

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

Plant Abstract

Element Code: PDBRA270K0

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Rorippa sinuata*
COMMON NAME: Spreading Yellowcress
SYNONYMS: *Nasturtium sinuatum* Nutt. (Basionym)
Radicula sinuata (Nutt.) Greene
FAMILY: Brassicaceae

AUTHOR, PLACE OF PUBLICATION: Albert Spear Hitchcock, A key to the spring flora of Manhattan 18. Manhattan, Kansas. 1894.

TYPE LOCALITY: Not specified.

TYPE SPECIMEN: Natural History Museum, BM000583690, Thomas Nuttall (SN), Type of *Nasturtium sinuatum*.

TAXONOMIC UNIQUENESS: *Rorippa* is a relatively large genus with 30 species and 13 subspecies listed for the U.S. and Canada by NatureServe. *R. sinuata* is one of eight species and three subspecies found in Arizona.

DESCRIPTION:

Perennials; (rhizomatous or with creeping roots); sparsely to moderately pubescent, (trichomes hemispherical, vesicular). **Stems** (many to few from base), decumbent or prostrate, branched distally, 1-4.2(-5) dm, (pubescent proximally). **Basal leaves** not rosulate; blade margins pinnatifid. **Cauline leaves** sessile; blade oblong to oblanceolate or lanceolate (lateral lobes oblong or ovate), (1.5-)2.5-6.5(-9) cm × 5-18(-25) mm, base usually auriculate, rarely proximalmost not auriculate, margins pinnatifid to deeply sinuate, or (lateral lobes) dentate to sinuate or entire, (surfaces pubescent abaxially with vesicular trichomes on veins, glabrous adaxially). **Racemes** considerably elongated. **Fruiting pedicels** divaricate-ascending to horizontal, sigmoid or recurved, 4-12(-14.5) mm. **Flowers:** sepals ascending, oblong, 2.2-3.7(-4.5) × 1-1.8 mm; petals yellow, oblanceolate to spatulate, (2.7-)3.2-5.3(-6) × 1.5-2.5 mm; median filaments 3-5.5 mm; anthers narrowly oblong, 1.2-1.7 mm. **Fruits** siliques, curved, oblong to lanceolate or linear, (4-)5-12(-16) × (1-)1.5-2.5 mm; valves glabrous or pubescent; ovules (30-)50-82(-98) per ovary; style (0.8-)1-2.5(-3.5) mm. **Seeds** biseriate, yellow-brown, angled, cordiform, 0.7-1 mm (0.5-0.6 mm diam.), colliculate. **2n** = 16.

AIDS TO IDENTIFICATION: Sepals considerably shorter than the petals, plants commonly perennial with root stocks, and plants not semi-aquatic. Stigma much thicker than

the style, which is more than 1mm long. Inflorescence and capsules scurfy-papillate (not glabrous) and seeds in two rows (Kearney and Peebles, 1960).

ILLUSTRATIONS:

Herbarium Mount: <http://www.tropicos.org/Image/100002512>.

Photo: http://plants.usda.gov/java/largeImage?imageID=rosi2_001_avp.tif.

TOTAL RANGE: Central and western United States and western Canadian provinces (not found in SE and NE U.S.)

RANGE WITHIN ARIZONA: Known only from six collections. Three are around Canyon de Chelly on the Navajo Nation in NE Arizona (Apache Co.), and another is north of Black Mesa and Kayenta, also on the Navajo Nation (Navajo Co.). There are also collections from the north rim of the Grand Canyon and Anderson Mesa, SE of Flagstaff (both in Coconino Co.). The collection from the Walhalla Plateau on the North Rim is the first record from Grand Canyon NP.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial herb, stems prostrate or decumbent, rhizomatous or creeping roots.

PHENOLOGY: Flowers: April to August, probably May and June in Arizona. Fruits observed in mid-September.

BIOLOGY:

HABITAT: Shores of ponds and lakes, sandy or gravel banks, stream banks, fields, wet depressions, ditches, moist grounds. Collected from a cave seep in Arizona.

ELEVATION: Range-wide: 0-8530 feet (0-2600 m.). Collections made in Arizona range from 5400-8300 feet (1645-2530 m.).

EXPOSURE: Variable. Collected from the margins of lakes and dry reservoirs suggesting an open exposure, but also from a cave seep and small depression in an area dominated by ponderosa pine.

SUBSTRATE: Moist soils.

PLANT COMMUNITY: Other species identified with Arizona collections include: *Helianthus*, *Salsola*, *Acroptilon repens*, *Mimulus guttatus*, *Carex specuicola*, *Ribes leptanthum*, Salt Cedar, Russian Olive, and Ponderosa Pine.

POPULATION HISTORY AND TRENDS: Unknown. Collected from only six sites in Arizona, from 1935 to 2007.

SPECIES PROTECTION AND CONSERVATION

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

MANAGEMENT FACTORS: Unknown.

PROTECTIVE MEASURES TAKEN: None.

SUGGESTED PROJECTS: Continue collections to better ascertain range and populations trends.

LAND MANAGEMENT/OWNERSHIP: U.S. Bureau of Indian Affairs (Navajo Nation), U.S. Forest Service (Coconino NF), and U.S. National Park Service (Grand Canyon NP).

SOURCES OF FURTHER INFORMATION

REFERENCES:

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Kearney, T.H. and R.H. Peebles. 1960. Arizona Flora. University of California Press, Berkeley. Pp. 339-340.

NatureServe. 2013, accessed 7/11/2013.

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Tropicos. <http://www.tropicos.org/Name/4101447>, accessed 7/10/2013.

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<http://plants.usda.gov/java/nameSearch>.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Revised: 2013-07-11 BDT

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