

**Rare Plant Status Review: *Campanula californica***  
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*Campanula californica* is an endemic, rhizomatous, perennial herb in the Campanulaceae. It is found in fen and marsh micro-habitats within bog and fen, closed-cone coniferous forest, coastal prairie, and north coast coniferous forest habitats from 1 to 520 meters in elevation. It is included in *The Jepson Manual* (1993) and will be included in *The Jepson Manual* (2<sup>nd</sup> Edition, pending confirmation from the author of the treatment). *C. californica* flowers between June and October.

*C. californica* is known from 119 occurrences in Marin, Mendocino, Santa Cruz, Sonoma, Counties (please see page 3 for a map showing known locations). 32 of these occurrences are considered historical and have not been documented for at least 20 years. Out of the 87 recent occurrences (those that have been documented in the past 20 years) a total of 57 are currently ranked as either “good” or “excellent” by CNDDDB. 29 of 87 recent occurrences are ranked as either “fair”, “poor”, “possibly extirpated”, or “extirpated” by CNDDDB. The occurrence rank is unknown for 32 occurrences. Field work should attempt to re-locate historical occurrences of *C. californica*, and suitable habitat within and beyond its known range should be searched for new occurrences. The occurrence from Santa Cruz County is known from only a single historical herbarium collection and is possibly extirpated. Due to the disjunct nature of this occurrence, special attempts should be made to relocate this population. Please see the table below for a summary of occurrence data.

Occurrence Statistics for <i>Campanula californica</i> Data from CNDDDB, February 2009											
Total # of Known Element Occurrences	Element Occurrence Ranks						Population Status		Presence		
	A	B	C	D	X	U	Historic >20 years	Recent ≤20 years	Present, Extant	Possibly Extirpated	Extirpated
119	8	49	16	7	6	31	32	87	113	4	2

The population size of *C. californica* is fairly well known. Data are available for 99 (approximately 85%) of the known occurrences. Counts/estimates conducted between 1978 and 2007 indicate that the population size at occurrences of *C. californica* varies greatly (from 1 plant at EO# 132 and 77 to greater than 40,000 plants at EO# s 134 and 135 combined). However, 48 of the occurrences are known from fewer than 100 plants, and at least 6 occurrences are possibly extirpated. Population count/estimate data is provided in the table starting on page 4.

*C. californica* was included in the 1<sup>st</sup> Edition (1974) of the CNPS Inventory on the list of Very Rare and Endangered Plants. It was included on List 2: Plants Rare and Endangered in the 2<sup>nd</sup> Edition (1980) of the Inventory. It was included on List 1B in the 3<sup>rd</sup> Edition (1984) of the Inventory, and has remained on that list ever since.

Occurrences of *C. californica* are threatened by grazing, development, marsh habitat loss, logging, road maintenance, and trampling. According to Tamara Camper (pers. comm. 2002) *C. californica*, "isn't tolerating the disturbance (tractor-logged clearcut) very well," based on post-timber harvest monitoring.

From a superficial analysis, the relatively large number of occurrences (119) of *C. californica* may seem to indicate that it is too common to be included on List 1B. Generally speaking, List 1B contains plants that are known from fewer than 50 occurrences ranked as "good" or "excellent" by CNDDDB. The fact that *C. californica* has 57 occurrences ranked as either "good" or "excellent" lead us to request your opinions about re-ranking it to List 4. It is important to note that *C. californica* is a wetland species and is vulnerable to disturbances. Also, the small population size at many occurrences makes them vulnerable to extirpation. An analysis of the current status (including population trends) of *C. campanula* occurrences (especially those that have been subjected to recent timber harvest activities) is needed to thoroughly analyze the long term viability of this species.

Based on the current information, CNPS and CNDDDB recommend that *C. californica* be kept on List 1B. If, however, reviewers conclude that *C. californica* is too common for List 1B we will consider re-ranking it to List 4. This status review was initiated after an analysis of CNDDDB data indicated that this species has greater than 50 occurrences ranked "good" or "better" (the general cut-off between plants on List 1B versus plants on List 4). We will continue to monitor data in the CNDDDB and draft status reviews for taxa if they meet this threshold. Note that the two non-List 4 species (*Campanula californica*, *Downingia pusilla*) currently with >50 good/excellent ranked occurrences are wetland taxa with special vulnerabilities. We do not anticipate a status review of *D. pusilla* at this time.

