Mexican species of Stachys (Lamiaceae) revisited

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ABSTRACT

In my synoptical study of the Mexican and Central American Stachys (Turner 1994b), 38 species were recognized; two species were added by subsequent workers, S. manantlanensis B.L. Turner and S. turneri Rzed. & Calderon, these discussed herein. An additional two novelties are described from Mexico in the present paper: Stachys tamaulipana B.L. Turner, sp. nov., from the states of Tamaulipas and Nuevo Leon, and Stachys tlaxiacana B.L. Turner, sp. nov., from the state of Oaxaca; the former relates to the more northern S. boraginoides, the latter to the more southern S. grahamii; photographs of the holotypes are presented, along with maps showing their distribution.


KEY WORDS: Lamiaceae, Stachys, S. manantlanensis, S. turneri, Mexico, Oaxaca, Nuevo Leon, Tamaulipas

As noted in the above abstract, two novelties were added to the Mexican species of Stachys following my synoptical treatment of the complex. Appropriate comments upon their status follow:


As noted in the original description, this taxon belongs to the S. coccinea complex (Turner 1994a). In my synoptic treatment of the Mexican species of Stachys (Turner 1994a), it will key to S. pacifica B.L. Turner, but differs in habit (sprawling stems, rooting at the nodes) and corolla color, which was said to be “bright magenta to lilac” in my original description; at the time the following two collections were not available to me: Iltis 31124 (TEX), who described the corollas as “deep rose,” while Iltis et al. 29354 (TEX) describe the corollas as a “rich deep rose.”


As noted by its authors, this is a very distinct taxon, presumably confined to the state of Guanajuato, and presumably closely related to S. arriagana B.L. Turner and S. moorei B.L. Turner, all possessing pubescent nutlets, a relatively rare trait in the genus. The following key will distinguish the taxa concerned:

1. Stems and foliage densely pubescent with white villous hairs; corolla tube annulate; Guanajuato………………………………………..S. turneri
   1. Stems and foliage otherwise; corolla tubes lacking an annulus; Hidalgo and San Luis Potosi…(2)

2. Calyx 6-7 mm long; corolla tubes pink, 5-9 mm long;
   Hidalgo……………………………………………………………S. moorei
2. Calyx 9-10 mm long, corolla tubes lilac, 10-11 mm long; San Luis Potosi……………………………………………………………S. arriagana

It should be noted, ashamedly, that in my synopsis of Mexican taxa (Turner 1945b), I keyed both S. arriagana and S. moorei as possessing annulate corolla tubes, although these were appropriately described as lacking an annulus in my original descriptions of the taxa. Fortunately, the authors of S. turneri correctly noted the error concerned.
Distribution of the several taxa is shown in Fig. 3.

My continued interest in the Mexican *Stachys* has revealed two additional novelties, as follows:

**STACHYS TAMAULIPANA** B.L. Turner, sp. nov.  Fig. 1

**Rhizomatous perennials**, rooting at the nodes and forming large mats up to 30 cm high in wet places. **Mid-stems** pubescent with spreading hairs 1.5-2.0 mm long, beneath these, on uppermost stems, an array of minute, glandular, hairs. **Leaves** (at mid-stem) mostly 5-10 cm long, 3-4 cm wide; petioles 2-6 cm long; blades sub-cordate to cordate, sparsely pubescent above and below with hairs 1-2 mm long; margins with rounded serrations. **Inflorescence** a terminal bracteate raceme, 10-20 cm long; peduncles 5-15 cm long; bracts leaf-like, lanceolate, reflexed, 1-4 cm long, 0.2-1.0 cm wide. **Flowers** 4-6 to a node; pedicels 1-2 mm long, minutely, glandular-pubescent. **Calyces** (flowering) 5-6 mm long, minutely pubescent to nearly glabrous, the lobes lanceolate, 2-3 mm long. **Corollas** reportedly “pink (Hinton 24613)” or “deep purple (Ferguson 7);” tubes 6-8 mm long, having a well-defined annulus ca 3 mm from the base; lower lip 6-8 mm long; upper lip 3-4 mm long. **Anthers** purple, extending from the throat for ca 3 mm. **Nutlets** brown, 1.5-2.0 mm long, verrucose or somewhat warty (not smooth).

**TYPE:** MEXICO. TAMAULIPAS: Mpio. Hidalgo, “Arroyo Obscuro; along road to Dulces Nombres, Nuevo Leon; 2.0 road miles NE of Los Caballos towards Canada El Mimbre; 15.0 road mi from the lowermost crossing of arroyo El Mimbre; humid forest with Carya [et al.],” limestone soils, 1800 m, 23 59 09 N, 99 28 37 W, “forming extensive mats in wet rocks of intermittent stream,” 23 Sep 1994, Mark H. Mayfield 2086 [with J. Hinton & G. Nesom] (Holotype: TEX).

