

Maihueniopsis In Chile

Elisabeth & Norbert Sarnes
2018



Taxa

Maihueniopsis archiconoidea

Maihueniopsis atacamensis

Maihueniopsis camachoi

Maihueniopsis colorea

Maihueniopsis conoidea

Maihueniopsis crassispina

Maihueniopsis domeykoensis

Maihueniopsis grandiflora

Maihueniopsis leoncito

Maihueniopsis ovata

Maihueniopsis reicheana

Maihueniopsis sp. nov. ?

Maihueniopsis tarapacana

Maihueniopsis wagenknechtii

***Maihueniopsis archiconoidea* RITTER 1980**

Low, dense clusters up to 20 cm Ø; segments broad conical, without tubercles; young segments without glochids, when older with strong, pale yellow tufts of regrowing 5 mm long glochids on the lower areoles, mostly missing on the upper ones or low and short; spines 3-5, mostly pointing downwards; one central spine stronger, white and broad at the base, pointed towards the brown tip; radial spines 3-4 fine, nearly appressed, white; fruit mostly bigger than the segments, without spines; seeds about 3-5 mm long and broad; circular aril broad, strongly prominent.

Type location: **Transito**, east of Vallenar between 1200 and 2800 m high, rare.

Occurring from there upstream in the mountains



„Conay“, 1625 m



SAR 15861





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„Pastos Largos“, 2242 m





„Ramadilla“, 2095

m

SAR 15921







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***Maihueniopsis atacamensis* (PHIL. 1860) RITTER 1980**

Clusters with up to 60 cm \varnothing and significantly larger; segments conical, without tubercles; the lower segments only with felt and short glochids; central spine usually single, strong, straight, not flattened, 5-16 cm long; variable in colour, always whitish towards the base; if the central spines are thin there are mostly two; the fine additional spines are not always appressed and may be absent; flower light yellow to light brownish yellow; stigma mostly dark purple, sometimes also green with purplish tips; fruit without areoles in the lower third, very juicy, mucilaginous, sour; seeds 2.5 mm long and broad, strong formation of wool around the margin.

Type location: rare at the water place called Profetas (24° 45' latitude and 2700 m





„s. Tilopozo“, 2787 m (Pingo Pingo)



SAR 16171









„Neurara“, Puquios, 3068 m





SAR 16181





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***Maihueniopsis camachoi* (ESPINOSA 1933) RITTER 1980**

Clusters only about half the size of *M. atacamensis*; spines reaching the lower parts of the segments and shorter; glochids more abundant; differences in flower unknown; fruit more strongly covered with glochids, very juicy, mucilaginous sour; seeds 2.5-3.0 mm long and broad, without wool.

Type location: Pampa de Antofagasta between Calama and San Pedro de Atacama.

According to Ritter this species also grows ~ 130 km northeast of Copiapo at the road to the Salar de Maricunga, Prov. Copiapo, at nearly 3000 m altitude. The specimens there differ a little or are a local variety



Ruta 23 (Calama -> San Pedro), 3200 m



SAR 1161



„Caspana“, 2883 m

SAR 16101







„Cuesta del Diablo“, 3852

m

SAR 11161





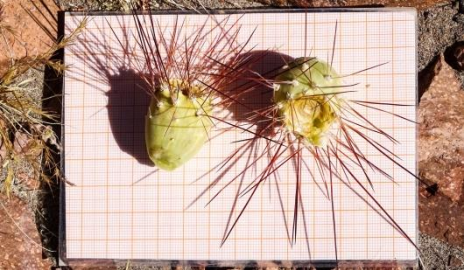
„Socaire“, 2670 m





SAR 16151







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„Mantos de Oro“, 3120 m









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Maihueniopsis wagenknechtii

***Maihue niopsis colorea* (RITTER 1963) RITTER 1980**

Large clusters with loose segments; segments 5-7 cm long, 2-5 cm thick, conical, light greygreen; **spines 1-4**, strong, somewhat flattened, pointed straight upwards, mostly 3-5 cm long, **white at the base, red-brown at the upper part**; in addition 1-4 thin, 5-10 mm long white small spines; in the lower half of the segment brownish yellow glochids; flower unknown; seeds ~ 3.0 mm long and broad, strongly covered with wool.

Type location: at the road from **Copiapó to the Salar Maricunga**, from 70 to

100 km northeast of Copiapó; altitude ~ 1300 to 2200

m.



„Quebrada San Andres“, 2007 m

SAR 1321





SAR 10831



A photograph of a steep, rocky mountain slope. The rock face is light-colored and shows distinct horizontal layering or bedding. The base of the slope is covered in a layer of grey gravel and small rocks. In the background, more rugged mountain peaks are visible under a clear blue sky. The overall scene is arid and high-altitude.

„Quebrada de Paipote“, 1750 m



SAR 1351



„Quebrada de Paipote“, 2785 m

Maihueniopsis camachoi ?







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Maihueniopsis wagenknechtii

***Maihueniopsis conoidea* (BACKEBG. 1958) RITTER 1980**

Clusters of 10 – 20 cm Ø; segments dense, 1.5 – 2 cm long, 1 – 1.5 cm thick, greygreen, acuminate towards the top; central spine usually one, hardly flattened, pointed downwards, in addition mostly 2 fine appressed radials pointing downwards; fruit 2 cm long and 1.5 cm thick, with abundant white felt and short yellow glochids, spineless; flower unknown; seeds 3.5 – 4 mm long and broad, without wool.

Type location: at the baths of Baños de Puritama, Prov. Antofagasta at ~ 3000 m altitude.



