



ARIZONA GAME AND FISH DEPARTMENT HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PMAGA0B021

Data Sensitivity: Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Yucca angustissima* var. *angustissima* Engelm. ex Trel

COMMON NAME: Narrowleaf Yucca, Fineleaf Yucca

SYNONYMS: *Yucca angustissima* var. *avia* Reveal

FAMILY: Agavaceae

AUTHOR, PLACE OF PUBLICATION: Engelmann ex Trelease, 1902, Rep. (Annual)
Missouri Bot. Gard. 13: 58, plate 23, fig. 1, plate 24, fig. 1, plate 83, fig. 6, plate 93, fig. 1.

TYPE LOCALITY:

TYPE SPECIMEN: HT:

TAXONOMIC UNIQUENESS: There are 10 genera in Agavaceae. The species *angustissima* is 1 of 30 in the genus *Yucca* and var. *angustissima* is 1 of 3 varieties in *Y. angustissima*. The other variety found in Arizona is *Y. a.* var. *kanabensis*. (USDA PLANTS 2008). The Missouri Botanical Garden's (2008) Tropicos lists the accepted name for this plant as *Yucca glauca* (Flora N. Amer. Ed. Comm. 2002), with *Yucca angustissima* in synonymy. However, eFloras (accessed 8/4/2008) the official website for Flora of North America, still lists the taxon name as *Yucca angustissima* with varieties *angustissima*, *avia*, *toftiae*, and *kanabensis*. The move to *Y. glauca* has yet to be accepted in the botanical community, therefore at this time the HDMS will retain the use of *Yucca angustissima* with its respected varieties.

DESCRIPTION: Based on the description from eFloras (2008), *Y.a.* var. *angustissima* forms small to extremely large colonies of rosettes, that are acaulescent or caulescent, to 3 m in diameter; rosettes are usually small. Stems are procumbent, 0.1-0.4 m. (4-16 in). The leaf blade is narrow, long-tapering and primarily flat or concave distally, 25-45 x 0.5-0.8 cm [10-18 x 0.2-0.3 in], mostly flexible, smooth abaxially and adaxially. Leaf margins are entire, becoming filiferous, white, becoming brownish, gray, or green, apex long-acuminate, spinose, spine acicular, short, 3-7 mm. Inflorescences is racemose, 8-10 dm (31.5-39.4 in) long and glabrous; the peduncle is 0.3-0.5 m (1-1.6 ft). The flowers are pendent, measuring 4.5-5.5 cm (1.8-2.2 in) long, with distinct pale green tepals often tinged rose or rosy purple. Filaments measure 0.7-2.5 cm; anthers are 3.2 mm; the pistil is 2.5-2.8 cm; and the style is 10-13 mm long. The seed capsules are dehiscent, often deeply constricted near the center, measuring 3.5-5.0(-5.7) cm [1.4-2(-2.2) in]; dehiscence is septical. The dull black seeds are 7-9 x 5-7 mm. (eFloras 2008).

AIDS TO IDENTIFICATION: The range of *Yucca angustissima* var. *angustissima* and *Y. a. var. kanabensis* are distinct from each other, although they do come close in a generally narrow geographic area. The leaf blade of var. *angustissima* is 40-60 cm (16-24 in) long; the inflorescence and peduncle measures 0.8-1.5(-1.8) m long and the flowers measure 4.5-5.5 cm; the style is 10-13 mm. The capsules are 3.5-5.5(-5.7) cm and deeply constricted. In var. *kanabensis* the leaf blade is 45-80(-150) cm (18-31.5[-59in]) long; the peduncle and inflorescence is 1-2(-4.5) m long (stem plus peduncle and inflorescence is 2-3.5 m), and the flowers measure 5.5-6.5 cm; the pistil is 3-3.5 cm long and the style is 5-8 mm. Seed capsules are 4.5-7.5 cm long and moderately constricted. ('eFlores 2008).

