

A Revision of *Leptopetalum foetidum* (Rubiaceae)

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Based on the morphological observations of the type and other specimens in the herbaria and from the online digital images, *Hedyotis kanehirae* (Hatus.) Fosberg (syn. *Leptopetalum kanehirae* Hatus.), *H. leptopetaloides* Hatus., *H. mariannensis* Merr. [syn. *H. foetida* (G.Forst.) Sm. var. *mariannensis* (Merr.) Fosberg], and *Oldenlandia imberbis* Guillaumin are considered as synonyms of *L. foetidum* (G.Forst.) Neupane & N.Wikstr. (Rubiaceae). In addition, the lectotypes of *H. kanehirae*, *H. leptopetaloides*, and *O. imberbis* were designated.

Key words: *Hedyotis*, *Kadua*, lectotype, *Leptopetalum*, *Oldenlandia*, synonym.

Leptopetalum Hook. & Arn. is a genus of Rubiaceae, which was first described in 1838 based on *L. mexicanum* Hook. & Arn. (Hooker and Walker-Arnott 1841 [1838]: 295, Ohba 2003). It has been included in *Hedyotis* L. or *Oldenlandia* L. (*Hedyotis*-*Oldenlandia* complex) for many years, and sometimes classified as a subgenus: *Hedyotis* subgen. *Leptopetalum* (Hook. & Arn.) Hook.f. or a section: *Oldenlandia* sect. *Leptopetalum* (Hook. & Arn.) K.Schum. (Hooker 1873, Forsberg and Sachet 1991). The subgenus or section included only shrub species (Hatusima 1936, Hosokawa 1938, Forsberg and Sachet 1991) until Neupane et al. (2015) treated *Leptopetalum* as an independent genus, adding three herbaceous species [*L. biflorum* (L.) Neupane & N.Wikstr., *L. pteritum* (Blume) Neupane & N.Wikstr., and *L. strigulosum* (DC.) Neupane & N.Wikstr.] based on

molecular phylogeny. *Leptopetalum* comprises nine species: five herbaceous species, including *L. coreanum* (H.Lév.) Naiki & Ohi-Toma and *L. taiwanense* (S.F.Huang & J.Murata) Shih H.Chen & M.J.Wu, and four shrub species (Ohi-Toma et al. 2020). Of the four shrub species, *L. foetidum* (G.Forst.) Neupane & N.Wikstr. is widely distributed in the Mariana Islands, New Caledonia, Fiji, and south-central to western Polynesia (Fosberg and Sachet 1991). The other three shrub species, *L. grayi* (Hook.f.) Hatus., *L. mexicanum*, and *L. pachyphyllum* (Tuyama) Naiki & Ohi-Toma, are endemic to the Ogasawara (Bonin) Islands, Japan (Ono and Kobayashi 1985, Toyoda 2014, Naiki 2017) and clearly distinguished from *L. foetidum*.

The following four shrub species are morphologically similar to *L. foetidum* and were published within its distribution range:

Ono M. and Kobayashi S. 1985. Flowering plants endemic to the Bonin Islands. *In*: Ono M. and Okumura K. (eds.), *Endemic Plant Species and Vegetation of the Bonin Islands*. Aboc Co., Ltd., Kamakura (in Japanese with English summary).

The Plant List. 2013. Version 1.1. Published on the Internet. Available at: <http://www.theplantlist.org/> (accessed on 19 August 2021).

Toyoda T. 2014. *The Endemic Plants of the Bonin Islands*. Woods Press Inc., Yokohama (in Japanese).

内貴章世^a, 大井・東馬哲雄^b: アカネ科 *Leptopetalum foetidum* の再検討

九州大学総合博物館などの標本館所蔵のタイプ標本(オンライン画像を含む)の形態比較と現地調査による形態変異の検討により, *Hedyotis kanehirae* (Hatus.) Fosberg (syn. *Leptopetalum kanehirae* Hatus.), *H. leptopetaloides* Hatus., *H. mariannensis* Merr. (syn. *H. foetida* (G.Forst.) Sm. var. *mariannensis* (Merr.) Fosberg) および *Oldenlandia*

imberbis Guillaumin の4つの学名を *L. foetidum* (G.Forst.) Neupane & N.Wikstr. の異名とした。また, *H. kanehirae*, *H. leptopetaloides* および *O. imberbis* のレクトタイプを指定した。

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