# *Hemiboea pseudomagnibracteata* (Gesneriaceae), a New Species from Guangxi, China

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ABSTRACT: A new species of Gesneriaceae, *Hemiboea pseudomagnibracteata* B. Pan & W. H. Wu from limestone areas in Guangxi, China, is described and illustrated. The new species is close to *Hemiboea magnibracteata* Y. G. Wei & H. Q. Wen, but differs in its leaf blade oblong-elliptic to obovate, apex acuminate; calyx 5-parted to the base, lobes equal, linear-lanceolate, 8-12 × 2-2.5 mm; corolla white, outside glabrous, with densely brown spots, inside white with densely brown spots.

KEY WORDS: Guangxi, *Hemiboea*, limestone flora, new species, taxonomy.

## INTRODUCTION

During the floristic fieldwork in northwestern Guangxi, China in May 2009, we found a distinctive population of *Hemiboea* (Gesneriaceae) from Tiane County. It was found growing in the forest of limestone hills. It is very similar to *Hemiboea magnibracteata* Y. G. Wei & H. Q. Wen (Fig. 1) in the habit, but was not identified because there were no flowers available at that time. This unknown species was cultivated in Guilin Botanical Garden. The flowering plants were collected and researched by authors in Nov. 2010. When comparing it with those known species (Li, 1983, 1987; Wang et al., 1990; Wei and Wen, 1995; Weitzman et al., 1997; Wang et al., 1998; Li and Liu, 2004; Li and Wang, 2004; Xu et al., 2010; Huang et al., 2011; Wen et al., 2011), it is confirmed that this specimen represents a undescribed species in *Hemiboea*.

## TAXONOMIC TREATMENT

***Hemiboea pseudomagnibracteata*** B. Pan & W. H. Wu ***sp. nov.*** 擬大苞半蒴苣苔 Figs. 2 & 3

*Species H. magnibracteatae* Y. G. Wei & H. Q. Wen *simillima, sed differt foliis oblongo-ellipticis usque obovatis, apice acuminatis; calyce 5-partito ad basim, lobis aequalibus, lineari-lanceolatis, 8-12 mm longis, 2-2.5 mm latis; corolla alba, extus glabra, dense brunneo-maculata, intus alba, dense brunneo-maculata.*

Type: CHINA. Guangxi, cultivated in Guilin Botanical Garden, introduced from Tiane County, Hechi City, in the forest of limestone hills, 15 Nov. 2010, *Bo Pan & Wang-Hui Wu W0387* (holotype, IBK; isotype, IBK).

Herbs perennial. Stems ascendent, 30-60 cm high, 5-7 mm in diam, with dispersely brown spots subtetragonal, glabrous, simple, with 3-5 nodes. Leaves opposite, 6-10 crowded at the apex of caulis; petiole 1.5-4 cm long, 3-5 mm in diam, glabrous; leaf blade subcarnose, herbaceous when dry, oblong-elliptic to obovate, 10-22 × 3.5-10 cm, apex acuminate, base cuneate to broadly cuneate, sometimes slightly oblique, upper surface saturated virid, below surface pallid. margin entire, glabrous on both sides, lateral veins 4-6 on each side of midrib. Cymes subterminal, 3-8-flowered, peduncle 1.5-3 cm long, glabrous, with densely brown spots; involucres spheroidal, 1.5-2 cm in diam, green, glabrous. Pedicel 3-5 mm long , glabrous. Calyx green-white, 5-parted to the base, lobes equal, linear-lanceolate, 8-12 × 2-2.5 mm, ouside glabrous. Corolla white, 3.5-4.5 cm long, outside glabrous, with densely brown spots, inside white with densely brown spots; tube 2.8-3.2 cm long, ca. 4-5 mm in diam at the base, ca. 15-18 mm in diam at the mouth, inside with a ring of hairs adnate to 5-7 mm above the corolla base; limb distinctly 2-lipped, adaxial lip 9-13 mm long, 2 lobed, lobes semirotund, ca. 4 × 10 mm; abaxial lip 9-13 mm long, 3-lobed to middle, lobes broadly oval, ca. 6 × 5 mm. Stamens 2, adnate to 10-12 mm above the corolla base; filaments linear, glabrous; anthers subround, ca. 2 mm long, apex coherent. Staminodes 3, glabrous, adnate to ca. 16 mm above the corolla base, middle one ca. 4 mm long, linear, apex inflated, lateral ones ca. 10 mm long, linear, apex inflated. Disc ringlike, ca. 1.5 mm high, glabrous. Pistil 2.6-3.2 cm



