl. China 5: 141. 2003.

Ad desc. orig. add. , acheniis adhuc ignotis: *Achenia brunneola*, ellipsoidea, 0.8 mm × 0.2 mm, longitudinaliter 6-costata.

Achenes brownish, ellipsoid, 0.8 mm × 0.2 mm, longitudinally 6-ribbed.

Voucher specimen:

Guangxi: Jingxi county, Ande, 23 Mar. 2009, Yi-Gang Wei 9072 (PE); Longzhou county, Jinlong village, Banbi, 30 Mar. 2006, Yi-Gang Wei 0627 (PE); Lucheng county, 7 Mar. 2009, Yi-Gang Wei & AM 6522 (PE); Daxin county, Quanming village, 18 Mar. 2009, Yi-Gang Wei 9022 (PE); Daxin county, Datun village, 18 Mar. 2009, Yi-Gang Wei 22 (PE).

Yunnan: Maguan county, Gulinqing village, 103° 57'59" E 22° 48'44" N, 7 Oct. 2002, Yu-Min Shui, Wen-Hong Chen, Jia-Shu Sheng 30799 (PE).

2 *E. attenuatum* W. T. Wang in Bull. Bot. Lab. N. E. Forest. Inst. , 7: 44. 1980; et in Fl.

Reip. Pop. Sin. 23: 242. 1995; Q. Lin *et al.* in Fl. China 5: 143. 2003.

Ad desc. orig. add. , acheniis adhuc ignotis: *Achenia brunneola*, ellipsoidea-ovoidea, 0.5 mm × 0.1 mm, longitudinaliter 5-costata, inter utrumque par costarum sparse inconspicue minuteque tuberculato-punctulata.

Achenes brownish, ellipsoid-ovoid, 0.5 mm × 0.1 mm, longitudinally 5-ribbed, and between each pair of ribs sparsely tuberculate-punctulate.

Voucher specimen:

Yunnan: Maguan county, Magebaisha river, in forest along river, alt. 300 m, 16 Jun. 2003, Yu-Min Shui *et al.* 32061 (PE); Maguan county, Gulinqing village, alt. 576 m, 4 Jul. 2009, Yunnan expedition 700 (PE); Maguan county, Gulinqing village, Xianyushanzhuan, 103° 18'02" E 22° 42'48" N, 6 Oct. 2006, Yu-Min Shui, Wen-Hong Chen, Jia-Shu Sheng 30522 (PE); Hekou county, Nanxi town, An

Ninghe village, achenes of seven species, alt. 320 m, 28 Aug. 1993, Yu-Min Shui 003637 (PE).

3 *E. pergamenum* W. T. Wang in Bull. Bot. Lab. N. E. Forest. Inst. , 7: 67. 1980; et in Fl. Reip. Pop. Sin. 23: 267. 1995; Q. Lin *et al.* in Fl. China 5: 149. 2003.

Ad desc. orig. add. , acheniis adhuc ignotis: *Achenia brunneola*, ellipsoidea-ovoidea, (0.4 – 0.6) mm × 0.2 mm, longitudinaliter 7-brunneo-costata.

Achenes brownish, ellipsoid-ovoid, (0.4 – 0.6) mm × 0.2 mm, longitudinally 7-ribbed.

Voucher specimen:

Guangxi: Longzhou county, Zhuizhubo village Sanlian, 17 May. 2007, Yi-Gang Wei 07298 (PE); Nonggang natural reserve, 16 May. 2007, Yi-Gang Wei 07269 (PE); Nonggang natural reserve, 16 May. 2007, Yi-Gang Wei 07275 (PE); Zhuizhubo village Sanlian, 17 May. 2007, Yi-Gang Wei 07294A (PE).

4 *E. pseudocypidatum* W. T. Wang in Acta Bot. Yunnan. 10(3): 345. 1988; et in Fl. Reip.

Pop. Sin. 23: 268. 1995; Q. Lin *et al.* in Fl. China 5: 150. 2003.

Ad desc. orig. add. , acheniis adhuc ignotis: *Achenia brunneola*, anguste ovoidea vel ellipsoidea, 0.8 mm × 0.1 mm, longitudinaliter 10 costata.

Achenes brownish, narrowly ovoid-ellipsoid, 0.8 mm × 0.1 mm, longitudinally 10-ribbed.

Voucher specimen:

Yunnan: Gongshan county, Dulongjiang, Moquiwan Village, ca. 3.6 direct Km NW of Moquiwan in the vicinity of the bridge across the Moquiwan river on the road from Gongshan to Kongdang, W side of Gaoligong Shan, 98° 24' 39.8" E, 27° 54' 38" N, 1 Sep. 2006, Gaoligong Shan Biodiversity Survey (GSBS) 34450 (PE).

5 *E. leioccephalum* W. T. Wang in Bull. Bot. Res. (Harbin) 2(1): 14, pl. 2, fig. 2 – 4. 1982; et in Fl. Reip. Pop. Sin. 23: 276. 1995.

