

**Added to California Rare Plant Rank 2B.2 of the CNPS Inventory on
December 29, 2016**

Rare Plant Status Review: *Funastrum crispum*
Proposed Addition to California Rare Plant Rank 2B.2, G4G5 / S2
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Changes made to the original document are in blue text.

Background

Funastrum crispum (Benth.) Schltr. is a perennial herb in the Apocynaceae previously only known from outside of California in Arizona, Colorado, New Mexico, Texas, Oklahoma, Baja California and Sonora Mexico. Since 2006, populations of *F. crispum* have been reported in the area of Pinyon Flat in Riverside County, California. It is not included in *The Jepson Manual* (1993), but is included in *The Jepson Manual, Second Edition* (Rosatti 2012). The Apocynaceae treatment in the *Flora of North America* (Vol. 14) is not yet published. *Funastrum crispum* was originally identified as a *Sarcostemma* species and described by George Bentham in 1849 as *Sarcostemma crispum*. It was later transferred and renamed to *Funastrum crispum* by Friedrich Schlechter in 1914. *Funastrum crispum* is distinguished from *F. utahense*, another California native, in having more or less spreading to erect corolla lobes that do not meet, therefore not giving the appearance of a closed flower bud, versus erect-incurved corolla lobes that meet above anther head, and give the appearance of a closed flower bud. It is distinguished from the other two *Funastrum* taxa in California in having a narrow to wide lanceolate leaf with general wavy margins, versus a linear to lanceolate leaf without wavy margins in *F. cynanchoides* and *F. hirtellum*.

In the *Flora of Baja California* (Wiggins 1980), it is noted that *F. crispum* occurs on arid slopes and in canyons. In California, it occurs in pinyon and juniper woodland and chaparral at an approximate elevation of 1,165 to 1,840 meters, and is known to flower in May through August.

Funastrum crispum is known from approximately 6 occurrences in California (comprised of 57 collections) within the vicinity of Pinyon Flat in Riverside County. All occurrences are relatively recent, with the latest observations ranging from 2009 to 2016. All but one occurrence fall within the San Bernardino National Forest; the remaining occurrence falls in unknown landownership.

Funastrum crispum is ranked as a G4G5 taxon by NatureServe (2016), unranked (SNR) by NatureServe in Arizona, New Mexico, as well as Texas, and ranked critically imperiled (S1) in Colorado and Oklahoma.

According to Duncan Bell (per. comm. 2016), threats to *F. crispum* include development, equestrian activities, competition with other plants, and possibly OHV activities.

Based on the available information, CNPS and CNDDDB recommend adding *Funastrum crispum* to California Rare Plant Rank 2B.2 of the CNPS Inventory. If knowledge on the distribution, threats, and rarity status of *F. crispum* changes in the future, we will re-evaluate its status at that time.

Recommended Actions

CNPS: Add *Funastrum crispum* to CRPR 2B.2

CNDDDB: Add *Funastrum crispum* to G4G5 / S2

Draft CNPS Inventory Record

Funastrum crispum (Benth.) Schltr.

wavyleaf twinevine

Apocynaceae

CRPR 2B.2

Riverside

Arizona, Colorado, New Mexico, Oklahoma, Texas; Baja California, Sonora Mexico

Toro Peak (065C) 3311654, Martinez Mtn. (065D) 3311653

Pinyon and juniper woodland, chaparral; elevation 1,165-1,840 meters.

Perennial herb. Blooms May to August.

Discovered in California in 2006 by Jordan Zylstra. ~~Possibly~~ **Potentially** threatened by development., **Possibly threatened by** recreational activities, and vehicles. See *Plantas Hartwegianas imprimis Mexicanas* 291 (1849) for original description, and *Repertorium Specierum Novarum Regni Vegetabilis* 13(363/367):284 (1914) for revised nomenclature.

Literature Cited

Bentham, G. 1849. *Plantas Hartwegianas imprimis Mexicanas* 291. (Original description.)

NatureServe. 2015. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Website <http://explorer.natureserve.org/> [accessed 25 October 2016].

Rosatti, T. J. 2012. *Funastrum*. Pp. 206-207 in Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds.), *The Jepson manual: vascular plants of California*, second edition. University of California Press, Berkeley, CA.

Schlechter, F. 1914. *Repertorium Specierum Novarum Regni Vegetabilis* 13(363/367): 284.

Wiggins, I.L. 1980. *Flora of Baja California*. Stanford University Press, Stanford. 1025 pp.