

*Lactuca graminifolia* Michx., var. *arizonica* McVaugh, var. nov. Var. *graminifoliae* similis; folia basalia trichomatibus semper instructa; folia caulinea basi exauriculata; rostri pars gracilis 1.5–2 mm longa, quam achaenium ca triplo brevior; flores caerulei; paniculae rami primarii 2–6 (–10) cm longi, saepe simplices.

Pine forests, and in canyons and other relatively mesic habitats in semiarid mountains, at elevations of 1000–2400 m, flowering from May to July or as late as September.

ARIZONA: COCHISE CO.: Dos Cabezas Mts., Magnesia Spring, May 1881, *J. G. Lemmon* 228 (GH); Huachuca Mts., Miller's Canyon, 15 Jun 1909, *L. N. Goodding* 139 (GH); Chiricahua Mts., Cave Creek, 22 Sep 1929, *Harrison & Kearney* 6192 (GH). APACHE CO.: Willow Spring, 10–20 Jun 1890, *E. Palmer* 510 (GH). PIMA–STA. CRUZ CO.: Santa Rita Mts., 27 May 1881, *C. G. Pringle* (GH). COCONINO CO.: Flagstaff, 12 Aug 1884, *M. E. Jones* 16 (GH); Oak Creek Canyon, 18 Jun 1944, *O. M. Clark* 11860 (GH). GILA CO.: Sierra Ancha Mts., 5 Jun 1946, *F. W. Gould* 3581 (GH, NY).

NEW MEXICO: Without locality, *Fendler* 504 in 1847 (GH). GRANT CO.: Foot of Twin Sisters, near Silver City, 22 Jun 1880, *E. L. Greene* 143 (GH, type).

TEXAS: CULBERSON CO.: Guadalupe Mts., above Frijole P.O., elevation "8000 ft.," 10 Aug 1930, *C. O. Grassl* 133.

What seems to be nearly typical *L. graminifolia* var. *graminifolia* also occurs in northern Mexico. In these specimens the cauline leaves are numerous, well scattered along the stem, very long and narrow, the lower ones narrowly pinnatifid and bearing scattered trichomes, the upper ones linear; the panicle is ample, with subulate bracts subtending even the lower branches; the beaks are 2 mm long or a little more, which is about average for var. *graminifolia*:

MEXICO: NUEVO LEON: "Sierra Madre Mts.," Monterrey, 23 Jul 1933, *C. H. & M. T. Mueller* 285 (GH); Dulces Nombres, 24° N., ca 100° W, elev. 1500 m, 15 Jul 1948, *Meyer & Rogers* 2787 (US).

In the mountains of central and western Texas and northern Mexico, also, there are populations that seem to be intermediate in some ways between *Lactuca ludoviciana* (a species primarily of the Great Plains), and another species, possibly *L. graminifolia*. These plants have numerous cauline leaves that are thinner, and somewhat more deeply and narrowly pinnatifid, than those of *L. ludoviciana*, and lack the closely spinose-denticulate margins of the leaves of that species. The larger outer phyllaries are not very broad (compared to those in e.g. *L. graminifolia*), but the beaks are mostly more than 2 mm long, and the lower bracts of the panicle are leafy. Examples of these plants are:

TEXAS: "Near Dallas," *J. Reverchon*, Jun 1874 (GH); BURNET CO.: 1 mi west of Marble Falls, 6-4-1945, *V. L. Cory* 49569 (GH); KERR CO.: Lacey's Ranch, 10 Jun 1917, *E. J. Palmer* 12220 (GH); PRESIDIO CO.: Knox Canyon, elev. 1525 m, 20 Jul 1941, *L. C. Hinckley* 2038 (GH); BREWSTER CO.: Oak Canyon, Chisos Mts., elev. 1370 m, 4 Jul 1931, *Moore & Steyermark* 3393 (GH, MICH).

MEXICO: COAHUILA: Sierra Hechiceros, near the Chihuahuan boundary, 27–29 Sep 1940, *R. M. Stewart* 123 (GH); Sierra de los Guajes, 10 Sep 1941, *Stewart* 1521 (GH).

NUEVO LEON: Hacienda Vista Hermosa, 35 mi south of Monterrey, elev. 750 m, 26 Jun 1939, *S. S. White* 1533.

TAMAULIPAS: Vicinity of Victoria, elev. 320 m, May–Jun 1907, *E. Palmer* 447 (GH, NY).

One specimen from northern Mexico is superficially much like those cited above, but the lower bracts of the panicle are not leafy, and the beaks are no more than 1.5 mm long. In 1931 S. F. Blake identified this plant as "Intermediate between *L. canadensis* L. and *L. ludoviciana* (Nutt.) Riddell." As apparently *L. canadensis* has not been reported from this part of Mexico, and as representatives of *L. graminifolia* are known to occur nearby, it seems more probable that if the following is an "intermediate," that is to say of hybrid origin, the most likely parents are *L. ludoviciana* and *L. graminifolia*.

MEXICO: TAMAULIPAS: Sierra de San Carlos, vicinity of San José, Cerro Barril, elev. 1380 m, 19 Jul 1930, *H. H. Bartlett* 10493.