

TWO NEW SPECIES OF *PERITYLE* (ASTERACEAE, HELENIEAE)
FROM MÉXICO

B.L. Turner

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

ABSTRACT

Two new species of *Perityle* belonging to the section *Perityle* are described: *P. pennellii* *spec. nov.*, from Cerro Mercado, near Cd. Durango, Durango and *P. stevensii* *spec. nov.* from near Emcosa, Sinaloa. Both species have white rays and yellow disks and are believed to relate to *P. hofmeisteria* Rydb. and several other taxa of northwestern México with similar characteristics. A brief key and map to these taxa are provided.

KEY WORDS: *Perityle*, Asteraceae, Helenieae, México

Preparation of a treatment of *Perityle* for the Asteraceae of México has revealed the following novelties belonging to the section *Perityle* (sensu Powell, 1974; *Rhodora* 76:229-306).

Perityle pennellii B. Turner, *spec. nov.* TYPE: MÉXICO. Durango: Cerro de Mercado, N of Cd. Durango, crevices of ferruginous rocks, 2000-2100 m, 24-25 Aug 1934, Frances W. Pennell 18160 (HOLOTYPE: NY!).

Perityle canescenti Everly similis sed differt foliis simplicibus (vs. tripartitis) peranguste spathulatis differt.

Small suffruticose perennials 3-10 cm high; stems hispid-puberulous; leaves mostly 8-10 mm long, 1-3 mm wide; petioles mostly 4-6 mm long; blades ovate to elliptic, 2-4 mm long, 2-3 mm wide, sparsely hispid, glandular punctate, the margins entire, or rarely faintly 3 lobed; involucral bracts ca. 15, 4-5 mm high, sparsely puberulent, the apices acute; heads single on hispidulous peduncles 10-20 mm long; ray florets 5-8, the ligules 2-4 mm long, white; disk florets ca. 25, yellow, the corollas tubular, ca. 3 mm long, the lower portion glandular pubescent; achenes ca. 2.5 mm long with margins callous thickened, ciliate with

long hairs, the pappus of 2-3 rather persistent bristles 2-3 mm long, between these a crown of slender scales ca. 0.3 mm high.

Powell (1974) recognized four species of the sect. *Perityle* with white rays, yellow disks, and having large achenes (1.8-3.5 mm long) with prominent pappus bristles (1.5-3.0 mm long). These are: 1) *P. ciliata* (Dewey) Rydb. (known only from Arizona, U.S.A.); 2) *P. canescens* Everly, a taxon with 3 partite leaves with linear segments (known only from Sinaloa, Sierra Tacuichamona); 3) *P. coronopifolia* A. Gray, also with 3 partite leaves, but the achenes having margins with long-ciliate hairs as opposed to the merely puberulent margins in *P. ciliata* (known only from Arizona, U.S.A.); and 4) *P. hofmeisteria* Rydb., with leaves 10-60 mm long, 2-20 mm wide, the blades broadly ovate to flabellate in outline, with margins deeply lobed to serrate, the heads ca. 8 mm high (known only by a few collections from near Cd. Durango and in the vicinity of Rodeo, Durango).

Among the Mexican species described to date, *Perityle pennellii* is closest to *P. canescens*; it differs from the latter in possessing much smaller leaves which are very narrowly spatulate with essentially entire margins.

The distribution of the Mexican taxa which make up the above mentioned complex is shown in Figure 1. It is likely that additional taxa will come to the fore as the bluffs and ledges of northwestern México are more thoroughly explored.

Perityle stevensii B. Turner, *spec. nov.* TYPE: MÉXICO. Sinaloa: Mpio. San Ignacio, ca. 2.6 mi from Hwy 15 along road to microwave tower, ca. 17 mi SE of Emcosa, 10 Sep 1973, Warren Douglas Stevens 2040 (and Mary Fairhurst) (HOLOTYPE: TEX!; Isotype: MSU).

