

广西楼梯草属八新种

王文采

(中国科学院植物研究所, 系统与进化植物学国家重点实验室, 北京 100093)

摘要 描述了自广西发现的荨麻科楼梯草属八新种, 少花楼梯草, 隆安楼梯草, 粗柱头毛楼梯草, 罗城楼梯草, 糙茎楼梯草, 三列苞楼梯草, 基序楼梯草和黄果楼梯草, 并分别给出其与近缘种的区别特征。

关键词 荨麻科; 楼梯草属; 新种; 广西

中图分类号: S58 文献标志码: A doi: 10.7525/j.issn.1673-5102.2016.03.002

Eight New Species of *Elatostema* (Urticaceae) from Guangxi

WANG Wen-Tsai

(State Key Laboratory of Systematic and Evolutionary Botany, Institute of Botany, Chinese Academy of Sciences, Beijing 100093)

Abstract Eight species of the genus *Elatostema* (Urticaceae), *E. oliganthum*, *E. longanense*, *E. crassipenicillum*, *E. luochengense*, *E. strigosicaule*, *E. triseriato-bracteatum*, *E. basicapitatum* and *E. xanthocarpum*, are described as new from Guangxi autonomous region. The diagnostic differences between them and their allies are given respectively.

Key words Urticaceae; *Elatostema*; new species; Guangxi

少花楼梯草 图 1: A – E

Elatostema oliganthum W. T. Wang, sp. nov.

Fig. 1: A – E

(Sect. *Weddellia* (H. Schröter) W. T. Wang ser.

Monandra W. T. Wang)

Species nova haec est similis *E. glochidioidi* W. T. Wang, quod caulibus glabris, foliis omnibus margine semper integris subtus glabris trinerviis, cystolithis majoribus 0.4 – 0.7 mm longis, capitulo pistillato bracteis ca. 7 patentibus 1-seriatis minores 1 mm longas et flores pistillatas numerosas ferente differt.

Small perennial herbs. Stems ca. 6 caespitose, 9 – 16 cm tall, at base 0.8 – 1.2 mm across, below glabrous, near base multi-brown-verruculose, above villous, ramose. Leaves alternate, sessile or subsessile; blades papery, obliquely long elliptic or obliquely elliptic 0.9 – 2 × 0.3 – 0.75 cm, apex acute, base at leaf narrow side cuneate, at broad side auriculate,

margin entire or at leaf broad side 1-denticulate; surfaces both adaxially and abaxially appressed-pubescent; nervation semi-triplinerved, with lateral nerves 1 – 2 at leaf narrow side and 2 – 3 at broad side; cystoliths dense, bacilliform 0.2 – 0.45 mm long; stipules membranous, greenish, lanceolate-oblong or lanceolate 1.8 – 3 × 0.25 – 0.7 mm, sparsely pilose or subglabrous, with some cystoliths, margins semi-hyaline. Staminate capitula not seen. Pistillate capitula singly axillary, shortly pedunculate, ca. 7-flowered; peduncle ca. 0.15 mm long, glabrous; receptacles inconspicuous; bracts 6, erect, 2-seriate, membranous, green, sparsely villous, outer bracts 2 opposite, slightly unequal in size, lanceolate, 1.8 × 0.8 – 1 mm, the larger one abaxially below apex 1-corniculate, inner bracts 4 smaller, narrowly lanceolate, ca. 1.8 × 0.4 mm; bracteoles ca. 15, membranous, green, rarely white, linear, 1 – 1.6 × 0.1 – 0.2 mm, with few long hairs. Pistillate flowers shortly or long pedicellate; te-

