ZLATKO JANEBA & RICHARD KALAS

Acharagma aguirreanum in Sierra de la Paila

A rare find in cactus paradise

It would be hard to know where to place an *Acharagma* in the hierarchy of cactus names. Aside from being rare, the uninitiated might passed it over as one of many other pretty-spined cacti. Once within a section of the genus *Escobaria*, at other times considered a *Gymnocactus* or *Thelocactus*, *Acharagma* displays a perplexing set of subtle features, from seed and fruit type to tubercle formation, that makes its position in any of these genera problematic. It now occupies its own separate genus with one other species, and this placement is now even supported by DNA studies.

Together the mysteries surrounding *A. aguirreanum* and *A. roseanum* have stirred not just a little taxonomic confusion, but they've cooked up a good treasure hunt, too—straight into the heart of a true succulent paradise. Sierra de la Paila, a hilly region of the north-Mexican state of Coahuila, is *A. aguirreanum*'s home. This area is positively decadent with interesting plants, and its diverse array of interesting cacti makes the search for this unusual species particularly enticing. At one time nearly 40 varieties of cacti, ten of them endemic to this area, were said to grow there[1], and although many of those names have since been abandoned as synonyms, the richness of this area's succulent flora remains unchanged.

We were intrigued by Pilbeam's assertion in his recent book, *Ariocarpus, etc.* that this species is

Canyon Verde, Sierra la Paila, the type locality of *Acharagma aguirreanum*.

almost extinct in the wild[2]. Was this an unfounded opinion, or was it supported by recent research in the field? The original description led us to believe that the plants were rare and difficult to find[3], and recent unsuccessful attempts to find *A. aguirreanum*[4] made the visit to Sierra de la Paila even more alluring. Perhaps we would be more lucky.

We visited Sierra de la Paila during our trip to Mexico in February 2007. As is always the case on such trips, we were short of time in this beautiful region, where it is tempting to stop every few miles to walk around. When we reached Canyon Verde, the type locality of *A. aguirreanum*, located on the west side of Sierra de la Paila, we faced a crucial decision: either spend some time here at risk of failing to find our quarry, or move on to more promising spots. The day still seemed long that early morning, and so, feeling lucky, the search began.

It did not take more than ten minutes before Richard announced his first *Acharagma*, and as our walk progressed we found more and more plants. At 1450 m the area was well populated with this rare beauty, and we saw about twenty of the small, globular cacti growing on the low hills and washes. The most immediate neighbors of *A. aguirreanum* here were *Ariocarpus fissuratus*, *Agave lechuguilla* and another unidentified *Agave*, *Dasylirion texensis*,

A great deal of variability was observed among *Acharagma aguirreanum* plants found growing in this area, including an atypically clustered specimen hiding in the shade of taller vegetation.

Euphorbia antisyphilitica, *Fouquieria splendens*, and *Larrea tridentata*. One plant of *Acharagma* was also found at the top of a limestone ridge at an elevation of about 1600 m, where it was accompanied by *Astrophytum capricorne* (or *A. senile* var *aureum*), an *Echeveria* species aff *cuspidata*, *Epithelantha bokei*, *E. micromeris*, *Ferocactus hamatacanthus*, *Grusonia bradtiana*, *Hechtia glomerata*, *Lophophora williamsii, Mammillaria chionocephala*, *M. pottsii*, *Neolloydia conoidea* and many others.

It has often been mentioned that *Acharagma aguirreanum* grows in shady areas, such as along canyon walls or under bushes[3,5], but quite to the contrary, many of the plants we saw grew wedged in limestone in the brunt of the full sun. Only a few plants were found in the shade of other plants, but these, by no means, could compete with the perfect brownish to yellow armature of starry spine clusters displayed by those more fully exposed. We surmised that this grouping might have originated from a population located higher and deeper in the canyon whose seeds were washed down by flash floods. We more recently learned that at approximately the same time we found *A. aguirreanum* it was also observed by cactus enthusiasts along the walls of Canyon Verde[6], corresponding more closely with the original description.

While the majority of adult acharagmas were solitary, we did discover one sizable clump of about twenty heads growing beneath some shrubs. Unfortunately, we did not encounter a single plant in flower, but most were loaded with buds.

So we are happy to report that *Acharagma aguirreanum* is not missing after all, and it is probably no more endangered now than it was 35 years ago when it was first described in this journal. Since then another population has been found in the mountains south of Cuatrocienegas, about 100 km away from the type locality, and we imagine that other localities are likely to be found between these two in the vast expanse of Sierra San Marcos y Pinos and west of Cuatrocienegas in Sierra la Madera.

Despite the good news, this species remains rare and highly localized in a region where mining continues to be a major threat to the desert ecosystem. International mining companies are increasingly active here, and the Sierra de la Paila deserves more attention and consideration for protection. As for our plant's status in cultivation, we find it far from common outside of Europe, where seeds are offered in most major catalogs under *Escobaria aguirreana*. ❖

References

1. Moeller-Villar G. 1988. Sierra de la Paila. *Aztekia* 11: 24–28. **2**. Pilbeam J, Weightman B. 2006. *Ariocarpus et cetera*. Castle Colour, Norwich, UK. **3**. Glass C, Foster R. 1972. *Gymnocactus aguirreanus*. A new species from southern Coahuila, Mexico. *Cact Succ J* (US) 44(2): 80–81. **4**. Chalet J–M. 2003. Four lovely days in Sierra Paila. *Cactus and Co.* VII (1): 44–63. **5**. Bravo-Hollis H, Sánchez-Mejorada H. 1991. *Las cactáceas de México II*. Universidad Nacional Autónoma de México. **6**. Jaroslav Snicer and others, pers. comm.