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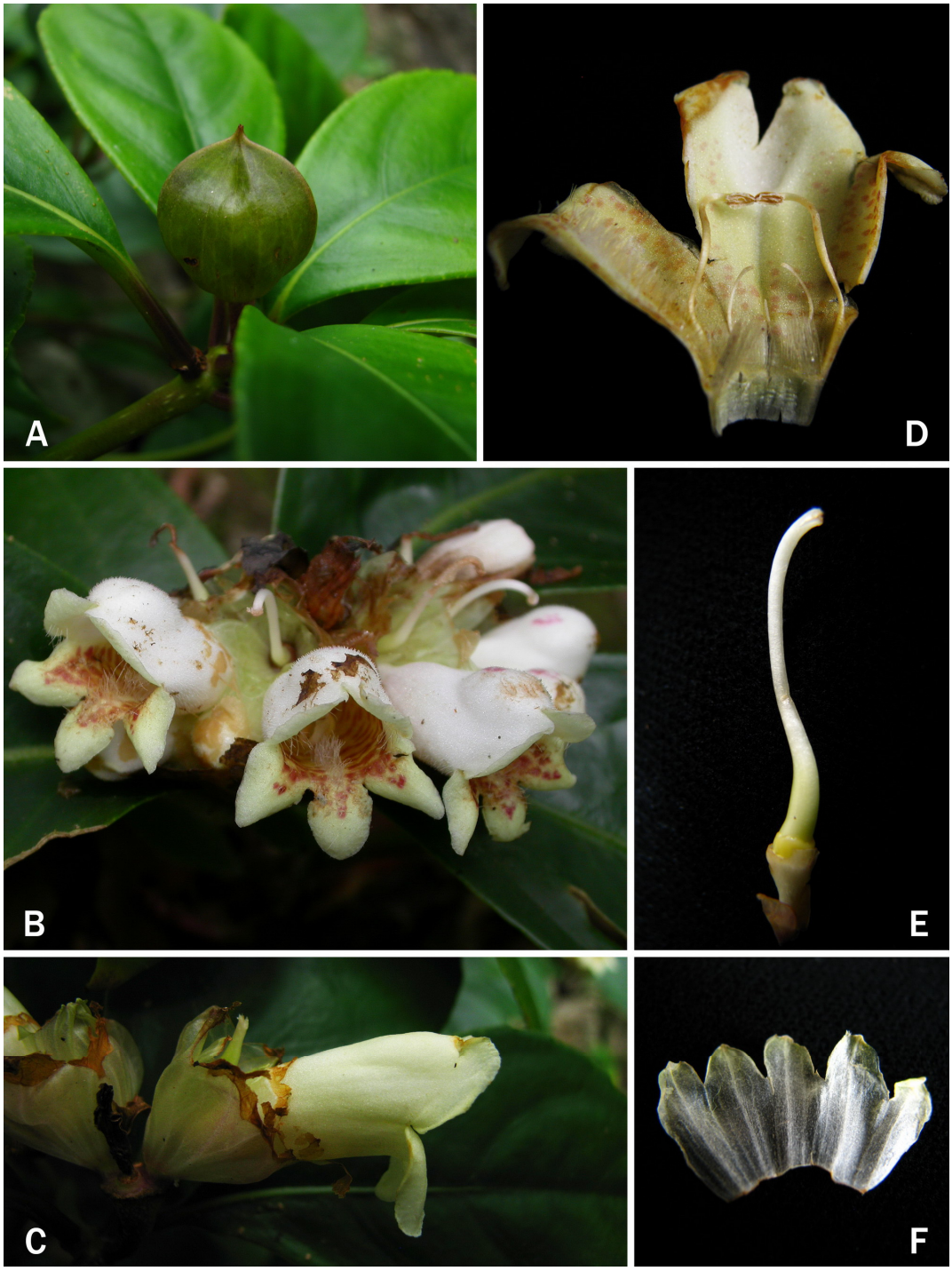



**Fig. 1. *Hemiboea magnibracteata*. A: Involucre. B: Flowers face view. C: Flower side view. D: Corolla opened showing stamens and staminodes. E: Pistil. F: Calyx.**

long, ovary linear, ca. 10 mm long, ca. 3 mm in diam, glabrous; style ca. 2 cm long; stigma capitate. Capsule seculate, 2-3 cm long, apex acuminate, glabrous.

Distribution and ecology: *Hemiboea pseudomagnibracteata* is known only from the type locality in Tiane County, Guangxi Zhuangzu Autonomous Region, China. There are only two populations were found according to our field investigation. The population size of *Hemiboea pseudomagnibracteata* is fewer than 150 individuals,



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**Fig. 2.** ***Hemiboea pseudomagnibracteata sp. nov.*** **(Drawn by Y. X. Zhu from Bo Pan & Wang-Hui Wu W0387 ). A: Flowering branch. B: Corolla opened showing stamens and staminodes. C: Stamens. D: Calyx and pistil. E: Stigma. F: Placenta.**



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**Fig. 3. *Hemiboea pseudomagnibracteata*. A: Flowering habit. B: Flowers. C: Corolla opened showing stamens and pistil. D: Stamens.**

and the mature individuals are fewer than 100 in every population. It grows in the forest of limestone hills, accompanied by *Bridelia balansae*, *Miliusa sinensis*, *Ficus tinctoria* subsp. *gibbosa*, *Oreocnide kwangsiensis*, *Psychotria prainii*, *Begonia cavaleriei*, *Elatostema sp*, *Pilea plataniflora*, *Ardisia faberi*, *Lysimachia insignis*, *Liparis distans*, *Pothos chinensis*.

