

LECTOTYPIFICATION AND A NEW STATUS FOR *RHIZOPHORA X HARRISONII* (RHIZOPHORACEAE), A NATURAL HYBRID BETWEEN *R. MANGLE* AND *R. RACEMOSA*

XAVIER CORNEJO¹

Abstract. Based on molecular data, the rank of *Rhizophora harrisonii*, a well-known red mangrove from the Neotropics and West Africa, is formally presented here as a natural hybrid produced by ongoing hybridization and introgression between *R. mangle* and *R. racemosa*.

Resumen. Con base a datos moleculares, el rango de *Rhizophora harrisonii*, un taxon bien conocido como mangle rojo que habita en el neotrópico y el oeste de África, es presentado aquí como un híbrido natural que es producto de la hibridación continua e introgresión entre *R. mangle* y *R. racemosa*.

Keywords: Hybrid, Neotropics, red mangrove, *Rhizophora X harrisonii*, Rhizophoraceae, West Africa

Rhizophora harrisonii Leechm. (Rhizophoraceae) is a well-known red mangrove tree or shrub distributed along both coast of Tropical America and in West Africa (Breteler, 1969, 1977; Cerón-Souza et al., 2010). Nonetheless, its taxonomic rank has been questioned (Tomlinson, 1986; Cornejo and Bonifaz, 2006). As previously suggested (Breteler, 1969: 439), recent molecular studies using two non-coding chloroplasts (cpDNAs), two flanking microsatellite regions (FMRs), and six microsatellite loci (Cerón-Souza et al., 2010) supported that *R. harrisonii* is not a separate species of hybrid origin. Rather *R. harrisonii* individuals represent morphotypes produced by ongoing hybridization and introgression between the often sympatric *Rhizophora mangle* L. and *R. racemosa* G. Mey. As large stands of the proposed natural hybrid, *R. X harrisonii*, are often found in the Neotropics, a name that follows modern nomenclatural rules is needed to properly manage red mangroves.

The hybrid name of *Rhizophora X harrisonii*, was previously published by Tomlinson (1986: 334), who stated that it “is a hybrid between *R. mangle* and *R. racemosa*.” However, following Art. 41.1, and 41.5 of the then current *International Code of Botanical Nomenclature* (McNeill et al., 2012), the natural hybrid was not properly proposed. Herein, the hybrid status for *R. harrisonii* is formally proposed.

Rhizophora X harrisonii Leechman (*pro sp.*)
Basionym: ***Rhizophora harrisonii*** Leechman, Bull. Misc. Inf. Kew 1918(1): 8, fig. A. 1918. TYPE: BRITISH GUIANA. Seashore near Georgetown, Feb 1917 (fl), A. Leechman s.n. (lectotype, designated here, K-485219 [fl]; isolectotypes: K-485220 [fl], K-485218 [fr]).
Synonym: *Rhizophora brevistyla* Salvoza, Nat. Appl. Sci. Bull. Philipp. 5(3): 211, fig. 2. 1936. TYPE: PANAMA. Panama, along the Pacific coast, Bella Vista, 10 Sept 1929 (fl), F. M. Salvoza 1007 (A-55199; isotype: [L-9919]).

LITERATURE CITED

- BRETELER, F. J. 1969. The Atlantic species of *Rhizophora*. *Acta Botanica Neerlandica* 18: 434–441.
- BRETELER, F. J. 1977. America's Pacific species of *Rhizophora*. *Acta Botanica Neerlandica* 26: 225–230.
- CERÓN-SOUZA, I., E. RIVERA-OCASIO I., E. MEDINA, J. A. JIMÉNEZ, W. O. McMILLAN, E. BERMINGHAM. 2010. Hybridization and introgression in New World red mangroves, *Rhizophora* (Rhizophoraceae). *Amer. Jour. Bot.* 97(6): 945–957.
- CORNEJO, X. AND C. BONIFAZ. 2006. *Rhizophora racemosa* G. Mey. (Rhizophoraceae) en Ecuador y Perú, y el color de los óvulos: un nuevo caracter en *Rhizophora*. *Brenesia* 65: 11–17.
- MCCNEILL, J., F. R. BARRIE, W. R. BUCK, V. DEMOULIN, W. GREUTER, D. L. HAWKSWORTH, P. S. HERENDEEN, S. KNAPP, K. MARHOLD, J. PRADO, W. F. PRUDD'HOMME VAN REINE, G. F. SMITH, J. H. WIERSEMA AND N. J. TURLAND. 2012. *International Code of Nomenclature for algae, fungi and plants* (Melbourne Code), adopted by the Eighteenth International Botanical Congress Melbourne, Australia.
- TOMLINSON, P. B. 1986. *The Botany of Mangroves*. Cambridge University Press, New York.

Thanks are due to Ivana Cerón-Souza for her interesting comments about hybridization and introgression in *Rhizophora*.

¹ Herbarium GUAY, Facultad de Ciencias Naturales, Universidad de Guayaquil. P.O. Box 09-01-10634, Guayaquil, Ecuador; xcornejoguay@gmail.com