作者简介: 王文采(1926—), 男, 研究员, 中国科学院院士, 从事有花植物分类学研究。

收稿日期: 2015 – 06 – 09

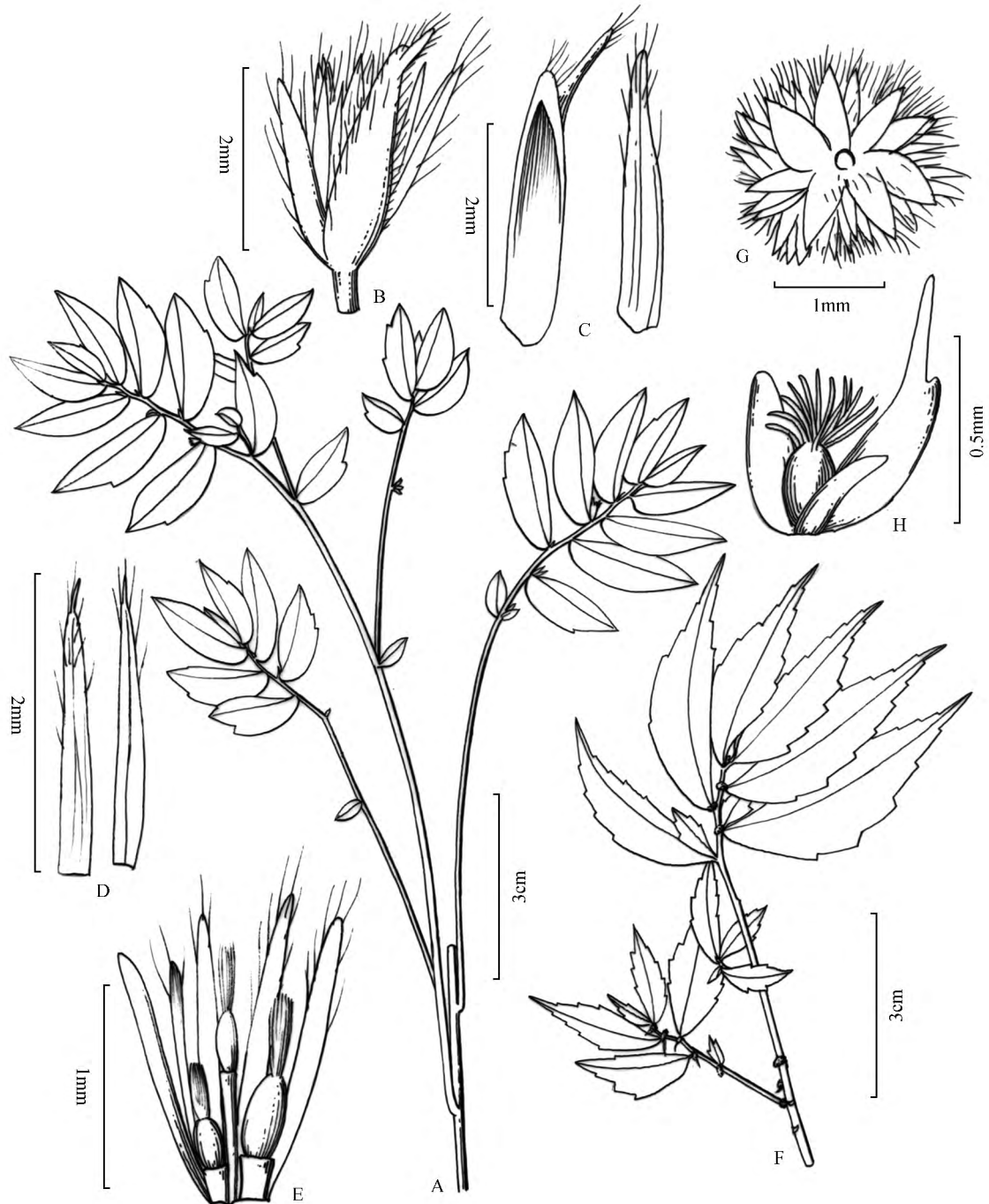


图 1 少花楼梯草(A~E)和粗柱头毛楼梯草(F~H) A. 一条茎; B. 雌头状花序; C. 2 外层苞片; D. 2 内层苞片; E. 雌小苞片和 3 雌花; F. 茎顶部; G. 雌头状花序(下面观); H. 3 雌小苞片和雌花

Fig. 1 *Elatostema oliganthum*(A-E) and *E. crassipenicillum*(F-H) A. One stem; B. Pistillate capitulum; C. 2 outer bracts; D. 2 inner bracts; E. 4 pistillate bracteoles and 3 pistillate flowers; F. Apical part of stem; G. Pistillate capitulum seen from beneath; H. 3 pistillate bracteoles and pistillate flower (from holotype)

pals wanting; ovaries yellowish ellipsoidal 0.2-0.4 mm long; stigmas penicillate 0.2-0.4 mm long.

广西(Guangxi): 那坡县, 白省乡, 面梁村, 弄卜屯(Napo Xian, Baisheng Xiang, Mianliang Cun, Nongbu Tun) alt. 1 000 m, 石灰岩山谷疏林下

(under sparse forest in valley of a limestone hill) 草本高 0.4 m, 花白色(herbs 0.4 m tall, fls. white), 2008-10-18, 中植联广西队(Guangxi Exped. Inst. Bot.) 4165(**holotype** PE).

本种与算盘楼梯草(*Elatostema glochidioides*

W. T. Wang) 相似, 与后者的区别在于本种的茎上部被长柔毛, 叶边缘全缘或宽侧边缘有 1 小牙齿, 两面被柔毛, 具半离基三出脉, 钟乳体较小, 长 0.2~0.45 mm, 雌头状花序有排成 2 层的 6 枚直立较大苞片(长 1.8 mm) 和 7 朵雌花。在算盘楼梯草, 茎无毛, 全部叶均全缘, 背面无毛, 具三出脉, 钟乳体较大, 长 0.4~0.7 mm, 雌头状花序有约 7 枚水

平开放的较小苞片(长 1 mm) 和多数雌花^[1]。

隆安楼梯草 图 2

Elatostema longanense W. T. Wang, sp. nov.

Fig. 2

[Sect. *Weddellia* (H. Schröter) W. T. Wang ser. *Monandra* W. T. Wang]



图 2 隆安楼梯草 A. 茎上部; B. 雌头状花序(下面观); C. 雌小苞片和雌花; D. 瘦果

Fig. 2 *Elatostema longanense* A. Upper part of stem; B. Pistillate capitulum, seen from beneath; C. 2 pistillate bracteoles and pistillate flower; D. Achene (form holotype)

Species nova haec est affinis *E. pellionoidi* W. T. Wang quod caulibus dense strigosis foliorum laminis basi latere latiore auriculatis vel rotundatis margine conspicue denticulatis stipulis minoribus subulatis 4 mm longis cystolithis carentibus capitulis pistillatis singulariter axillaribus, eorum receptaculis minutis inconspicuis, bracteolis apice ciliolatis, flore pistillato tepalis carente ovario haud lineato facile ab eo recedens.

Perennial herb. Stem ca. 30 cm tall, near base 2 mm across, near nodes sparsely strigose, elsewhere glabrous, simple, ca. 12-leaved, with dense bacilliform and fusiform cystoliths 0.2–0.4 mm long. Leaves alternate, shortly petiolate or sessile; blades papery, obliquely and narrowly elliptic, 5–10 × 1.6–3.5 cm, apex acuminate or long acuminate, base obliquely cuneate, margin subentire or above undulate-crenate or repand; surfaces adaxially on basal nerves densely long strigose, abaxially glabrous; nervation semi-triplinerved, with 1–2 lateral nerves at leaf narrow side and 2–3 lateral nerves at broad side; cystoliths dense, conspicuous, bacilliform, 0.2–0.4 mm long; petioles 0–4 mm long, with dense, minute cystoliths; stipules membranous, linear, 8–11 × 1–1.2 mm, glabrous or sparsely ciliolate, with dense minute cystoliths. Staminate capitula not seen. Pistillate capitula 2 or 3 axillary, ca. 3 mm long; peduncle ca. 0.5 mm long; receptacle subquadrate, ca. 2 × 1.6 mm, glabrous 2-lobed; bracts ca. 20 2-seriate, membranous, outer bracts 2 opposite, depressed-deltoid, ca. 0.3 × 1 mm, sparsely ciliolate, inner bracts ca. 18, triangular or narrowly triangular, 0.8–1 × 0.3–0.5 mm, densely ciliate; bracteoles numerous, very dense, semi-hyaline, white, linear or cuneate-linear, 0.6–1.2 mm long, at apex densely long ciliate. Pistillate flower pedicellate; tepals 2, linear, 0.2 mm long, at apex with 2–3 hairs; ovary narrowly ovoid, ca. 0.4 mm long, longitudinally brown-lineate; stigma penicillate, ca. 0.05 mm long. Achenes brownish, oblong-ovoid, ca. 0.5 mm long, longitudinally 6-brown-ribbed and sparsely brown lineolate.

