

## NEW MEXICAN TAXA IN THE GENUS *HIERACIUM* (ASTERACEAE)

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### ABSTRACT

A new species, *Hieracium beamanii*, from Puebla and adjacent Veracruz, and a new variety, , from Oaxaca are described and illustrated. A map showing their distribution is presented, along with a brief account of their presumed relationships. A chromosome count of  $n = 9$  pairs is reported for the new variety. In addition, a new combination, *Hieracium fendleri* Schultz-Bip. var. *ostreophyllum* is made.

KEY WORDS: Asteraceae, *Hieracium*, México

It is somewhat humbling, if not embarrassing, to have to describe two new taxa of *Hieracium* for México within a few months of the publication of the long awaited treatment of the Mexican and Central American species by Beaman (1990). However, this is more reflective of our fragmentary knowledge of variation in the group concerned, at least for México, than it is the taxonomic skill of the workers concerned. Indeed, this is painfully apparent by the description of both of the novelties proposed here, as noted in more detail in their protologues.

***Hieracium beamanii*** B. Turner, *sp. nov.*, Figure 1. TYPE: MÉXICO. Puebla: Mpio. Zacapoaztla, 9 km NW of Zacapoaztla, mesophytic forests with *Liquidambar* in yellow soils among white rocks, ca. 1300 m, 12 Apr 1985, P. Tenorio L. 8681 (with J. Grimes & M. Martínez A.) (HOLOTYPE: TEX!; Isotype: MEXU).

*Hieracio schultzii* Fries similis sed differt caulibus infirme flexilibus, foliis basalibus valde petiolatis, foliis ad medium caulium glabris vel fere glabris, capitulis plerumque majoribus paucioribusque (1-15 vs. 10 numerosis) in capitulescentia.

