



U.S. Forest Service
Pacific Southwest Region



December
2015

Species of Conservation Concern

Plan Components Analysis Example: Gilman's goldenbush

Below is an example in narrative form of our assessment for determining threats to the species and whether the proposed plan components provide the ecological conditions necessary to support viable populations of an SCC. This example demonstrates the next step for SCCs, once we've identified the potential SCCs for each forest. Our SCC analysis as well as our work on the plan components associated with these SCC lists is ongoing.

An SCC is a plant or animal for which we have concerns about its ability to remain on a landscape for a long time. Each national forest will have its own SCC list, which is approved by the Regional Forester. Once we have an approved SCC list, we determine the needs of each species. We then design elements of a forest plan to guide management that sustains habitat or conditions to support or restore secure SCC populations to the extent we are capable of doing so. Forest plans help us maintain a forest that provides SCCs with the habitat and conditions they need to survive. For more information about SCCs and forest plan revision, visit our regional forest plan revision [website](#).

Example:

Forest(s): Inyo National Forest

Species Common Name: Gilman's goldenbush **Scientific Name:** *Ericameria gilmanii*

Species and Population Description in the Plan Area: *Describe the species range and abundance. Describe the population trend of the species or its habitat in the plan area.*

The species is endemic to California and limited to three localities in Inyo and Kern Counties. A single population of less than 100 individuals is known from the forest, and there was no recruitment of young individuals seen in recent forest monitoring (CNDDDB 2014, Slaton 2015).

Habitat Description and Analysis: *Describe key habitat attributes important for long-term persistence in the plan area. Where appropriate, consider the spatial scales which are important for managers to consider in maintaining long term persistence.*

The species occurs on rocky slopes and ridgetops, often with cooler temperatures than surrounding areas, and in undisturbed settings (Baldwin et al. 2012, CNPS Rare Plant Program 2014, Slaton 2015).

Stressors: *Describe the major stressors that are currently acting on the species and/or its habitat and leading to the concern regarding species persistence.*

Climate change, including related changes in fire and flooding regimes and non-native plant species invasions may result in the loss of habitat extent and quality for this species. Gilman's goldenbush is adapted to cooler temperatures and does not exhibit fire-adapted traits. Evidence of reproduction following disturbance is extremely limited, and this species does not exhibit high growth rates to out-compete non-native invasive species. In addition, limited distribution (a single occurrence on the Inyo National Forest), and mining have been identified as potential threats (CNDDDB 2014).

Ecosystem (Coarse Filter) Plan Components that Contribute to Persistence:

List and discuss the plan components that ensure the important habitat attributes are provided to such an extent that the species will persist over the long-term.

The desired conditions below outline features of healthy ecosystems that could support Gilman's goldenbush. A desired condition to keep fire regimes within the natural range of variability (not too much and not too little fire, and of desired severity) would benefit this species, as would the guideline to ensure some project areas are left undisturbed.

Desired Condition (Forest-wide)

- Terrestrial and aquatic invasive species are controlled, or eradicated when possible, and the establishment of new populations is prevented.
- Vegetation conditions, particularly structure and composition, are resilient to climate change and to the frequency, extent and severity of ecological processes. These include: fire in fire-adapted systems; drought; and flooding in riparian systems. Resilience means these ecosystems retain their components, processes and functions. Functioning ecosystem retain their components, processes and functions. Native insect and disease populations are generally at endemic levels with occasional outbreaks. Vegetation structural diversity usually restricts the scale of insect and disease outbreaks to local levels.
- Ecological conditions contribute to the recovery of threatened and endangered species, conserve proposed and candidate species and support the persistence of species of conservation concern.