### **Recommended Actions**

**CNPS:** Keep on CNPS List 1B.2

**CNDDDB:** Keep on G3, S3

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### **Current CNPS *Inventory* record:**

*Campanula californica* (Kell.) Heller  
swamp harebell  
Campanulaceae  
List 1B.2

Mendocino (MEN), Marin (MRN), Santa Cruz (SCR)\*, Sonoma (SON)  
Felton (408D)\* 3712211, Tomales (485B) 3812228, Drakes Bay (485C) 3812218,  
Inverness (485D) 3812217, Sebastopol (502A)\* 3812247, Duncans Mills (503A)\*  
3812341, Bodega Head (503D)\* 3812331, Warm Springs Dam (519A)\* 3812361,

Sent to NW, CW, N. Morin on 2/26/09

Annapolis (520A) 3812363, Stewarts Point (520B) 3812364, Plantation (520D) 3812353, Mcguire Ridge (536C) 3812374, Eureka Hill (537A) 3812385, Point Arena (537B) 3812386, Saunders Reef (537C) 3812376, Gualala (537D) 3812375, Navarro (552A) 3912325, Elk (552B) 3912326, Mallo Pass Creek (552C) 3912316, Cold Spring (552D) 3912315, Albion (553A) 3912327, Noyo Hill (568B) 3912346, Mathison Peak (568C) 3912336, Fort Bragg (569A) 3912347, Mendocino (569D) 3912337, Dutchmans Knoll (584C) 3912356, Inglenook (585D) 3912357  
Bogs and fens (BgFns), Closed-cone coniferous forest (CCFrS), Coastal prairie (CoPrr), Meadows and seeps (Medws), Marshes and swamps (MshSw)(freshwater), North Coast coniferous forest (NCFrs)/mesic; elevation 1-520 meters.  
Perennial, rhizomatous herb, blooms June through October.  
Many occurrences have few plants. Threatened by competition, grazing, development, marsh habitat loss, logging, road maintenance, and trampling. See *Proceedings of the California Academy of Sciences* 1 2:158 (1861) for original description.

**Map showing the known occurrences of *Campanula californica***



**Population Counts/Estimates at *Campanula californica* Occurrences**

Element Occurrence #(s)	Population information	Date (s)
3	24	1978
4	10	1980
5	30	1980
6	38	1994
7	785	1999
10	<50	1980
12	extirpated	n/a
13	extirpated	n/a
14	extirpated	n/a
15	extirpated	n/a
16	extirpated	n/a
17	100	1985
20	5000+	1990
25	<10	1983
27	<50	1982
28	small population	1974
30	<100	1982
31	10000+	1983
33	50+	1983
34	Colonies containing 2 to 713 individuals	1990-2004
36	Colonies containing from 7-260 individuals	1983-2006
37	50	1983
43	20	1997
45	4	1986
46	25	1991
47	30	1987
48	2 colonies with 409 and 25, individuals, respectively	1999, 1997
49	380	2005
51	14	1990
52	22	2001
53	233	2001
54	178	2001
55	0	2006
57	80	2006

Element Code: PDCAM02060  
Retained on CNPS List 1B.2 on 2009-04-19

60, 62, 122	300	2005
62	locally common	1998
63	locally common	1998
64	locally common	1998
65	locally common	1998
67	locally common	1998
70	25	1997
72	200	1992
73	50-100	2000
76	many plants	1997
77	many plants	1997
78	100+	1994
79	3	2002
80	3	2002
81	250+	1990
82	1	1997
83	100+	1993
84, 85, 108	1190-1850	2002
87	50	1993
88	500+	1989
89	7233	2006
90	12	1995
92	"several plants"	2000
95	"many individuals"	2002
96, 127	5400	2007
97	"6 clumps"	2002
98	80	2001
99	15-20	2000
100	2	2002
101	"3 small populations"	2000
102	30	2000
103	20-35	2000
105	10-Jan	2000
110	~5	2001
111	15	2004
112	300+	2003
113	20	2004
115	50+	2005
116	100's of plants	2007
117	6-12	2005
118	51-100	2001
119	<50	2001
122	~300	2005
123	42-69	2005
124	10-20	2005
125	5-10	2005
126	~100	2007

Element Code: PDCAM02060  
Retained on CNPS List 1B.2 on 2009-04-19

127	80	2007
128	80	2007
129	>1900	2007
130	>50	2006
131	many plants	2007
132	1	2001
133	1200	2006
134, 135	>40000	2007
136	600	2007
137	1175	2006
138	"several plants"	2002