

Flower density on a *Cleistocactus*

ROOT GORELICK

Figure 1 *Cleistocactus* specimen flowering in the author's garden.



The density of flowers can be quite extraordinary in the genus *Cleistocactus*,

exceeding one flower per square centimeter and rivaling the density seen in several species of *Micranthocereus*.

Figure 1 shows an unidentified species of *Cleistocactus* (aff *tupizensis*?) in cultivation. It is a tall and robust species (though not nearly so much as *C. strausii*) initially with upright stems that eventually become pendulous or prostrate. This specimen was obtained three years ago as a short, neglected and unbranched seedling that was approximately 25 cm tall. The tallest stem is now 100 cm. All twelve stems are approximately 5 cm in diameter with spines just under 1 cm long. All branches arise from the base unless the stem is injured.

Figure 2 shows the top of the tallest stem, the top 27 cm blanketed in flowers and buds. The flower tubes are red with violet tinges on the distal tip of the outer perianth parts. Figure 3 shows a 50 cm tall stem with 27 flowers (only 23 of which are visible in the photo) along a 7 × 3 cm apical portion of its stem, which corresponds to more than one flower per square centimeter!

This plant flowers for half of the year, although not always with the density of flowers shown in the figures. Cuttings root easily, and ones taken from prostrate stems have continued flowering as though they had never been severed. I grow this cleistocactus in the partial shade of an enormous mulberry tree along with many other tall, fast-growing cacti, including *Austrocylindropuntia subulata*, *Cylindropuntia arbuscula*, and *Opuntia ficus-indica*, though several cuttings of this cleistocactus have done equally well in full sun, without a scintilla of shade. Although a South American native,



◀ **Figure 2** Top of the tallest stem flowering along the upper 27 cm.
 ▼ **Figure 3** 27 flowers crowded into an area 7 × 3 cm—that's more than one flower per square centimeter!
 Photos by Susan Bertram.

this plant thrives outdoors year-round in the lower elevations (below 500 m) of southern Arizona, where it only drops below freezing a few nights each year.

Although purportedly pollinated by hummingbirds in its native habitat, I have never seen these *Cleistocactus* flowers visited by the native hummingbirds in southern Arizona despite the large number of Anna's hummingbirds (*Calypte anna*) living within a few meters of this plant and the large number of native hummingbird-pollinated flowers nearby, such as chuparosa (*Justicia californica*) and Eaton's penstemon (*Penstemon eatonii*). Although the genus *Cleistocactus* is named for its cleistogamous (not-opening, self-pollinated) flowers, the flowers on this plant do open on sunny days. The lack of hummingbird visits (albeit not by a hummingbird native to South America) is surprising. ❖

