



# The True Story of *Aztekium valdezii*

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My name is Mario Albert Valdez Marroquin, biologist by profession, and botanist, a person passionate for Cactaceae for more than 30 years. I am not so old but began my collection when I was 12 years old, at a time I did not know I was going to become a biologist. For me, it is an honour to tell you the story of the discovery of a new species of *Aztekium*, 4 years ago, on the 1<sup>st</sup> of April, 2009, to be precise, at about half past 2 in the afternoon; I am not normally very exact in the dates but an encounter of this type is never to be forgotten!



Habitat of *Aztekium valdezii*, Nuevo León, Mexico.

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Together with my family, we made an excursion to the Sierra Madre, admiring the natural landscapes of the area, by taking a walk in known and other not so known places, developing a healthy respect of nature for our children. Having made a good picnic, we began to make a tour through some very interesting canyons, and having observed the type of soil, I remembered myself the place where I had seen for the first time *Aztekium ritterii* at Rayones, Nuevo León, in 1992 together with Dr Jorge Verduzco (the true discoverer of *Agave albipilosa*, Note of the editor) and a cactus lover Dr Alexandre Lux. At this occasion, I was able to discover in their habitat, *Aztekium ritterii* and *Ariocarpus scaphirostris*, endemic species from the municipality of Rayones, in the state of Nuevo León.

Obviously, as a biologist, I was particularly interested in this canyon, and because of past experience I surmised this was the habitat of a *Aztekium* sp. nov. At more than 200m away and without binoculars, I instinctively searched and saw what I thought were immature plants of *Aztekium hintonii*; but as soon as I compared specimens, I realized that it was something different. Since that time I was going there to watch constantly the population, there were some damage for natural causes (the hurricane Alex made some), so I hoped that people interested in this species would first help us to protect it.

Having been convinced that it was a new species, I asked to the Dr. Marcos, a great



*Aztekium valdezii*, habitat, Nuevo León, Mexico, with *Selaginella lepidophylla* (right). © M. Valdez friend of mine, a person of irreproachable moral and professional behaviour, if he could organise the publication of the new species. He told me that it would be an honor for him to make the taxonomical description; and for that purpose, he invited Dr. Carlos Velazco to be co-author.

Among the observations which I made on the new species, one is that this is very probably the most primitive species of the genus *Aztekium*, and that from it the other two species were derived. I came to that conclusion thanks to the number of ribs the new species has, with a number of 5; furthermore, it does not present intercostal ribs like *Aztekium ritterii*, anyway, this will be verified or refuted with a DNA study. At one moment, somebody commented that I was a little bit presumptuous to put my name on the species, but by considering that the other two species were named after one of their discoverers, we believed that it was correct to proceed this way.



***Aztekium valdezii*** in habitat, left, plant buried through erosion, right, plant dead because of extreme aridity. © M. Valdez

At the moment, we work on propagation, both sexual and asexual, with the unique interest to protect the species and to avoid its extinction in habitat; we have a compromise, and I say to you, that we have all of us, to be a part of it: to protect the natural resources of our planet and to be responsible in this action. We shall try to reproduce this species as many as we can, enough to satisfy the demand of any collector in the world, thus to avoid, as much as possible, the plunder of the species in the habitat, because it would be unproductive and destructive, besides being illegal and severely punished.

The processes of extinction are a phase in the progress of life on our planet, but in the case of *Aztekium*, the question is to know if the climatic change will influence its disappearance. During the visits we made to the habitat, we found an intense erosion of the walls, and sometimes, plants remained buried like those shown on the photograph above.

Besides this burial *in situ* of the plant, we noticed the total or partial fall of the wall material, which caused the loss of plants; moreover, some unusual periods of aridity caused the death of several plants (see photo above).

Habitat: Tunalguillas, Nuevo León

Do not look for Tunalguillas on a map or on Google. The indication is false, obviously: it means a place which does not exist, and where we send the ingenuous people!

This expression could be translated by the place of "your buttocks", to be educated, and is used in Mexico likely to send somebody "to Hell"!

J.L.



*Aztekium valdezii*, habitat plant in cultivation, on own roots, right, a grafted plant.

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Basically, *Aztekium valdezii* no gives particular problems in cultivation ; thus, grafting is not absolutely necessary, although it allows to quickly propagate a plant from offsets. It is to be noted that these plants illustrated here are part of a project created to legally obtain and distribute seeds, thus avoiding, as much as possible, the illegal collect of plants and seeds in habitat

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*Aztekium valdezii* adult plant in habitat, with capsule remains whose seeds were dispersed.

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But the most important thing is that without our help, this species managed to survive for thousands of years, by adapting itself to the inhospitable conditions of its habitat: Let us hope that with our help, it can still grow some thousand more years.

The science does not know frontiers nor greed and if we contribute in a successful propagation programme, we shall be all active participants in the conservation project of *Aztekium* and thus, avoid its extinction.

Text & photos: Mario Alberto Valdez Marroquín

Ed. I wish to thank Mario for his article and Karel Šlajs for the pictures of the plants taken in habitat in flowers.

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