



Variations on a Theme: Copiapoa hypogaea

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Variations on a Theme: *Copiapoa hypogaea*

The coastal hills of Chile, just north and south of Chañaral, are home to *Copiapoa hypogaea*. In habitat the plants usually grow flush with, or even pulled below, soil level, and are up to 6.5 cm in diameter. The plant has a tuberous root with a narrow neck where it joins the plant body. The apex of the plant is sunken, forming a shallow, usually round, depression which, in

habitat, makes it easier to find the plants. The plant in Figure 1 is what I have seen for years as *Copiapoa hypogaea*. It has very little in the way of spines; those it has are black and very, very short. The areoles are sunken into the tip of the tubercle, with the flowers appearing out of the wool produced there (Figure 2).

Copiapoa barquitenis, frequently listed as a synonym of *C. hypogaea*, comes from near the town of Barquito, a little over a mile south of the town of



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1 The body of a typical *Copiapoa hypogaea*. Young areoles are covered with dense, fine wool which falls out over time. Depending on how you look at it, they either spiral around the plant, or they form bumpy ribs.



2 Flower of *Copiapoa hypogaea*, with brightly-colored pollen scattered over the petals. **3** *Copiapoa hypogaea* v. *barquitensis*. The upper and lower parts of the plant have lots of wool and there are some healthy spines. The central band with weaker spines is from when it grew in the shade of a leafy plant. Once I discovered the problem, I moved the plant to where it got more light, thus the longer, more prominent spines and better wool growth. **4a & 4b** A good example of the extra wool on the 'Special Form'. It makes a great background for showing off the contrasting, satiny flowers.

Chañaral. All of the photos or plants that I have seen are small and cylindrical, as shown in Figure 3. The tubercles, ribs, and indented areole are all similar to *C. hypogaea*. Note, however, that the areoles have more prominent spines, and there is a central. The flowers are the same as normal *C. hypogaea*. I am afraid that if this plant is going to remain as variety of *C. hypogaea* it will have to remain with the name that Ritter gave it and that is *Copiapoa hypogaea* var. *barquitensis*. It is just too different to say that these are the same plant!

The plant in Figure 4 came from Southfields Nursery in England, sold as *Copiapoa barquitensis* 'Special Form'. It looks much like *v. barquitensis*, except for the larger plant size, and the copious amounts of wool it produces.

The last of the plants that I feel should be under the name of *C. hypogaea* is the form known

as 'Lizard Skin', Figure 5. 'Lizard Skin' comes from ten or more miles north of Chañaral. The name puzzles me a little, for lizards have scales covering their bodies and I see no scales on this plant. To me, it looks like coconuts in mesh bags (Figure 6). Easily seen in the photographs are the spines in the areoles, 5 to 7 radials. There are no centrals. What looks like a few centrals on older heads are, in fact, radials that cannot lay flat because of the depression of the areole. Areoles on new heads are high on the tubercle. Figure 7 shows the flowers, which are not quite typical of *Copiapoa hypogaea*.

Cultivation

Chile stretches from the tip of the west coast of South America, to more than half way up the continent. The country is 2,700 miles long and



5 'Lizard Skin' will make a good-sized clump of heads in time. 6 A close up of a head of 'Lizard Skin'. The raised areas are lighter in color than the pits and grooves and so that gives that head the strange grayish color. Looking at the rough skin of the plant makes me think that it would make good sand paper – I have done a lot of wood work in my time. 7 Notice the pinkish-red on the style on the right hand flower of 'Lizard Skin', and a similar hint of color on the tips of many of the petals.



averages 109 miles wide. Pacific Ocean currents flow north from Antarctica along the coast, creating fog. Most of the Copiapos grow where this fog comes inland. When I was younger, I lived in the Valley of the Moon, Glen Ellen, California, about 30 or so miles from the San Francisco Bay. If the day dawned clear, we were in for a hot day, with temperatures into the upper 80s to upper 90s F. If the fog hung around till 10 or 11 am, the highs for the day would be in the upper 70s to mid 80s F. If the fog remained till about 2 pm, temperatures would get up to the mid 70s F. When it stayed foggy all day we were lucky to reach the low to mid 60s F. Much of Chile is the same way, so *C. hypogaea* does not like hot weather, going dormant in the heat of our summers. That is the same with all the Copiapoa that I know. Some species have tuberous roots, so watering the plants while they are dormant will not help. It can rot the roots which in turn can kill the plant. I have said many times, if you know where the plants come from, it will help you be able to grow them.

Many dark bodied cactus come from South America. On hot days the sun can burn the plants, even if the plant has been in the same place and orientation for some time. Give these plants bright shade and have a fan moving the air around in the greenhouse during the heat of summer. They have little in the way of any spines or wool for protection. Plants that come from hot desert areas

often have either long dense spines, or they have flocking on them like *Astrophytums*. A lot of succulents have a whitish wax like covering that reflects the heat, something to bear in mind next time you are looking at your collection.

My sprinkler system puts out a mist something like a heavy fog. I have stood and watched as the mist collects on the spines till it makes a large enough droplet to flow down the spine. There it drips off and lands at the base of the plant. For spines that point upwards, the water flows to the plant body to the ground. Either way the water gets to the roots. It is the same in habitat, where the roots run just under the surface of the soil. Some of the plants have never seen rain and only get water from the fog. Like all of my cactus, I allow the soil to dry between waterings. They also get the same acidic water and ammonium sulfate, with no adverse reaction seen. I use a fast draining, open mineral soil for my plants; if a potting soil that has wood products is used, feeding with ammonium sulfate along with a weak solution of 20/20/20 with micro-nutrients is a must.

It is best to keep Copiapoa above about 38 F. When temperatures stay above about 58 F in the summer the plants go dormant. Some have tuberous roots and watering while they are dormant will not help. It can rot the roots which in turn spread to the entire plant. If you live where it gets really hot in the summer, the plants will appreciate a fan moving the air around them. 🌵