

# Lectotypification of *Stylosanthes hispida* (Leguminosae)

Teodoro Calles<sup>1,2</sup> & Rainer Schultze-Kraft<sup>3</sup>

**Summary.** *Stylosanthes* is a mainly New World genus comprising about 25 species but some of them are currently poorly defined. The genus is economically important, especially for low input agricultural production systems in the tropics and subtropics. During recent research on *Stylosanthes* taxonomy it became apparent that the species *Stylosanthes hispida* had never been formally typified. In order to foster taxonomic stability within the genus *Stylosanthes*, we here propose a lectotype for *S. hispida*. Additionally, some nomenclatural comments are provided.

**Key Words.** Dalbergiaceae, French Guiana, Louis Claude Marie Richard collection, nomenclature.

---

## Introduction

The genus *Stylosanthes* Sw. has a disjunct distribution; two indigenous species have been reported in Africa, one in Asia and the remaining species occur in the Americas (Nooteboom 1961; Manneetje 1984). The genus is economically important in tropical and subtropical regions of the Americas, Africa, Asia and Oceania (including Australia) (Chakraborty 2004), where some indigenous and introduced species are used as forage, for soil cover and improvement, and in the production of concentrate feed for livestock, among other uses (Cook *et al.* 2005). The genus comprises about 25 species, notwithstanding that up to 50 names can be found in the taxonomic literature. However, some of these species are poorly delimited (Klitgaard & Lavin 2005).

*Stylosanthes hispida* Rich. was effectively and validly published by Richard (1792) from material collected within the boundaries of what is known today as French Guiana and it is one of the oldest published names within the genus. However, due to its morphological similarity to *S. guianensis* (Aubl.) Sw., some authors have treated it as synonym of *S. guianensis* (Mohlenbrock 1957; CONABIO 2008). However, none of the authors listing *S. hispida* as a synonym of *S. guianensis* has cited a type specimen or original material of *S. hispida*. They rather synonymised the species based on Richard's short description (Richard 1792) (Fig. 1).

During the preparation of a taxonomic revision of Venezuelan *Stylosanthes* (Calles & Schultze-Kraft 2010), it became evident that *S. hispida* (though not native to

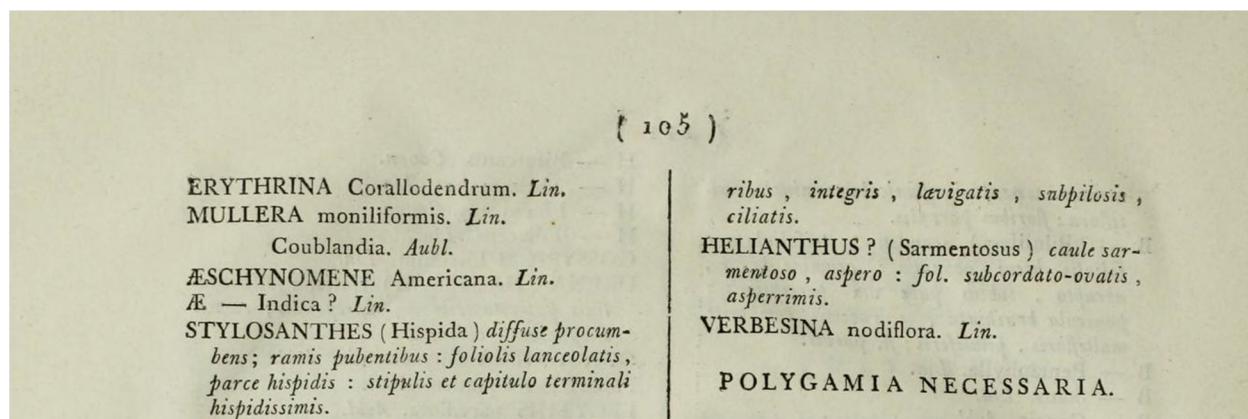
---

Accepted for publication 1 February 2017. Published online 1 March 2017

<sup>1</sup> Instituto Experimental Jardín Botánico Dr. Tobías Lasser, Universidad Central de Venezuela (UCV), 1010-A Caracas, Venezuela. e-mail: teodoro.calles@gmx.de

<sup>2</sup> Present address: Plant Production and Protection Division (AGP), Food and Agriculture Organization of the United Nations (FAO), Viale delle Terme di Caracalla, 00153 Rome, Italy.

<sup>3</sup> Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia.



**Fig. 1.** Original description of *Stylosanthes hispida* Rich. Richard (1792). Image from the Biodiversity Heritage Library. Digitised by Ernst Mayr Library of the Harvard University.

Venezuela) had never been formally typified. According to Turland (2013), however, untypified names are potentially unstable because it might be traditional usage which is determining the application of the name rather than the type. Therefore, to foster nomenclatural stability within the genus *Stylosanthes*, we here designate a lectotype for the name *S. hispida* together with some explanatory notes.

