

RARE PLANTS FROM DIVERSE ENVIRONMENTS ACROSS SIERRA PACIFIC INDUSTRIES' FORESTLANDS

ROCKY HABITAT



Rocky slopes and escarpments formed from a wide variety of rock, such as limestone, granite, or shale, offer a unique habitat type. Species growing here have limited soil, are often exposed, and can withstand conditions of fluctuating temperatures and humidity levels.

Plant examples: *Lewisia kelloggii* ssp. *kelloggii* (3.2), *Agrostis olivacea* (18.2), *Lewisia concolor* var. *howellii* (3.2), and *Erythronium taylorsii* (18.2)

DISTURBED AREAS



Disturbed areas are places that have experienced a temporary habitat change due to natural or manmade events. Roadsides, timber harvest, and forest fires are some common examples. These disturbances offer landscapes of opportunity for species dormant in the seedbank to emerge. Even species rare to California can tolerate and thrive in this specific habitat.

Plant examples: *Clarkia mosquitosii* (18.1), *Astragalus bakeri* (4.2), *Lilium humboldtii* ssp. *humboldtii* (4.2), and *Clarkia borealis* ssp. *borealis* (18.3)

FOREST FLOOR



Forested habitat varies across SPs' timberlands which encompass a diverse range and composition of tree species and canopy cover. From the coastal redwoods to the Sierran mixed conifer, east side pine to high elevation fir. Species specific to these forest floors often occur on diverse substrates but are part of a forest understory or seeping.

Plant examples: *Silene salmonacea* (18.2), *Silene occidentalis* ssp. *longispata* (18.2), *Nevisia ciliolata* (18.2), and *Viola arvenensis* (4.2)

WET AND RIPARIAN

Wet habitat includes many diverse microhabitats which drive plant diversity and even rarity. These microhabitats can include shallow springs, moist seeps, inundated moving streams, creek bank edges, meadows, calm pools, nutrient deficient bogs as well as seasonally wet areas such as vernal pools and snow melt. These ranges of riparian and mesic habitats are environmental pressures that challenge and diversify plant species.



Plant examples: *Mimulus (Diplazis) pulchellus* (18.2), *Cypripedium montanum* (4.2), *Proserpinaca anglica* (28.3), and *Isopyrum crevatum* (28.2)

ULTRAMAFIC SOIL

Ultramafic soils carry a distinct eye-catching color when compared with other soil types nearby. The red and tan hues displayed are influenced by the higher presence of iron and magnesium in these soil compositions. This substrate often gives way to open and barren landscapes populated only with plants that can tolerate the slightly more extreme soil chemistry.



Plant examples: *Achillea millefolium* (4.2), *Sedum obtusum* ssp. *parviflorum* (18.3), *Arnica montana* (4.3), and *Howellia hirsuta* (4.3)

VOLCANIC HABITAT

Lava caps and pumice rocks are both common examples of volcanic-influenced habitat. Lava caps are open grey gravelly areas formed from rivers of ash, which flowed after volcanic eruptions in landscapes on fire. Pumice rocks are formed from the explosive nature of volcanic eruptions, which trapped gasses in rocks as they quickly cooled, giving them their porous quality. These habitat types are specific to and even preferred by certain rare California plants.



Plant examples: *Lomatium szechowii* (18.1), *Adiantum sanbornii* var. *sanbornii* (4.2), *Mimulus (Erythronium) glaucosericea* (4.3), and *Geophila fremontii* (4.3)

SP1-IND.COM

SP1 manages over 1.7 million acres of forestland in California. A scientifically-based Botany Policy was developed to protect botanical resources and guide how sensitive plants are addressed in Timber Harvest Plans (THP).

Botanical field surveys are performed in suitable habitat of any THP with the potential to contain sensitive plant species. Rare plant findings are documented by standard professional practice and sent to the Department of Fish and Wildlife for inclusion in the California Natural Diversity Database. Additionally, all surveys and findings are submitted with the THP to the California Department of Forestry and Fire Protection.

SP1 has documented and submitted over 3,000 IND08 forms for 184 taxa since 2001. Each new sensitive plant finding increases our knowledge of the species' life cycle, habitat, and geographic range, resulting in SP1 practicing better forest management.