Ad desc. orig. add. , acheniis adhuc ignotis: *Achenia brunneola*, ovoidea-ellipsoidea, 0.5 mm × 0.2 mm, dense minuteque tuberculate.

Achene brownish, ovoid-ellipsoid, 0.5 mm × 0.2 mm, densely tuberculate.

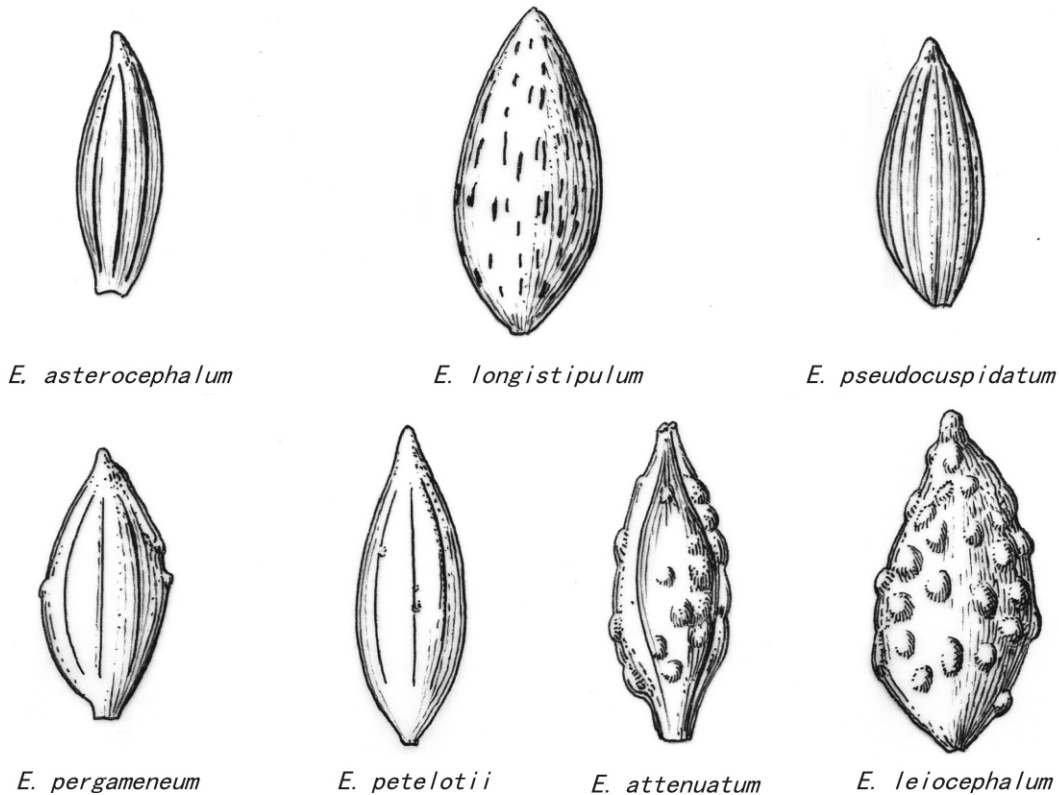


Fig. 1 Achenes of seven *Elatostema* species (illustrated by SUN Ying-Bao)

Voucher specimen:

Guangxi: Guilin county, Guilin Botanical Garden (from Huangjiang Natural Reserve), 17 Dec. 2007, Yi-Gang Wei huanjiang 6 (PE); Jinxiu county, Dayao mountain 16 km, 15 Apr. 1998, Fa-Nan Wei s. n. (PE); Yongfu county, Sanza, 8 Mar. 2009, Yi-Gang Wei & AM 6533 (PE).

6 *E. petelotii* Gagnap. in Bull. Soc. Bot. France 76: 81. 1929; W. T. Wang in Fl. Reip. Pop.

Sin. 23: 306. 1995; Q. Lin *et al.* in Fl. China 5: 160. 2003.

Ad desc. orig. add., acheniis adhuc ignotis; Achenia brunneola, anguste ellipsoidea, 0.8 mm × 0.2 mm, longitudinaliter 6-costata, inter uterymque par costarum sparse tuberculato-puncticulata.

Achene brownish, narrowly ellipsoid, 0.8 mm × 0.2 mm, longitudinally 6-ribbed, and on nerves sparsely tuberculate-punctulate.

Voucher specimen:

Yunnan: Pingbian county, Dawei mountain

Adakou, 22 Jun. 1956, Zhong Su 3688 (PE).

7 *E. longistipulum* Hand. -Mazz. W. T. Wang in Fl. Reip. Pop. Sin. 23: 282. 1995; H. W. Li in Fl. Yunnan. 7: 294. 1997. Q. Lin *et al.* in Fl. China 5: 153. 2003.

Ad desc. orig. add., acheniis adhuc ignotis; Achenia brunneola, ellipsoidea-anguste ellipsoidea-ovoidea, 0.7 mm × 0.3 mm, densely lineolate.

