

## Observations of the Chilean Opuntioideae

Author: Kattermann, Fred

Source: Cactus and Succulent Journal, 83(5) : 211-213

Published By: Cactus and Succulent Society of America

URL: <https://doi.org/10.2985/0007-9367-83.5.211>

---

BioOne Complete ([complete.BioOne.org](https://complete.BioOne.org)) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](https://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

# Observations of the Chilean *Opuntioideae*

## Part IV, *Miquelopuntia*

**M***iquelopuntia* is a monotypic genus, endemic to Chile, distributed from about the 30th latitude south to about the 27th latitude. The plants form thickets, sometimes 2–5 m in diameter, with multiples populations covering whole hillsides. They often grow in association with

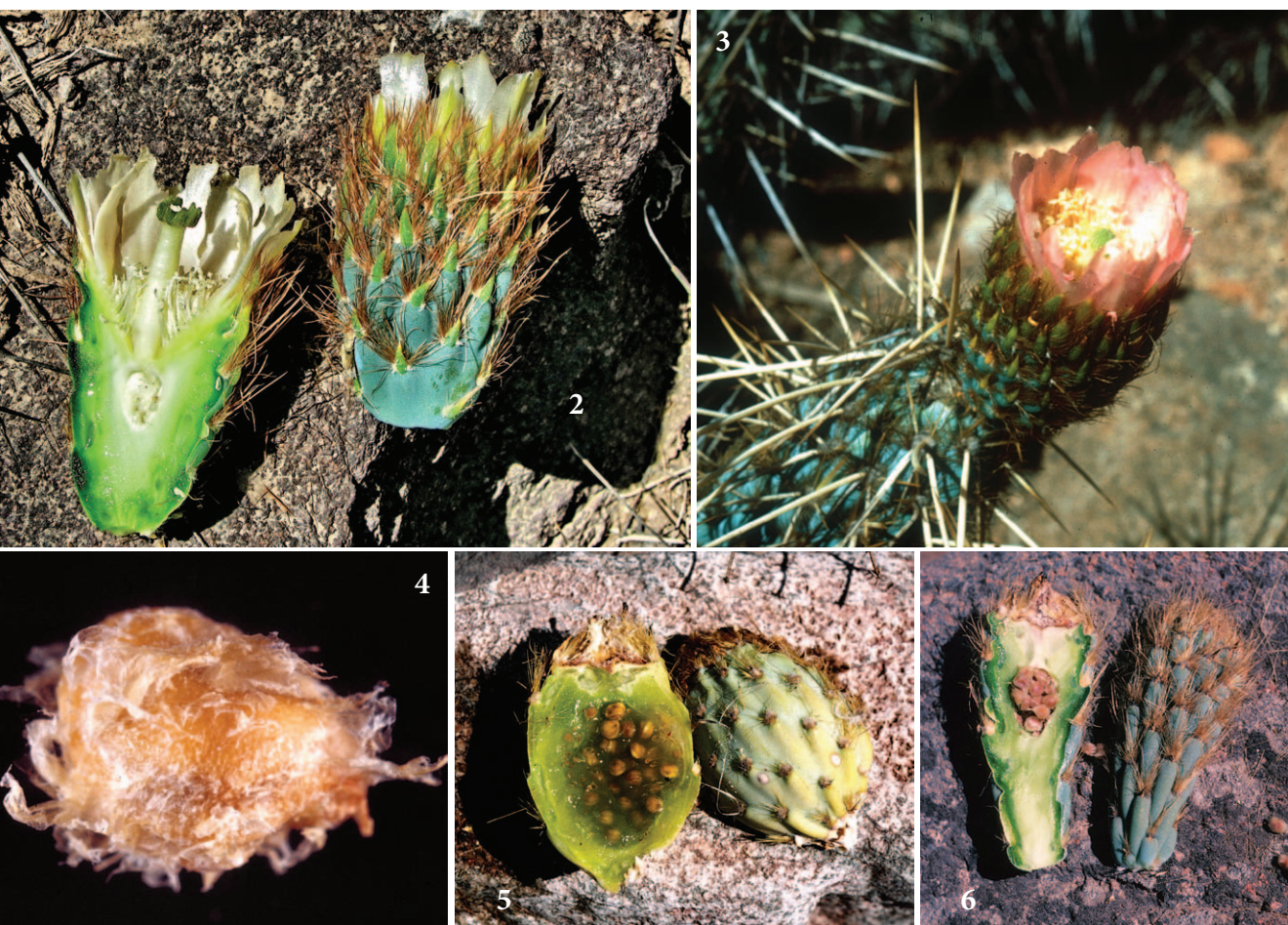
*Echinopsis chiloensis*, species of *Eriosyce*, *Copiapoa* and *Eulychnia*.

