

Jewelflower Returns to Tulare Hill
March 3, 2014
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On Sunday, March 2nd, 2014, the federally-endangered Metcalf Canyon Jewelflower (*Streptanthus albidus* ssp. *albidus*) was reintroduced to Tulare Hill in southern Santa Clara County. Approximately 16,000 seeds were sown in four locations on Tulare Hill, an isolated serpentine grassland nestled between Santa Teresa Blvd. and Monterey Hwy. The property is owned by Santa Clara County Parks and the Silicon Valley Land Conservancy who are partners in the reintroduction. Seeds will also be planted near existing populations at the Motorcycle County Park atop Metcalf Rd. on March 4th, 2014 as controls and to supplement those existing populations.

This historic population of jewelflower at Tulare Hill declined primarily due to overgrazing by cattle. No jewelflowers have persisted at Tulare Hill since 1980 when the remaining population was extirpated by residential development.

A modified grazing regime and improved understanding of the jewelflower's biology have been a collaborative effort by Santa Clara University's Department of Biology and Creekside Center for Earth Observation. Lead by Dr. Justen Whittall and Aaron Thom of Santa Clara University and Dr. Stu Weiss and Christal Niederer from Creekside, the reintroduction represents the culmination of nearly ten years of research and planning to maximize the probability of long-term success. Volunteers from the California Native Plant Society and undergraduates from Santa Clara University have been instrumental in preparing the seeds for the reintroduction.

Although the reintroduction was nearly thwarted by this season's unprecedented drought, the recent rains have improved conditions for the jewelflower's germination and survival. The newly planted seeds will be monitored regularly for germination, survival, flowering and seed set. After a second year of planting next winter, Tulare Hill is expected to support a jewelflower population of over 4,000 individuals capable of producing hundreds of thousands of seeds. The Metcalf Canyon Jewelflower reintroduction has been supported by the Bureau of Reclamation at the United States Department of the Interior.



Tulare Hill looking north from Bailey Ave. on March 2nd, 2014. The Metcalf Energy Center is on the right and Santa Teresa Blvd. is on the left.



Four blocks on Tulare Hill were seeded on March 2nd, 2014. Each block has 40 1 x 1 meter plots, which each received 100 seeds. Half of the plots at each block are within a cattle exclosure (visible in the background).



Seeding inside the cattle enclosure where plots are defined by blue and orange whisker stakes. From left to right are Dr. Stuart Weiss (Creekside), Christal Niederer (Creekside), Aaron Thom (Santa Clara University), and Jimmy Quenelle (Creekside).



Sowing Metcalf Canyon Jewelflowers into a wet carpet of *Plantago erecta* seedlings at Tulare Hill. Approximately 100 seeds were combined with sterile sand to improve the evenness while spreading the seeds.



Team Jewelflower pictured from left to right are Dr. Stu Weiss (Creekside), Jimmy Quenelle (Creekside), Christal Niederer (Creekside), Aaron Thom (Santa Clara University), and Dr. Justen Whittall (Santa Clara University).