Peritylae hofmeisteriae Rydb. similis sed differt foliis parvioribus magis conspicue glandulosi-punctatis petiolis brevioribus et acheniis setis pappi magis facile deciduis brevioribus (1.0-1.5 mm longis vs. 2-3 mm).

Suffruticose perennials 15-30 cm high; stems densely puberulent; leaves mostly 15-25 mm long, 8-15 mm wide; petioles 7-17 mm long; blades deltoid, irregularly crenulodentate, sparsely puberulent, glandular punctate on both surfaces; heads single on puberulent peduncles 10-25 mm long; involucre bracts 6-7 mm long, puberulent, the apices acute; ray florets ca. 11, the rays white, 2.5-3.5 mm long; disk florets ca. 40, the corollas yellow, ca. 3 mm long, atomiferous glandular; achenes (immature) ca. 2.5 mm long, sparsely setiferous, the pappus of 1 or 2 readily deciduous bristles 1.0-1.5 mm long, between these a short crown of scales ca. 0.2 mm high.

According to label data, the species is "common on steep rockface of road-cut, stems woody but extremely brittle, rays white, disc yellow."

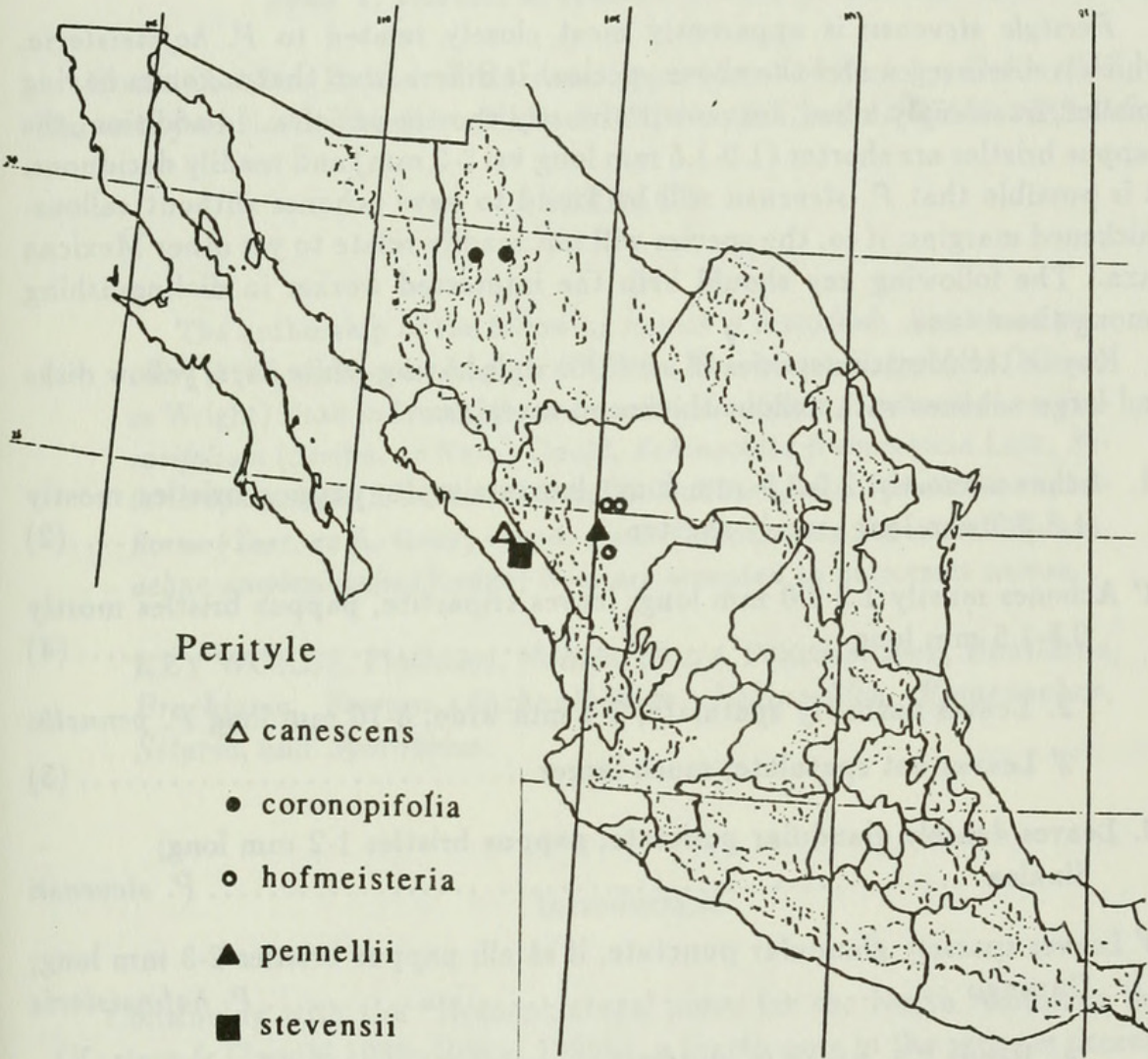


Fig. 1. Distribution of *Perityle* spp. discussed in text.

Dr. Stevens (pers. comm.) notes that the type was collected on a side road leading to Baila and Cerro de Culagua, which is about 79.5 road miles N of Mazatlán; it was identified by John Strother as *Perityle gentryi* A.M. Powell, but the latter species belongs to the section *Laphamia* and is markedly different from *P. stevensii*.

Perityle stevensii is apparently most closely related to *P. hofmeisteria*, which is discussed under the above species. It differs from that taxon in having smaller, less deeply lobed, leaves with mostly shorter petioles. In addition, the pappus bristles are shorter (1.0-1.5 mm long vs. 2-3 mm) and readily deciduous. It is possible that *P. stevensii* will be found to have achenes without callous-thickened margins; if so, the species will not readily relate to yet other Mexican taxa. The following key should help the interested worker in distinguishing among these taxa.