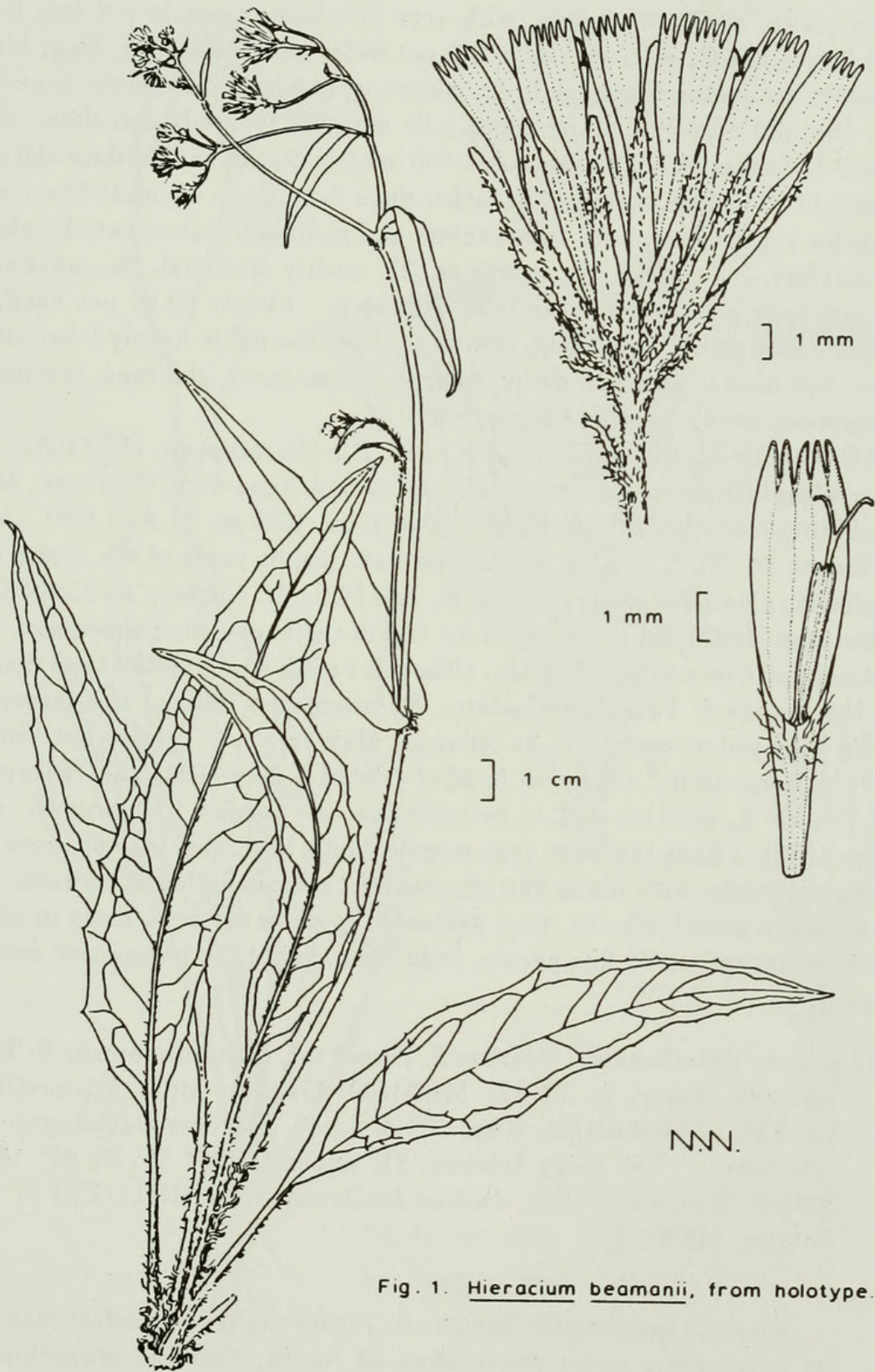


Fig. 1. *Hieracium beamanii*, from holotype.



Perennial herbs 20-50 cm high, the flowering scapes arising out of a moderate tuft of long rusty brown hairs. Stems weak and arcuate, sparsely to moderately pilose, especially below, with very long hairs (mostly 5-9 mm long). Basal leaves mostly 8-25 cm long, 2-3 cm wide; petioles 1-8 cm long; blades lanceolate to oblanceolate, glabrous above, sparsely pilose below, especially along the mid ribs and major veins, the margins remotely serrulate. Stem leaves 3-6, similar to the basal leaves, but mostly sessile and cordate-clasping. Heads 1-15 to a stem, arranged in rather open cymes, the ultimate bracteolate peduncles 1-5 cm long, both tomentulose and glandular pubescent. Involucres campanulate, 2-3 seriate, the bracts ca. 21, mostly subequal, the inner series 8-10 mm long, moderately glandular pubescent. Florets 30-60 per head, the corollas yellow, ca. 15 mm long, sparsely pilose, the ligule deeply lobed at the apices, the sinuses to 4 mm deep. Achenes (immature), glabrous, the pappus of numerous tawny bristles 4-5 mm long.

ADDITIONAL SPECIMENS EXAMINED (Paratypes): MÉXICO. Veracruz: Mpio. Huayacocotla, between Ocotes and Agua de la Calabaza, 14 km NE of Huayacocotla (20° 36' N, 98° 28' W), ca. 1650 m, 23 Apr 1981, *Juárez & Vasquez 50* (TEX, XAL). Mpio. Tonayan, higher parts of the Sierra de la Magdalena, pine-oak forest, ca. 2500 m, Jun 1981, *M. Chazaro B. 1554* (XAL).

Beaman (1990) did not account for any of the above cited specimens in his treatment of *Hieracium* of México, although he did examine the type material and the *Juárez & Vasquez* collection. He annotated both of the sheets concerned with yellow note tabs, as follows, "May be a new species but someone else is welcome to it." (*Tenorio L. 8681* - dated 5 May 1990) and "I leave this and *Tenorio L. 8681* for BLT to describe as a new species." (*Juárez G.* - dated 5 May 1990). I have taken on that responsibility here, and take pleasure associating my name with his in the creation of the appellation concerned. John Beaman is a sound scholar, very dedicated systematist and, more important to me, an exceptionally fine person, fully deserving of the recognition accorded here.

***Hieracium macdonaldii* Beaman & Turner var. *quiexobranum* B. Turner, var. nov.**, Figure 2. TYPE: MÉXICO. Oaxaca: Mpio. Miahuatlán, 35 km ESE of Miahuatlán, 5 km NE of Santo Domingo Ozolotepec, Cerro Quiexobra. "On rocky treeless, SE slopes." (16° 10' N, 96° 15' W), 3500-3700 m, 4 Oct 1990, *Andrew McDonald 3037* (HOLOTYPE: TEX!; Isotype: MEXU!).

