

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDASCOA080

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Matelea cordifolia* (A. Gray) Woods.
COMMON NAME: Sonoran Milkweed Vine, Sonoran Milkvine
SYNONYMS: *Rothrockia cordifolia* A. Gray
FAMILY: Asclepiadaceae

AUTHOR, PLACE OF PUBLICATION: (A. Gray) Woodson, Ann. Missouri Bot. Gard. 28: 222. 1941. *Rothrockia cordifolia* A. Gray, Proc. Amer. Acad. Arts Sci. 20: 295-296. 1885.

TYPE LOCALITY: USA: Arizona: by water-courses, Northwest mountains. Protologue – American border (with Mexico).

TYPE SPECIMEN: HT: s.n. C.G. Pringle, 17 Aug 1884.* IT: F, NY. Syntype: GH (Mexico. Sonora. By water-courses, northwestern mountains), US (Mexico. Sonora. Southwest of Altar).

TAXONOMIC UNIQUENESS: The genus *Matelea* contains approximately 200 species (Hickman 1993). USDA, NRCS (2002) recognizes 28 species of *Matelea* in North America. Current taxonomic treatment recognizes three species of *Matelea* as occurring in Arizona (Fishbein 2000).

DESCRIPTION: Herbaceous perennial vine, densely hirsute to pilose, the long straight hairs mixed with shorter, glandular, typically white-tipped trichomes; stems twining, at least toward the tips. Leaves are relatively large, 3-9 cm (1.2-3.5 in) long, cordate, the apex attenuate to abruptly apiculate; petioles 2-7 cm (0.8-2.8 in) long, mostly somewhat shorter than the blades. Inflorescence is irregularly cymose, appearing racemose-paniculate to umbelliform, the peduncles tardily elongating to 2-5 cm. Flowers are about 1-2 cm long, with 4-6 mm long calyx lobes that are about equal to the corolla tube or slightly shorter. The corolla is white or tinged with green or light rose, sparsely short-hairy on the tube outside and glabrous inside. The tube is about 3-5 mm long, with oblong, ascending lobes, spreading-erect, 7-13 mm long, about twice as long as the tube. The crown is included within the corolla tube, arising from the column of 5 distinct, fleshy, rectangular-saccate segments, that are opposite and appressed to the anthers, about 0.5-1 mm high and 1-2 mm broad, about as long as the anther head, apically truncate and bidentate to erose toward the middle, the margins more or less folded inward. The stigma head is projected apically 1-2 mm into a fluted column capped by an irregularly crested knob. The follicles are unwinged, 10-13 cm (4-5 in) long, glabrous to glabrate.

AIDS TO IDENTIFICATION: *Matelea cordifolia* can be distinguished from *Lachnostoma arizonicum*, by its much larger, much more deeply cleft corolla, this being glabrous within and not conspicuously veined. The stigma from *M. cordifolia* is elevated, much surpassing the stamens, and the follicles are smooth (Kearney and Peebles et. al., 1951). It is the only vine with opposite, heart-shaped leaves, milky sap, and white flowers in the Sonoran Desert (Fishbein 2000).

ILLUSTRATIONS: Color photo of Isotype (A. Gray, in NYBG at http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail_list?this_id=4423376)
Color photo of Isotype (A. Gray, in NYBG at http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail_list?this_id=4427536)

TOTAL RANGE: Plant found in Southern Arizona and Mexico (Sonora, Baja California).

RANGE WITHIN ARIZONA: Ajo Mountains in Pima County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial vine.

PHENOLOGY: Flowers from August - November.

BIOLOGY:

HABITAT: Mostly found along arroyos and on sandy plains, and rocky slopes in the Lower Sonoran Zone. Nearly restricted to the Gulf Coast Subdivision of the Sonoran Desert (Fishbein 2000).

ELEVATION: From 0 to 5,000 feet (0-1525 m) throughout it's range. In Arizona, it has been collected at 2,300 feet, and at 5,000 feet (700 and 1525 m respectively).

EXPOSURE:

SUBSTRATE: Sandy plains.

PLANT COMMUNITY: Desert scrub in the Lower Sonoran Zone, where it is nearly restricted to the Gulf Coast Subdivision of the Sonoran Desert.

POPULATION TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS:

None

OTHER STATUS:

Forest Service Sensitive (USDA, FS Region 3 1999).

MANAGEMENT FACTORS:**PROTECTIVE MEASURES TAKEN:****SUGGESTED PROJECTS:****LAND MANAGEMENT/OWNERSHIP:** NPS – Organ Pipe Cactus National Monument.**SOURCES OF FURTHER INFORMATION****REFERENCES:**

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

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M. Fishbein - Washington State University, Pullman, WA.

ADDITIONAL INFORMATION:

*TYPE LOCALITY: *Rothrockia cordifolia* (Basionym), Arizona: Northwest Mountains.
*TYPE SPECIMEN: *Rothrockia cordifolia* (Basionym), C.G. Pringle, 17 Aug 1884. IT: NY 318763 and NY 318764.

Revised: 1999-11-19 (LBK)
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