

On some new *Gymnocalycium*-findings (Cactaceae)

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Four recent discoveries of Argentinian *Gymnocalycium*, currently under study, are presented. On the southern part of the Sierra de Comechingones, province of Córdoba, along the road between Santa Cruz and Merlo, plants belonging to the subgenus *Gymnocalycium* were found. These show 1 to 4 thin, erect central spines and were compared with plants of the same subgenus living in the same region, e.g. *G. andreae*, *G. bruchii*, *G. papschii*. The newly discovered taxon shows some morphologic resemblance with *G. papschii*, but differs in the very short, completely white, peculiar flower.

In the province of Catamarca, north of Fiambala, two clearly differentiated forms of *Gymnocalycium* belonging to the subgenus *Microsemineum* live about 20 km from each other, yet they differ significantly in morphology of body, spines and flower. One of these is apparently similar to *G. catamarcense*, while the other has some resemblance with *G. spegazzinii*. However, the seed shape clearly indicates that affinities with *G. spegazzinii* can be excluded.

A third interesting *Gymnocalycium* was discovered in the hills between La Falda and Candelaria, in the central part of the Sierras de Córdoba. The plants have morphology intermediate between *G. mostii* (subgenus *Microsemineum*) and *G. capillaense* (subgenus *Gymnocalycium*), flower and seed resembling more to *G. capillaense* and body morphology being quite variable, but in many specimens resembling more to *G. mostii*. This last is sympatric with the newly discovered form, whereas *G. capillaense* is diffused more east, in the La Falda area and north of it. Considering the relatively broad range and the uniformity of the characters throughout the range, it is suggested that the recently found taxon could be a species that originated by hybridogenesis between *G. capillaense* and *G. mostii*.

A species whose origin by hybridogenesis was documented is *G. esperanzae* Repka & Kulhanek, recently described for a *Gymnocalycium* found in the hills south of the Sierra de Ulapes, in the province La Rioja. The body morphology of this species is rather similar to *G. bodenbenderianum* (subgenus *Trichomosemineum*) but its seed is perfectly referable to *G. castellanosii*. In a molecular analysis based on chloroplast markers *G. esperanzae* clustered together with *G. bodenbenderianum*. This indicates that the new species has a hybrid origin, with *G. bodenbenderianum* being the female ancestor and *G. castellanosii* the male.