*Hieracio macdonaldo* Beaman & Turner similad sed differt plantis subscaposis ramis paucioribus ad basim, capitulis majoribus floscula numerosioribus, bracteis involucris principalibus ca. 23 (vs. ca. 15) in numero plerumque 11-13 mm (vs. 7-8 mm) in longitudine, et setis pappi plerumque 6-7 mm (vs. 3-5 mm) longis.



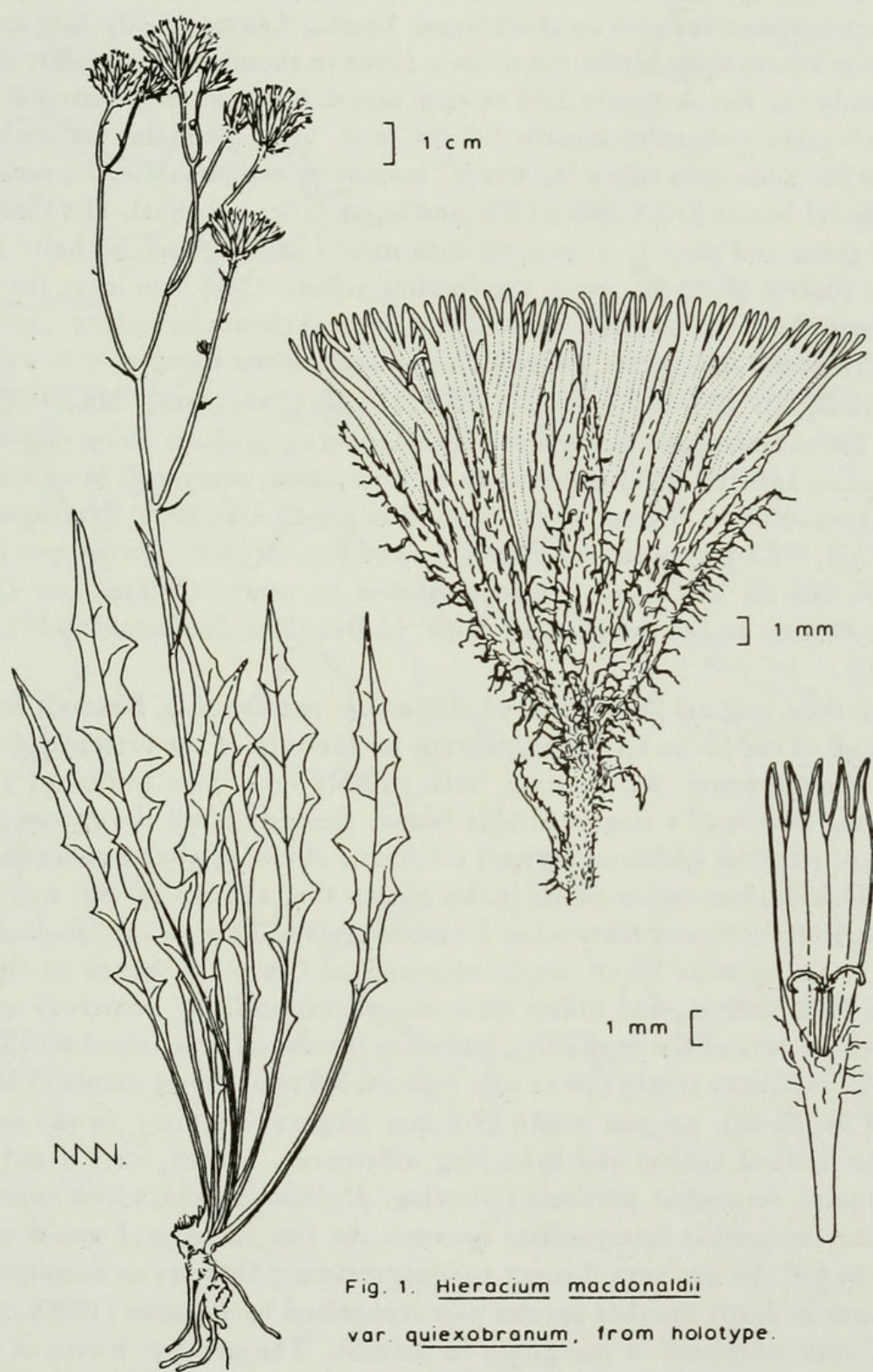


Fig. 1. *Hieracium macdonaldii*  
var. *quioxobranum*, from holotype.