Key to the Mexican species of sect. *Perityle* having white rays, yellow disks and large achenes with callous-thickened margins:

1. Achenes mostly 2.0-3.5 mm long; leaves simple; pappus bristles mostly 1.5-3.0 mm long, rarely shorter (2)
- 1' Achenes mostly 1.3-2.0 mm long; leaves tripartite, pappus bristles mostly 0.5-1.5 mm long (4)
2. Leaves narrowly spatulate, 2-4 mm wide, 8-10 mm long *P. pennellii*
- 2' Leaves not spatulate, much larger (3)
3. Leaves densely glandular punctate; pappus bristles 1-2 mm long; Sinaloa *P. stevensii*
- 3' Leaves sparsely glandular punctate, if at all; pappus bristles 2-3 mm long; Durango *P. hofmeisteria*
4. Heads 2-5, borne in clusters; achenes with margins long-ciliate *P. coronopifolia*
- 4' Heads solitary; achenes merely puberulent *P. canescens*

ACKNOWLEDGMENTS

I am grateful to Dr. Guy Nesom for the Latin diagnoses and to him and Dr. A.M. Powell for reviewing the manuscript.



Turner, B. L. 1990. "Two new species of Perityle (Asteraceae, Helenieae) from México." *Phytologia* 69, 297–300. <https://doi.org/10.5962/bhl.part.9525>.

View This Item Online: <https://www.biodiversitylibrary.org/item/46794>

DOI: <https://doi.org/10.5962/bhl.part.9525>

Permalink: <https://www.biodiversitylibrary.org/partpdf/9525>

Holding Institution

New York Botanical Garden, LuEsther T. Mertz Library

Sponsored by

The LuEsther T Mertz Library, the New York Botanical Garden

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Phytologia

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.