

## **Senecio Elegans Population Size and Dispersion**

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### **Abstract**

Invasive species devastate entire ecosystems, and *Senecio Elegans* is not a very well-known invasive in the state of California. Therefore, the goal of this project was to understand *Senecio Elegans* plant dispersion and population size in order to inform volunteer efforts to remove the weed. The method of stratified random sampling of two beaches at Half Moon Bay State Beach was used to find the population size and dispersion of *Senecio Elegans* and a non-invasive species similar to it (*Cakile Maritima*). Random samples were taken on two beaches: the first beach had 20 samples and the second had 15 samples. Statistical testing of the results yielded a clumped dispersion pattern for both beaches and both plants. Beach 1 (Dunes Beach) had an estimated population size of 55 *Senecio Elegans* and Beach 2 (Roosevelt Beach) had an estimated population size of 240 *Senecio Elegans*. Beach 1 (Dunes Beach) had an estimated population size of 185 *Cakile Maritima* and Beach 2 (Roosevelt Beach) had an estimated population size of 6 *Cakile Maritima*. Comparing the population sizes on both beaches yielded a statistically insignificant result.