ILLUSTRATIONS:

Color photo (Bob Skowron, September 2007: Colorado Plateau. Rocky Mountain Rare Plants <http://www.rmrp.com>)

TOTAL RANGE: Distribution includes the states of Arizona, New Mexico, and Utah. The USDA PLANTS website also reports the state of Colorado.

RANGE WITHIN ARIZONA: Found Apache, Coconino, Mohave, Navajo, and Yavapai counties.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial shrub, subshrub.

PHENOLOGY: Flowering occurs from spring to early summer ('eFloras 2008).

BIOLOGY: Flowering occurs in spring to early summer ('eFloras accessed 2008). A common pollinator of yucca is the yucca moth which purposefully transfers the pollen from the stamens of one plant to the stigma of another, while at the same time lays an egg in the flower; the larva of the moth then eats some of the developing seeds, but far from all (M & G Irish 2000, in Answers.com accessed 2008).

HABITAT: They can be found growing in sandy soils, sandstone outcrops, and rocky hillsides of deserts ('eFloras 2008). Also found in juniper-pinyon woodlands and grasslands, red sandy barrens, rocky limestone slopes, and sandy slopes of hillside (SEINet, 2008).

ELEVATION: From 2950 – 7213 ft (900–2200 m). ('eFloras 2008).

EXPOSURE: open.

SUBSTRATE: Sandy soils, sandstone outcrops, red sandstone; rocky slopes.

PLANT COMMUNITY: Juniper-pinyon grassland and woodland. Associated species in Apache County include: *Ambrosia* (ragweed), *Artemisia tridentata* (Big Sagebrush), *Bouteloua curtipendula* (sideoats grama), *Brickellia californica* (California Brickellbush), *B. scabra* (= *B. microphylla* var. *scabra*, Rough Brickellbrush), *Bromus tectorum* (cheatgrass), *Celtis* (hackberry), *Chaetopappa ericoides* (Rose Heath), *Clematis* (leather flower), *Croton*, *Dimorphocarpa* (spectaclepod), *Ephedra* (jointfir), *Equisetum* (horsetail), *Gutierrezia sarothrae* (broom snakeweed), *Heterotheca villosa* (hairy false goldenaster), *Iva* (marsh elder), *Lithospermum* (stoneseed), *Opuntia* (pricklypear), *Opuntia* (= *Cylindropuntia whipplei*) (Whipple cholla), *Quercus turbinella* (Sonoran scrub oak), *Salsola* (Russian thistle), *Solanum elaeagnifolium* (silverleaf nightshade), *Sphaeralcea* (globemallow), *Tribulus terrestris* (puncturevine). In Coconino County Associated species include: *Acer negundo* (boxelder), *Asclepias subverticillata* (horsetail milkweed), *Atriplex confertifolia* (Shadscale saltbush), *Bouteloua gracilis* (blue grama), *Chrysothamnus nauseosus* (= *Ericameria nauseosa*, rubber rabbitbrush), *Juglans* (walnut), *Juniperus* (juniper), *Pinus* (pine), *Populus* (cottonwood), *Quercus* (oak), *Salix* (willow), *Sphaeralcea* (globemallow), and *Verbascum thaspi* (common mullein). Also found in Yavapai Co. was *Canotia holacantha* (crucifixion thorn). (SEINet, 2008).

POPULATION TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:

None

STATE STATUS:

Salvage Restricted (ARS, ANPL 1999)

[Salvage Restricted (ARS, ANPL 1993)]

OTHER STATUS:

None

MANAGEMENT FACTORS:

This plant can be found in cultivation for use in landscaping.

PROTECTIVE MEASURES:

SUGGESTED PROJECTS:

Current population surveys are needed to confirm presence at historical sites and to determine if new populations exist. Life history studies are also needed.

LAND MANAGEMENT/OWNERSHIP: NPS – Grand Canyon National Park.

SOURCES OF FURTHER INFORMATION

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ADDITIONAL INFORMATION:

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