

**Frailea: A Cactus Genus for the Space-Impaired
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Britton and Rose split off the cactus genus frailea from echinocactus during their monumental study of the family cactaceae during 1919-1923. They were named in honor of Manuel Fraile, who had maintained the cactus collection of the U. S. Department of Agriculture in Washington, D.C.

Quoting from Edward F. Anderson's *The Cactus Family*, "Plant are usually many-stemmed but sometimes solitary. Stems are low growing, depressed globular to short cylindrical shape. The ribs and tubercles are weakly developed. The spines small and flowers yellow."

Those yellow flowers want a lot of light, although they probably prefer no more than open shade in Phoenix. It seems to be a cause of celebration in England when a grower gets blooms on a frailea because of the country's relative dearth of sunlight. The flowers are about 1 ½ inches in diameter, large for the plant body size.

Seventeen species and varieties are recognized, but not all of these were found in the nursery trade when we were actively acquiring frailea. Fifty have been reported according to Anderson, and it is evident that many of these "unrecognized" names are available in the nursery trade.

From 1978 through 1982, we acquired 37 non-duplicate frailea whose tags contained the following names:

(Alacriportana), *alegretana*, *argentina*, *(asperispina)*, *asterias v. albiflora*, *asteroids*, *(pygmaea v.) aurea*, *(carminafilimentose)*, *([cataphracta])*, *([chiquitana])*,

(Columbiana), (**concepcionensis*), *cuchilla (rivera negra)*, [*curvispina*], (*pygmaea* v.) *dadki*, ([*frederiekii* (sp?) *friedrichii*]), ([*graciliana* (sp?) *gracillima* (sp?), *grahliana*]), *grandiflora*, (*horstii*), *itapuensis*, ([*knippeliana*]), (*lepida*), *magnifica*, (*moseriana*), (*pygmaea* v.) [*phaeodisca*], ([**pseudopulcherrima*]), ([*pumila*]), ([*pygmaea*]), (*pygmaea* v. *aurea*), *pygmaea sanluisensis*, *pygmaea x cacpava*, *schlosserii*, *schutziana*, *sp. nov. argentina (de herdt)*, *sp. nov. kz125*, *sp. nov. u-2296*, (**ybatense*).

The 10 marked with square brackets ([]) are among the 15 names given by Anderson. We do not know if the *sp. nov.* plants have been published as new taxons or made synonymous with existing names.

Curt Backeberg, the splitter would-be taxonomist, wrote *Cactus Lexicon*. I have placed braces () around the 21 *frailea* names found in that work.

These *frailea* have endured through years of either over attention (at times) and serious neglect when they have been watered, but remain in the same 3 inch or 3¼ inch pot their entire life. In later life, a couple developed crested growth.

They set seed (when well grown) and grow easily from seed. In fact, they are reported to set seed even if the flower doesn't open. This self-fertilization is called cleistogamy.

Stan's reality check: I visited our shade frame where I knew the flat with the *frailea* was located. I realized that I had not paid attention to them in some years; only eight pots were there, and only four of those had name tags! I have placed asterisks (*) ahead of the three unique names (there are two pots of *ybatense*) I have been able to locate. Not very

impressive survival, but the plants were purchased from 20-24 years ago. Considering that we have never been able to keep many-headed pots of rebutias alive for over 8-10 years, the thought occurs that frailea might also have limited lives. On the other hand, perhaps we're to blame.

Backeberg indicates that the plants come from southern Brazil and Uruguay through north and southeast Argentina and Paraguay, to Bolivia, with one report of a wild population from Columbia.

Frailea are therefore quite cosmopolitan even if little seen in nurseries. We acquired ours from about 16 different nurseries, plant sales and individuals. Not all exist anymore.

Miles' To Go's latest list (fall 2002) has *Frailea castanea* for \$3 which he describes as a "marvelous dwarf, low brownish body, minute black sp., yellow flowers," if you want to try one.

To find more, if you get interested, check dealer's lists and, whenever you're in a nursery ask if they have any frailea.

Leo Martin's note: Most people now regard frailea as being very short-lived, possible annuals in habitat! They reseed readily around the base of the mother plant from self-set seed if kept reasonably moist during warm weather. It is a good idea to keep restarting them from seed; what looks like a healthy big plant may suddenly die without warning.

There are great accounts of finding frailea in habitat in the book *A Cactus Odyssey...* by Kiesling, Mauseth and Ostalaza. They apparently prefer a narrow ecological niche. Large rock domes protruding from surrounding soil have a zone where the soil meets the rock and is less than an inch

or two deep. Some plants specialize in this niche, and this is where frailea are found. The soil is too shallow for a lot of plants that otherwise would shade out the tiny frailea.

The seed is shaped strangely for a cactus, and is often described as boat-shaped. That is a good description, for it is among the few cactus seeds that float! They are thought to be dispersed in habitat by floating away on runoff.