The plants grow to about 60 cm high, with new growth joints often reaching 8–10 cm in length. The spines are divided into radial and central groups. While the radials are no more than 1 cm long, the centrals may reach 4–6 cm.

Growing in colonies 2 to 5 meters broad; stems cylindric, much branched, usually less than 1 meter high, but occasionally 1,5 meters



1 *Miquelopuntia miquelii* FK 1230 Marquesa Canyon, at 430 m.

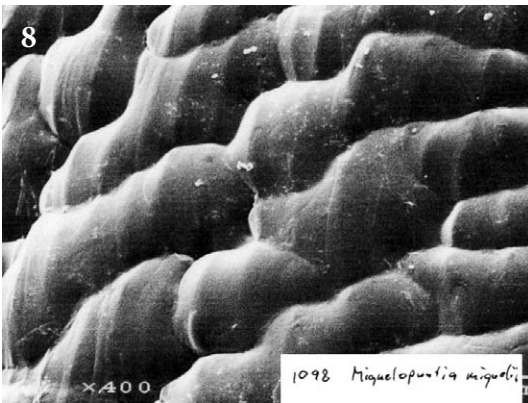
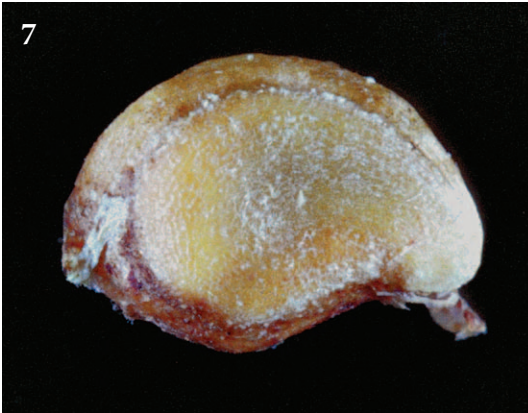


**2** *Miquelopuntia miquelii* FK 1230 from the Marquesa Canyon, which is also the southern end of the distribution of the genus, has almost white flowers. In some populations, yellow flowers have been observed. **3** *Miquelopuntia miquelii* FK 48-A, near Totoral at 50 m with a more bluish body, which Backeberg described var. *jilesii*. This population differs also in having reddish flowers. **4** *Miquelopuntia miquelii* FK 1230, fruit from the Marquesa Canyon, ovate in shape with floral remnants firmly attached to the umbilicus; numerous areoles with mostly glochids; thick walled; filled with pulp surrounding the seed. All the populations observed in the southern half of the distribution of *Miquelopuntia* have these pulp-filled fruit. **5** *Miquelopuntia miquelii* FK 1230, showing the seed with dried remnants of the fruit pulp. **6** *Miquelopuntia miquelii* FK 48-A, near Totoral at 50 m. At the northern end of its distribution, the fruit is obovoid in shape. Fruit pulp appears to be absent, while glochids are reddish brown and longer.

high, with numerous lateral branches; branches rather short, usually only 8 to 20 cm long, thick (5 to 6 cm diam.); old branches bluish green, with low tubercles sometimes 2 cm long; young joints bright green, with high tubercles flattened laterally; spines tardily developing, but formidable on old branches, very unequal, in clusters of 10 or more, the longest ones nearly 10 cm long, whitish in age; glochids numerous, brownish, caducous; leaves minute, 2 to 3

mm long; areolas circular, when young filled with white wool, in age somewhat elevated on the areolas.

Flowers rather variable in length, 4 to 8 cm long including the ovary, rose-colored to nearly white; petals broad, apiculate, 2 to 2.5 cm long; filaments rose-colored; ovary strongly tuberculate; areolas filled with numerous brown glochids and subtended by minute leaves; style white; stigma lobes green.