Achene brownish, ellipsoid-narrowly ellipsoid-ovoid, 0.7 mm × 0.3 mm, densely lineolate.

Voucher specimen:

Guangxi: Nanning city, Guangxi Medical Plants Garden, Apr. 1983. Xiao-Hong Lu E1 (PE); Jingxi county, Longbang village, 22 Mar. 2009, Yi-Gang Wei 9064 (PE).

Yunnan: Maguan county, alt. 1300 m, 13 Mar. 1933, H. T. Tsai 51953 (PE)

Acknowledgement We owe gratitude to Prof. Wen-Tsai Wang for his help in Latin descriptions, references and some constructive suggestions on

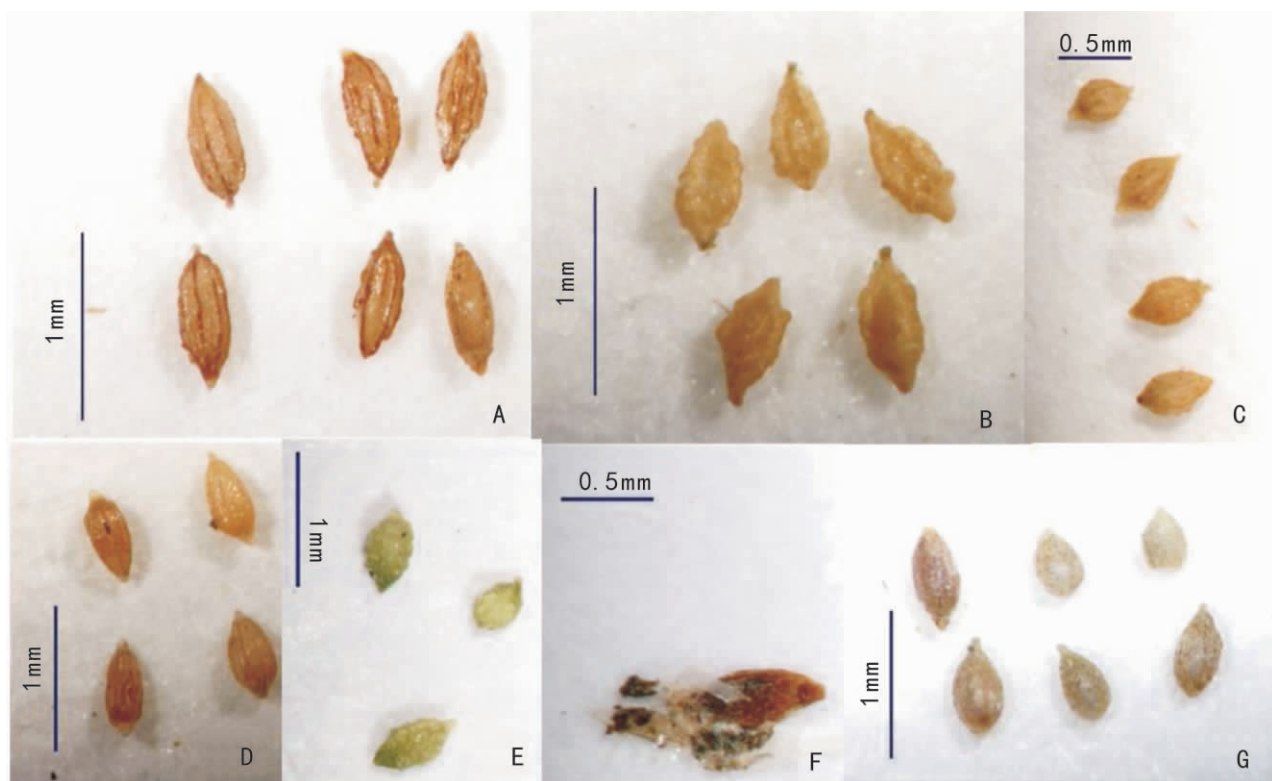


Fig. 2 A. *Elatostema asterocephalum* W. T. Wang; B. *E. attenuatum* W. T. Wang; C. *E. pergamense* W. T. Wang; D. *E. pseudocuspidatum* W. T. Wang; E. *E. leiocephalum* W. T. Wang; F. *E. petelotii* Gagnap.; G. *E. longistipulum* Hand. -Mazz.

the manuscript. We also thank Ying-Bao Sun for making the botanical drawings. We are indebted to Jie Liu and Ram C. Poudel for their suggestions during preparing manuscript. The herbaria of PE provided help for checking specimens.

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群) [J]. *Guihaia* (广西植物), 30(1): 1-12

Wang WT (王文采). 2011. Two new species of *Elatostema* (Urticaceae) from Southeastern Yunnan (云南东南部楼梯草属二新种) [J]. *Guihaia* (广西植物), 31(2): 143-147

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Wu ZY (吴增源), Wang WT (王文采), Wang H (王红), et al. 2011b. Two new species of *Elatostema* (Urticaceae) from southeast Yunnan, China [J]. *PhytoKeys*, 7: 57-62