

SENECIO GANDERI: A UNIQUELY ADAPTED HERB FROM SOUTHERN CALIFORNIA.—The herbaceous perennial *Senecio ganderi* Barkley & Beauchamp (Brittonia 24:106. 1974) is known from only three isolated localities in southern San Diego County, California: at the head of two adjacent canyons on the north facing slope of Tecate Peak, the north facing slope of the east ridge of Lawson Peak, and the north east slope of El Cajon Mountain. Although *S. ganderi* occurs on recently burned sites at these localities, it has developed most extensively beneath the canopy of an unburned section of chaparral at the Lawson Peak site. This stand of chaparral, which has not burned in over 90 years, is free from any obvious unnatural disturbance (including grazing). The extensiveness of the population is in contrast to the well known characteristic lack of an herbaceous understory in chaparral. To quantify this shrub-herb relationship, cover data for shrubs and herbs were taken from two 100 m line transects placed perpendicular to each other in the middle of the Lawson Peak site in the spring of 1973. On the first line transect under a shrubby canopy of 82.5 percent (ground surface covered), composed predominantly of *Arctostaphylos glauca* and *Quercus dumosa*, there was an herbaceous layer of 33.6 percent (29.6 percent *S. ganderi* plus 4.0 percent others). On the second transect under a shrubby canopy of 87.8 percent, composed mainly of *Arctostaphylos glandulosa* and *Adenostoma fasciculatum*, there was an herbaceous layer of 34.7 percent (20.0 percent *S. ganderi* plus 14.7 percent others). In addition to this extensive occurrence of *S. ganderi*, abundant flower production by these plants attests to their being well adapted to conditions under mature chaparral.—JON. E. KEELEY, Department of Botany, University of Georgia, Athens 30602.