

REVISED TAXONOMY WITH A NEW COMBINATION FOR A MEXICAN SPECIES OF *XANTHISMA* (ASTERACEAE: ASTEREA)

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Abstract. A new combination *Xanthisma tenuilobum* is proposed for a species endemic to western Chihuahua, Mexico. This revision is necessary in order to take into account the existence of an earlier, validly published name for the species.

Keywords: Asteraceae, *Machaeranthera*, Mexican flora, *Xanthisma*

For much of its history, *Xanthisma* DC. (Asteraceae) has consisted only of the one species, *X. texanum* DC. However, results from analyses of molecular data have supported expanding the genus to include a number of additional species (Morgan and Simpson, 1992; Morgan, 1997, 2003). The most recent treatment of *Xanthisma* (Morgan and Hartman, 2003) included a total of 17 species, most of which had previously been classified in *Haplopappus* Cass. by Hall (1928), and then in *Machaeranthera* Nees by Cronquist and Keck (1957) and Hartman (1990). Whereas *Xanthisma texanum* occurs only in Texas and Oklahoma, the expanded genus is distributed throughout the western U.S. and northern Mexico.

When Morgan and Hartman (2003) published their work on *Xanthisma*, they based the name of one of the species on *Eriocarpum stenolobum* Greene. After being proposed by Greene (1894), this name was subsequently treated as *Haplopappus stenolobus* (Greene) H.M. Hall by Hall (1928), *Machaeranthera stenoloba* (Greene) Shinnery by Shinnery (1950), and then *Xanthisma stenolobum* (Greene) D.R. Morgan & R.L. Hartman by Morgan and Hartman (2003). *Haplopappus tenuilobus* A. Gray is an older name for this species, having been described eight years earlier than *E. stenolobum* (Gray, 1886). Greene (1894) knew about *H. tenuilobus* but considered it a *nomen nudum*, describing the name as “.....one of those inadmissible hybrid adjectives which Dr. Gray himself condemned.....”

We have examined the relevant literature and images of the type specimens and have concluded that the earlier name *Haplopappus tenuilobus* is not a *nomen nudum*, but a validly published name with a complete description and a reference to specimens by collector and collection number. It is therefore necessary to correct the taxonomy of this species with a new combination, as follows.

Xanthisma tenuilobum (A. Gray) D.R. Morgan & Zanoni, *comb. nov.*

Basionym: *Haplopappus tenuilobus* A. Gray, Proc. Amer. Acad. Arts 21:385. 1886 (as “*Aplopappus*”). TYPE: MEXICO. Chihuahua: Mountainous country about

150 miles north of Batopilas, August to November 1885, *E. Palmer 408* (Holotype: GH [00008726; image seen]; Isotypes: NY [00179000; image seen], US [00127888, 00931391; images seen], DOV [0008210; image seen]). Fig. 1.

Heterotypic synonyms: *Eriocarpum stenolobum* Greene, Erythea 2:109. 1894. TYPE: MEXICO. Chihuahua: Sandy flats, Arroyo Aucho, Sierra Madre, 16 Oct 1887, *C. G. Pringle 1303*. (Holotype: NDG [00492; image seen]; Isotypes: NY [00168683, 00179001, 02694101; images seen], US [00127881; image seen], MEXU [01317530; image seen], PH [00003538; image seen], DOV [0009198; image seen], E [00413335; image seen], K [000221424; image seen]).

Haplopappus stenolobus (Greene) H.M. Hall, Publ. Carnegie Inst. Wash. 389:65. 1928.

Machaeranthera stenoloba (Greene) Shinnery, Field & Lab. 18:40. 1950.

Xanthisma stenolobum (Greene) D.R. Morgan & R.L. Hartman, Sida Contrib. Bot. 20:1409. 2003.

Xanthisma tenuilobum appears to be uncommon, known only from the Sierra Madre in western Chihuahua, Mexico. It is distinguished by its large showy heads, long-attenuate glandular phyllaries, and deeply pinnatifid to bipinnatifid leaves with narrow linear lobes (Fig. 1; Hartman, 1990). These character states can be seen in images of all the type specimens that we examined except for US00127888 and one of two plants on US00931391. Both plants have had large parts of their main stems removed, and branches from the stem bases have produced smaller heads on which the phyllaries are acute to acuminate rather than long-attenuate. This morphology can also be seen to some degree in DOV0008210 and one of two plants on the *X. tenuilobum* holotype (GH00008726; right side of Fig. 1). Both of these plants have also had much of their main stems removed, with all the heads produced by branches from the stem bases.

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FIGURE 1. Holotype of *Xanthisma tenuilobum* (A. Gray) D.R. Morgan & Zanoni. Image courtesy of the Gray Herbarium. Original image available at: <https://s3.amazonaws.com/huhwebimages/B241FDAC6144421/type/full/8726.jpg>

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