

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

Plant Abstract

Element Code: PMPON03030

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Heteranthera limosa*
COMMON NAME: Mud Plantain
SYNONYMS: *Pontederia limosa* (Basionym)
FAMILY: Pontederiaceae

AUTHOR, PLACE OF PUBLICATION: Willdenow, Carl Ludwig von. Der Gesellschaft Naturforschender Freunde zu Berlin, neue Schriften 3: 439. 1801.

TYPE LOCALITY: Jamaica

TYPE SPECIMEN: MA-810476. Collector not recorded. 1801. (Original material.)

TAXONOMIC UNIQUENESS: The genus *Heteranthera* has seven species. Four species: *H. dubia*, *H. limosa*, *H. peduncularis* and *H. rotundifolia*, are found in Arizona, and *H. peduncularis* is only found in Arizona.

DESCRIPTION:

Plants annual. Vegetative stems submersed with elongate inter-nodes only on plants in over 5 cm of water, or emersed and short. Flowering stems 2–24 cm, distal internode 1–11 cm. Sessile leaves forming basal rosette, blade linear to oblanceolate, thin or sometimes thickened, 3.1–6 cm × 3–5 mm. Petiolate leaves emersed; stipule 1–6 cm; petiole 2–13 cm; blade oblong to ovate, 1–5 cm × 4–33 mm, length equaling or greater than width; base truncate to cuneate, apex acute. Inflorescences 1-flowered; spathes 0.9–4.5 cm, glabrous. Flowers opening within 1 hour after dawn, wilting by midday; perianth blue or white, salverform, tube 15–44 mm, limbs essentially actinomorphic, lobes equal, narrowly elliptic, 5.2–26.3 mm, distal lobes yellow toward base; stamens unequal, lateral stamens 2.3–7.8 mm, central stamen 3.3–7.2 mm; filaments linear, glandular-pubescent; style glabrous. Seeds 9–14-winged, 0.5–0.8 × 0.2–0.6 mm. (Flora of North America).

AIDS TO IDENTIFICATION: The plant has thick, spade-shaped green leaves that may be above or below the water surface. Its blue or purple flowers have six narrow petals.

ILLUSTRATIONS:

Photos, drawings, herbarium mounts: <http://eol.org/pages/1117872/media>.

TOTAL RANGE: South America (Argentina, Bolivia, Brazil, Columbia, Ecuador, Paraguay and Venezuela), the Caribbean (Jamaica, Cuba), Central America, Mexico and the United

States. In the U.S., the distribution is rather disjunct: East Florida, Texas and Louisiana north to southern Illinois, South Dakota, Minnesota and eastern Colorado, SE Arizona, and small occurrences in both northern and southern California.

RANGE WITHIN ARIZONA: Known from eight collections in SE Arizona, mostly east and west of Nogales near the Mexican border. The northern most collection site is in Graham County, in the northern part of Sulphur Springs Valley SW of Bonita. In Cochise County, there are collections in the southern San Bernadino Valley. There are three collections in Santa Cruz County: San Rafael Valley SW of Canelo Hills, Peck Canyon, and Sardina Canyon W of the Tumacacori Mountains. A single collection was made In Pima County in the S Altar Valley between Sasabe and Arivaca.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Annual forb.

PHENOLOGY: Range-wide flowering: May to November. Arizona collections note flowers from February through November; one collection reported fruit in October.

BIOLOGY:

HABITAT: Shallow water or emersed at pond edges and in roadside ditches. Best adapted for growth in water less than 5cm deep. Can be found in moist ground, too.

ELEVATION: Range-wide: 0 – 6560 feet (0-2000m). In Arizona, has been found between 3700 – 4600 feet (1130 – 1400m).

EXPOSURE: Not specified.

SUBSTRATE: Not specified, but moist to saturated soils and shallow aquatic habitats.

PLANT COMMUNITY: Plants reported associated with Arizona collections include: *Sagittaria longiloba*, *Marselia vestita*, *Aster subulatus*, *Typha*, *Scirpus*, *Juncus* and *Helianthus*.

POPULATION HISTORY AND TRENDS: Not known for Arizona. A couple of collections list the plant as common; a few others list it as occasional or scarce. It has persisted at one site for 30 years. NatureServe considers the species critically imperiled for Arizona. Since all collections are from high value wetland sites, and since all of these are either private or US government managed, it is likely that the habitat for this species will persist.

SPECIES PROTECTION AND CONSERVATION

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| ENDANGERED SPECIES ACT STATUS: | None. |
| STATE STATUS: | None. |
| OTHER STATUS: | None. |
| MANAGEMENT FACTORS: | Wetland habitats must be maintained. |
| PROTECTIVE MEASURES TAKEN: | None specified. |
| SUGGESTED PROJECTS: | Monitor known locations (8). |
| LAND MANAGEMENT/OWNERSHIP: | Four of the collections sites are from private lands (not uncommon for water points located throughout Arizona), two are on National Forest lands (Coronado NF), and the other two are on National Wildlife Refuges (Buenos Aires and San Bernadino). |

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Flora of North America, Vol. 26, p.41, accessed 4/28/2014,
http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242101660.
JSTOR| Global Plants, accessed 4/28/2014,
<http://plants.jstor.org/search?plantName=%22Heteranthera+limosa%22&syn=1>.
NatureServe Explorer, an Online Encyclopedia of Life, accessed 4/28/2014,
<http://explorer.natureserve.org/servlet/NatureServe?searchSciOrCommonName=Heteranthera&x=18&y=8>.
Tropicos, accessed 4/28/2014, <http://tropicos.info/Name/26100021>.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION: Member of the water-hyacinth family. Considered an invasive weed in California.

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