Desired Conditions (sagebrush)

- The sagebrush type has a diversity of age classes, stand structure, cover classes and understory composition.
- Sagebrush ecosystems are resilient to fire, disturbances (e.g., grazing, recreation), invasive species (including cheat grass) and climate change.
- Grazed areas have or are trending toward satisfactory soils condition, functional hydrology and biotic integrity. Sagebrush ecosystems contain all key elements and conditions, including sagebrush regeneration and recruitment, ecosystem productivity, perennial grass cover, biological soil crust and symbiotic fungal associations.

Species-specific (Fine filter) Plan Components that Contribute to Persistence:

The following components apply because Gilman's goldenbush occurs on limestone substrates, an identified special habitat.

Desired Conditions (Special Habitats)

- The composition, diversity, and structure of special habitats are resilient to disturbances such as recreational activities, grazing and invasive plant and animal species.
- Microclimate or smaller scale habitat elements provide habitat and refugia for narrow endemics and species with restricted distribution
- The composition, diversity, and structure of special habitats are resilient to disturbances such as recreational activities, grazing and invasive plant and animal species.

Guidelines (Special Habitats)

- At the project scale, consider special habitats during project design.
- During wildfires, avoid fire suppression activities in special habitats including line construction, staging area, water drafting, or camps except when necessary to protect life and property. When conducting suppression activities near special habitats use measures to avoid spread of invasive plants, include locations of special habitats in Wildland Fire Decision Support System geographic databases for immediate access on wildfires.

Guidelines (At-Risk Species)

- Fire suppression techniques that minimize ground disturbance impacts should be used in sensitive habitat of at-risk species, with guidance provided by a resource advisor and considering the safety of people. Locations of key habitat areas should be provided in current fire decision support systems (e.g. the Wildland Fire Decision Support System) as appropriate.
- Projects should protect at-risk plant species and their habitat by considering at-risk plant species early in the NEPA planning process.
- Develop and implement a consistent, systematic, biologically sound program for SCC plants and their habitat so that federal listing does not occur.

Standard (range forest-wide)

- Rangeland utilization standards will follow direction provided in appropriate appendix in the forest plan.

Viability Analysis Determination:

Potential threats to the persistence of Gilman's goldenbush (*Ericameria gilmanii*) were identified to include invasive plant species, climate change, and mining. The species has extremely limited distribution in part due to its typical restriction to limestone substrates. Plan components aimed at preventing

introduction and controlling existing invasive species will help ensure the ecological conditions needed for persistence of Gilman's goldenbush. In addition, plan components aimed at providing for diversity in species composition and the restoration of ecological integrity in sagebrush ecosystems and in special limestone habitats will provide for species persistence. The inclusion of the forest plan guideline to ensure projects protect at-risk species and their habitat by considering them early in the NEPA process will help ensure that isolated activities do not result in loss of persistence of this species. Mining was not addressed in the forest plan revision process, but it is anticipated that the forest plan components outlined above would provide for species persistence in the event that such projects would be proposed. It is our conclusion that the plan components for all action alternatives would provide the ecological conditions necessary for the persistence of this species in the Inyo National Forest plan area.

Capability of the Plan. *Describe if and why it is beyond the authority of the Forest Service or not within the inherent capability of the plan area to maintain or restore the ecological conditions to maintain a viable population of a SCC in the plan area.*

Not Applicable.

Best Available Science References:

Baldwin, BG, D Goldman, DJ Keil, R Patterson, TJ Rosatti, D Wilken, [eds]. 2012. The Jepson Manual, Vascular Plants of California, 2nd ed. University of CA Press, Berkeley, CA.

California Natural Diversity Database (CNDDB). California Department of Fish and Game, Biogeographic Data Branch. 2014. California Natural Diversity Database. Sacramento, CA. Data downloaded November 2014.

California Native Plant Society (CNPS), Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org> [accessed 27 May 2015].

Slaton, MR. 2015. The roles of disturbance, topography and climate in determining the leading and rear edges of population range limits. *Journal of Biogeography* 42: 255-266.

Prepared by: Michèle Slaton, Botanist, Forest Plan Revision Team

###

USDA is an equal opportunity provider, employer and lender.