### Material and methods

Information on herbarium specimens was gathered during a visit to P and through consultation of the database in the herbarium at G. High-resolution images presented in this publication were downloaded from the websites of the Muséum National d'Histoire Naturelle, Paris, France and the Biodiversity Heritage Library (biodiversitylibrary.org) and are reproduced with permission. Literature referring to *Stylosanthes hispida* was either consulted at the library of the Royal Botanic Gardens, Kew or downloaded from the Biodiversity Heritage Library. Barcode numbers of specimens, if available, are placed in square brackets after the herbarium acronym. Herbarium acronyms used follow Thiers (2008).

### Typification

***Stylosanthes hispida* Rich.**, *Actes Soc. Hist. Nat. Paris* 1: 112 [erroneously numbered as 105] (Richard 1792). Lectotype (designated here): French Guiana, Richard s.n. (P! [P00202653]) (Fig. 2).

**NOTES.** Richard (1792) described the species *Stylosanthes hispida* but without making reference

either to a herbarium specimen or an illustration. Since Stafleu & Cowan (1983) indicated that Jean Baptiste Leblond's collection is deposited at G, we first consulted the database in that herbarium; however, no specimen of *Stylosanthes* collected by Leblond could be found. Then we reviewed relevant literature (Stafleu & Cowan 1983; Thiers 2008) and consulted herbaria known to hold Richard's specimens (i.e., G, P) and we found one element that is eligible to be designated as a lectotype of *S. hispida*, i.e., a specimen deposited at P (P00202653) (Fig. 2). This specimen displays a handwritten description of *Stylosanthes hispida* (most likely written by Louis Claude Marie Richard), and according to McNeill *et al.* (2012: Art. 9.3) this specimen should be considered original material of the name *S. hispida*. Since all characteristics of specimen P00202653 are in accordance with the original description and the specimen is housed in the herbarium where the author of the name worked, we designate it here as the lectotype of *S. hispida*.

In 2009, the specimen P00202653 was annotated as holotype of *Stylosanthes hispida* by the first author of this paper. However, for an element to be considered as a holotype it should have been designated as such in the original description (McNeill *et al.* 2012: Art. 9.1). Since Richard (1792) did not mention any element in his description of *S. hispida*, the specimen P00202653 cannot be treated as holotype of *S. hispida*. More appropriately it is considered as original material that can be selected as a lectotype (McNeill *et al.* 2012: Art. 9.3). Once this article is published, the authors will send the respective lectotype annotation label to the curator of P.



