

Rare Plant Status Review:

Trichostema ruygtii

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Trichostema ruygtii is an endemic, annual herb in the Lamiaceae. It is known from chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, and vernal pool habitats from 30 to 590 meters in elevation. According to Harlan Lewis (*Madroño* 53 (3): 282-287 (2006)), "it is generally found on thin clay soils on dry rocky slopes and flats that are often adjacent to exposed volcanic bedrock of the Sonoma Volcanic Formation." *T. ruygtii* is distinguished from other annual *Trichostema* species based primarily on floral characteristics (the comparatively small size of its flowers and short stamen length). It flowers between June and October.

T. ruygtii is currently on List 4 (plants of limited distribution) of the CNPS Inventory. It was first evaluated by CNPS and CNDDDB as a proposed addition to List 1B from November 2006 to January 2007. At that time, as a recently described species, it was placed on List 4 based on the assumption that more occurrences were likely to be found in adjacent areas. During the original status review there were 20 known occurrences of *T. ruygtii*.

According to Jake Ruygt (pers. comm. 2009), *T. ruygtii* is still known from just 20 occurrences. Its range is restricted to the, "Napa Range and east interface with Napa Valley. To date, it has only been recorded in Napa and Lake County but (is) expected in Solano County in the Wild Horse Valley to Green Valley area." The only known occurrence in Lake County, southwest of Kelseyville, (represented by a single, 1931 herbarium collection) is located about 60 kilometers to the NW of the closest known location in Napa County. According to Lewis (2006), "a recent survey of the area disclosed three populations of *T. lanceolatum* but no trace of *T. ruygtii*, which may have been extirpated by development in the area since 1931." At least one occurrence in Napa County has been extirpated by vineyard development, and another is possibly extirpated (J. Ruygt, pers. comm. 2009). Suitable habitat in Napa, Lake, and Solano counties should be searched for additional occurrences of *T. ruygtii*.

The population size and area of occupancy of *T. ruygtii* is fairly well known. According to Jake Ruygt (pers. comm. 2009) the population size at occurrences of *T. ruygtii* ranges from 10 individuals to more than 1000 individuals, and areas of occupancy range from 1 acre to 20 acres. The total population size of *T. ruygtii* is estimated at between 5,700 and 6,800 individuals. Combined, the occurrences are located on approximately 127 total acres. For information on the location, population size, and area of occupancy of the known occurrences of *T. ruygtii* please see the attached spreadsheet.

T. ruygtii is threatened by urban and agricultural development. The ownership at occurrences of *T. ruygtii* is not well known.

Based on the current number of occurrences, total population size, area of occupancy and threats, CNPS and CNDDDB recommend that *T. ruygtii* be re-ranked to List 1B.2.

Recommended Action

CNPS: Re-rank from CNPS List 4 to List 1B.2

CNDDDB: Re-rank in CNDDDB from G3, S3 to G2, S2

Revised CNPS *Inventory* record:

Trichostema ruygtii H. Lewis

Lamiaceae

Napa bluecurls

List 1B.2

Lake*, Napa

499B [Capell Valley/3812242], 499C [Mt. George/3812232], 500A [Yountville/3812243], 500D [Napa/3812233], 516C [St. Helena/3812254], 534A* [Kelseyville/3812287], 517A [Detert Reservoir/3812265]

cismontane woodland, chaparral, valley and foothill grassland, vernal pools, lower montane coniferous forest; elevation 30-590 meters.

Annual herb, blooms June-October.

Threatened by development and agriculture. See *Madrono* 53(3):282-287 (2006) for original description.