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RUELLIA SIMPLEX, AN OLDER AND OVERLOOKED NAME FOR *RUELLIA TWEEDIANA* AND *RUELLIA COERULEA* (ACANTHACEAE)

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Abstract. *Ruellia simplex*, an older and overlooked name for *Ruellia tweediana* and *Ruellia coerulea* (Acanthaceae). *Darwiniana* 45(2): 201-203.

Ruellia simplex, the name of a species of *Ruellia* described from Cuba in 1870, is the oldest name for the neotropical species generally known as *Ruellia tweediana*, *Ruellia coerulea* and Ruellia malacosperma. Therefore *Ruellia simplex* has priority and reduces tha latter names to synonym. This species has an amphitropical distribution in the New World, being found in southern United States, Mexico and the Antilles, and in western Bolivia, southwestern Brazil, Paraguay, Uruguay, and northeastern Argentina.

Keywords. Acanthaceae, Neotropics, nomenclature, *Ruellia*.

Resumen. *Ruellia simplex*, un nombre más antiguo y hasta ahora ignorado para *Ruellia* tweediana y *Ruellia coerulea* (Acanthaceae). *Darwiniana* 45(2): 201-203.

Ruellia simplex, el nombre de una especie de *Ruellia* descripta para Cuba en 1870, es el nombre más antiguo para una especie neotropical generalmente conocida como *Ruellia tweediana*, *Ruellia coerulea* y *Ruellia malacosperma*. Por lo tanto *Ruellia simplex* tiene prioridad y reduce estos últimos nombres a la sinonimia. Esta especie tiene una distribución anfitropical en el Nuevo Mundo, encontrándose en el sur de Estados Unidos, México y las Antillas, y en el oeste de Bolivia, sudoeste de Brasil, Paraguay, Uruguay, y noreste de Argentina.

Palabras clave. Acanthaceae, Neotrópico, nomenclatura, *Ruellia*.

In his treatment of the Acanthaceae for Martius' *Flora Brasiliensis*, Nees (1847a) described a new species of *Ruellia* from Uruguay under the name *Arrhostoxylon microphyllum* Nees. This plant of humid habitats was characterized by its linear to oblong-lanceolate, glabrous leaves, and axillary, one- to few-flowered inflorescences. Later that same year, in De Candolle's *Prodromus*, Nees (1847b) described the same species under the different name *Cryphiacanthus angustifolius* Nees from material collected in Argentina (Entre Ríos) and Mexico (Xalapa, Veracruz). Since then, the nomenclature of this species has had an intricate history. Two facts have made it so complex: 1) both these names have earlier homonyms in *Ruellia* and therefore cannot be used; 2) the plants from North America and those from South America have traditionally been treated as two different species.

The disjunct distribution was overlooked by authors that recently studied this species from material collected in South America, e.g., Ezcurra (1993a, b; 1999a), and Wasshausen & Wood (2004). Nevertheless, a recent study of *Ruellia* in Chiapas, Mexico (Daniel, 1995), does include names used for North American material in the synonymy.

Therefore this species, as originally proposed

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by Nees (1847b) and recently treated by Daniel (1995), has a wide amphitropical distribution in moist to wet, tropical and subtropical regions of North and South America. Our studies of Acanthaceae in North American, South American, and European herbaria during the past two decades reveal that the distribution of this species not only includes southern North America (Mexico and southern United States) and southern South America (Bolivia, Paraguay, southern Brazil, Uruguay and Argentina), but the Antilles, where the species was described from Cuba under the name *Ruellia simplex* Wright, and is also found in Dominican Republic, Trinidad and Tobago, and Puerto Rico. This is an older name that reduces to synonymy all others recently used, such as *Ruellia coerulea* Morong (Ezcurra, 1993a, b; 1999a, b; Daniel, 1995) and *Ruellia tweediana* Griseb. (Wasshausen & Wood, 2004). A complete synonymy of this species is provided here.

Ruellia simplex Wright in Sauvalle, Flora Cubana: 97. 1870 ("1868"). An. Acad. Ciencias Med. Fis. Nat. La Habana 6: 321. 1870.TYPE: Cuba, Plantae Cubenses Wrightianae, en sabanas bajas y fangosas cerca del hato El Salado jurisdicción de San Cristóbal y Palacios, sine data, *Wright 3642* (holotype NY!).