广西 (Guangxi): 隆安县, 龙虎山自然保护区 (Longan Xian, Longhushan nature reserve), alt. 200 m, 石灰山山坡林下 (in forest on slope in a lime-

atone hill) 2008–05–11, 中植联广西队 (Guangxi Exped. Inst. Bot.) 0203 (holotype, PE).

本种与赤车楼梯草 (*Elatostema pellionoides* W. T. Wang) 在亲缘关系方面相近, 与后者的区别在于本种的茎只在节附近疏被糙伏毛, 其他部分无毛, 叶片基部斜楔形, 其边缘近全缘或上部具波状浅齿, 托叶较大, 条形, 长 8~11 mm, 有密集小钟乳体, 雌头状花序 2~3 枚腋生, 其花序托明显, 近方形, 小苞片顶端密被长缘毛, 雌花有 2 枚花被片, 子房有褐色线纹。在赤车楼梯草, 茎密被糙伏毛, 叶片基部宽侧呈耳形或圆形, 其边缘具明显小牙齿, 托叶较小, 呈钻形, 长 4 mm, 无钟乳体, 雌头状花序单生叶腋, 其花序托极小, 不明显, 小苞片顶端被短缘毛, 雌花无花被片, 子房无线纹。

粗柱头毛楼梯草 图 1: F–H

Elatostema crassipenicillum W. T. Wang, sp. nov. Fig. 1: F–H

[Sect. *Weddellia* (H. Schröter) W. T. Wang ser. *Tenuicaudatoida* W. T. Wang]

Ob plantas suffrutescentes ramosas et folia penninervia species nova haec fortasse ad Sect. *Weddelliam* (H. Schröter) W. T. Wang ser. *Tenuicaudatoida* W. T. Wang pertinet, et in serie hac ab *E. tenuicaudatoida* W. T. Wang foliis coriaceis minoribus usque ad 4.8 cm longis et ad 1.4 cm latis nervos laterales 4–5-jugos ferentibus, capitulo pistillato receptaculum inconspicuum et bracteas ca. 7 ovatas apice acuminatas et bracteolas brunneas majores apice 1-corniculatas ferente, flore pistillato tepalis carente recedit.

Small subshrub. Stem ca. 20 cm tall, near ligneous base ca. 5 mm across, glabrous, ramose. Leaves alternate, sessile, glabrous; blades coriaceous, adaxially turning black and abaxially turning brown when drying, obliquely lanceolate or oblong, 2–4.8 × 0.6–1.4 cm, apex long acuminate or caudate, base obliquely cuneate, margin denticulate; nervation penninerved, with 4–5 pairs of lateral nerves; and with obscure tertiary and quaternary nerves between the lateral nerves abaxially; cystoliths dense, bacilliform, 0.1–0.2 mm long; stipules turning black when drying, coriaceous, linear, 1–2 × 0.2–0.5 mm. Staminate capitula not seen. Pistillate capitula in pairs axillary, sessile; receptacle inconspicuous; bracts ca. 7,

brown ovate $0.9 \times 0.4 - 0.6$ mm glabrous apex acuminate; bracteoles numerous larger bracteoles at apex 1-corniculate. Pistillate flowers sessile; tepals wanting; ovaries ellipsoidal ca. 0.4 mm long; stigmas penicillate ca. 0.4 mm long with ca. 16 thick hairs.

广西 (Guangxi): 那坡县, 白省乡, 面梁村, 弄卜屯 (Napo Xian, Baisheng Xiang, Mianliang Cun, Nongbu Tun) alt. 1150 m, 石灰岩山山谷疏林下 (under sparse forest in valley of a limestone hill) 草本, 花绿色 (herbs, fls. green-white) 2008-10-18, 中植联广西队 (Guangxi Exped. Inst. Bot.) 4177 (holotype, PE).

本种为半灌木, 叶具羽状脉, 可能隶属于小叶楼梯草组拟细尾楼梯草系 (Sect. *Weddellia* ser. *Tenuicaudatoida*) 在拟细尾楼梯草系中本种与拟细尾楼梯草 (*Elatostema tenuicaudatoides* W. T. Wang) 的区别在于本种的叶革质, 较小, 长达 4.8 cm, 宽达 1.4 cm, 具 $4 \sim 5$ 对侧脉, 雌头状花序具不明显的花序托, 其苞片约 7 枚, 卵形, 顶端渐尖, 其小苞片呈褐色, 较大小苞片顶端具 1 角状突起, 雌花无花被片。在拟细尾楼梯草, 叶薄纸质, 较大, 长达 18 cm, 宽达 4.5 cm, 具 $6 \sim 9$ 对侧脉, 雌头状花序具小但明显的花序托 (直径 $1.2 \sim 2.5$ mm), 其苞片约 10 枚, 宽条形, 顶端圆截形, 其小苞片呈白色, 半透明, 顶端无任何突起, 雌花具 3 枚花被片^[1]。

罗城楼梯草 图 3: A - C

Elatostema luochengense W. T. Wang, sp. nov.

Fig. 3: A - C

[Sect. *Weddellia* (H. Schröter) W. T. Wang ser. *Involucratas* W. T. Wang]

Species nova haec est affinis *E. tenuicornuto* W. T. Wang, quod folio nervis lateralibus $7 - 8$ -jugis et cystolithis punctiformibus praedito, involucri pistillati bracteis plerumque lineari-triangularibus diatat.

