

1.20 Coast Wallflower (*Erysimum amphilum*) – Category SL

Management Units with Known Occurrences

Coast wallflower is a small biannual or short-lived perennial that is found on sandstone substrates and dunes along the coastal strand in California, from Santa Cruz County south to San Diego County (Reiser 1994; Calflora 2012). Within the MSPA, there are 3 extant coast wallflower occurrences on Conserved Lands in MUs 6 and 7 (see Table of Occurrences or online map: <http://arcg.is/2jYTZ4y>). In MU6, coast wallflower is found in east Del Mar at Overlook Park (SDNHM 2013; CCH 2013) and in Gonzales Canyon at Del Mar Highlands (K. Roeland, pers. comm.). Nearby in MU7, coast wallflower is found at Crest Canyon (SDNHM 2013). In San Diego County and outside of the MSPA, there are occurrences of coast wallflower at MCB Camp Pendleton (CCH 2013; SDNHM 2017). Historically, the species was found at Torrey Pines State Reserve, Peñasquitos Lagoon, Carmel Valley, Encinitas, and Sunset Cliffs (Reiser 1994).

Management Categorization Rationale

Coast wallflower should be managed as a Species Management Focus Category SL Species due to a high risk of loss from Conserved Lands in the MSPA and because managing coastal sandstone outcrops and dunes alone will not ensure its persistence (see Vol. 1, Table 2-4). Coast wallflower is at high risk of loss from the MSPA, as it is a perennial herb with only 3 occurrences on Conserved Lands and with very limited suitable habitat. The 3 conserved occurrences are vulnerable to loss of genetic diversity and extirpation due to environmental or demographic stochasticity and catastrophic disturbance.

Management and Monitoring Approach

The overarching goal for coast wallflower is to maintain or enhance existing occurrences and establish new occurrences, as needed, to ensure multiple conserved occurrences with self-sustaining populations to increase resilience to environmental and demographic stochasticity, maintain genetic diversity, and improve chances of persistence over the long term (>100 years) in chaparral, coastal bluff, coastal dune, and coastal sage scrub vegetation communities.

For the 2017–2021 planning cycle, the management and monitoring approach for Coast wallflower is to:

- (1) Inspect occurrences of coast wallflower on Conserved Lands (see Table of Occurrences) using the regional IMG monitoring protocol to record status and to collect habitat and threats covariate data to determine management needs, with repeat monitoring occurring every 2 years after 2017. Conduct routine management actions as identified through the IMG monitoring where management should be conducted as needed depending on the threat while using BMPs with precautions to do no harm.
- (2) Perform multiple surveys: to delineate potentially suitable habitat for new occurrences, at historical locations to determine occurrence status, at existing occurrence sites to identify the potential for enhancement and expansion. Collect data on occurrence status, habitat, and threats, and determine management needs.
- (3) Begin preparing a section in the MSP Seed Collection, Banking, and Bulking Plan to preserve genetic diversity and rescue occurrences in case of catastrophic disturbance.
- (4) Begin preparing a section in the MSP Rare Plant Management Plan that prioritizes management actions to maintain and expand conserved occurrences based upon an assessment of data on occurrence status, habitat, and threats where management recommendations for reestablishment of historical occurrences or establishment of new occurrences are prioritized in suitable habitat, as needed, to achieve ≥ 4 occurrences with self-sustaining populations on Conserved Lands.

For details and the most up-to-date goals, objectives, and actions, go to the MSP Portal Coast Wallflower summary page: https://portal.sdmmp.com/view_species.php?taxaid=22928

Coast Wallflower References

Calflora: Information on California plants for education, research and conservation. 2012. Berkeley, California: The Calflora Database <http://www.calflora.org/> Accessed 2012.

CCH (Consortium of California Herbaria). 2013. <http://ucjeps.berkeley.edu/consortium/> Accessed 2013.

Reiser, C. H. 1994. *Rare Plants of San Diego County*. Imperial Beach, CA.

SDNHM (San Diego Natural History Museum). 2013. *San Diego County Plant Atlas*. <http://www.sdnhm.org/science/botany/projects>. Accessed 2013.

SDNHM. 2017. *San Diego County Plant Atlas*. <http://www.sdnhm.org/science/botany/projects> Accessed 2017.