## The Texas Species of Evax (Compositae)

Lloyd H. Shinners

Three species of curious little gray-woolly annuals, commonly known as "rabbit's tobacco," are found in Texas, distinguished by highly technical details in the inconspicuous flower heads. The key below attemps to separate them more easily, but must be used with plants well along in flower or in fruit. Immature specimens of $E$. multicaulis and E. prolifera are almost impossible to distinguish. The genus Evax is kept for these species, following the conservative usage of De Candolle, Gray, and Hoffmann (in Engler \& Prantl, Die Natürlichen Pflanzenfamilien, IV. Teil 5te. Abt. p. 180, 1894). Small, following practises of the now defunct American Code, used the name Filago instead. This synopsis is based on the 76 sheets in the Herbarium of Southern Methodist University, and on type material in the Gray Herbarium.

## KEY TO TEXAS EVAX

1a. Clusters of heads terminal, or at intervals separated by leafy sections of stem or branch (first set of terminal heads becoming over-topped by branches arising directly under them, these often in turn over-topped by successive sets of pseudo-proliferous clusters)
2 a . Ultimate clusters subtended by leaves or leafy bracts $3-10 \mathrm{~mm}$. long, and with very small bracts among and shorter than the heads (usually concealed by dense woolly pubescence)
3a. Heads almost buried in dense, woolly, white or gray pubescence, the phyllaries quite concealed; fruiting involucres 1.5-2.5 mm. in diameter; northern Rio Grande Plain and central Gulf Coast northward, west to Trans-Pecos

1a. E. multicaulis var. multicaulis
3 b . Heads densely woolly toward base, closely and more thinly so above, the green or brown phyllaries evident; fruiting involucres $2.5-3.5 \mathrm{~mm}$. in diameter; Rio Grande Valley and central and lower Gulf Coast 1b. E. multicaulis var. Drummondii
2 b . Ultimate clusters subtended by leaves $6-12 \mathrm{~mm}$. long, and with numerous shorter but prominent leafy bracts mixed among and exceeding the heads
2. E. prolifera 1b. Clusters of heads nearly all axillary, borne uniformly at nearly all nodes from summit to base of plant
3. E. candida

1a. Evax multicaulis DC. (Prodr. 5: 459, 1836) var. multicaulis. "In Mexico circa lacum Sancti-Nicolai in sinu Spiritus-Sancti [probably in Calhoun Co., Texas], et ni fallor in campis prov. Texas ad Fernando de Bexar [San Antonio, Bexar Co.] legit cl. Berlandier (pl. exs. 1958 et 2109)." (Probable isotype, Berlandier 1958, examined at Gray Herbarium.) Filaginopsis multicaulis (DC.) T.\&G., Fl. N.A. 2: 263. 1842. Diaperia multicaulis (DC.) Benth. \& Hook., Gen. Plant. 2: 298. 1873. Filago multicaulis. (DC.) Heller, Bot. Expl. S. Texas (Contrib. Herb. Franklin \& Marshall Coll. 1): 102. 1895. Filago nivea Small, Bull. Torr. Bot. Club 24: 333. 1897. (Based on Evax multicaulis DC., not Filago multicaulis Lam.) Evax nivea (Small) Cory,

Rhodora 38: 407. 1936. (Based on Filago nivea Small, i.e., actually on Evax multicaulis DC., hence a superfluous name.) The commonest and most widespread Texas species, in sandy or in eroding silty or clayey soils, from the northern part of the Rio Grande Plain and central Gulf Coast north to the Red River, and from the western edge of the East Texas Timber Region (oak belt, Hopkins and Montgomery counties) westward to the Trans-Pecos. April-June.

1b. Evax multicaulis var. Drummondif (T.\&G.) Gray, Syn. Fl. 1 pt. 2:229. 1884 Filaginopsis Drummondii T.\&G., Fl. N.A. 2: 263-264. 1842. "Texas, Drummond!" (Type seen in Gray Herbarium.) Diaperia Drummondii (T.\&G.) Benth. \& Hook., Gen. Plant. 2: 298. 1873.
Immediately south of the range of var. multicaulis, in the Rio Grande Valley and central and lower Gulf Coast. Specimens seen from Aransas, Brooks, Hidalgo, McMullen, and Nueces counties. March-April.
2. Evax prolifera Nutt. ex DC., Prodr. 5: 459. 1836. "In America bor. ad Red River." Diaperia prolifera Nutt., Trans. Amer. Philos. Soc. N.S. 7: 337. 1840. Filago prolifera (Nutt.) Britton Mem. Torr. Bot. Club 5: 329. 1894. Eroding limestone or disturbed clayey or silty soils, Edwards Plateau, north to the Panhandle, northeast on the Blackland Prairie belt to the Red River; also in the Arbuckle Mountains, Oklahoma. Late April-June.
3. Evax candida (T.\&G.) Gray, Syn. Fl. N.A. 1 pt. 2: 230. 1884. Calymmandra candida T.\&G., Fl. N.A. 2: 262-263. 1842. "Texas, Drummond!" (Type examined in Gray Herbarium.) Diaperia candida (T.\&G.) Benth. \& Hook., Gen. Plant. 2: 298. 1873. Sandy open oak and pine woods, and sandy fields and roadsides, eastern Texas, west to Parker, Burnet, and Guadalupe Counties. April-May.

## Notes

Hybanthus linearis (Torr.) Shinners, comb. nov. - Ionidium lineare Torr. ex T.\&G., Fl. N.A. 1: 145. 1838. (Earlier published as a nomen provisorium by Torrey, Ann. Lyceum N.Y. 2: 168, 1827.) Ionidium stipulaceum Nutt. ex T.\&G., ibid. (This reduced to synonymy under the preceding by Gray, Pl. Wright., 1: 12, 1852.) Types of both species from the "Red River, Arkansas." Commonly treated as Calceolaria verticillata (Ort.) Kuntze or Hybanthus verticillatus (Ort.) Baillon, originally from Mexico, described (under the name Ionidium polygalaefolium Vent.) by H.B.K., Nov. Gen. et Sp. 5:376 (folio p. 293) 1823 (with pl. 496), as having decumbent woody stems, opposite leaves, and finely pubescent calyx. Our plant has erect herbaceous stems, alternate leaves (sometimes a few pairs subopposite, on the same stem with alternate leaves), and either glabrous or pubescent calyx. Flowering in North Texas from late April to June, and often again in October from new stems. Exceedingly variable in leaf proportions and in pubescence. I believe that a more thorough revision will reveal that the lengthy list of synonyms of Hybanthus verticillatus given in Morton's brief synopsis (Contrib. U.S. Nat. Herb. 29: 76, 1944) includes several that should be removed. m Despite the variability it exhibits, H. linearis is so consistent in habit and leaf position that it cannot be dismissed as a mere form of its Mexican ally. - Lloyd H. Shinners.

Amsonia repens Shinners, sp. nov. A. illustrem Woodson (vide N. Amer. Fl. 29 pt. 2 pp. 126 et 128, 1938) refert corollae calycisque