Perennial subscapose herbs 25-35 cm high. Stems mostly single to each rosette, arising from a tuft of dirty white or white hairs, unbranched below, any stem leaves reduced to short linear bracts. Leaves mostly 5-18 cm long; petioles 1-8 cm long; blades runcinately lobed to rhomboid triangular, glabrous or nearly so. Heads mostly 2-10 to each scape, borne in erect terminal cymes, the ultimate peduncles mostly 1-3 cm long, both glandular pubescent and white flocculose just below the heads. Involucres campanulate, 3-4 seriate, the involucre bracts 21-34, the middle and inner series subequal, 11-13 mm long, dark green and densely pubescent with mostly black glandular hairs 1-2 mm long. Florets 50-80 per head, the corollas yellow, 13-15 mm long, the sinuses between the terminal lobes up to 2 mm deep. Achenes immature, the pappus bristles numerous, white, 7-8 mm long. Chromosome number,  $n = 9$  pairs.

ADDITIONAL SPECIMENS EXAMINED (Paratypes): MÉXICO. Oaxaca: Cerro Quiexobra, timberline vegetation in open glades along ridges and in mountain saddles, dominated below by pine forest, occasional in rock crevices on exposed cliffs, SE exposure, 3650-3800 m, 10 Dec 1989, *McDonald 2950* (MEXU, TEX); between La Cienegilla and San Gregorio Ozolotepec (ca. 16° 08' N, 96° 20' W) cloud forest dominated by pines, *Clethra*, and *Quercus*, 2500-3000 m, on red soil on steep slope, 12 Dec 1989, *McDonald 2963* (MEXU, TEX).

In their original description of *Hieracium macdonaldii*, Beaman & Turner cited all of the above specimens, except for the type of the presently described var. *quiezobranum*. At the time, both authors took these to be but high elevational phases of a single variable taxon. Restudy of all the specimens concerned, plus the additional (type) collection obtained after publication of *H. macdonaldii*, has convinced its junior author that the typical var. *macdonaldii* is markedly different from what I have described here as var. *quiezobranum*. The latter appears to be largely centered on Cerro Quiexobra at elevations from 3500-3800 m, and differs from var. *macdonaldii* by numerous quantitative characters of the capitulum, including involucre bract numbers (21-34 vs. 13-17), involucre height (10-14 mm high vs. 7-8 mm), floret number (50-80 per head vs. 25-40), pappus length (7-8 mm long vs. 3-5 mm), to say nothing of the marked habital and branching differences. Indeed, were it not for the immature, somewhat aberrant collection, *McDonald 2963*, which superficially appears somewhat intermediate between the two varieties, I would not hesitate to call the two taxa distinct species; certainly they are as morphologically distinct as many another species pair recognized by Beaman (1990) in his exceptional treatment of the group in México. The peculiar leaves of the two taxa are very similar, however, and their close geographical proximity (Figure 4) strongly suggest that the two are closely related phyletically. But perhaps not more so than the var. *quiezobranum* is to *H. hintonii* Beaman, as might be inferred from the original description of *H. macdonaldii* in which it is compared with *H. hintonii*. Actually, type material of *H. macdonaldii* only faintly



