

MAMMILLARIA GRAHAMII

Hikers in Southern Arizona will encounter a wide variety of cacti on their excursions into the desert. Among these cacti will be several varieties of mammillaria cactus. The cactus genus Mammillaria is one of the largest in the cactus family with nearly 200 recognized species. The word mammillaria is derived from the Latin word mammilla which means “nipple” or “teat”. This name becomes obvious when you look closely at a species of the cactus genus mammillaria. Figure 1 is an enlarged photo of a Mammillaria grahamii that gives a good visual representation of the nipple and spine configuration of a mammillaria cactus.



Figure 1. Mammillaria Grahamii

The mammillaria cactus that our hikers are most likely to encounter on their hikes is the Mammillaria grahamii which most hikers refer to as a “Pincushion” Cactus. Other common names for this cactus are “Grahams Nipple Cactus” and “Arizona Fishhook Cactus” (it is the most common fishhook cactus in Arizona). The Grahamii cactus is rather small (a maximum diameter of about 2.5 inches) and usually grows as singles or in small groupings so are easy to miss as you hike along unless you are specifically looking for them. The areoles at the ends of the tubercles have numerous short whitish spines and generally one long fishhook spine that is reddish-brown in color (thus the name Fishhook Cactus). A tubercle is the green, warty outgrowth from the body of the cactus. The areoles are the areas that resemble tufts of cotton on the tubercles from which the spines and blossoms emerge (See Figure 1).

The main purpose of this article though is to call attention to an area where they are currently growing in unusual abundance. Instead of coming across a few scattered cacti of this species as you hike along you suddenly come across an area where there are virtually thousands of them. This area is on the rocky western slopes of two small hills. In an attempt to find an explanation for this condition, an inquiry with pictures and a description of the area was sent to the Arizona-Sonora Desert Museum. In their response, a horticulturist from the museum identified the cacti as Mammillaria grahamii and indicated that Mammillarias often go through boom-and-bust cycles depending on the local conditions. He cited an example of the Mammillaria thornberi that existed in the Avra Valley area in the 1930s by the countless millions and virtually disappeared

after a series of catastrophic freezes and never recovered. He feels that in addition to optimal orientation and soil composition, the area must have gone through a period of quasi-perfect weather condition for *Mammillaria grahamii* to grow and prosper in such an exceptional way.

Just where is this unusual concentration of *Mammillaria grahamii*? Follow the Arizonan Trail south from the Sahaurita Road Trailhead for about one mile and you will come to a small rocky hill. Starting there, you will see large groupings of the cacti along both sides of the trail for about the next 0.2 miles where you will come to another small rocky hill. Don't wait too long though before you visit the area because you never know if the favorable conditions will change and cause the cacti to disappear.

Figure 1. is an enlargement of a photo by Valentino Vallicelli that was posted on the Llifle.com/encyclopedia/Cacti website. Figures 2 and 3 show small groupings of the cactus. These two photos were taken by Anita Woodward. Figure 4 is a *Mammillaria grahamii* with fruit (Photo by T. Johnson).

Article prepared by Anita Woodward and T. Johnson in January 2020.



Figure 2. *Mammillaria grahamii* Grouping



Figure 3. *Mammillaria grahamii* Grouping



Figure 4. *Grahamii* with Fruit