

San Gabriel Valley Cactus and Succulent Society

Succulents of the Month November 2003 – *Echeveria* and *Dudleya*



***Echeveria subrigida* grown by Marilyn Henderson shown in the 2000 Inter City Show**

Echeveria, and *Dudleya*, along with *Pachyphytum*, and *Sedum* are the principal members of the succulent New World *Crassulaceae*. *Echeveria* come principally from the mountains of Eastern Mexico, although there are plants found from Texas into South America. *Dudleya* come from the western mountains and coastal plains, although these can also be found well inland, overlapping *Echeveria*.

Echeveria prefer well drained soil, and good ventilation. They also prefer cooler temperatures, looking their best in late winter and early spring. The plants swell with the winter rains, and as growth starts the colors become more intense. Although they don't go completely dormant in summer, growth slows, and in the inland valleys, plants tend to wilt and sulk, even with some shade. In California, the best *Echeveria* growers tend to live near the coast.

Propagation of *Echeverias* is a required skill rather than an optional one. All *Echeveria* leaves dry and fall off as they age, leaving a thick, and usually ugly stem. With time, most *Echeverias* offset between the older leaves. These offsets can be removed, the

bottom-most leaves of the offset removed, and the stem and remaining leaves planted as soon as the cut stem is dry. Successful rooting almost always follows. The terminal rosette should also be periodically removed and restarted in the same way, with all the dead and the older live leaves removed. The old stem should be kept, as it frequently offsets from the top or side, and these offsets can be removed as well and propagated. *Echeverias* have flowers on an extended stalk (raceme). The raceme has small leaves on it, and occasionally, rosettes. The rosettes and leaves will both root easily, however the leaves only rarely produce new rosettes.

Echeveria make wonderful landscape plants, and mass use of these are highlights of the gardens at the Huntington and the Getty Museum. The Huntington takes pains to keep the plants out of a formal geometric pattern. The Getty does the reverse, fitting in better with the architecture and design of the gardens at this site. Both are worth seeing. The same plants are used to very different effect.



Dudleya hassei

San Gabriel Valley Cactus and Succulent Society

Succulents of the Month November 2003 – *Echeveria* and *Dudleya*

Dudleya, in spite of its close resemblance to other New World members of the *Crassulaceae* family are more distant relatives. Hybrids between *Dudleya* and *Echeveria* and *Pachyphytum* are unknown.

The most interesting theory on why *Dudleya* are so different from the rest of the American *Crassulaceae* was presented by Charles Uhl of Cornell University. In his article in the CSSA Journal, he showed that the center of *Dudleya* is on the Pacific plate, while the center of the rest of the *Crassulaceae* is on the North American plate. Millions of years ago, *Dudleya* came from the same ancestral *Crassulaceae* as *Echeveria*. The intervening period of separation as the Pacific plate moved away and back into the North American plate was long enough for the genetic changes and mutations to accumulate so that the two genera are no longer able to hybridize.



Dudleya ingens

Dudleya grow naturally in Southern California, and are ideally suited to casual culture. They can be planted in any garden soil, and as long as they are kept reasonably dry during the summer, will grow well. They are winter growers, coming out of dormancy in October or November, when the

summer heat finally breaks. They pump up with the first rains, but do most of their growth in March and April. Flowering starts in February, and runs through August, depending on the species and how it's grown.



Dudleya pachyphytum

Most of the *Dudleya* are low growing, branching shrubs. Propagation of these species is easy. A cutting of a branch is taken, allowed to dry for a few days, and then planted. Best results are obtained either at the start of the growing season, or in mid spring, when active growth is again strong. The single headed species are a bit more risky to propagate. A stem cutting is again taken, and propagated. Usually, the stem still in the pot will send up at least one head.

References

Urs Egli, **Crassulaceae**

A. Sajeva and M. Costanzo, **Succulents, The Illustrated Dictionary**

E. Walther, **Echeveria**

Tom Glavich September 2003