Perennial herb. Stem ca. 32 cm tall, at base 3 mm across, near apex densely elsewhere sparsely puberulous, brown-furfuraceous, with dense cystoliths. simple 7 -leaved. Leaves alternate, sessile; blades papery, obliquely narrowly obovate or obliquely obovate $4.5 - 10.6 \times 1.4 - 3.8$ cm, apex acuminate, base obliquely cuneate, margin denticulate; surfaces adaxially and abaxially appressed-puberulous and on midribus densely pubescent; nervation penninerved,

with $4 - 6$ pairs of lateral nerves; cystoliths very dense and very conspicuous, thinly bacilliform $0.3 - 0.7$ mm long; stipules membranous, lanceolate-linear $5 - 6 \times 1 - 1.5$ mm, above ciliolate. Staminate capitula not seen. Fruiting pistillate capitula singly axillary, shortly pedunculate; peduncle ca. 1.5 mm long, glabrous; receptacle rectangular or quadrate $3 - 3.5 \times 2.5 - 3$ mm 4 -lobed, glabrous; bracts ca. 23 2 -seriate, membranous, outer bracts 3 , deltoid $0.8 \times 1 - 1.2$ mm, subglabrous, inner bracts ca. 20 , triangular, $1 \times 0.4 - 0.4$ mm, ciliolate; bracteoles numerous, dense, white, narrowly oblanceolate $0.4 - 0.8 \times 0.1 - 0.3$ mm, thickly ciliate. Achenes brownish, narrowly ovoid, ca. 0.7×0.3 mm, longitudinally 8 -ribbed and sparsely minutely tuberculate.

广西 (Guangxi): 罗城县, 怀群乡, 仁洞村 (Luocheng Xian, Huaiqun Xiang, Rendong Cun), 石灰岩山洞穴 (in cave of limestone hill) 丛生草本 (herbs caespitose) 2006-05-05, 侯满福 (M. F. Hou) 23 (holotype, PE).

本种与细角楼梯草 (*Elatostema tenuicornutum* W. T. Wang) 在亲缘关系上相近, 与后者的区别在于本种的叶的侧脉较少, 为 $4 \sim 6$ 对, 叶的钟乳体极密, 极明显, 细杆状, 长 $0.3 \sim 0.7$ mm, 雌头状花序的苞片呈正三角形或三角形。在细角楼梯草, 叶的侧脉较多, 为 $7 \sim 8$ 对, 叶的钟乳体极小, 稍密, 不明显, 呈点状, 雌头状花序的苞片狭长, 多呈条状三角形^[1]。

糙茎楼梯草 图 3: D - H

Elatostema strigosicaule W. T. Wang, sp. nov.

Fig. 3: D - H

(Sect. *Elatostema* ser. *Lungzhouensia* W. T. Wang)

Species nova haec est affinis *E. angustibracteolatum* W. T. Wang, quod foliis supra glabris, capituli pistillati receptaculo glabro, involucro pistillato ex bracteis ca. 20 1 -seriatis subglabris constante distinguitur.

Perennial herb. Stem ca. 25 cm tall, at base 2 mm across, densely strigose, simple, 10 -leaved. Leaves alternate, shortly petiolate; blades thinly papery, narrowly obovate or obliquely elliptic $6 - 11.2 \times 2 - 4$ cm, apex acuminate, base obliquely cuneate or at leaf broad side rounded, margin denticulate; surfaces

