

## **HALL'S DAISY**

*Erigeron aequifolius* H. M. Hall

**Author:** Darin L. Banks, Rancho Santa Ana Botanic Garden, 1500 N. College Ave., Claremont, CA 91711

**Management status:** Federal: BLM Sensitive  
California: S2.3, G2 (CDFG, 1998)  
CNPS: List 1B, R-E-D Code 3-1-3 (Skinner and Pavlik, 1994)

### **General Distribution:**

Hall's daisy is endemic to the southern Sierra Nevada Mountains and is known from fewer than 20 sites (Skinner and Pavlik, 1994). The northernmost known populations occur at Wren Peak in eastern Fresno County and from there the species extends south along the high ridges of the Sierra Nevada in Tulare County to Owens Peak in Kern County. Most populations occur on National Forest or National Park Service lands. The species is known only from the three counties just mentioned (Skinner and Pavlik, 1994).

### **Distribution in the West Mojave Planning Area:**

A single population of Hall's daisy occurs in the WMPA at approximately 8000 ft. (2440 m) on the northeastern slope of Owens Peak, Owens Peak Wilderness Area. There seems to be some confusion about the location of this population in the CNDDDB records. These records (CNDDDB, 1997) indicate the population occurs at T.21S, R.37E in the northeast quarter of section 21, which would place the population in Talus Canyon, just west of the towns of Talus and Dunmovin. This is some 25 mi. (40 km) north of the location specified by the verbal description. Doubtless a typographical error was made either on the original label, or in entering the information into the database. The correct legal description of the Owens Peak population of Hall's daisy is: T.25S, R.37E northeast quarter of section 21.

### **Natural History:**

Hall's daisy was described by H.M. Hall based on his collection made in 1908 at Trout Meadows, California (Hall, 1915). Cronquist (1947) states that botanical collections of Hall's daisy are very rare, being known from only two localities. Recent botanical work in the southern Sierra Nevada (post-1947) has discovered a number of additional locations (Nesom, 1992), thus providing the present distribution limits of the species.

Hall's daisy is a small, branched, rhizomatous perennial herb in the Daisy Family (Asteraceae), which grows from a rather deep-seated root crown. The stems range from 4-8 in. (10-20 dm) tall and are densely covered by glandular hairs (Munz, 1959). Lavender or light blue ray and yellow disk flowers are produced in short stalked heads from July through August. The glandularity of the stem separates Hall's daisy from other *Erigeron* species found in the southern and central Sierra Nevada Mountains (Brewer's daisy [*E. breweri* var. *breweri*], Elmer's daisy [*E. elmeri*], and fleabane [*E. foliosus* var. *foliosus*]) with which it may be confused (Nesom, 1993). Hall's daisy differs from unadorned daisy (*E. inornatus* var. *inornatus*) and its variant Keil's daisy

(*E. inornatus* var. *keilii*), another glandular-stemmed species found in the southern Sierra Nevada, by the presence of ray flowers, which *E. inornatus* lacks (Nesom, 1993).

The pollination requirements of Hall's daisy are not known, but many other Asteraceae are insect (bee, fly or butterfly) pollinated (Faegri and van Der Pijl, 1979, Sanders, pers. com.). Flowering occurs in July and August (Skinner and Pavlik, 1994). Seeds are presumably produced in August and September, with dispersal probably being primarily by the wind carrying the seeds away via their soft pappus. It may be that, like most rhizomatous perennials, much reproduction occurs by the vegetative spread of rhizomes rather than by seeds, at least within established colonies.

### **Habitat Requirements:**

Hall's daisy occurs on dry, rocky ledges and vertical outcrops derived from granitic substrates (Shevock, pers. com., 1997). It is found in a wide variety of vegetation types throughout its range, including broad-leaved upland forest, upper and lower montane coniferous forest, and pinyon - juniper woodlands. The plant has been reported to occur between 4600 ft. (1400 m) and 8000 ft. (2440 m) in elevation. The population on Owens Peak is found in openings of a park-like coniferous forest that includes Jeffrey pine (*Pinus jeffreyi*), limber pine (*P. flexilis*), singleleaf pinyon (*P. monophylla*), sugar pine (*P. lambertiana*), white fir (*Abies concolor*) and Sierra juniper (*Juniperus occidentalis* ssp. *australis*). This habitat type is described as a "mixed conifer series" (Sawyer and Keeler-Wolf, 1995) or as "mixed conifer forest" (Holland and Keil, 1995). Associated species with the Owens Peak population include several sensitive taxa such as Needles buckwheat (*Eriogonum breedlovei* var. *shevockii*), sweet-smelling monardella (*Monardella beneolens*), Owens Peak lomatium (*Lomatium shevockii*) and Muir's raillardella (*Raillardiopsis muirii*).

### **Population Status:**

Populations appear to be relatively low, but stable. There is no evidence of significant declines during historic times, but the available evidence on the abundance and distribution of this species is scant.

### **Threat Analysis:**

The wide range of Hall's daisy, its occurrences on federal lands (primarily Wilderness Areas), and the relative inaccessibility of most populations contribute to a low threat to the species (Shevock, pers. com.). Those populations occurring outside of designated Wilderness Area face potential threats such as logging, and grazing pressures, as well as trail expansion and fire control activities.

### **Biological Standards:**

All known populations of Hall's daisy occur on federal lands with most occurring in designated Wilderness Areas. The rugged terrain in which Hall's daisy grows should help protect this species from logging and grazing pressures on non-Wilderness Area lands. The remoteness of Hall's daisy populations and the ruggedness of the occupied terrain should also greatly reduce the possibility of habitat destruction by humans. Public land management should consider known Hall's daisy populations and potential habitat before management decisions are made. Within the Wilderness Areas, management decisions such as trail maintenance (especially the Pacific Crest

Trail in the Owens Peak Wilderness Area), future trail expansions or fire prevention strategies should focus on known Hall's daisy populations to reduce the risk of habitat alteration or destruction.

### **Literature Cited**

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