

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDAST9M010

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Vancleavea stylosa*
COMMON NAME: Pillar False Gumweed
SYNONYMS: *Grindelia stylosa*, *Chrysothamnus stylosus*
FAMILY: Asteraceae

AUTHOR, PLACE OF PUBLICATION: Greene, Edward Lee. Pittonia 4(20E): 51. 1899

TYPE LOCALITY: Utah: San Juan County: Barton's Range, SE Utah.

TYPE SPECIMEN: Calif. Acad. Sci., CAS 123679 (holotype). A. Eastwood, #36. July 13, 1895.

TAXONOMIC UNIQUENESS: *Vancleavea* is a monotypic genus with a single species: *stylosa*. Although not yet accepted by IPNI (International Plant Names Index), some botanists are following the revised taxonomy proposed by Roberts and Urbatsch (2004) which includes *Vancleavea* with the genus *Chrysothamnus*.

DESCRIPTION: **Shrubs**, 40-120 cm; with woody, freely branched caudices (not readily differentiated from young shoots). **Stems** green when young, soon becoming tan to white or grayish with age (bark of older stems flaky), branched, resinous when young, less so with age. **Leaves** ascending to spreading, becoming deflexed; sessile; blades with conspicuous midnerves plus 1-2 pairs of collaterals often evident, lanceolate to linear-elliptic, falcate, 6-35(-60) × 1-9 mm, often folded, margins sometimes undulate, apices acute, mucronate, ± spinulose, faces glabrous, ± gland-dotted, resinous. **Heads** usually in dense, cymiform arrays (to 7 cm wide), rarely borne singly, not overtopped by distal leaves. **Involucre**s hemispheric, 8-12 × 9-15 mm. **Phyllaries** 40-60+ in 3-5 series, in spirals, mostly tan, ovate to lanceolate, unequal, 3-10 × 1-1.8 mm, greenish distally but scarcely herbaceous, apices acute or acuminate, often recurved, faces often glutinous. **Disc florets** 30-40+; corollas 6-8.5 mm, lobes 1-1.7 mm; style branches 2.8-3.5, appendages 1.3-1.7 mm. **Cypselae** tan, narrowly cylindrical, 4-5 mm, glabrous or sparsely hairy, resinous; **pappi** of 12-15, white or stramineous, lanceolate to lance-linear scales 2-4 mm.

AIDS TO IDENTIFICATION: A slender, branching shrub, 40-120 cm tall, white barked, flowers yellow. A monotypic genus in the very large Aster Family, but some botanists now assign it to the *Chrysothamnus* (rabbit-brush) genus.

ILLUSTRATIONS:

Herbarium Mounts: [http://swbiodiversity.org/seinet/taxa/index.php?taxon=Vancleavea stylosa](http://swbiodiversity.org/seinet/taxa/index.php?taxon=Vancleavea%20stylosa).

Herbarium Mount and Photo: <http://eol.org/pages/819636/media>.

TOTAL RANGE: Southeastern Utah and north-central Arizona.

RANGE WITHIN ARIZONA: North-central Arizona in the vicinity of Page and the Paria Plateau. Also east in the Monument Valley locality, and a southern-most collection about 40 miles NE of Winslow. Coconino, Navajo and Apache Counties.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Shrub, 0.4 to 1.2 m tall.

PHENOLOGY: Flowering: summer and fall. Collections made in Arizona during August and September exhibited flowers.

BIOLOGY:

HABITAT: Canyonlands, sand dunes and other sandy soil habitats in Great Basin desert scrub or Juniper woodlands.

ELEVATION: Arizona collections range from 3400 – 6400 feet (1035-1950m).

EXPOSURE: Not specified.

SUBSTRATE: Sandy soils.

PLANT COMMUNITY: Great Basin desert scrub and Great Basin Juniper woodland. Plants associated with Arizona collections include: *Juniperus osteosperma*, *Bouteloua gracilis*, *Ephedra viridis*, *Atriplex canescens*, *Achnatherum hymenoides*, *Opuntia polyacantha erinacea*, *O. cf. aurea*, *Linum aristatum*, *Sporobolus cryptandrus*, *Poliomintha incana*, *Penstemon ambiguus*, *Rumex hymenosepalus*, *Dicoria canescens*, *Dithyrea*, *Coleogyne ramosissima*, *Ericameria stylosa*, *Malacothrix sonchoides*, *M. parryi*, *Hilaria jamesii*, *Psoralidium junceum*, *Artemisia bigelovii*, *A. filifolia*, *Dimorphocarpa wislizeni*, *Sphaeralcea grossulariifolia*, *Yucca baileyi*, *Comandra umbellata pallida*, *Tradescantia occidentalis*, *Hymenopappus filifolius pauciflora*, *Streptanthella longirostris*, *Lupinus lingii*, *Helianthus petiolaris*, *Phacelia ivesiana*, *Gilia sinuata*, *Physaria rectipes*, *Mentzelia obscura*, *Cryptantha circumscissa*, *C. micrantha*, *Psorothamnus fremontii*, *Muhlenbergia porteri*, *Gutierrezia sarothrae*, *Arctostaphylos*, *Artemisia campestris*, *Cercocarpus intricatus*, *Muhlenbergia pungens*, *Quercus turbinella*, *Chrysopsis villosa*, *Ergonum alatum*, *Artemisia ludoviciana*, *Salix exigua*, *Oryzopsis hymenoides*.

POPULATION HISTORY AND TRENDS: Unknown. There are 22 known collection sites in Arizona. The four of these that included notes on relative abundance suggested that the viability of those populations was good to fair. At one site which was revisited after 70 years, notes from both visits stated that *V. stylosa* was a common plant. It seems that at least some of the populations can be considered as stable. Due to the species' fairly limited distribution in only parts of Arizona and Utah it is considered to be "imperiled" (although not critically imperiled) by NatureServe.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None.
STATE STATUS: None.
OTHER STATUS: None.

MANAGEMENT FACTORS: None specified.

PROTECTIVE MEASURES TAKEN: None specified, although the collection sites in the Paria Canyon-Vermillion Cliffs Wilderness Area on BLM lands in The Arizona Strip, and collections found within Glen Canyon National Recreation Area are provided with some protection.

SUGGESTED PROJECTS: Revisit historical sites to verify if the species is still extant, and collect more detailed information regarding population numbers and extent. Additional site visits to other suitable sandy habitat types across northern Arizona may also document a wider known distribution for *V. stylosa*.

LAND MANAGEMENT/OWNERSHIP: Almost one-half (10) of the known sites are on BIA Navajo Nation lands, and another on the Navajo-Hopi Joint Use lands. Six sites are on the BLM Arizona Strip lands and five of these are within the Paria Canyon-Vermillion Cliffs Wilderness Area. Four sites are within the US National Park Service Glen Canyon National Recreation Area. One is on a private land holding.

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Flora of North America, accessed 7/23/2014,
http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=107019.
JStor| Global Plants, accessed 7/23/2014, <http://plants.jstor.org/specimen/cas00123679?s=t>.

Roberts, R. P. and , L. E. Urbatsch. 2004. Molecular phylogeny of Chrysothamnus and related genera (Asteraceae, Astereae) based on nuclear ribosomal 3ETS and ITS nrDNA sequence data. Systematic Botany . 29: 199--215.

Tropicos, accessed 7/23/2014, <http://www.tropicos.org/Name/2711246>.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Revised: 2014-07-23 BDT

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