



## Correspondence

### A new combination in Verbenaceae and a new synonym in Lamiaceae from Brazil

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#### Abstract

A new combination is provided for a species of Verbenaceae from Brazil, *Lippia horridula* comb. nov., which was originally described as *Eriope horridula* (Lamiaceae). *Lippia adpressa* is here recognized as a synonym of *Hyptis obtecta* (Lamiaceae).

#### Introduction

While preparing a revision of species of *Lippia* Linnaeus (1753: 633–634) (Salimena & Múlgura, in preparation) for a Flora Neotropica monograph, a number of collections, identified as *Eriope horridula* Epling (1936: 191), were encountered, which bore all the characters of the genus *Lippia* (Verbenaceae), including the reduced membranous calyx, and ovary with a terminal style. Also the conspicuous strigose trichomes, borne on the leaves, were not uniseriate as are those of Lamiaceae. This taxon was originally described as a species of *Eriope* Humb. & Bonpl. ex Benth (1833: 142) (Lamiaceae) by Epling (1936). Harley (1973), who was engaged in a review of the genus *Eriope*, showed that its characters clearly excluded it from this family but it appeared to be a member of the genus *Lippia* (Verbenaceae). At that time, however, he could find no material to match it in the holdings of *Lippia* at Kew, and the correct name for the plant remained in doubt. Now a study of further and more recent herbarium material has confirmed this observation and has shown that no earlier name exists under *Lippia*, so that it is necessary to provide a new combination.

#### *Lippia horridula* (Epling) Salimena, Múlgura & Harley, comb. nov.

Basionym: *Eriope horridula* Epling (1936: 191). Type:—BRAZIL. Goyaz: Prope Porto Real, 4 December 1828, W. J. Burchell 8426-5 (holotype K!).

*Subshrub* ca. 20 cm tall, with well-developed woody xylopodium, stems quadrangular, 0.7–20 cm long, with conspicuous nodes, hirsute when young, with stalked glandular trichomes, glabrescent at maturity. *Leaves* opposite, subsessile, petioles ca. 1.0 mm long, glabrous, lamina 2.0–5.0 × 0.4–0.8 cm, narrowly elliptic, with base and apex acute, margin serrate, ciliate, glabrous on both surfaces or sparsely strigose and with sessile glandular trichomes, venation craspedodromous. *Inflorescence* in a frondose, homothetic pleiobotrys, partial inflorescence spiciform, peduncle 0.7–1.5 cm long, densely glandular with stalked glandular trichomes and simple, non-glandular trichomes, bracts 5.0 × 2.0 mm, elliptic, adaxial surface glandular-hispid with stalked

glandular trichomes, apex reddish; calyx from 1.5 mm long, cylindrical, bi-lobed, densely hispid, trichomes non-glandular, 3.0 mm long; corolla pinkish with tube  $5.0 \times 1.0$  mm, hirsute with short, simple trichomes, lobes ca. 4.0 mm long. Fruit unknown.

**Distribution and habitat:**—*Lippia horridula* is a species endemic to the Brazilian states of Goiás, Tocantins and the Distrito Federal, occurring in the “cerrado” and the “campo rupestre”, above 1000 m altitude, resprouting after the areas have been burnt.

**Selected specimens examined:**—BRAZIL. Distrito Federal: Área do Cristo Redentor, 28 August 1990, P. S. Câmara & M. S. Câmara 23 (SI); Estação Florestal Cabeça de Veado, July 1985, *Equipe do Jardim Botânico de Brasília* 448 (HEPH); Reserva Ecológica do IBGE, 17 October 1994, M. L. Fonseca & F. C. A. Oliveira 138 (SI). Goiás: Corumbá, Pirineus, 28 July 1952, A. Macedo 3694 (SI); Prope Cavalcante, 30 September 1829, W. J. Burchell 7921 (K); Prope Canga, 5 November 1828, W. J. Burchell 8291 (K). Tocantins: Prope Porto Nacional (Porto Real), 24 March 1829, W. J. Burchell 8746-2 (K).

**Observations:**—*Lippia horridula* is similar in habit to *Lippia grandiflora* Mart. & Schauer ex Schauer (1847: 591), from Southern Brazil, with the development of a woody xylopodium and with a similar flower colour, but differs in the form of the leaves, which in *L. horridula* are narrowly elliptic, with the margins serrate and ciliate at the apices of the teeth and with the calyces densely hispid, while in *L. grandiflora* the leaves are ovate to rotund with margin crenate and calyx with strigose indumentum.

A study of the type collections of *Lippia adpressa* Hayek (1906: 87) resulted in its recognition as a new synonym of *Hyptis obtecta* Benth (1848: 99).

**Hyptis obtecta** Benth (1848: 99). *Mesosphaerum obtectum* (Benth.) Kuntze (1891: 526). Lectotype (designated by Epling 1936: 289):—BRAZIL. Goyaz: without locality, J. B. E. Pohl 1654 (lectotype K!, isolectotype BR!)

*Lippia adpressa* Hayek (1906: 87), *syn. nov.* Type: —BRAZIL. Goyaz: without locality, G. Gardner 3933 (holotype W!; isotypes K!, OXF!, MANCH!, NY!, P!, SI! Photograph Series FM 34328, SI!)

In the protologue of *Hyptis obtecta*, Benth (1848) cited various herbarium collections, including Gardner 3933, which was chosen by Hayek as the holotype of his species *Lippia adpressa* Hayek (1906: 87). Hayek, in the original description, cited Gardner 2933 as the type collection, but this appears to be a typographic error for “3933” as is plainly indicated on the holotype deposited in W. A study of the specimens of this collection confirms its identity as *Hyptis obtecta* Benth (1848: 99), Lamiaceae, as originally proposed by Benth, and not as a member of the Verbenaceae. In a recent paper, Harley & Pastore (2012) divided *Hyptis* into a number of genera, based mainly on molecular evidence. However, the section to which *Hyptis obtecta* belongs, sect. *Eriosphaeria* Benth (1833: 88) remains in the genus *Hyptis sensu stricto*.

*Hyptis obtecta* is a very striking species, occurring in the “cerrado” and the “campo rupestre” of Goiás and characterized by its small, sessile leaves, which are cordate and adpressed to the stem, and covered by a dense indumentum of appressed grey hairs.

A superficial similarity between species of the genus *Hyptis* (Lamiaceae) with species of *Lippia* (Verbenaceae) has resulted in a confused taxonomy with the recent and necessary creation of a number of synonyms (Harley & Salimena 1998), such as *Lippia cipoensis* Moldenke (1959: 446) as a synonym of *Hyptis passerina* Mart. ex Benth (1833: 89) and *Lippia grisea* Moldenke (1970: 242) a synonym of *Hyptis saxatilis* A.St.-Hil. ex Benth (1833: 90).

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