

Enumeration of *Desmodiastrum* (*Leguminosae*, Tribe *Desmodieae*)

Hiroyoshi OHASHI^{1,*} and Kazuaki OHASHI²

¹Herbarium TUS, Botanical Garden, Tohoku University, Sendai, Miyagi, 980-0862 JAPAN;

²School of Pharmacy, Iwate Medical University, Yahaba, Iwate, 028-3694 JAPAN

*Corresponding author: desmodium.ohashi@gmail.com

(Accepted on May 17, 2022)

All species of *Desmodiastrum* (*Leguminosae*) are enumerated with synonyms, types of the names and bibliography. A new rank, *Desmodiastrum rotundifolium* (Dalzell ex Prain) H.Ohashi & K.Ohashi is proposed. *Alysicarpus belgaumensis* (= *Desmodiastrum belgaumense*), *A. parviflorus* (= *Desmodiastrum parviflorum*) and *A. racemosus* (= *Desmodiastrum racemosum*) are newly lectotypified and neotype of *A. rotundifolius* Dalzell ex Prain is designated. *Alysicarpus beddomei* Schindl. is newly regarded as a synonym of *Desmodiastrum parviflorum*.

Key words: *Alysicarpus*, bibliography, *Desmodiastrum*, *Desmodieae*, *Desmodium*, lectotypes, neotypes.

Desmodiastrum (*Leguminosae*) was published by Prain (1897) as ‘***DESMODIASTRUM’ in the genus *Alysicarpus*. Three asterisks ahead of the name meant the third infrageneric taxon of Baker’s (1876) *Alysicarpus* in Hook.f. (ed.), Flora of British India, in which two groups also with asterisks were contained. Although the rank was not given to *Desmodiastrum*, Prain (1897) indicated its rank in a note under ‘12. *Alysicarpus rotundifolius* Dalz.’ as “The writer’s [= Prain] reason for proposing a new subgenus for this natural group is that the calyx-teeth ...” (page 385). Pramanik and Thothathri (1986) treated the subgenus as the genus *Desmodiastrum* (Prain) A.Pramanik & Thoth. *Desmodiastrum*, however, has been problematic in its independence from *Alysicarpus*, but is supported by the results of recent molecular phylogenetic analyses

together with characteristics of the pollen morphology (Ohashi et al. 2022).

Prain (1897) included four species in subgenus *Desmodiastrum*: *Alysicarpus belgaumensis* Wight, *A. racemosus* Benth., *A. parviflorus* Dalz. and *A. rotundifolius*. Pramanik and Thothathri (1986) recognized two species and two varieties in *Desmodiastrum*: *D. belgaumense* (Wight) A.Pramanik & Thoth. and *D. racemosum* (Benth.) A.Pramanik & Thoth. with var. *parviflorum* (Dalzell) A.Pramanik & Thoth. and var. *rotundifolium* (Dalzell ex Prain) A.Pramanik & Thoth. Kumar and Sane (2003) and Ohashi (2004, 2005) suggested that *Desmodiastrum* comprises four species, but did not list all the species. This paper intends to enumerate all species and synonyms, including a new combination, of *Desmodiastrum* along with their type specimens and bibliography.

the wording ‘Plains of Concan.’ This specimen, therefore, appears to be different from the one examined by Baker. Cooke (1902, page 358) cited Ritchie 288 as “S.M. Country: Belgaum districts, Ritchie, 288!” under *Desmodium rotundifolium*. Although it is uncertain whether K000980491 is identical with the Cooke’s specimen, we refer the specimen, Dr Ritchie 288, to *Desmodiastrum rotundifolium* and designate it as the neotype of that name.

We thank Dr. Ruth Clark of The Royal Botanic Gardens, Kew, for searching for type specimens previously recorded as Dalzell & Gibson s.n. (K) and for Dr. Ritchie s.n. (K) and for finding the specimen, Ritchie 288 (K000980491); Dr. D.E. Boufford of the Harvard University Herbaria for reviewing the manuscript; and Dr. J. Murata for valuable comments.