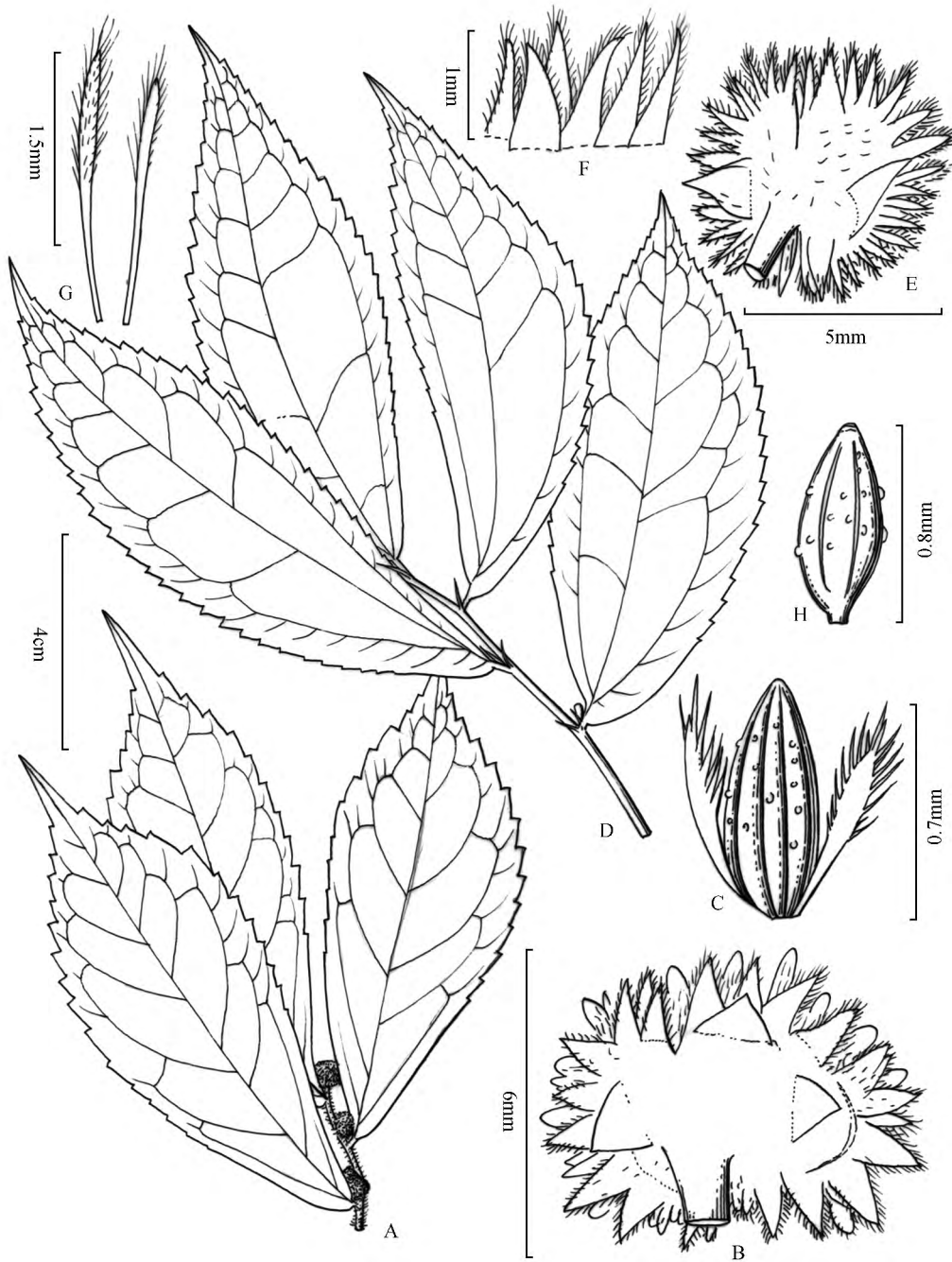


图3 罗城楼梯草(A~C)和糙茎楼梯草(D~H) A. 茎顶部; B. 雌头状花序(下面观); C. 2 雌小苞片和瘦果; D. 茎顶部; E. 雌头状花序(下面观); F. 6 内层雌苞片; G. 2 雌小苞片; H. 瘦果

Fig. 3 *Elatostema luochengense* (A~C) and *E. strigosicaule* (D~H) A. Apical part of stem; B. Pistillate capitulum, seen from beneath; C. 2 pistillate bracteoles and achene; D. Apical part of stem; E. Pistillate capitulum, seen from beneath; F. 6 inner pistillate bracts; G. 2 pistillate bracteoles; H. Achene (from holotype)

adaxially sparsely strigose abaxially on nerves puberulous; nervation trinerved, with ca. 4 pairs of lateral nerves; cystoliths dense, thinly bacilliform, 0.15 – 0.4 mm long; petioles 1 – 3 mm long; stipules mem-

branous, greenish-white, lanceolate-linear, 4 – 10 × 1 – 1.2 mm, sparsely ciliolate or glabrous. Staminate capitula not seen. Fruiting pistillate capitula in pairs axillary; peduncle ca. 2 mm long; receptacle ca. 3

mm in diam. ,2-lobed ,sparsely appressed-puberulous; bracts ca. 39 ,2-seriate ,membranous ,outer bracts ca. 4 ,triangular ,1.5 - 2 × 1 - 1.2 mm ,sparsely ciliate ,inner bracts ca. 35 ,smaller ,narrowly triangular ,ca. 1 × 0.5 mm ,densely ciliate ,apex long attenuate; bracteoles numerous ,dense ,green ,linear-oblongate ,1.5 - 2 × 0.1 - 0.3 mm ,above densely ciliate. Achenes yellow ,narrowly ovoid 0.7 - 0.8 × 0.35 - 0.38 mm ,longitudinally 6 - 8-ribbed and sparsely tuberculate.

广西(Guangxi): 那坡县,百合乡,北坡(Napo Xian, Baihe Xiang, Beipo) ,alt. 600 m,山谷密林中(under dense forest in valley) ,植物直立(plants erect) 2000 - 10 - 09 ,邓云飞(Y. F. Deng) 15546 (holotype PE) .

本种在亲缘关系上与狭苞楼梯草(*Elatostema angustibracteum* W. T. Wang) 相近,与后者的区别在于本种的叶上面被糙伏毛,雌头状花序的花序托被贴伏短柔毛,雌总苞由排列成二层的约39枚苞片组成,苞片疏被或密被缘毛。在狭苞楼梯草,叶上面无毛,雌头状花序托无毛,雌总苞由排列成一层的约20枚近无毛的苞片组成^[1]。

三列苞楼梯草 图4: A - E

Elatostema triseriatobracteatum W. T. Wang , sp. nov. Fig. 4: A - E

(Sect. *Elatostema* ser. *Lungzhouensia* W. T. Wang)

Species nova haec est affinis *E. angustibracteum* W. T. Wang quod folio apice acuminato nervos laterales 3-jugos ferente ,stipulis anguste triangularibus glabris ,involucro pistillato ex bracteis ca. 20 1-seriatis subglabris constante ,bracteolis pistillatis linearibus abhorret.

Perennial herb. Stem ca. 30 cm tall at base ca. 2 mm across ,densely strigose ,with dense cystoliths ,simple ca. 9-leaved. Leaves alternate ,sessile or subsessile; blades papery ,obliquely obovate or long elliptic 6 - 10 × 1.8 - 3.2 cm ,apex cuspidate or long acuminate ,base obliquely cuneate ,margin denticulate; surfaces adaxially glabrous ,abaxially on midrib densely and on lateral nerves sparsely appressed-puberulous; nervation trinerved ,with 4 - 5 pairs of lateral nerves; cystoliths dense ,bacilliform 0.15 - 0.4 mm long; stipules membranous ,white ,ovate ,ca. 5 ×

1.8 mm ,sparsely ciliate ,with greenish midrib. Staminate capitula not seen. Pistillate capitula singly or in pair axillary; peduncle ca. 2 mm long ,glabrous; receptacle broadly rectangular 6 - 9 × 4 - 7 mm ,glabrous 4-lobed; bracts ca. 97 3-seriate ,membranous ,outer bracts 2 ,opposite ,depressed-deltoid ,ca. 0.6 × 2 mm ,subglabrous ,middle bracts ca. 15 deltoid ,0.4 - 0.6 × 0.6 - 1 mm ,sparsely ciliate ,apex acute ,inner bracts ca. 80 ,triangular ,1 × 0.5 - 0.7 mm ,densely ciliate ,apex long acuminate or caudate; bracteoles numerous ,dense ,white ,semi-hyaline ,narrowly elliptic ,broadly linear or linear ,0.5 - 1 × 0.05 - 0.3 mm ,above ciliate. Pistillate flowers shortly pedicellate; tepals wanting; ovaries yellowish ,elliptoidal ,ca. 0.35 mm long; stigmas penicillate ,ca. 0.15 mm long ,with very dense short hairs. Achenes brown ,ovoid ,ca. 0.7 × 0.4 mm ,longitudinally 6-ribbed and minutely tuberculate.

