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WOOTONELLA, A NEW GENUS OF CARDUACEAE.

BY PAUL C. STANDLEY.

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In 1853 Doctor Gray described, in the second part of *Plantae Wrightianae*,\* a plant which he called *Ximenesia encelioides* var. *nana*. The brief description reads:

Caulibus depressis vel assurgentibus vix spithameis; ramis monocephalis; ligulis parvis discum vix superantibus; acheniis dense pubescentibus pachypteris.

The type locality is stated as "Around the dwellings of Prairie-dogs, between the Limpio and the Rio Grande," Texas. It is added that "Here this dwarf variety abundantly occurs, unmixed with the ordinary state of the species."

Even this brief diagnosis shows that the plant is very unlike *Ximenesia encelioides*. Doctor Gray makes no mention of his var. *nana* in the *Synoptical Flora*; but Dr. B. L. Robinson, in his revision of the genus *Verbesina*,† recognizes it as a species, under the name *Verbesina nana*. The description given by the second author is incomplete in one or two particulars.

The writer was puzzled for some time by an anomalous composite received from the Pecos Valley of eastern New Mexico, which, while manifestly related to the genera *Verbesina* and *Ximenesia*, agreed with nothing in the *Synoptical Flora*. It was so unlike the common weed, *Ximenesia exauriculata*, that it was not once associated generically with that species, until a description of the plant was found in Doctor Robinson's monograph of the genus, and correlated with fragmentary herbarium material of some of the collections cited.

This comparatively rare plant differs in so many respects

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\* Pl. Wright. 2: 92.

† Proc. Amer. Acad. 34: 543. 1899.

from the genus *Ximenesia*, to which it is most closely related, that it seems worthy of generic rank. It is a perennial, propagating by slender rootstocks, while all the species of *Ximenesia* are annuals and of much greater stature. The paleae of the disk are very narrow (almost filiform) and persistent, rather than broad and deciduous. The wings of the achenes, also, are corky-thickened at the apex, while in *Ximenesia* they are comparatively thin. The most conspicuous difference is to be found in the development of the achenes: in *Ximenesia* all the flowers are fertile, while in this the disk flowers are sterile.

The genus is named for Mr. E. O. Wooton, who first collected the plant in good fruit, near Artesia, New Mexico, in 1905. It is appropriate that a plant peculiar to the Southwest should be named for one who has done more than any other, or almost more than all others combined, to make known the flora of New Mexico. A genus *Wootonia*, also of the *Carduaceae*, named by Dr. E. L. Greene in 1898, proves to be the same as the older *Dicranocarpus*.

#### **Wootonella** Standley.

Low perennial, 20 cm. high or less, with slender deep-seated rootstocks; stems slender, simple or branched, ascending, canescent; lower leaves opposite, the upper alternate, 3 to 5 cm. long, irregularly dentate, narrowed into winged petioles, these mostly dilated and dentate at the base; heads large, 15 to 20 mm. broad, solitary, on naked terminal peduncles; bracts foliaceous, canescent, 8 to 15 mm. long, more or less unequal; rays rather pale yellow, conspicuously exceeding the involucre, toothed at the apex; ray flowers fertile, the disk flowers sterile; paleae very narrow, nearly filiform, persistent; achenes obovate or oblong, villous, broadly winged, the wings corky-thickened near the apex; pappus none.

#### **Wootonella nana** (A. Gray) Standley.

*Ximenesia encelioides nana* A. Gray, Pl. Wright. 2: 92. 1853.

*Verbesina nana* B. L. Robinson, Proc. Amer. Acad. 34: 543. 1899.

The following specimens have been examined.

TEXAS: Kent, 1902, *Tracy & Earle* 385; *Mexican Boundary Survey* 589.

NEW MEXICO: Artesia, August 2, 1905, *Wooton*.

MEXICO: La Ventura, Coahuila, 1896, *E. W. Nelson* 3918.

The New Mexican specimens are the only ones seen in which the heads are fully developed. The collections of the Mexican Boundary Survey are very immature. Specimens of this plant are rare in collections; but it is said to be a common weed in cultivated, usually alkaline, fields of the Pecos Valley.