



New combinations in the Neotropical genus *Miconia* (Melastomataceae: Miconieae)

DIANA GAMBA¹ & FRANK ALMEDA²

¹Department of Biology, 223 Research Building, University of Missouri, St. Louis, One University Blvd., St. Louis, MO 63121-4400, USA. E-mail: dgamba333@gmail.com

²Institute for Biodiversity Science and Sustainability, Department of Botany, California Academy of Sciences, 55 Music Concourse Drive, Golden Gate Park, San Francisco, CA 94118-4503, USA. E-mail: falmeda@calacademy.org

In our published monograph of the Octopleura clade of *Miconia* (Ruiz & Pavón 1794: 60), we proposed a number of new combinations and new names to reflect the nested position of this group of 33 species within the large and megadiverse neotropical genus *Miconia* based on morphological and molecular data sets (Gamba & Almeda 2014). At least three of the species names we proposed or accepted in that monograph present nomenclatural problems in need of correction. The name *Miconia magnifolia* Gamba & Almeda (2014: 91), which was illegitimate and nomenclaturally superfluous, has been rejected and replaced with *Miconia solearis* (Naudin 1851: 339) Gamba & Almeda (2015: 199). Two other names, *Miconia spiciformis* Gamba & Almeda (2014: 130) and *Miconia neomicrantha* Judd & Skee (1991: 62) must also be rejected and replaced. The former is superfluous and illegitimate and our acceptance of the latter species overlooked the epithet of a heterotypic synonym that was available and should have been adopted for a new combination. We here replace these latter two names with the following combinations and provide a summary of relevant synonymy:

Miconia spicata (Gleason 1941: 253) Gamba & Almeda, *comb. nov.* Basionym: *Ossaea spicata* Gleason (1941: 253). Type: COLOMBIA. Intendencia El Chocó: dense forest south of Río Condoto, between Quebrada Guarapo and Mandinga, 120–180 m, 22–28 April 1939, Killip 35166 (holotype: NY-00245657!; isotypes: BM-000603941, online image!, COL-000003410, online image!, US-00123705, online image!). *Miconia spiciformis* Gamba & Almeda (2014: 130): nomen superfl. and illegit. Non *Miconia spicata* Macfadyen ex Grisebach (1860: 257), invalid; pro. synonym of *Miconia trinervis* (Macfadyen 1850 (2): 94) Grisebach (1860: 257).

When we created the new name *Miconia spiciformis* for this species as a replacement for *Ossaea spicata* we were under the impression that *Miconia spicata* Macfadyen ex Grisebach was a blocking name. When we consulted the International Plant Names Index throughout 2011–2013 (<http://www.ipni.org/>) there was no indication that the name is invalid.

We have subsequently learned that *Miconia spicata* was cited as a synonym of *Miconia trinervis*. According to Article 36.1 (c) of the ICN (International Code of Nomenclature) (McNeill *et al.* 2012), a name is not validly published when it is merely cited as a synonym (“prosynonym”). Consequently, *Miconia spiciformis* must be rejected and the epithet “*spicata*” is available for the new combination in *Miconia* provided here.

Miconia rubescens (Triana 1872: 146) Gamba & Almeda, *comb. nov.* Basionym: *Octopleura rubescens* Triana (1872: 146). *Ossaea rubescens* (Triana 1872: 146) Cogniaux (1891a: 1067). Type: COLOMBIA. Prov. Barbaçoas: Arrastradero, 10 m, April 1853, Triana 6258/73 (holotype: BM-000603938, online image!; isotypes: BR-564004, online image!, COL-000003408, online image!). Non *Miconia rubescens* D. Don (1830: 174), invalid: nomen nudum.

Melastoma micranthum Swartz (1788: 71). *Octopleura micrantha* (Sw.) Grisebach (1860b: 260). *Ossaea micrantha* (Sw.) Macfadyen ex Cogniaux (1891a: 1066). *Miconia neomicrantha* Judd & Skee (1991: 62). Type: JAMAICA. Swartz *s.n.* (holotype: S-3473, online image!; isotypes: C-10014953, online image!, LD-1258637, online image!). Non *Miconia micrantha* Cogniaux (1896: 12); nec *M. micrantha* Pilger (1905: 173), nomen illegit. = *M. wittii* Ule (1915: 367); nec *M. micrantha* Pittier (1947: 27), nom. illegit. = *M. tabayensis* Wurdack (1971: 359).

