

Changed *Mitella caulescens* from List 2.3 to 4.2 in CNPS Inventory on 1 June 2006

Rare Plant Status Review: *Mitella caulescens*

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Distribution

Mitella caulescens (leafy-stemmed mitrewort) is a perennial herb in the Saxifragaceae. It produces leafy runners and is distinctive in that it flowers from the top of the inflorescence down. For a more detailed plant description, visit http://www.northcoastcnps.org/cgi-bin/nc/sensnw.cgi/Html?item=pp_mica5.htm. The overall range includes the North Coast and Klamath Ranges bioregion of California, and extends to British Columbia and Montana (Hickman et al. 1993). In California, it is known from Del Norte, Humboldt, Mendocino, Siskiyou, and Tehama counties. Most occurrences are located in Humboldt and Mendocino counties.

Habitat

Mitella caulescens (hereafter abbreviated as MICA) occurs in shaded, wet areas. Typical habitats various north coast forest types including broadleaved upland forest, lower montane coniferous forest, and North Coast coniferous forest (which include redwood forest and Douglas-fir forest types). It can also be associated with meadows and seeps and is very often found along water courses. MICA grows from near sea level to about 1700 meters in elevation.

Abundance and Status

Currently, MICA is on CNPS List 2(.3) as it was in the 6th (2001) edition of the CNPS Inventory. It is considered widespread outside of California (G5). While reviewing the addition of the species for the 6th edition, the paucity of herbarium records suggested a low number of total sites, which formed the basis of the initial ranking by CNPS and CNDDDB. However, some reviewers questioned the rarity of MICA. While its rarity in Mendocino County was not debated, the rarity in other counties remained in question. Following field surveys by registered professional foresters, timber company botanists, and others, much additional data were received. These data suggested there are more than 50 viable sites in California and prompted those botanists to propose a downgrade in the status of this plant to List 4. It has not been entered into the CNDDDB, but we evaluated all of the approximately 170 un-entered data sources to determine whether they represented new or existing sites. Many of the un-entered forms were from new sites, but some were extensions of existing occurrences. Of the new sites, several were considered a single occurrence because they were within a quarter mile of each other. Below is a summary table showing the current numbers of occurrences and their status.

MICA SUMMARY TABLE

Based on data sources not yet entered in CNDDDB as of 03/06/06 and 22 occurrences in CNDDDB.

OCCURRENCE STATUS	NUMBER OF OCCURRENCES
Excellent to Good	76
Historical sites	8
Fair to Poor	34
Unknown rank for site	6
Total Occurrences	124

Estimated number of plants known to date	86,200*
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*Note that many data sources lacked population size data, therefore the Plants Known to Date must represent an underestimate.

Currently, there are approximately 124 extant occurrences of MICA known to CNDDDB and CNPS. Although MICA previously appeared rare, some have suggested this was because botanists had simply overlooked this plant along drainages. 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. Over half the sites previously considered historical were re-found in subsequent surveys. Additionally, private timberlands are typically unsurveyed or under-surveyed and sometimes botanists neglect to submit field survey forms due to lack of time. Thus, it is quite likely that additional occurrences for this taxon remain undiscovered and/or unreported, and our estimate of total occurrences is lower than the actual number. Similarly, our estimate of total plant numbers is likely a low estimate. In general, most sites contain large numbers of plants (reported as 100's, 1000's, or as an area).

Site rankings are based on a combination of field reporter opinion (what they indicated on the field survey form), number of plants, and habitat quality. In general, Excellent-ranked occurrences had high quality habitat and over 100 plants reported. Good-ranked sites had anywhere from 25-100's of plants reported but was influenced by the habitat quality rank given on the form. If no occurrence rank was suggested on the form, but there were 50-99 plants counted, the site was also ranked "Good." Fair-ranked sites generally have 10-49 plants and fair-poor site quality; and Poor-ranked sites had few plants, usually <10 and/or very poor site quality. Note that some sites had very small numbers of plants, but the reporter provided a high rank, which we adjusted to "Fair" or "Poor" based on the plant number.

Threats

The major activities within MICA's distribution and abundance are logging and related disturbances, such as road building. However, despite its prevalence on timberland, many occurrences are not immediately threatened due to their location adjacent to watercourses. The threat is considered limited for such occurrences due to the designation of Watercourse and Lake Protection Zones (WLPZ) (Golec, Leppig, and Renner, pers. comm.). For example, on PALCO lands, their data show that MICA occurs 95% of the time adjacent to Class I or Class II streams, which have WLPZ buffers. However, there are situations on other lands (25%) where MICA occurs in more seasonal watercourses and wet areas (Class III) as well as on roads and other areas that would not qualify as riparian and wetland (LaBanca, pers. comm.).

Recommended Possible Actions

The high number of extant occurrences (124) and total plants (~86,200), the probability for more occurrences being found suggest that downgrading to CNPS List 4.2 and re-ranking to CNDDDB G4/S4.2 are warranted at this time. Over half of these occurrences are ranked "Good" or better, and it is reasonable to conclude that these are viable because there are no known biological factors that suggest otherwise. The threshold for CNPS List 2 is typically 50 occurrences in the state, and the threshold for S3 is typically 21-80 occurrences and 3000-10,000 plants. Removal from the CNPS Inventory and CNDDDB is probably not appropriate because ongoing threats and the relatively low number of public land occurrences give cause for concern about the long-term viability of MICA.

CNPS: Downgrade to CNPS List 4.2

CNDDDB: Rerank to G4/S4.2

General: Regardless of ranking, MICA should 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. MICA habitat should be managed for long-term viability of the species and the ecosystem it depends on.