Arrhostoxylon microphyllum Nees in Mart., Fl. Bras. 9: 61. 1847. *Ruellia microphylla* (Nees) Lindau, Engl. Bot. Jahrb. 19 (Beibl.) 48: 16. 1894, non Cav. 1801. *Ruellia ignorantiae* Herter, nom. nov., Rev. Sudamer. Bot. 4: 193. 1937. Syn. nov. TYPE: Uruguay, Montevideo ad S. Luciam sub fruticibus ripas fluviorum obumbrantibus, sine data, *Sellow s.n.* (holotype B destr.; isotypes not found).

Cryphiacanthus angustifolius Nees in DC., Prodr. 11: 199. 1847, non *Ruellia angustifolia* Sw., 1788. *Ruellia tweediana* Griseb., nom. nov., Symb. Fl. Argent.: 259. 1879. *Ruellia spectabilis* Britton, nom. nov., Ann. New York Acad. Sc. 7: 192. 1893, non Nicholson, 1886. *Ruellia brittoniana* Leonard, nom. nov., J. Wash. Acad. Sci. 31: 96. 1941. Syn. nov. TYPE: Argentina, Entre Rios, sine data, *Tweedie s.n*. (lectotype, K! designated by Grisebach, 1879).

Ruellia coerulea Morong in Morong et Britton, Ann. New York Acad. Sc. 7: 193. 1893. Syn. nov. TYPE: Paraguay, falls of Pilcomayo River, 1888-1890, *Morong 1013* (holotype NY!, isotypes MO!, US!).

Ruellia malacosperma Greenm., Proc. Amer. Acad. Arts 34: 572. 1899. Syn. nov. TYPE: México, San Luis Potosí, Tampico, 30-V-1898, *Pringle 6806* (lectotype GH! selected by Daniel 2005, isolectotypes K!, US!, MO photograph!).

Ruellia longipes Urb., Symb. Antill. 9: 129. 1923. Syn. nov. TYPE: Cuba, Camaguey 'in pascuis salsuginosis prope Camaguey ad septentrionem versus', 11-V-1917, *Ekman 8601* (holotype HAC n.v., isotype S!).

Descriptions. Dawson (1979), Ezcurra (1993a, b; 1999b), Daniel (1995, 2004), Wasshausen (2003).

Illustrations. Fernald (1945: pl. 840), Dawson (1979), Ezcurra (1993a, b; 1999b).

Distribution. Southern United States, Mexico, the Antilles (Cuba, Dominican Republic, Puerto Rico, and Trinidad and Tobago), western Bolivia, southwestern Brazil, Paraguay, Uruguay, and northeastern Argentina. It grows in sunny areas on periodically inundated soils, such as margins of pools, or along ditches and watercourses.

The amphitropical distribution of this species is not a rare characteristic in the Acanthaceae. Other species of *Ruellia* [(e.g., *Ruellia erythropus* (Nees) Lindau] and *Justicia* [e.g., *Justicia ramulosa* (Morong) C. Ezcurra)] have similar distributions, being present in southern Mexico and/or Central America, and northern Argentina, Paraguay, southern Bolivia and southwestern Brazil (Ezcurra, 1993b, 2002; Daniel, 2005). Several other species of Acanthaceae of southern South America have clear affinities with North American species and their distribution and relationships, probably as result of long distance dispersal events during the evolutionary history of the groups, should be investigated.

Acanthaceae seeds frequently become mucilaginous when wet (e.g., in *Ruellia*), or have surface ornamentations such as prickles, hairs or spines (e.g., in *Justicia*) that make them adhesive and therefore adapted to dispersal by animals by ectozoochory. In this way, migratory birds could have aided long-distance dispersal of species that presently have disjunct distributions between North and South America. Humans have also aided the dispersal of several Acanthaceae species cultivated as ornamentals. Once introduced into a new area, many Acanthaceae become naturalized in human-disturbed habitats, as has been observed in 18 species of ornamental Acanthaceae from tropical

America that have been reported to have escaped cultivation and naturalized in Indo-Pacific Islands (Meyer & Lavergne, 2004).

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