7 *Miquelopuntia miquelii* FK 48-A, near Totoral at 50 m. The seed is without remnants of pulp, and the funicular girdle is clearly visible. 8 *Miquelopuntia miquelii* FK 1098, showing the seed surface SEM after removal of the funicular envelope. Use of chemical etching reveals elongated cells with a high domed periclinal wall. Seeds from the southern populations have almost identical seed wall cell characteristics. 9 Distribution map of *Miquelopuntia*.

Fruit ovoid to oblong in outline nearly white; umbilicus truncate.

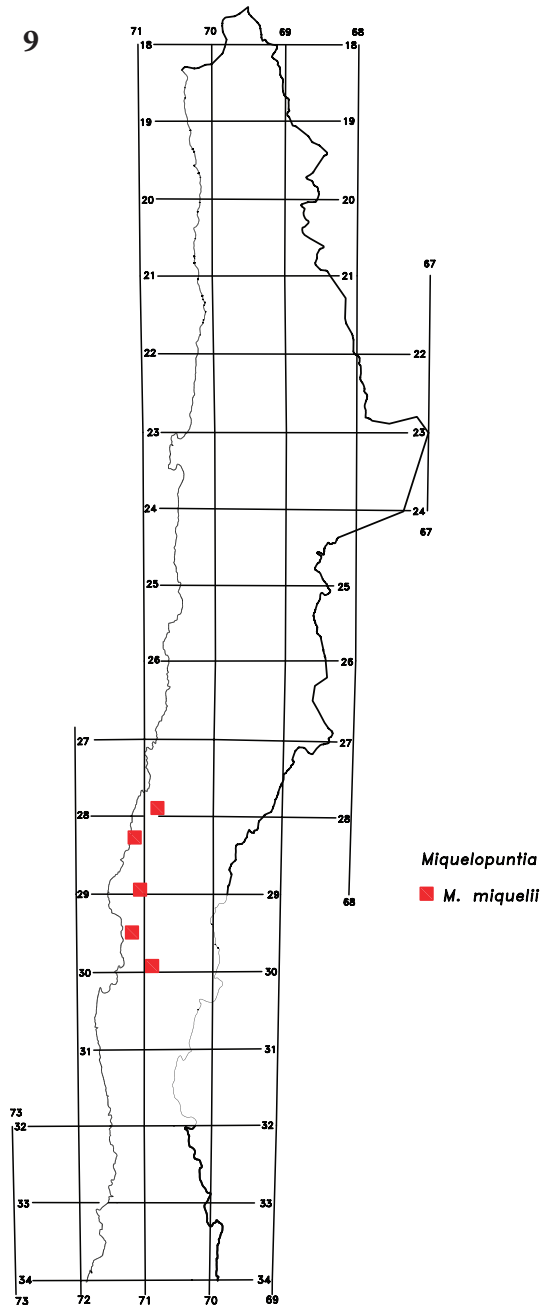
Seeds small, 4 mm broad.

**Type** Rocks of Huasco, Chile

**Distribution:** Chile, from Rio Choros Prov. Elqui, north of Castillo, Vallenar and Rio Huasco Prov. Huasco. 🌵

#### REFERENCES

Anderson, E.F. 2001. *The Cactus Family*, Timber Press, Portland, Oregon.  
 Barthlott, W. 1981. Epidermal and seed surface characters of plants. *Nord. J. Bot.* 1:345–355.  
 Barthlott, W. & Hunt, D.R. 2000. *Seed-diversity in the Cactaceae subfam. Cactoideae*, Succulent Plant Research vol. 5. DH Books, Milborne



Port, DT9 5DL, England.  
 Barthlott, W. and Voit, G. 1979. Micromorphologie der Samenschalen und Taxonomie der *Cactaceae*: ein raster-elektron-mikroskopischer Überblick. *Plant Systematics and Evolution* 132, 205–229.  
 Hoffmann A.E. & Walter H.E. 2004. *Cactáceas en la flora sylvestre de Chile*, Segunda edición. Ediciones Fundación Claudio Gay, Santiago, Chile.  
 Hunt, D. & Taylor, N.P. 2002. *Studies in the Opuntioideae*, Succulent Plant Research: vol. 6, DH Books, Milborne Port, DT9 5DL, England.  
 Kattermann, F. 1994. SEM observations of seed of the genus *Eriosyce*. *Haseltonia* 2: 47–60.  
 Ritter, F. 1980. *Kakteen in Süd America vol. III*. Friedrich Ritter Selbstverlag, D-3509, Spangenberg, Germany.