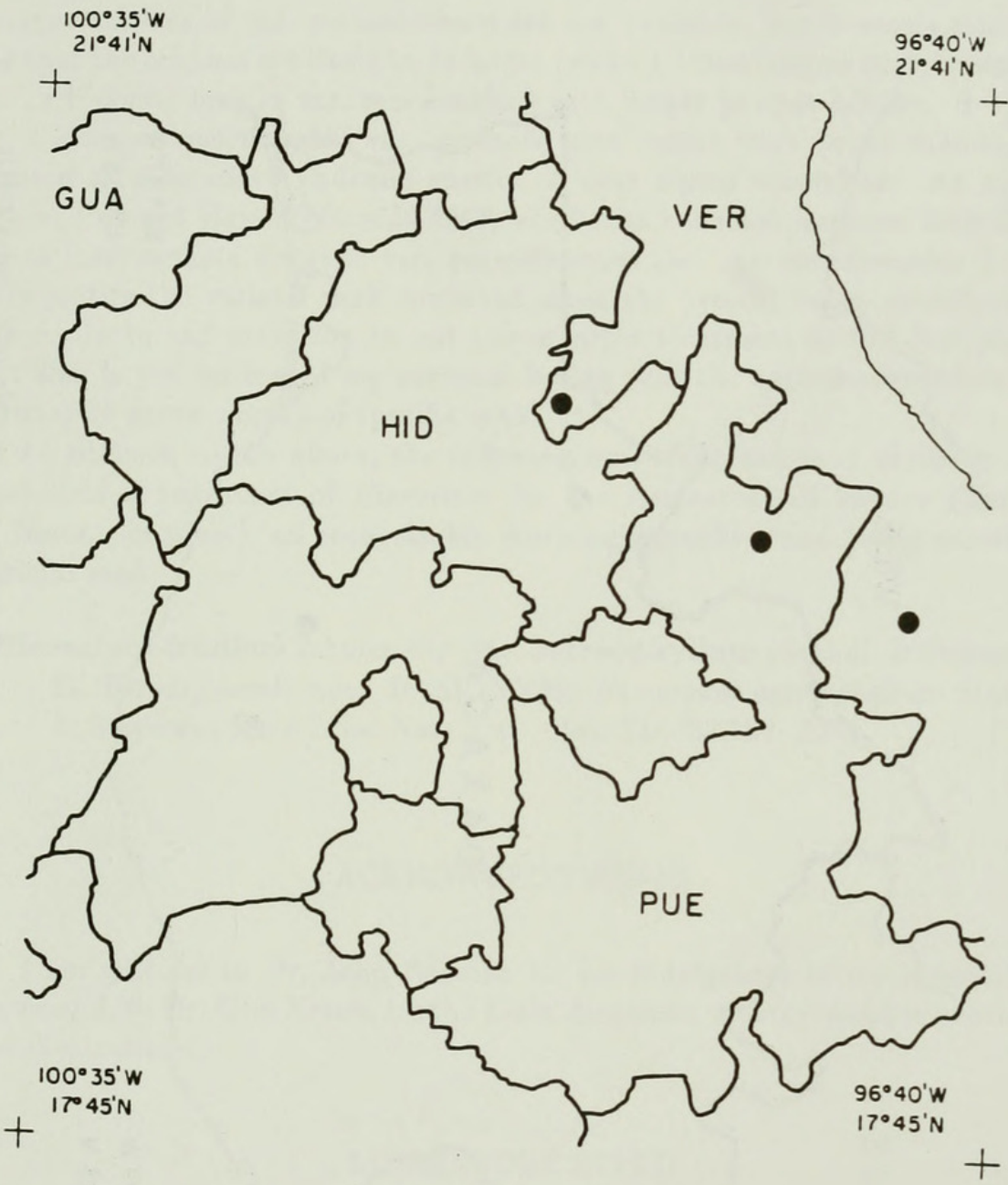


Figure 3. Distribution of *Hieracium beamanii*.