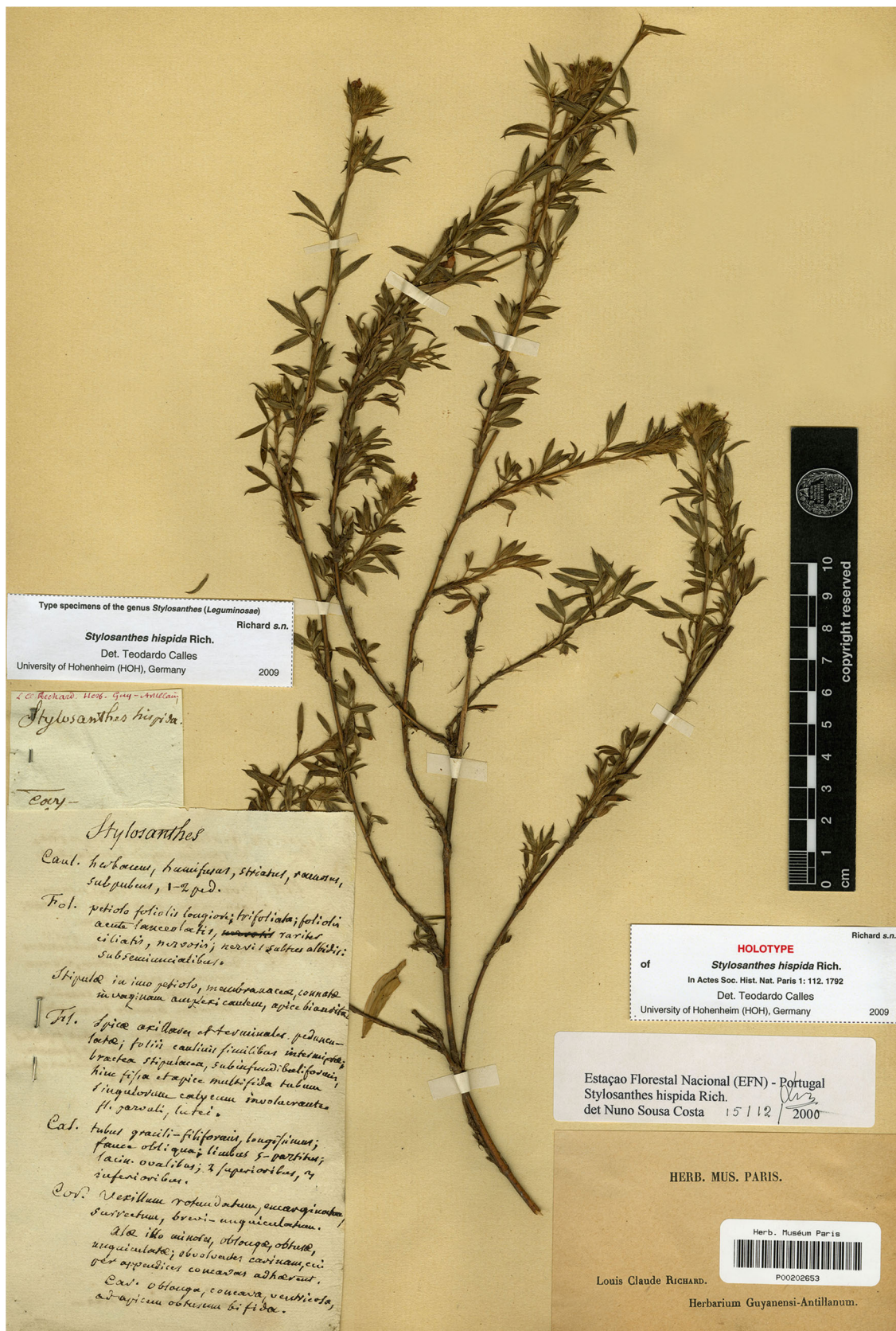


Fig. 2. Original material from Richard’s collection (barcode P00202653), selected here as lectotype of *Stylosanthes hispida* Rich. Reproduced with permission of the Muséum National d’Histoire Naturelle, Paris, France.

## Acknowledgements

We thank Ms Claudia Gonçalves and Dr Marc Jeanson for the assistance given to the first author during his stay at P. The financial support of the Eiselen Foundation, Ulm, Germany; the Foundation Gran Mariscal de Ayacucho (Fundayacucho), Caracas, Venezuela; the German Academic Exchange Service (DAAD), Bonn, Germany; and SYNTHESYS (synthesys.info) is acknowledged. Last but not least, the authors would like to thank the two anonymous reviewers, who made important suggestions for improving the final manuscript.

## References

- Calles, T. & Schultze-Kraft, R. (2010). *Stylosanthes* (Leguminosae, Dalbergieae) of Venezuela. *Willdenowia* 40: 305 – 329.
- Chakraborty, S. (ed.) (2004). *High-yielding anthracnose-resistant Stylosanthes for agricultural systems*. ACIAR Monograph No. 111. Australian Centre for International Agricultural Research, Canberra.
- CONABIO (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad) (2008). *Capital natural de México*, Vol. 1, *Conocimiento actual de la biodiversidad*. Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, Ciudad de México.
- Cook, B. G., Pengelly, B. C., Brown, S. D., Donnelly, J. L., Eagles, D. A., Franco, M. A., Hanson, J., Mullen, B. F., Partridge, I. J., Peters, M. & Schultze-Kraft, R. (2005). CD-ROM. *Tropical forages: An interactive selection tool*. Commonwealth Scientific and Industrial Research Organisation, Brisbane; Queensland Department of Primary Industries and Fishery, Brisbane; International Center for Tropical Agriculture, Cali; International Livestock Research Institute, Nairobi.
- Klitgaard, B. B. & Lavin, M. (2005). Tribe *Dalbergieae sens. lat.* In: G. Lewis, B. Schrire, B. Mackinder & M. Lock (eds), *Legumes of the world*, pp. 307 – 335. Royal Botanic Gardens, Kew.
- Mannetje, L. 't (1984). Considerations on the taxonomy of the genus *Stylosanthes*. In: H. M. Stace & L. A. Edey (eds), *The biology and agronomy of Stylosanthes*, pp. 1 – 21. Academic Press, Sydney.
- McNeill, J., Barrie, F. R., Buck, W. R., Demoulin, V., Greuter, W., Hawksworth, D. L., Herendeen, P. S., Knapp, S., Marhold, K., Prado, J., Prud'Homme van Reine, W. F., Smith, G. F., Wiersema, J. H. & Turland, N. J. (eds). (2012). International Code of Nomenclature for algae, fungi, and plants (Melbourne Code): Adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011. *Regnum Veg.* 154. Koeltz Scientific Books, Königstein.
- Mohlenbrock, R. H. (1957). Revision of the genus *Stylosanthes*. *Ann. Missouri Bot. Gard.* 44: 299 – 355.
- Nooteboom, H. P. (1961). *Stylosanthes* Swartz. *Reinwardtia* 5: 446 – 450.
- Richard, L. C. (1792). *Catalogus plantarum, ad societatem, ineunte anno 1792, e Cayenna missarum a domino Le Blond*. *Actes Soc. Hist. Nat. Paris* 1: 105 – 114.
- Stafleu, F. A. & Cowan, R. S. (1983). *Taxonomic literature: A selective guide to botanical publications and collections with dates, commentaries and types*, ed. 2, Vol. 4. Bohn, Scheltema & Holkema, Utrecht/Antwerp; Dr. W. Junk b.v. Publishers, The Hague/Boston.
- Thiers, B. (2008). *Index herbariorum: A global directory of public herbaria and associated staff*. Published at <http://sweetgum.nybg.org/ih/>. The New York Botanical Garden, New York.
- Turland, N. (2013). The code decoded: A user's guide to the International Code of Nomenclature for algae, fungi, and plants. *Regnum Veg.* 155. Koeltz Scientific Books, Königstein.