References

- Baker J.G. 1876. *Leguminosae* [p. p.]. In: Hooker J.D. (ed.), *The Flora of British India* 2: 56–240. L. Reeve & Co., London.
- Bentham G. 1851. *Leguminosae* inter plantas Nilgherrenses Hohenackeri. *Linnaea* 24: 642–645.
- Cooke T. 1902. *Desmodium*. In: *Flora of the Presidency of Bombay*, vol. 1. *Ranunculaceae* to *Rubiaceae*. pp. 351–359. Taylor and Francis, London.
- Kumar S. and Sane P.V. 2003. *Legumes of south Asia*. A check-list. Royal Botanic Gardens, Kew.
- Ohashi H. 1971. A taxonomic study of the tribe *Coronilleae* (*Leguminosae*), with a special reference to pollen morphology. *J. Fac. Sci. Univ. Tokyo Sect. III (Bot.)* 11: 25–92, pls. 1–10.
- Ohashi H. 2004. Taxonomy and distribution of *Desmodium* and related genera (*Leguminosae*) in Malesia (I). *J. Jpn. Bot.* 79(2): 101–139.
- Ohashi H. 2005. *Desmodieae*. In: Lewis, G., Schrire B., Mackinder B. and Lock M. (eds.), *Legumes of the World*. pp. 433–446. Royal Botanic Gardens, Kew.
- Ohashi K., Ohashi H., Nemoto T. and Nata K. 2021. Phylogenetic analyses for a new classification of the *Desmodium* group of *Leguminosae* tribe *Desmodieae* 5. Last *Desmodium* native to Asia and Australia. *J. Jpn. Bot.* 96(1): 1–18.
- Ohashi K., Ohashi H. and Ye B. 2022. New systematic position of *Desmodiastrum* (*Leguminosae* tribe *Desmodieae*). *J. Jpn. Bot.* 97(3): 131–144.
- Prain D. 1897. *Noviciae Indicae XV*. Some additional *Leguminosae*. *J. Asiatic Soc. Bengal, Pt. 2, Nat. Hist.* 66(2): 347–518.
- Pramanik A. and Thothathri K. 1986. On the status of *Desmodiastrum* Prain (*Fabaceae*). *J. Ind. Bot. Soc.* 65: 373–379.
- Schindler A.K. 1927. *Desmodii generumque affinium species et combinationes novae*. III. *Repert. Spec. Nov. Regni Veg.* 23: 353–362.
- Schindler A.K. 1928. *Die Desmodiinen in der botanischen Literatur nach Linne*. *Repert. Spec. Nov. Regni Veg. Beih.* 49: 1–371.

大橋広好¹, 大橋一晶²: マメ科アコウマイハギ連 *Desmodiastrum* 一覧

Desmodiastrum (マメ科) は4種よりなる属でインド、ミャンマー、インドネシア (ジャワ島) に分布する。これら4種についてはこれまで正名、異名、タイプ、参考文献について整理されていなかった。本論文では全種の一覧を作成した。ここには 1) 新ランク *Desmodiastrum rotundifolium* (Dalzell ex Prain) H. Ohashi & K. Ohashi の発表, 2) *Alysicarpus belgaumensis* (= *Desmodiastrum belgaumense*), *A. parviflorus* (= *Desmodiastrum*

parviflorum) および *A. racemosus* (= *Desmodiastrum racemosum*) の新レクトタイプ指定, 3) *Alysicarpus rotundifolius* (= *Desmodiastrum rotundifolium*) のネオタイプの指定を含む。また, *A. beddomei* Schindl. はこれまで *A. rotundifolius* Dalzell ex Prain の異名とされていたが, 新たに *Desmodiastrum parviflorum* の異名とした。

¹東北大学植物園津田記念館,

²岩手医科大学薬学部