Rare Plant Status Review: *Sidalcea malachroides*

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Distribution

Sidalcea malachroides (maple-leaved checkerbloom) is a suffrutescent or shrub-like perennial member of the mallow family (Malvaceae). In California, it is known from Del Norte, Humboldt, Mendocino, Sonoma, Santa Cruz, Santa Clara, and Monterey counties. It historically also occurred in Oregon, but is possibly extirpated from that state. The plant is much less frequent in the southern part of its range, with the majority of occurrences found in the more northern Humboldt and Mendocino counties.

Habitat

Sidalcea malachroides (hereafter abbreviated as SIMA) occurs in either open or semi-open canopy areas of various north coast forest types including broadleaved upland forest and North Coast coniferous forest (which include redwood forest and Douglas-fir forest types). It can also be associated with northern coastal scrub and coastal prairie natural community types. It grows from near sea level to about 700 m in elevation.

SIMA is often associated with newly disturbed openings such as road cuts and trail sides and openings caused by logging. It frequently responds like an early successional species with its ability to colonize and persist in disturbed forest openings. However, total canopy removal in exposed sites has resulted in the desiccation of plants. SIMA is also known from more shaded, undisturbed woodland situations and some of these populations are quite robust.

Abundance

SIMA is on List 1B of the current CNPS (California Native Plant Society) *Inventory of Rare and Endangered Plants of California* (6th edition, 2001), as it was in the 5th edition (1994). The CNDDB currently ranks this plant as G2/S2.2. The CNPS and CNDDB rankings are based upon early data suggesting there were fewer than 20 viable sites in the world and in California.

However, following subsequent field surveys during 2000-2002, primarily by registered professional foresters, timber company botanists, and others, additional data have been received, prompting a review of the decision to downgrade the status of this plant.

CNDDB OCCURRENCE STATUS [1]	NUMBER OF OCCURRENCES
"Excellent" or "Good" Sites	25
Historical Sites	30
"Fair" to "Poor" Sites	92
"Possibly Extirpated" sites	1
Lumped Sites	3
"Unknown" Rank for Site	8
Total Number of Occurrences	159
Total Plants Known to Date	11,522 [2]

Currently, there are approximately 159 occurrences of SIMA known to CNDDB (including both entered and unentered data). Historical sites are included in this case (we don't normally include them) because the forested habitats these occur on are more than likely still extant. Additionally, private timberlands are typically unsurveyed or undersurveyed, and thus it is likely that additional occurrences for this taxon remain undiscovered and/or unreported. Site rankings are based on a combination of field reporter opinion (what they indicated on the field survey form), population number, and habitat quality. In general, A-ranked occurrences had high quality habitat and over 100 plants reported. B-ranked sites had anywhere from 25-100's of plants reported, but site quality was lower; C-ranked sites generally have <50 plants and fair-poor site quality; and D-ranked sites had few plants, usually <10 and/or very poor site quality. Note that some C-ranked sites reported large numbers of plants but the reporter provided a rank of "C" which we accepted.

To put the 159 occurrences in perspective, there are very few plants with over 100 occurrences in the CNDDB and on CNPS List 1B. There are a few plants with between 100-200 occurrences, but these are plants with extremely narrow distributions and/or low population numbers, and plants occurring in fragile habitats, such as wetlands. Examples are *Downingia pusilla*, a vernal pool endemic with 108 occurrences and *Lilaeopsis masonii* from narrow Sacramento Delta tidal habitats with 148 occurrences.

Threats

The major activities within the center of SIMA distribution and abundance are logging and related disturbances, such as road building. These activities often are followed by other treatments, such as brushing, burning, and herbicide application. An additional threat is the encroachment of its habitat by invasive, non-native species such as *Cortaderia jubata* (pampas grass), which is exacerbated with disturbance. Alteration of pollinator ecology is another possible threat. In Mendocino County, biologists have noticed that weevil damage can cause what appears to be significant seed loss.

Although many species do poorly and disappear under disturbance, there is some anecdotal evidence that SIMA may be able to tolerate it, and that the creation of small, open, sunny areas can lead to an increase in SIMA, at least from a local and short-term standpoint. However, more data and scientific research are necessary to better understand these issues.

[1] Based on data in CNDDB as of February 6, 2003.

[2] Note that many occurrences reported to CNDDB lack population size data, therefore the "Total Plants Known to Date" must represent an underestimate.

Recommended Possible Actions

Based on numbers of occurrences, the probability for more occurrences being found, and the apparent tolerance of some levels of disturbance by SIMA, the data may indicate downgrade to CNPS List 4 and re-ranking to at least CNDDB G3/S3.2. Although there are not many confirmed highly ranked occurrences (A or B-ranked sites), our level of confidence in these ranks is low for this plant due to a lack of sufficient calibration among field reporters. An S4 ranking is probably not appropriate at this time, given the low number of confirmed high quality (A or B-ranked) sites.

CNPS: Downgrade to CNPS List 4.

CNDDB: Rerank to G3/S3.2.

General: Regardless of ranking, SIMA must be monitored at a number of sites under various management regimes and in various ecological situations to ensure the plant is not declining over time. SIMA habitat should be managed for long-term viability of the species and the ecosystem it depends on. Weed control may be necessary following logging or other major land disturbance, particularly for pampas grass. Re-review of the plant's status will occur in a few years, following the collection of monitoring results.