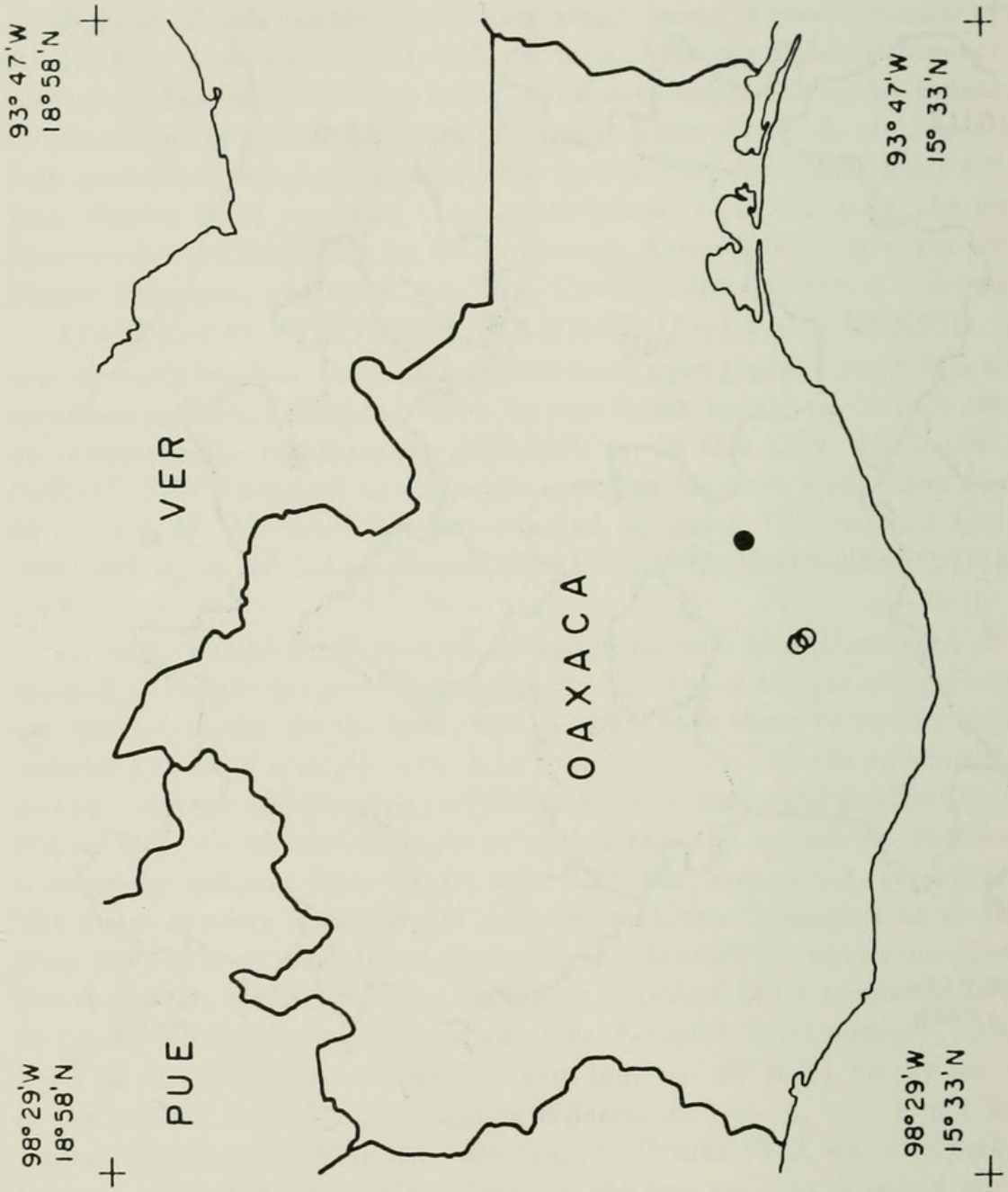


Figure 4. Distribution of *Hieracium macdonaldii*; var. *macdonaldii* solid circle, var. *quierobranum* hollow circles.



resembles *H. hintonii*, but all of the collections of var. *quiezobranum* strongly resemble *H. hintonii*, especially in characters of the involucre. Unfortunately, mature achenes of var. *quiezobranum* are not available, but it seems clear to me that the achenes are likely to be larger (up to 4.5 mm long as in *H. hintonii*, vs. ca. 2-3 mm long in var. *macdonaldii*) with longer pappus bristles.

*Hieracium macdonaldii* var. *quiezobranum* might with equal validity be treated as a localized endemic species of near alpine elevations. As noted above, I do not view McDonald 2963, which was collected between 2500-3000 m, as intermediate between var. *quiezobranum* and var. *macdonaldii*. I can only justify the varietal rank conferred upon the present taxon as reflecting my desire to call attention to our conservative treatment in the first place, but also to put on record my personal feeling that the taxa concerned might ultimately prove worthy of specific rank.

In addition to the above, the following new combination is made for my forthcoming treatment of *Hieracium* for the Asteraceae of México (Turner & Nesom, in prep.), all recognizable morphogeographic taxa being accorded varietal rank.

***Hieracium fendleri* Schultz-Bip. var. *ostreophyllum* (Standl. & Steyerm.)**

B. Turner, *comb. nov.* BASIONYM: *Hieracium ostreophyllum* Standl. & Steyerm., Field Mus. Nat. Hist., Bot. Ser. 23:104. 1944.

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