Phenology: Flowering from September to November, fruiting from October to December.

Etymology: The specific epithet is derived from its resemblance to *Hemiboea magnibracteata* Y. G. Wei & H. Q. Wen.

Notes: *Hemiboea pseudomagnibracteata* is close to *Hemiboea magnibracteata* Y. G. Wei & H. Q. Wen in the habit. It is difficult to identify the two species when no flowers are available. Morphological comparison of the two species is shown in Table 1.

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## LITERATURE CITED

**Huang, Y. S., W. B. Xu, R. C. Peng, and Y. Liu. 2011.** A New Variety of *Hemiboea* (Gesneriaceae) from Limestone Areas in Guangxi, China. Taiwania **56**: 240-243.

**Li, Z. Y.** 1983**.** Taxa nova *Hemiboeae* (Gesneriaceae). Acta Phytotax. Sin. **21**: 194-203, in chinese.

**Li, Z. Y. 1987.** A study of the genus *Hemiboeae* (Gesneriaceae). Acta Phytotax. Sin. **25**: 220-230,in chinese.

**Li, Z. Y. and Y. Liu. 2004.** *Hemiboea rubribracteata* Z. Y. Li & Yan Liu, a new species of *Hemiboea* (Gesneriaceae) from Guangxi, China. Acta Phytotax. Sin. **42**: 537-540, in chinese.

**Li, Z. Y. and Y. Z. Wang. 2004.** Plants of Gesneriaceae in



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**Table 1.** Morphological comparison of *Hemiboea pseudomagnibracteata* and *H. magnibracteata*

| | *Hemiboea pseudomagnibracteata* | *H. magnibracteata* |
|---|---|---|
| **Blade** | oblong-elliptic to obovate, apex acuminate | broadly elliptic to obovate, apex rounded or acute |
| **Calyx** | 8-12 mm long, 5-parted to the base, lobes equal, linear-lanceolate, 8-12 × 2-2.5 mm | 2-2.5 cm long, 5-lobed from above middle, lobes equal, triangular-ovate, 7-10 × 8-10 mm |
| **Corolla** | outside white with densely brown spots, glabrous, inside white with densely brown spots | outside white, sparsely glandular-puberulent, inside pale yellow with purple spots |

China. Henan Science and Technology Publishing House, pp. 123-153, in chinese.

**Wang, W. T., K. Y. Pan and Z. Y. Li.** 1990**.** Gesneriaceae. In: Flora Reipubli. Pop. Sin. **69**: 125-581, Science Press, in chinese.

**Wang, W. T. , K. Y. Pan, Z. Y. Li, A. L. Weitzman and L. E. Skog. 1998.** Gesneriaceae. In: Wu Z. H. & Raven P. H. (eds.). Flora of China. **18**: 244-401, Science Press, Miss. Bot. Gard. Press. St. Louis, USA.

**Wei, Y. G. and H. Q. Wen. 1995.** Two new species from Guangxi. Guihaia **15**: 216-219, in chinese.

**Weitzman, A. L., L. E. Skog, W. T. Wang, K. Y. Pan and Z. Y. Li. 1997.** New taxa, new combination, and notes on Chinese Gesneriaceae. Novon **7**: 423-435.

**Wen, F., W. X. Tang and Y. G. Wei. 2011.** *Hemiboea angustifolia* (Gesneriaceae), a new species endemic to a tropical limestone area of Guangxi, China. Phytotaxa **30**: 53-59.

**Xu, W. B., W. H. Wu, D. X. Nong and Y. Liu. 2010.** *Hemiboea purpurea* sp. nov. (Gesneriaceae) from a limestone area in Guangxi, China. Nord. J. Bot. **28**: 313-315.

## 中國廣西苦苣苔科一新種 - 擬大苞半蒴苣苔

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摘要：本文報導廣西苦苣苔科半蒴苣苔屬 *Hemiboea* C. B. Clarke 一新種 - 擬大苞半蒴苣苔 (*Hemiboea pseudomagnibracteata* B. Pan & W. H. Wu)。該種在植株形狀上與大苞半蒴苣苔 (*Hemiboea magnibracteata* Y. G. Wei & H. Q. Wen) 非常相近，但不同在於該新種葉片長圓狀橢圓形到倒卵形，頂端漸尖；花萼長 8-12 毫米，5 裂達基部，裂片相等，線狀披針形；花冠外面白色，具褐色斑點，光滑無毛，內面白色，具褐色斑點。

關鍵詞：半蒴苣苔屬、新種、石灰岩植物區系、廣西、分類學。



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