**ADDITIONAL SPECIMENS EXAMINED:** MEXICO. NUEVO LEON; “CO/MPIO: cadereyta; 1.2 km SW of the junction with the main road from Cadereyta to Allende towards Santiago along the road through La Boca Canyon to Antiaigo in the Sierra La Silla in low lying areas; east of the Sierra La Silla;” occurring with *Taxodium.* “Dark clay soils. Common rhizomatous perennials; growing in roadside ditches; corolla deep purple.” 350 m, 14 Mar 1994, Ferguson 7 (TEX). **TAMAULIPAS: Mpio. Hidalgo, Los Caballos, 1700 m, 3 Aug 1994, Hinton et al. 24613 (TEX).

The species is named for the state of Tamaulipas, whence the type.

In my treatment of Mexican *Stachys* (Turner 1994b), this species, because it lacks broad-based stem-hairs, will key to *S. pilosissima* Mart. & Gal.; at the time of that treatment, I possessed only one collection of the novelty from Tamaulipas (*Hinton et al. 24613*), this I positioned in the latter taxon, lacking detailed descriptive data, etc. Subsequent collections (cited above) strongly suggest that the taxon is undescribed, and perhaps closer to *S. boraginoides* Schlecht. & Cham., having a sprawling habit and relatively large annulate corollas, as well as large, somewhat verrucose, nutlets. While treated as a novelty here, it must be admitted that the taxon might with equal validity be treated as part of the fabric of an enlarged *S. boraginoides*. It differs from the latter, however, in several features, including vestiture (lack of broad-based hairs), lanceolate, reflexed flowering bracts (vs leaf-like and non-reflexed), shorter calyx lobes (2-3 mm long vs 3-5 mm), and distribution (Fig. 4).

**STACHYS TLAXIACANA** B.L. Turner, sp. nov.  Fig. 2

**Rhizomatous, erect, perennial herbs** to 30 cm high. **Mid-stems**, mostly glandular-pubescent (setulose and eglandular near the base), the vestiture 0.3-0.5 mm high. **Leaves** (lower), 2-3 cm long, 1.0-1.5 cm wide; petioles 1-6 mm long; blades broadly lanceolate to sub-deltoid, appressed-pubescent above and below, the margins minutely serrate. **Inflorescence** a terminal interrupted, glandular-pubescent, spike ca 18 cm long, 3 cm wide; floral bracts broadly obovate, 3-5 mm long and as wide, glandular-pubescent mainly along the margins, their surfaces appressed-pubescent. **Flowers**, 4-6 to a node, the internodes ca 2 cm long. **Calyces** (flowering) 4-5 mm long, pubescent like the bracts; tubes ca 3 mm long, the lobes 1.5-
2.0 mm long. **Corollas** reportedly “purple;” tubes 7-8 mm long, having a well-defined annulus ca 2 mm above the base; upper lip ca 2 mm long; lower lip 3-5 mm long. **Anthers** purple, excurrent for ca 2 mm. **Nutlets**, smooth, brown, ovoid, ca 1.5 mm long, 1.0 mm wide.

**TYPE:** **MEXICO. OAXACA. Distrito Tlaxiaco,** “ca 10 mi N of San Miguel El Grande Slopes of Cerro Piedra de Olla. Pine, fir, on steep slopes and ridge[sic]. Rare in part shade under trees.” 2950 m, 97 33 W, 17 07 N, 3 Aug 1990, *J. A Soule 2435* [with D.R.Brunner] (Holotype: TEX).

*Stachys tlaxiacana* will key to or near *S. grahamii* in the treatment of Turner (1994b); in addition to its distribution (Fig 5), it differs from the latter in being a stiffly erect small herb with glandular-pubescent stems (vs not so), having notably short calyx lobes (1.5-2.0 mm long vs 2-4 mm); especially noteworthy are the smaller, broadly obovate, glandular-pubescent floral bracts, such not found in *S. grahamii*.

The species name is derived from the Distrito Tlaxiaco, whence the type.

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**LITERATURE CITED**


Fig. 1. Holotype of *Stachys tamaulipana* B.L. Turner (Holotype, TEX).
Fig. 2. Holotype of *Stachys tlaxiacana* B.L. Turner (Holotype, TEX).
Fig. 3. Distribution of *Stachys turneri* complex.

Fig. 4. Distribution of *Stachys tamaulipana* and *S. boraginoides*. 
Fig. 5. Distribution of *Stachys tlaxiacana* and *S. grahamii*.