广西(Guangxi): 大新县,下雷自然保护区,德天片(Daxin Xian, Xialei nature reserve, Detianpian) alt. 300 m,石灰岩山,山坡林中(under forest on slope of a limestone hill) ,草本,果绿色(herbs ,fruits green) 2008 - 05 - 20 ,中植联广西队(Guangxi Exped. Inst. Bot.) 0850(holotype PE) .

本种在亲缘关系上与狭苞楼梯草 *Elatostema angustibracteum* W. T. Wang 相近,与后者的区别在于本种的叶在顶端具骤尖,有4~5对较多的侧脉,托叶呈卵形,疏被缘毛,雌总苞由约97枚排成三层的苞片组成,多数苞片密被缘毛,雌小苞片多数呈狭椭圆形或宽条形。在狭苞楼梯草,叶在顶端渐尖,有3对较少侧脉,托叶呈狭三角形,无毛,雌总苞由约20枚排列成一层的近无毛苞片组成,雌小苞片呈条形^[1]。

基序楼梯草 图5

Elatostema basicapitulum W. T. Wang , sp. nov. Fig. 5

(Sect. *Elatostema* ser. *Dissecta* W. T. Wang)

Species nova haec est affinis *E. dissectoidi* W. T. Wang quod caulibus altioribus(1 m altis) glabris foliorum cystolithis minoribus 0.1 - 0.2 mm longis ,stipulis minoribus 3 mm longis glabris ,capitulo staminato singulariter axillari ,ejus bracteis plus quam 20 omnibus late ovatis utrinque glabris distinguitur.

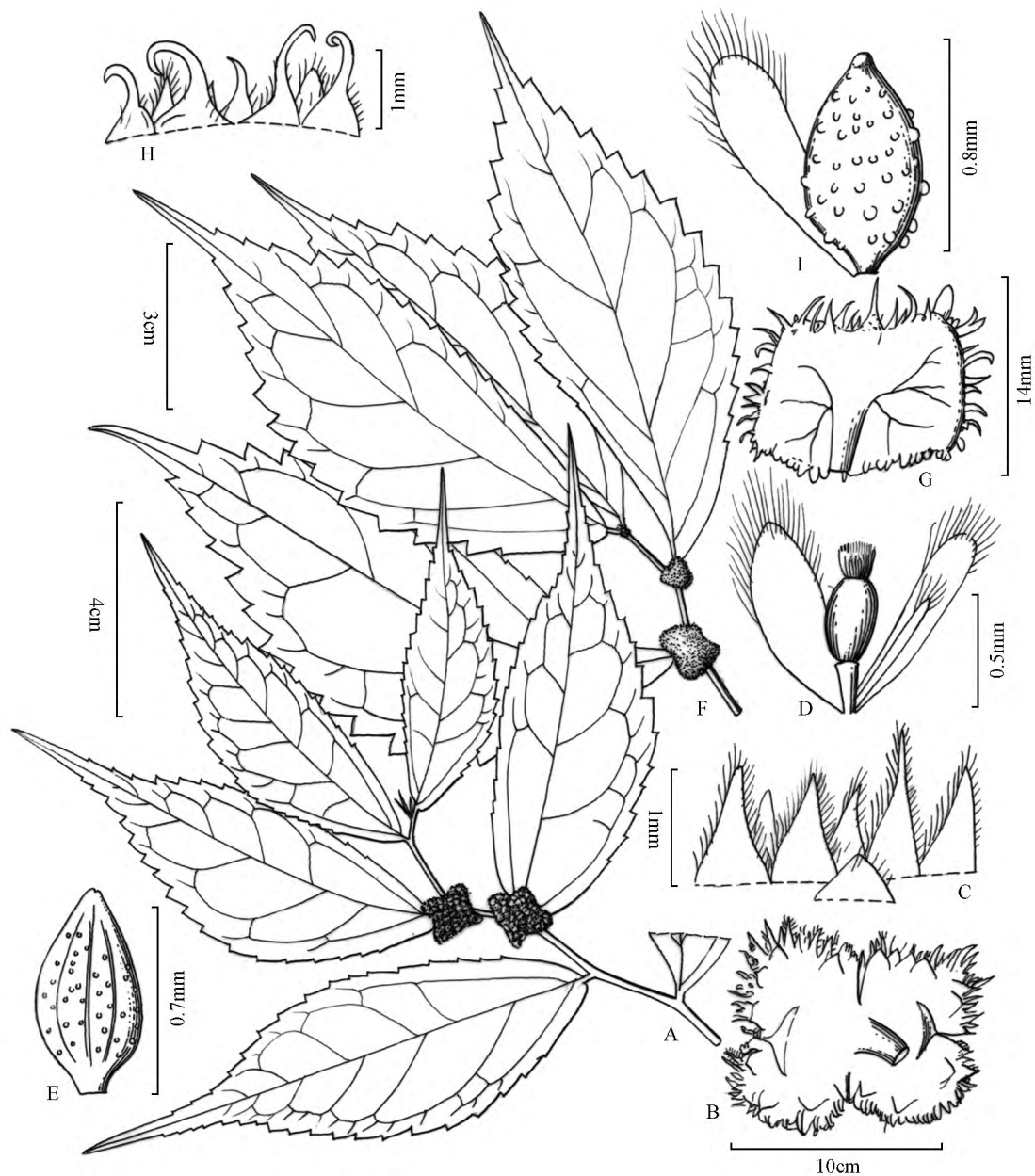


图4 三列苞楼梯草(A~C)和黄果楼梯草(F~I) A. 茎顶部; B. 雌头状花序(下面观); C. 1 中层苞片和6 内层苞片; D. 3 小苞片和雌花; E. 瘦果; F. 茎顶部; G. 雌头状花序(下面观); H. 7 小苞片; I. 小苞片和瘦果

