

## TWO PREVIOUSLY UNREPORTED PLANT SPECIES FOR WILLACY COUNTY, TEXAS

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### ABSTRACT

Two plant species are reported as new records for Willacy Co., Texas: *Vachellia schaffneri* (Fabaceae) and *Hamatocactus bicolor* (Cactaceae). These findings are likely not biogeographic anomalies, warranting further botanical surveys within Willacy County. *Hamatocactus bicolor* is reported to occur within counties contiguous to both Kenedy Co. and Willacy Co., with no significant differences in environmental parameters changing across these county lines. Similarly, *Vachellia schaffneri* is reported to occur within counties surrounding Brooks, Kenedy, and Willacy counties.

*Hamatocactus bicolor* and *Vachellia schaffneri* are reported as new records for Willacy Co., Texas, resulting from field surveys conducted along Texas Highway 186. Both specimens are located just south of the Kenedy County line—also a county for which neither species has been reported. This proximity suggests a likelihood that both species occur in Kenedy County as well. This is further substantiated by the fact that counties contiguous to Willacy Co. and Kenedy Co. are within the known range of *H. bicolor*. Though *V. schaffneri* is not reported to occur within Brooks or Kenedy county, contiguous counties are within the known range of this species. Voucher specimens for both species were collected and deposited at PAUH (University of Texas Rio Grande Valley Herbarium). County records were determined by referring to the TEX-LL Occurrence Records database (Lundell Plant Diversity Portal), the Atlas of the Vascular Plants of Texas (Turner et al. 2003), and regional literature (Richardson & King 2011).

**VACHELLIA SCHAFFNERI** (S. Wats.) Seigler & Ebinger (Fabaceae)

Voucher. **Texas**. Willacy Co.: Texas Hwy 186, 5.3 mi SW of Port Mansfield, with *Prosopis glandulosa*, *Vachellia farnesiana*, *Karwinskia humboldtiana*, *Schaefferia cuneifolia*, *Maytenus phyllanthoides*, *Yucca treculeana*, *Zanthoxylum hirsutum*, *Borrchia frutescens*, and various grasses, unconsolidated, well-sorted, medium to fine-grained sand (part of the South Texas Sand Sheet, STSS), 26.503633° -97.490275°, elev. 8 ft, 3 Jun 2018, Muñoz *s.n.* (PAUH). The water table at the collection site probably is shallow (0.5 to 1 m in depth) due to proximity of the site to the Laguna Madre.

*Vachellia schaffneri* is often mistaken for *V. farnesiana*, particularly when fruits are absent. In addition to producing diagnostically longer legumes than *V. farnesiana*, *V. schaffneri* can be distinguished by the presence of a petiolar gland on the upper portion of the rachis directly between the first set of pinnae (Plants of Texas Rangelands 2018).



Figure 1. *Vachellia schaffneri* individual (center) and associated vegetation, Willacy Co., Texas.



Figure 2. Fruit of *Vachellia schaffneri*, Willacy Co., Texas.



Figure 3. Petiolar gland of *Vachellia schaffneri* between the first set of pinnae, Willacy Co., Texas.



Figure 4. *Hamatocactus bicolor*, Willacy Co. Texas.

**HAMATOCACTUS BICOLOR** (Terán & Berlandier) I.M. Johnst. (Cactaceae)

Vouchers. **Texas**. Willacy Co.: Texas Hwy 186, 3 mi SW of Port Mansfield, sand (part of the South Texas Sand Sheet, STSS), one of a population, with *Rhynchosia americana*, *Prosopis glandulosa*, *Schaefferia cuneifolia*, *Maytenus phyllanthoides*, *Yucca treculeana*, *Zanthoxylum hirsutum*, 26.518704° -97.453287°, elev. 9 ft, 3 Jun 2018, Muñoz *s.n.* (PAUH).

*Hamatocactus bicolor* is morphologically similar to *Ferocactus hamatacanthus* var. *sinuatus* but can be distinguished by both the color of the fruits (red) and the inner region of its flowers (red) (Richardson & King 2011). *Ferocactus hamatacanthus* var. *sinuatus* has green fruits and completely yellow flowers.

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