Sagraea neurocarpa Naudin (1852: 94). Type: syntypes not found among digital images online but probably at P for the Colombian

syntypes and probably BM for the Jamaican syntype. In the protologue, Naudin cited *Goudot s.n.* and *Bonpland s.n.* from Colombia and *Swartz s.n.* from Jamaica. This species was not listed among the American species of Melastomataceae described by Naudin (Martin & Cremers 2007).

Ossaea caudata Cogniaux (1891a: 1066). Type: ECUADOR. Prope Quito, September, *Jameson 390* (lectotype, here designated: G-DC-00328268, online image!; isolectotypes: BM-000603937, online image!, BR-564059, online image!, E-00285791, online image!, FI-004726, online image!)

Ossaea tetragona Cogniaux (1891b: 265). Type: COSTA RICA. Chemin de Carrillo, versant Atlantique, 300 m, 25 November 1890, *Biolley 3148* (holotype: BR-519067!; isotypes: BR-519133!, BR-519100!).

This species, which was long known as *Ossaea micrantha*, was correctly deemed to be a *Miconia* by Judd & Skee (1991). Because the epithet “*micrantha*” was pre-empted in *Miconia* (see enumerated names above), Judd and Skee created the new name *Miconia neomicrantha*. They cited the basionym and replaced synonym but they did not cite any other synonyms. In our monograph (Gamba & Almeda 2014: 97) we accepted *Miconia neomicrantha* under which we included four other heterotypic synonyms. The epithets “*neurocarpa*”, “*caudata*”, and “*tetragona*” are pre-empted in *Miconia* (Goldenberg *et al.* 2013). At the time we also assumed that the epithet “*rubescens*” was also pre-empted by *Miconia rubescens* D. Don (1830: 124). We have since learned that this latter epithet and some others were published without a description or a diagnosis, or a reference to a former one. Don (1830) included *Miconia rubescens* in a table of species names with an English translation of specific epithets and symbols indicating habit, height of plant, flower color, date of introduction, and country of origin. This information is identical for several of the *Miconia* species on Don’s list and clearly is not intended as a validating description or diagnosis. A nearly identical example of nude names in another British catalogue is given in Article 38.2, Ex. 3 of the ICN (McNeill *et al.* 2012) for the third edition of Sweet’s *Hortus britannicus* (1839). According to the ICN, “names of new taxa appearing in that work are not therefore validly published, except in some cases where reference is made to earlier descriptions or diagnoses.” Thus, according to Article 38.1 of the ICN, *M. rubescens* D. Don is a nomen nudum and not validly published. This makes “*rubescens*” the only epithet for a heterotypic synonym available for a transfer to *Miconia*. The new combination provided here must replace *Miconia neomicrantha*, which according to our taxonomy is nomenclaturally superfluous because it included the type of a heterotypic synonym whose epithet was available and not already pre-empted in *Miconia*.

Acknowledgments

We thank Carmen Ulloa Ulloa and Michael Grayum for alerting us to the TROPICOS (<http://www.tropicos.org>) assessment of these nomenclatural issues and to Kanchi Gandhi for much appreciated nomenclatural advice.

