ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract **Element Code:** PDPGN08690
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Eriogonum viscidulum* Howell
COMMON NAME: Sticky buckwheat, sticky wild buckwheat, clammy buckwheat, sand buckwheat
SYNONYMS:
FAMILY: Polygonaceae

AUTHOR, PLACE OF PUBLICATION: J.T. Howell, Leaflets of Western Botany 3(6): 138-139. 1942.

TYPE LOCALITY: Riverside bridge, on the Virgin River, Clark Co. Nevada. 1941.

TYPE SPECIMEN: HT: CAS-294932. A. Eastwood and J.T. Howell #9031, 8 May 1941. IT: CAS-294933.

TAXONOMIC UNIQUENESS: There are approximately 250 species of *Eriogonum* in North America (Hickman 1993); USDA PLANTS Database (2002), reports 221 species.

DESCRIPTION: Herbaceous, erect or spreading annual, 0.5-4(-5) dm (2-16[-20] in), minutely viscid, yellowish green, with diffusely branched threadlike stems rising from a basal rosette of circular or kidney shaped leaves. The stems and branches are finely glandular (slightly sticky), often covered with adhering sand and debris. Only the uppermost branches lack the glutinous covering. Leaves are basal, pubescent beneath and thinly so or smooth above; petiole 0.5-4 cm, floccose; blade elliptic to broadly ovate, 0.5-3 x 0.5-3 cm, margins plane. Inflorescences cymose, open, 3-35 x 3-30 cm (1.2-14 x 1.2-12 in); branches minutely viscid; bracts 3, scale-like, 1-2 x 1-2 mm. The peduncles are erect or nearly so, straight, filiform, 0.5-1.5 cm, viscid. Involucres are narrowly turbinate, 1-1.2 x 0.6-0.8 mm. Viscid; teeth 4, erect, 0.3-0.5 mm. Small flowers are 1.3-1.5 mm in early anthesis, becoming 1.5-2 mm; perianth is pale yellow to yellow in early anthesis, becoming tinged with red, glabrous; tepals monomorphic, oblong; stamens included, 0.9-1.1 mm; filaments glabrous. Achenes are light to dark brown, 3-gonous, 0.8-1 mm, glabrous. (FNA 1993+; Falk, Jenkins et al. 2001).

AIDS TO IDENTIFICATION: No other annual buckwheat in the area has highly glandular and threadlike stems and yellow flowers. Although not in its range, *Eriogonum viscidulum* is similar to *E. subreniforme* (kidney-shape wild buckwheat) of southern Utah, northern Arizona, and northwestern New Mexico. *E. subreniforme* has white flowers and stems that are not threadlike. (Falk, Jenkins, et al. 2001).

ILLUSTRATIONS:
Line drawing (Mozingo and Williams 1980: 192).
Copy of pen & ink drawing of plant and flower (M. Kurzius, *in* Niles et al. 1995: 5).
Color photo of plants and habitat (Niles et al. 1995: 10, 11).
Color photo (James L. Reveal, Smithsonian Institution, *in* http://plants.usda.gov/cgi_bin/plant_search.cgi)
Color photos (*in* http://plants.usda.gov/cgi_bin/plant_search.cgi)
Line drawing (Falk, Jenkins et al. 2001)
Color photo of plant and habitat (E. Powell, *in* Falk, Jenkins et al. 2001)
Color photos (James M. Andre 2005, *in* CalPhotos, http://elib.cs.berkeley.edu/cgi/img_query/)

TOTAL RANGE: Clark and Lincoln counties, in southeastern Nevada, and extreme northwestern Mohave County, Arizona. From the Muddy River to the confluence with the Virgin River, and from Sandy Hollow Wash to Middle Point on the Colorado River (FNA 1993+).

RANGE WITHIN ARIZONA: Extreme northwestern Mohave County, North of the Virgin River (Niles et al. 1995).

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous annual.

PHENOLOGY: Flowering April – June (April and May per Falk, Jenkins et al. 2001, and NatureServe 2003).

BIOLOGY: Seeds germinate following the occurrence of sufficient precipitation during winter months.

