

**A NEW SPECIES OF *AGERATINA* (ASTERACEAE, EUPATORIEAE)  
FROM JALISCO, MEXICO**

B.L. Turner

Department of Botany, University of Texas, Austin, Texas 78713 U.S.A.

ABSTRACT

A new species, *Ageratina jocotepecana* B.L. Turner, is described and illustrated from Jalisco, México. It belongs to the *A. mairetiana* complex and is distinguished by its very large broadly deltoid leaves which are subcordate at the base. A map showing the distribution of the four closely related members of this complex in Jalisco is provided.

KEY WORDS: Asteraceae, Eupatorieae, *Ageratina*, México, systematics

Routine identification of Mexican Asteraceae has revealed the following novelty. It belongs to the *Ageratina mairetiana* (DC.) King & H. Rob. species complex as conceived by Turner (1987) a group characterized by its biseriate pappus, the outer bristles much shorter than the inner.

***AGERATINA JOCOTEPECANA*** B.L. Turner, *spec. nov.* Figure 1. TYPE: MEXICO. Jalisco: Mpio. Jocotepec, Cerro Viejo, "antes de llegar a la cima - (Bola del Viejo) subiendo por Zapotitan - de Hidalgo." ca. 2650 m, 5 Mar 1989, *M. Cházaro B. et al.* 5871 (HOLOTYPE: TEX!).

Similis *A. lasioneurae* (Hook. & Arn.) King & H. Rob. sed foliis late deltatis cum basibus subcordatis, costis infra, dense glanduliferis-pubescentibus ubique, et achenibus cum pilis plerumque effusis (vice acheniorum atomiferorum-glanduliferorum).

Stiffly erect perennial herbs 1.6-2.0 m high. Stems submaculate to tannish, densely glandular-hirsute just below the capitulescence, glabrate with age. Leaves opposite throughout, mostly 10-20 cm long, 6-10 cm wide, not much reduced



Figure 1. *Ageratina jocotepecana*, from holotype.



Figure 2. Distribution of *Ageratina mairetiana* complex in Jalisco (excluding *A. cerifera*): *A. mairetiana* var. *mairetiana* (closed circles); *A. m.* var. *elucens* (open circles); intermediate to var. *mairetiana* and var. *elucens* (half circle); *A. lasioneura* (open triangles); *A. jocotepecana* (open squares). Based upon material at LL, TEX.

upwards; petioles 3-6 cm long; blades deltoid to subcordate, 5-7 palmately nervate from or near the base, the margins irregularly dentate, glandular-pilose beneath, especially along the major veins. Heads arranged 5-10 in axillary bracteate clusters, the ultimate peduncles 5-15 mm long. Involucres campanulate; bracts 2-seriate, subequal, 8-12 mm long, glandular-pubescent with short hairs, the apices acute to acuminate. Florets 50-80 per head (estimated); corollas white, 5-6 mm long, glabrous or nearly so; tube ca. 3 mm long; lobes ca. 0.8 mm long, acute, glabrous (rarely 1 or 2 short hairs). Achenes cylindrical, ca. 4 mm long, moderately hispid throughout; pappus of 30-40 white bristles about 7 mm long, below these an outer series of fewer, shorter, bristles 1-3 mm long.

ADDITIONAL SPECIMENS EXAMINED: MEXICO. Jalisco: Mpio. Jocotepec, "Vereda por la cresta a la Bola del Viejo", oak woodlands, 2100-2850 m, 5 Feb 1987, *Machuca* N. 5449 (WISC); Mpio. Tecolotlán, Sierra de Quila, Cerro Huehuentón, ladera SE, ca. 2300 m, 4 Feb 1990, *Guerrero* N. 654 (TEX).

The very broad deltoid blades, subcordate at the base, having lower surfaces with midveins densely glandular-pubescent, readily distinguishes this taxon from *Ageratina lasioneura*. In addition, it can be distinguished from the latter by the densely glandular-pubescent branches of its capitulescence (vs. eglandular and tomentose). Nearly similar leaf forms to those of *A. jocotepecana* occur elsewhere in Jalisco (e.g., Mpio. Venustiana Carranza, *Villa C. 668* [TEX]), but otherwise such plants have all of the characters of *A. lasioneura*. It should also be noted that both *A. jocotepecana* and *A. lasioneura* occur on Cerro Huehuentón, flower at about the same time (e.g., *Guerrero* N. 656 [TEX]), but intergrades between them have not been detected.

Two of the above cited specimens (TEX), including the type, were included in my broad concept of *Ageratina lasioneura* (Turner 1987). I still maintain *Eupatorium chapalense* S. Wats. as synonymous with *A. lasioneura*, although the former approaches *A. jocotepecana* in having broadly ovate leaves and pubescent achenes. It differs from *A. jocotepecana*, however, in possessing eglandular pubescence and leaves with blades merely obtuse or rounded at the base. McVaugh (1984) suggested that such plants might prove distinct; if recognized, the *A. mairetiana* complex (excluding *A. cerifera* [McVaugh] H. Robins.) in Jalisco would include at least four named taxa (*A. mairetiana* var. *mairetiana*, *A. mairetiana* var. *elucens*, *A. lasioneura*, and *A. jocotepecana*) as shown in Figure 2.

#### ACKNOWLEDGMENTS

I am grateful to Gayle Turner for the Latin diagnosis, and to her and Ted Delevoryas for reviewing the manuscript. Maria Thompson provided the illustration.

## LITERATURE CITED

- McVaugh, R. 1984. *Eupatorium*, in *Flora Novo-Galiciana* 12:240-424. University of Michigan Press, Ann Arbor, Michigan.
- Turner, B.L. 1987. Study of the *Ageratina mairiana* complex (Asteraceae-Eupatorieae). *Phytologia* 63:417-427.