References

- Cogniaux, A. (1891a) Mélastomacées. In: de Candolle, A. & De Candolle, C. (Eds.) *Monographieae Phanerogamarum*. Vol. 7. Masson, Paris, pp. 1–1256.
- Cogniaux, A. (1891b) Melastomataceae. *Bulletin de la Société Royale de Botanique de Belgique* 30: 243–270.
- Cogniaux, A. (1896) New Melastomataceae collected by Miguel Bang in Bolivia. *Bulletin of the Torrey Botanical Club* 23:1–17. <https://doi.org/10.2307/2996961>
- Don, D. (1830) *Miconia rubescens* In: Loudon, J.C. (Ed.) *Loudon’s Hortus Britannicus. A catalogue of all the plants indigenous, cultivated in, or introduced to Britain. Part I. The Linnaean arrangement*. Longman, Rees, Orme, Brown, and Green, London, pp. 1–576.
- Gamba, D. & Almeda, F. (2014) Systematics of the Octopleura Clade of *Miconia* (Melastomataceae: Miconieae) in Tropical America. *Phytotaxa* 179 (1): 1–174. <https://doi.org/10.11646/phytotaxa.179.1.1>
- Gamba, D. & Almeda, F. (2015) *Miconia solearis*, a new combination to replace the illegitimate *Miconia magnifolia* (Melastomataceae: Miconieae) in Tropical America. *Phytotaxa* 219 (2): 199–200. <https://doi.org/10.11646/phytotaxa.219.2.11>
- Gleason, H. A. (1941) Novelties in the Melastomataceae. *Bulletin of the Torrey Botanical Club* 68 (4): 244–253. <https://doi.org/10.2307/2481503>
- Goldenberg, R., Almeda, F., Caddah, M.K., Martins, A.B., Meirelles, J., Michelangeli, F.A. & Weiss, M. (2013) *Nomenclator botanicus*

- for the neotropical genus *Miconia* (Melastomataceae: Miconieae). *Phytotaxa* 106 (1): 1–171.
<https://doi.org/10.11646/phytotaxa.106.1.1>
- Grisebach, A.H.R. (1860) *Flora of the British West Indian Islands III*. Lovell, Reeve & Co., London, UK, pp. 193–315.
- Judd, W.S. & Skeeon, J. (1991) Taxonomic studies in the Miconieae IV. Generic realignments among terminal-flowered taxa. *Bulletin of the Florida Museum of Natural History. Biological Sciences* 36 (2): 25–84.
- Macfadyen, J. (1850) *The Flora of Jamaica*. Vol 2. Longman, Orme, Brown, Green & Longmans, London, 104 pp.
- Martin, C.V. & Cremers, G. (2007) Les Melastomataceae américaines décrites par C. Naudin. *Le Journal de Botanique de la Société Botanique de France* 37: 3–111.
- 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. (2012) International code of nomenclature for algae, fungi, and plants (Melbourne Code): adopted by the eighteenth international botanical congress, Melbourne, Australia, July 2011. [*Regnum Vegetabile* 154]. Koeltz Scientific Books, pp. 1–208.
- Naudin, C. (1851) Melastomacearum. Quae in Museo Parisiensi continentur Monographicae descriptionis. *Annales des Sciences Naturelles, Botanique, sér. 3* 17 (5): 305–382.
- Naudin, C. (1852) Melastomacearum. Quae in Museo Parisiensi continentur Monographicae descriptionis. *Annales des Sciences Naturelles, Botanique, sér. 3* 18 (2): 85–154.
- Pilger, R. (1905) Beiträge zur Flora der Hylea nach den Sammlungen von E. Ule. *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die Angrenzenden Länder* 47: 100–191.
- Pittier, H.F. (1947) Especies venezolana nuevas o supuestas como tales. *Boletín de la Sociedad Venezolana de Ciencias Naturales* 11: 13–28.
- Ruiz, H. & Pavón, J.A. (1794) *Flora Peruviana, et Chilensis Prodrromus*. Imprenta de Sancha, Madrid, 67 pp.
<https://doi.org/10.5962/bhl.title.11759>
- Swartz, O. (1788) *Nova Genera & Species Plantarum seu Prodrromus*. Bibliopoliis Acad. M. Swederi, 158 pp.
<https://doi.org/10.5962/bhl.title.433>
- Triana, J.J. (1872) [“1871”]. Les Melastomacées. *Transactions of the Linnean Society of London* 28: 1–188.
<https://doi.org/10.1111/j.1096-3642.1871.tb00222.x>
- Ule, E. von (1915) Melastomataceae. In: Pilger, R. *Plantae Uleanae novae vel minus cognitae*. Heft 5. *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 6 (60): 348–368.
<https://doi.org/10.2307/3994311>
- Wurdack, J.J. (1971) Certamen Melastomataceis XVII. *Phytologia* 21 (6): 353–368.