HABITAT: Low dunes, washes, and sandy flats and slopes, in saltbush and creosote bush communities within Mohave desertscrub.

ELEVATION: 1,180 - 2,492 ft. (360-760 m).

EXPOSURE: All (?)

SUBSTRATE: Sand of dune formations, steep granular soils of mesa alcoves, and solidified sands of dry wash channels (Niles et al. 1995).

PLANT COMMUNITY: Saltbush and creosote bush communities within Mohave Desertscrub. Deep sands with *Prosopis* sp. (mesquite), *Larrea tridentata* (creosote bush) and *Psorothamnus fremontii* (indigo bush) [NatureServe 2003]. *Eriogonum viscidulum* is often seen with *Astragalus geyeri* var. *triquetrus* (sand milkvetch).

In the typical dune environments, perennial plant associates include: *Ambrosia dumosa* (white bur-sage), *Ceratoides lanata* (winter-fat), *Croton californicus* (California croton), *Hilaria rigida* (big galleta), and *Stipa hymenoides* (Indian rice-grass), while ephemeral species include: *Astragalus sabulonum* (gravel milk-vetch), *Cryptantha micrantha* (desertnut hiddenflower), *Dicorea* (=*Dicoria*) *canescens* (desert twinbugs), and *Oenothera deltoides* (large-desert evening-primrose).

Other associated species include: *Acamptopappus shockleyi* (Shockley's goldenhead), *Astragalus amphioxys* (Aladdin's-slippers), *A. lentiginosus* (mottled milkvetch), *Atriplex confertifolia* (shadscale), *Ephedra torreyana* (Torrey's mormon-tea), *Eriastrum eremicum* (desert woolstar), *Grayia spinosa* (spiny hopsage), *Gutierrezia microcephala* (hair-worm snakeweed), *Krameria parvifolia* (range ratany), *Lycium andersonii* (red-berried desert-thorn), *Menodora spinescens* (spiny menodora) *Salazaria mexicana* (Mexican bladder-sage), *Sphaeralcea ambigua* (desert globemallow), and *Yucca brevifolia* (Joshua-tree yucca). (Niles et al. 1995).

POPULATION TRENDS: Unknown. As with most annuals, its occurrence varies according to seasonal conditions (Mozingo and Williams 1980). The NNHP (2001), reports 29 occurrences in Nevada mapped at 1.0 km (0.6 mi) separation; total estimated population of 29,000+ individual; total estimated area unknown. According to NatureServe (2003), at least 12 sites in Clark County, Nevada, are known which may be threatened by natural and human causes. These include periodic washouts and erosion, removal of sand and gravel, and off-road vehicle traffic.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996)
[C2 USDI, FWS 1983]
[PE USDI, FWS 1976]

STATE STATUS: None

OTHER STATUS: Bureau of Land Management Sensitive (USDI, BLM AZ 2005, 2008, 2010)
LE (Nevada, 1979)

MANAGEMENT FACTORS: This species is of conservation concern, and may be susceptible to flooding, washouts, and commercial sand and gravel operations (Mozingo and Williams 1980).

PROTECTIVE MEASURES TAKEN: A collection permit is required in Nevada. This taxon is protected by NRS 527.270 (Mozingo and Williams 1980).

SUGGESTED PROJECTS: Search for new populations and monitor existing

populations. Soil chemistry studies may ultimately define the limits of distribution. The pollination agent(s) of this plant are unknown: are insects involved and, if so, which ones; are the plants strict outbreeders, or is self pollination possible or even the rule; what role, if any, does wind play?

LAND MANAGEMENT/OWNERSHIP: BLM – Arizona Strip Field Office; NPS - Lake Mead National Recreation Area.

SOURCES OF FURTHER INFORMATION

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

Wes Niles - University of Nevada Las Vegas Herbarium, Las Vegas, Nevada.
Jim Holland - Lake Mead National Recreation Area, National Park Service.

ADDITIONAL INFORMATION:

Revised: 1998-12-18 (DJG)
2003-10-22 (SMS)
2005-11-10 (SMS)

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