

A Brief History of the Genus *Mammillaria* and *Mammillaria mammillaris* (L.) Karsten

Chuck Staples, CSSA Historian, January 2016

The genus **Mammillaria** is a part of the family **Cactaceae** and was first described by Adrian Hardy Haworth (1768–1833) in 1812. He was an English gardener, amateur botanist and entomologist, who studied natural history all his life. He was the leading English authority of his time on succulent type plants.

The name **Mammillaria** is derived from the Latin *mamilla* (meaning nipple or teat) which refers to the tubercles of the plant. These tubercles are very pronounced in species *Mammillaria longimamma* A.P. de Candolle 1828.

Spelling of the genus was a problem in the early 1800s. Author Ludwig Reichenbach (1793–1879) used the spelling 'Mamillaria' in 1827, while authors John Torrey (1796–1873) and Asa Gray (1810–1888) came up with the spelling 'Mammilaria' in 1840. Various authors have used these two spellings over the years; however, the accepted spelling for this genus is **Mammillaria** (with two **ms** and two **ls**).

Unknown to A. H. Haworth in 1812, a John Stackhouse (1742–1819) used the name **Mammillaria** for a genus of algae in 1809. According to strict taxonomic rules the algae genus takes precedence for the **Mammillaria** name. It's interesting to note that cactologists Nathaniel Lord Britton (1859–1934) and Joseph Nelson Rose (1862–1928) were familiar with the algae problem, and by following strict rules of priority came up with a new name, **Neomammillaria**, to take the place of **Mammillaria** in 1923 for the cactus plant genus.

However, since Stackhouse's algae name never came into actual use, the International Botanical Congress of 1930 decided to conserve Haworth's **Mammillaria** name under the family **Cactaceae**. (What a sigh of relief that must have been at the time for people that didn't like the change to **Neomammillaria**.)

In his 2001 book "The Cactus Family", Edward Frederick Anderson (1932–2001) gives the following as synonyms of the genus **Mammillaria**:

Cactus Linnaeus 1753
Bartschella Britton & Rose 1923
Dolichothele Britton & Rose 1923
Mamillopsis Britton & Rose 1923
Neomammillaria Britton & Rose 1923
Phellosperma Britton & Rose 1923
Solisia Britton & Rose 1923
Chilita Orcutt 1926
Porfiria Boedeker 1926
Krainzia Backeberg 1938
Ebnerella Buxbaum 1951
Oehmea Buxbaum 1951
Leptocladodia Buxbaum 1951
Pseudomammillaria Buxbaum 1951

It would appear that Britton & Rose split out a number of **Mammillarias** due to the shape of the plant or the color of the flower; as did Buxbaum. According to Anderson's book, two other genera, **Cochemia** and **Mammilloidia**, having been associated with the genus **Mammillaria** in the past,

were recognized as separate distinct genera. However, Cochemiea has since become a synonym of the genus **Mammillaria**.



Mammillaria mammillaris has an interesting history. It evidently was the first known species of the genus and the only one known to Carolus Linnaeus (1707–1778) according to Britton & Rose. It was earlier described and illustrated in a 1697 book by Johannes Commelijn (1620–1692), published after his death by his nephew, Caspar Commelijn (1667–1731). The illustrated plate was from a colored drawing by Maria Moninckx (1673-1757) and has been used by numerous books over the last 300 years.

David Hunt (1938–) tells us in his 1987 book "A New Review of Mammillaria Names" that this species was well known in Europe by the end of the 17th century. And, that it was illustrated in the 1691 book "Phytographia" by Leonard Plukenet (1641–1706) under the pre-Linnaeus Latin name '*Ficoides s(ive) Melocactus mammillaris glabra, sulcis carens, fructum suum undique fundens*'. He further states that the illustration may have been drawn from a plant in the famous garden of Henry Compton at Fulham, England. Since Compton exchanged a lot of material with the European Dutch gardens of the time, it is thought that this cactus plant came from the Dutch island of Curacao in the Netherlands Antilles of the West Indies in the Caribbean Sea off the coast of Venezuela, South America.

Linnaeus, when setting up his binomial nomenclature system of naming plants in his 1753 book, "Species Plantarum", gave this plant the species name **Cactus mammillaris**. His description of the plant was '*Cactus subrotundus tectus tuberculis ovatis barbatis*' meaning '*...the nearly round cactus covered with ovate, bearded tubercles...*'. That description would fit a number of **Mammillaria** species today; however, in 1753 Linnaeus' description would be appropriate since it was the only cactus he knew of at the time with that shape.

When a taxonomist decides to set up a new generic name, this person also adds a specific epithet which together with genus is referred to as the 'type' of the genus. Haworth did this by making **Mammillaria simplex** as the 'type' of the genus. As late as 1983 the International Botanical Congress decided that **M. simplex** was an illegitimate name for Linnaeus' **C. mammillaris** and conserved **C. mammillaris** as the 'type' of the genus. What this means is that the earliest specific epithet (in this case 'mammillaris') for that particular plant species must be retained even when a taxonomist splits out a group of plants into another genus (as long as that specific epithet isn't already used under the other genus). For historical purposes **M. simplex** becomes an illegitimate name and is generally listed as a synonym of **M. mammillaris**.

*[For those not familiar with the use of initials in the immediately preceding and following paragraphs, "M." stands for **Mammillaria** and "C." stands for **Cactus**. This is used to shorten the genus name after it has been established in the article, and each initial refers to the immediately preceding genus name used in the article.]*

Credit for describing **M. Mammillaris** goes to Gustav Karl Wilhelm Hermann Karsten (1817–1908) who described the species name in 1882.

Distribution of this plant is from Curacao and neighboring islands of the Netherlands Antilles, the Lesser Antilles, Trinidad and Tobago in the West Indies and in Venezuela. It is generally found on limestone hills and/or outcrops in these tropical sites of the Americas.

Since Haworth's *M. simples* didn't survive the name game, does any other **Mammillaria** species of his survive? I don't know how many **Mammillaria** species he named in 1812, but I found two still with us from 1812: *M. discolor* and *M. prolifera*. There are also two that he named in 1824 that are still with us: *M. geminispina* and *M. magnimamma*.

References:

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