Fig. 4 *Elatostema triseratobracteatum* (A - E) and *E. xanthocarpum* (F - I) A. Apical part of stem; B. Pistillate capitulum, seen from beneath; C. 1 middle bract and 6 inner bracts; D. 3 bracteoles and pistillate flower; E. Achene; F. Apical part of stem; G. Pistillate capitulum, seen from beneath; H. 7 bracts; I. Bracteole and achene (from holotype)

Perennial herbs monoecious. Stems several caespitose, ca. 20 cm tall, at base 3 mm across, hispid, near apex densely hirtellous, longitudinally 4-5-angulate, simple or from base long branched. Leaves alternate, shortly petiolate or sessile; blades papery, obliquely long elliptic or obliquely elliptic, 9-15 × 2.2-5.5 cm, apex acuminate, base obliquely cune-

ate or at leaf broad side subrounded, margin dentate; surfaces adaxially and abaxially strigose and on midribs densely hirtellous; nervation semitriplinerved, with lateral nerves 4 at leaf narrow side and 5-6 at broad side; cystoliths dense, bacilliform, 0.15-3 (4) mm long; petioles 0-2 mm long; stipules membranous, white-greenish, lanceolate-linear, 4.5-10 ×

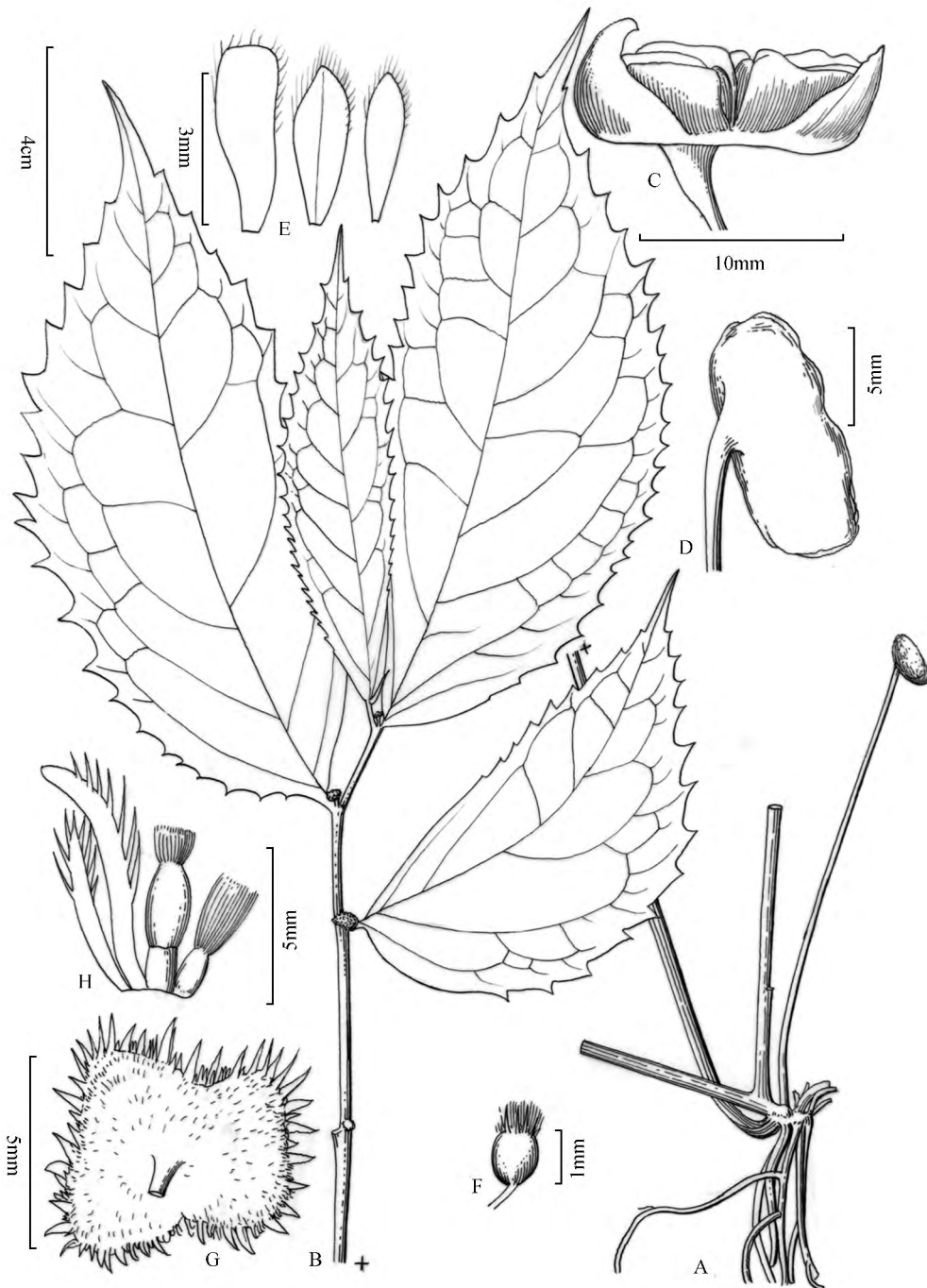


图5 基序楼梯草 A. 植株基部; B. 茎顶部; C. 雄头状花序(侧面观); D. 雄头状花序(下面观); E. 雄小苞片; F. 雄花蕾; G. 雌头状花序(下面观); H. 2 雌小苞片和 2 雌花

Fig. 5 *Elatostema basicapitulum* A. Basal part of plant; B. Apical part of stem; C. Staminate capitulum seen from side; D. The same as C seen from beneath; E. Staminate bracteoles; F. Staminate flower bud; G. Pistillate capitulum seen from beneath; H. 2 pistillate bracteoles and 2 pistillate flowers (from holotype)

0.5 – 1.2 mm, densely hirtellous. Staminate capitulum solitary, basal, long pedunculate; peduncle slender, ca. 8.5 cm long, glabrous; receptacle rectangular, ca. 11 × 5 mm, glabrous; bracts 6, 2-seriate, membranous, outer bracts 2 opposite, depressed-trian-

gular, ca. 3.2 × 6 mm longitudinally 1-ribbed, margin erosulate, subglabrous, inner bracts 4, transversely rectangular, ca. 2.5 × 4 mm, near apex puberulous; bracteoles numerous, dense, membranous, white, long elliptic or obliquely obtuse-trapeziform 2 – 3.8 × 0.6 – 1.

