

Justicia addisoniensis (Acanthaceae), *comb. nova*

Chun-Ming Gao^{1,2,3} & Yun-Fei Deng^{1,*}

¹⁾ Key Laboratory of Plant Resources Conservation and Sustainable Utilization, South China Botanical Garden, the Chinese Academy of Sciences, Guangzhou 510650, People's Republic of China (*corresponding author's e-mail: yfdeng@scib.ac.cn)

²⁾ Graduate University of Chinese Academy of Sciences, Beijing 100049, People's Republic of China

³⁾ current address: Faculty of Life Science, Binzhou University, Binzhou, Shandong 256603, People's Republic of China

Received 28 July 2009, revised version received 21 Oct. 2009, accepted 22 Oct. 2009

Gao, C. M. & Deng, Y. F. 2011: *Justicia addisoniensis* (Acanthaceae), *comb. nova*. — Ann. Bot. Fennici 48: 91–92.

Examination of the type material showed that *Hypoestes addisoniensis* Elmer ['as *addisoniense*'] is different from other *Hypoestes* in its solitary or few flowers clustered in leaf axils and bitheous anthers spurred on lower thecae and is a member of *Justicia*. Therefore, a new combination, *Justicia addisoniensis* (Elmer) C.M. Gao & Y.F. Deng, is proposed herein.

Hypoestes is a genus of Acanthaceae consisting of about 150 species and distributed in the Old World tropics (Balkwill & Norris 1985, Hu 2002, Mabberley 2008). It is characterized by the combination of a resupinate corolla, monotheous anthers and the flowers being held in a series of monochasial or singal-flowered inflorescence units (cymules). It is similar to *Dicliptera*, but differs from the latter by the anthers being monotheous while they are bitheous in *Dicliptera*.

Hypoestes addisoniensis Elmer was published by Elmer (1913) based on the collection Elmer 12715 from Philippines. It was originally described that the species has few flowers clustered in the upper leaf axils, and bitheous anthers spurred on lower thecae. These characters indicated that it is not a species of *Hypoestes*. Merrill (1915) transferred it to *Polytrema*. Seven years later, he (Merrill 1922) transferred it to *Hallieracantha*. Both *Hallieracantha* and *Polytrema* are now considered synonyms of *Ptyssi-*

glottis (Hansen 1992). *Ptyssiglottis* is similar to *Justicia* but easily distinguished from the latter by its anther-thecae without mucronate appendages at the base, and therefore, this species might be excluded from *Ptyssiglottis*. Bremekamp (1952) placed the species into *Calophanoides*, which was recognized as an independent genus by some authors (Ridley 1923, Bremekamp 1943, Hu 2002), but it is now widely accepted as a synonym of *Justicia* and treated as sect. *Harnieria* (Graham 1988, Hedrén 1989, Scotland & Vollesen 2000, Wood 2001). After examining the type material, it is concluded that it is a member of *Justicia*. The necessary new combination is proposed here.

Justicia is the largest pantropical genus in Acanthaceae and consists of about 600 species (Graham 1988, Mabberley 2008). Graham (1988) divided *Justicia* into sixteen sections. *Justicia addisoniensis* belongs to sect. *Harnieria*, which is characterized by shrub habit, single- or

few-flowered inflorescences in the axils of leaf-like bracts, and having well differentiated bracts and bracteoles (Hedré 1989).

Justicia addisoniensis* (Elmer) C.M. Gao & Y.F. Deng, *comb. nova

Hypoestes addisoniensis Elmer, *Leaflet. Philipp. Bot.* 5: 1697. 1913, 'as *addisoniense*'. — *Polytremia addisoniensis* (Elmer) Merr., *Philipp. J. Sci.* 10: 341. 1915. — *Hallieracantha addisoniensis* (Elmer) Merr., *Philipp. J. Sci.* 20: 457. 1922. — *Calophanoides addisoniensis* (Elmer) Bremek., *Philipp. J. Sci.* 80: 20, in obs. 1952. — TYPE: Philippines. Palawan: A. D. E. Elmer 12715 (holotype PNH; isotypes GH!, K!, MO!, US!).

The species is endemic to Palawan, Philippines. The epithet is derived from the locality Addison's Peak in Palawan.

ADDITIONAL SPECIMENS EXAMINED: **Philippines.** Ulugan bay, Palawan, Sept. 1910, *E. D. Merrill* 7235 (P); Iraan Mountains, Aborlan, Palawan, Jun. 5, 1950, *M. D. Sult* 3991 (PNH 12530) (L); Tarateon River, Aborlan, Palawan, Mar. 4, 1951, *G. E. Edanõ* 2671 (PNH 14182) (L); Victoria Mountains, Panacan, Aborlan, Palawan, May 9, 1950, *M. D. Sult* 3746 (PNH 12312) (L).

Acknowledgments

We thank Dr. R. Brummitt (K) and another anonymous reviewer for constructive comments on the manuscript. We are grateful to the directors of herbaria GH, K, L, MO, P and US for their help to access specimens for our studies. The project was supported by the National Natural Science Foundation of China (grant nos. 30670142, 30870152).

References

- Balkwill, K. & Norris, F. G. 1985: Taxonomic studies in the Acanthaceae: the genus *Hypoestes* in southern Africa. — *S. Afr. J. Bot.* 51: 133–144.
- Bremekamp, C. E. B. 1943: L'identité du *Jacobinia subrecta* André et la delimitation des *Diclipterinae* Lindau. — *Boissiera* 7: 182–201.
- Bremekamp, C. E. B. 1952: Philippine Acanthaceae. — *Philipp. J. Sci.* 80: 11–21.
- Elmer, A. D. E. 1913: Palawan Acanthaceae. — *Leaflet. Philipp. Bot.* 5: 1685–1704.
- Graham, A. W. 1988: Delimitation and infra-generic classification of *Justicia* (Acanthaceae). — *Kew Bull.* 43: 551–624.
- Hansen, B. 1992: The genus *Ptyssiglottis* (Acanthaceae): a taxonomic monograph. — *Opera Bot.* 116: 1–58.
- Hedré, M. 1989: *Justicia* sect. *Harnieria* (Acanthaceae) in tropical Africa. — *Symb. Bot. Upsal.* 29: 1–141.
- Hu, C. C. 2002: Acanthaceae. — In: Hu, C. C. (ed.), *Flora Reipublicae Popularis Sinicae* 70: 1–308. Science Press, Beijing.
- Mabberley, D. J. 2008: *Mabberley's plant-book: a portable dictionary of plants, their classification and uses*. — Cambridge University Press, Cambridge.
- Merrill, E. D. 1915: New or noteworthy Philippine plant, XII. — *Philipp. J. Sci.* 10: 341–349.
- Merrill, E. D. 1922: New or noteworthy Philippine plant, XVII. — *Philipp. J. Sci.* 20: 367–476.
- Ridley, H. N. 1923: *The flora of the Malay Peninsula* 2: 554–611. — L. Reeve & Co. Ltd. Press, Ashford.
- Scotland, R. W. & Vollesen, K. 2000: Classification of Acanthaceae. — *Kew Bull.* 55: 513–589.
- Wood, J. R. I. 2001: Acanthaceae. — In: Grierson, A. J. C & Long, D. G. (eds.), *Flora of Bhutan* 2(3): 1243–1293. Royal Bot. Garden, Edinburgh & Royal Government of Bhutan.