

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

Plant Abstract

Element Code: PDCAM0E0X0

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Lobelia laxiflora* Kunth

COMMON NAME: Mexican lobelia, Sierra Madre lobelia, Mexican cardinalflower, looseflowers lobelia, drooping lobelia

SYNONYMS: *Rapuntium laxiflorum* (Kunth) C. Presl., *Tupa laxiflora* (Kunth) Planch. & Oerst., *Dortmanna laxiflora* (Kunth) Kuntze

FAMILY: Campanulaceae

AUTHOR, PLACE OF PUBLICATION: Kunth, Nova Genera et Species Plantarum (quarto ed.) 3: 311. 1818 [1819].

TYPE LOCALITY: Crescit in Regno Mexicano, inter Quaxiniquilapa et Acaguisotla, alt. 500 hex. Floret Aprili, Humboldt & Bonpland s.n.

TYPE SPECIMEN: Humboldt & Bonpland s.n., no date, Mexico (B) and (P).

TAXONOMIC UNIQUENESS: The species *laxiflora* is 1 of 47 species in the genus *Lobelia*. The variety that occurs in Arizona is *Lobelia laxiflora* var. *angustifolia*.

DESCRIPTION: For the variety that occurs in Arizona, plants are long-lived perennial shrub/subshrub (or forb), with few to many erect or ascending stems from a stout woody root. The stems may grow up to 3 m (9.8 ft) tall, but usually is 1-1.5 m (3.3-5 ft). They are glabrous below, and glabrous to short-pubescent above. The lower leaves are often deciduous, while the cauline ones are 5-15 mm wide and 5-15 cm (2-6 in) long, from thin and nearly membranous to thicker and rugose, and mostly fine and regularly serrate. The racemose inflorescence is 5-40 cm (2-17 in) long, with pedicels appressed to stem at base or often their full length of 2.5-7 cm (1-3 in) long. Pedicels are often reddish or purplish. Leafy bracts are lanceolate, 2-5 cm long. The hypanthium is broadly bowl-shaped, 3-5 mm deep and 4-6 mm wide at anthesis; sometimes glabrous but usually finely and moderately puberulent. The persistent sepals are deltoid-ovate to lance-triangular, 2-5 mm long at anthesis. Red corolla is 2.5-3.5 cm (1-1.4 in) long, tube 16-26 mm long, lobes 10-20 mm long (some forms yellowish); filament tube 15-30 mm long, slightly deflexed, yellow, pink, or reddish at base. The anther tube is 5-9 mm long, yellowish, with the two smaller anthers densely tufted with stiff white hairs at apex, and the larger three sparsely hirsute to glabrous toward base. Fruiting hypanthium is brownish. Amber to pale brown seeds are ellipsoidal-lenticular to ovoid, smooth but with faint longitudinal lines, 0.4-0.6 mm long, and slightly pointed at one end. (Shreve and Wiggins, 1964).

AIDS TO IDENTIFICATION:

ILLUSTRATIONS: Color photo of inflorescence (Gerrit Davidse *in* MBG at <http://mobot.mobot.org>)
Color photo of inflorescence (Barry Hammel 1999, *in* MBG at <http://mobot.mobot.org>)
Color photo (*in* MBG at <http://mobot.mobot.org>)
Color photo (Wynn Anderson *in* Chihuahuan Desert Gardens, <http://museum.utep.edu/chih/gardens/plants/GtoM/lobella1.htm>).
Color photo (*in* <http://www.plantsafari.com/Catalog2/Detail/00752.html>)
Color photo (*in* http://www.geocities.com/RainForest/Vines/7025/lobelia_laxiflora.html)

TOTAL RANGE: Southern Arizona, Mexico, and throughout most of Central and South America.

RANGE WITHIN ARIZONA: Sycamore Canyon, Santa Cruz County. Collected from Pinal County by E. Lehto (ASU-51826).

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial shrub/subshrub.

PHENOLOGY: Mainly April to October, but may flower sparsely throughout the rest of the year.

BIOLOGY: Drought tolerant once established; frost sensitive. Spreads by underground runners. This plant has been observed being visited by broad-billed hummingbird (*Cynanthus latirosis*), and bumblebees (SEINet accessed 2005).

HABITAT: Among rocks and under trees, along streams, seepy areas and canyon bottoms, in woodland habitats. In Mexico, collected in pine-oak forest.

ELEVATION: 3,680 – 5,000 ft (1122 – 1525 m). In Mexico, collected between 4,098-5,574 feet (1250-1700 m).

EXPOSURE: Full sun to shade.

SUBSTRATE: Sand, gravel.

PLANT COMMUNITY: Upper Sonoran Zone. In Arizona, found in sycamore-velvet ash-fremont cottonwood riparian deciduous woodland. Associated plants include: *Amsonia*

grandiflora (Arizona slimpod), *Aquilegia chrysantha* (golden columbine), *Asclepias angustifolia* (Arizona milkweed), *Baccharis salicifolia* (willow-leaf false-willow), *Eleocharis* (spikerush), *Fraxinus velutina* (velvet ash), *Juncus* (rush), *Lobelia cardinalis* (cardinal flower), *Lotus alamosanus* (Sonoran trefoil), *Mimulus guttatus* (common large monkeyflower), *Platanus wrightii* (Wright sycamore), *Polypogon monspeliensis* (annual rabbit-foot grass), *Populus fremontii* (Fremont cottonwood), *Quercus arizonica* (Arizona oak), *Q. emoryi* (Emory's oak), *Salix bonplandiana* (red willow), *S. gooddingii* (Goodding willow), *Scutellaria potosina* (Mexican skullcap), *S. tessellata* (Huachuca Mountains skullcap), *Stachys coccinea* (Texas hedgenettle), *Toxicodendron radicans* (eastern poison ivy), *Veronica anagallis-aquatica* (brook-pimpernell), and *Vitis arizonica* (Arizona grape). (SEINet accessed 2005).

POPULATION HISTORY AND TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: Salvage Restricted (ARS, ANPL 1999)
OTHER STATUS: None

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: USFS – Coronado National Forest.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

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