4 mm, adaxially glabrous, abaxially densely appressed-puberulous. Staminate flower buds subglobose, ca. 1 mm in diam., apex 4-corniculate and densely pubescent. Pistillate capitula in pair axillary, one larger, growing in leaf axil, shortly pedunculate, the other one smaller extra-axillary sessile; peduncle 0–1.2 mm long; receptacle subquadrate or rectangular 3–6 × 2–5 mm, puberulous; bracts 20–45, green lanceolate-linear or narrowly triangular 0.5–0.9 × 0.1–0.5 mm, puberulous; bracteoles green, linear, 0.6–1 mm long, thickly ciliate. Pistillate flowers shortly pedicellate or sessile; tepals wanting; ovaries ellipsoidal, 0.15–0.3 mm long; stigmas densely penicillate 0.15–0.3 mm long.

广西 (Guangxi): 大新县, 下雷镇, 新丰村, 弄得屯 (Daxin Xian, Xialei Zhen, Xinfeng Cun, Nongde Tun) alt. 565 m, 石灰岩山山坡 (on slope in a limestone hill), 丛生草本, 花黄绿色 (caespitose herbs, fls. yellow-green) 2006–05–30, 覃海宁, 刘演, 侯满福, 沈庆庚, 许为斌, 黄云 (H. N. Qin, Y. Liu, M. F. Hou, Q. G. Shen, W. B. Xu & Y. Huang) 530006 (holotype, PE)。

本种与拟盘托楼梯草 (*Elatostema dissectoides* W. T. Wang) 在亲缘关系方面相近, 与后者的区别在于本种的茎较低矮, 高约 20 cm, 被糙硬毛, 近顶端被短硬毛, 叶的钟乳体较大, 长达 0.3 (~0.4) mm, 托叶较大, 长 4.5~10 mm, 密被短硬毛, 雄头状花序单生植株基部, 其总苞苞片 6 枚, 扁三角形或横长方形, 近无毛或被短柔毛。在拟盘托楼梯草, 茎较高 (高 1 m), 无毛, 叶的钟乳体较小, 长 0.1~0.2 mm, 托叶较小, 长 3 mm, 无毛, 雄头状花序单生叶腋, 其总苞苞片在 20 枚以上, 全部呈宽卵形, 两面无毛^[1]。

黄果楼梯草 图 4: F–I

Elatostema xanthocarpum W. T. Wang, sp. nov. Fig. 4: F–I

(Sect. *Elatostema* ser. *Malipoensia* W. T. Wang & Zeng Y. Wu)

Species nova haec est affinis *E. malipoensi* W. T. Wang & Zeng Y. Wu, quod caulibus prope nodos puberulis simplicibus, foliis oblongis apice cuspidatis margine denticulatis, nervis lateralibus 5–7-jugis, capituli pistillati receptaculo puberulo, involucri pis-

tillato ex bracteis pluribus ca. 75 constante differt.

Perennial herb. Stem ca. 35 cm tall at base ca. 3 mm across, glabrous, below 1-branched. Leaves alternate, shortly petiolate; blades papery, obliquely elliptic (2–) 4–12.6 × (1–) 2.6–4.5 cm, apex acuminate, base obliquely cuneate, margin dentate; surfaces adaxially sparsely strigillose and sparsely appressed-pubescent, abaxially densely puberulous; nervation penninerved, with ca. 4 pairs of lateral nerves; cystoliths dense, bacilliform, 0.1–0.3 mm long; petioles 1–2 mm long, glabrous; stipules lanceolate-linear, 1.8–2.2 × 0.25 mm, densely puberulous. Staminate capitula not seen. Fruiting pistillate capitula singly axillary, shortly pedunculate; peduncle 1–4 mm long, glabrous; receptacle broadly rectangular 7–16 × 5–10 mm, glabrous, with radiate nerves; bracts ca. 30, depressed-deltoid 0.5 × 0.5–1 mm, ciliate, apex 1-corniculate, tail-like projections 1–2 mm long, glabrous; bracteoles numerous, dense, white, semi-hyaline, spatulate or obovate-linear 0.8–1.2 × 0.2–0.4 mm, above densely ciliate. Achenes yellowish, ovoid, ca. 0.8 × 0.35 mm, multi-tuberculate.

广西 (Guangxi): 马山县, 古零乡, 弄拉自然保护区 (Mashan Xian, Guling Xiang, Nongla nature reserve) alt. 150 m, 石灰岩山 (in limestone hill), 草本高 0.4 m (herbs 0.4 m tall) 2008–08–23, 中植联广西队 (Guangxi Exped. Inst. Bot.) 3477 (holotype, PE)。

本种在亲缘关系上与麻栗坡楼梯草 (*Elatostema malipoense* W. T. Wang & Zeng Y. Wu) 相近, 与后者的区别在于本种的茎无毛, 具分枝, 叶椭圆形, 在顶端渐尖, 边缘具牙齿, 侧脉约 4 对, 雌花序托无毛, 雌总苞由较少的约 30 枚苞片组成。在麻栗坡楼梯草, 茎在近节处被短柔毛, 不分枝, 叶呈长圆形, 在顶端骤尖, 边缘具小牙齿, 侧脉 5~7 对, 雌花序托被短柔毛, 雌总苞片由较多的约 75 枚苞片组成^[1]。

致谢 深切感谢孙英宝先生为本文绘图。

参 考 文 献

1. 王文采. 中国楼梯草属植物 [M]. 青岛: 青岛出版社, 2014.