„Baños de Puritama“, 3522 m



SAR 11171



A photograph of a scorpion specimen, likely a scorpionfly larva, resting on a dark, textured surface. The specimen is light-colored and segmented, with visible legs and antennae. A yellow ruler is placed horizontally above the specimen for scale. The background consists of dark soil or sand with some dry, fibrous material. The text "SAR 16141" is overlaid in yellow in the lower-left corner.

SAR 16141





„Rio Purifico“, 3300 m



SAR 1174





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Quebrada Chita", 3655 m







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„L. Miscanti“, 3901 m



SAR 16161







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Maihueniopsis tarapacana

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***Maihueniopsis crassispina* RITTER 1980**

Hemispherical clusters with densely packed segments; segments 5 – 7 cm long, ca. 2.5 cm thick; at the lower areoles dense brownish yellow tufts of glochids; central spine straight, mostly one sometimes two, pointed upwards or outwards, too; in addition usually one or more downwards appressed bristly spines that are few mm long; flower golden yellow, sulphur yellow towards the base; stigma lobes ruby coloured; fruit with spinelike light glochids at the lower areoles, the upper ones with 3 – 5 thick needleshaped spines; seeds a little larger than those of *M. domeykoensis* ~ 4 mm long and broad, a little wooly.

Type location: Quebrada Maitencillo west of Vallenar



„Mina Algarrobo“, 1039 m



SAR 10823





SAR 14061







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***Maihueniopsis domekoensis* RITTER 1980**

Clusters hemispherical with densely packed segments; **segments** 4 – 5 cm long, ca. 3 cm thick; few yellow glochids on the lower areoles; **central spines straight mostly one to three**, pointed upwards or directed outwards, too; in addition usually one or more downwards appressed spines only few mm long; pericarpel somewhat obtuse than in *M. crassispina* and with smaller ovary; **flower golden yellow**, towards the edges crocus-yellow to orange-red; **stigma lobes greenish yellow**; fruit covered with spines except of the lowermost areoles; **seeds** ~ 3.5 mm long and broad, a little wooly.

Type location: 20 km **west of Domeyko**, Depart. Huasco

„w. Domeyko (C500)“, 565 m





SAR 1455



A wide-angle photograph of a dirt road in a dry, hilly landscape. The road is light brown and leads into the distance. The hills are covered in sparse, low-lying vegetation and rocks. The sky is a clear, bright blue. The overall scene is arid and open.

„C500 -> M. Algarrobo“, 614 m







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***Maihue niopsis grandiflora* RITTER 1980**

Clusters up to 2 m Ø and up to 50 cm high; **segments** 6 – 9 cm long, ca. 2 – 2.5 cm thick; at the lower areoles tufts of dense light yellow glochids; **spines in the upper half of the segment only**, 1 – 6 per areole; not flattened; 3 – 8 cm long, white downwards the base, at the ends honey-yellow to grey reddish brown; **stigma lobes orange reddish brown**, with greenish base; **flower light golden yellow**; fruit often empty; seeds ?

Type locality: **Llanos de Huanta**, east of La Serena, at about 1700 m altitude,

very rare; occurs also further west and in lower altitude in the

Mariposa Valley (financiera del desierto)



„Llanos de Huanta“, 1785 m



SAR 15412







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Maihueniopsis tarapacana

Maihueniopsis wagenknechtii

Maihueniopsis leoncito (Werdermann 1929) Ritter 1980

Clusters up to 2 m \varnothing and up to 80 cm high; **segments** ~ 4 cm long and 2 cm thick; conical, grey green, nearly without tubercles; areoles with white felt, when old with ~ 7 mm long pale yellow glochids; young areoles still without glochids; **one spine, bent downwards**, rarely two, rather strongly flattened; 1 – 2 mm broad, 2 – 4 cm long, white, brown yellow towards the tip; in addition 1 – 2 fine white secondary spines; **stigma lobes green; flower golden yellow slightly greenish**; fruit spineless with light yellow glochids, with viscous mucilage, usually empty; seeds 3-4 mm long and broad, little wool.

Type location: **Cerro Cadillal** also at altitudes above 3000 m.

RITTER puts *Opuntia reicheana* ESPINOSA 1940 from Baños el Toro (east of



**„Cerro Cadillal“, 3002
m**


SAR 16291











„Cachitos“, 3173 m

SAR 16301









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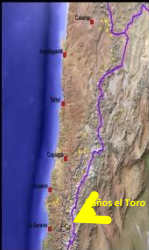


„Lo Valdes“, 1950 m



SAR 1511





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Clusters up to 2 m \varnothing and up to 80 cm high; **segments** ~ 4 cm long and 2 cm thick; conical, grey green, nearly without tubercles; areoles with white felt, when old with ~ 7 mm long pale yellow glochids; young areoles still without glochids; **one spine, bent downwards**, rarely two, rather strongly flattened; 1 – 2 mm broad, 2 – 4 cm long, white, brown yellow towards the tip; in addition 1 – 2 fine white secondary spines; **stigma lobes green; flower golden yellow slightly greenish**; fruit spineless with light yellow glochids, with viscous mucilage, usually empty; seeds 3-4 mm long and broad, little wool.

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„Montadon“, 2260 m

SAR 16221









„Pedernales“, 3700 m



SAR 16241







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***Maihueniopsis tarapacana* (PHIL. 1891) RITTER 1980**

Clusters flat on the ground with **egg shaped segments**; these are ~ 2 cm long and 1 cm thick; **spines** in the upper part of the segments, **white, reddish yellow** towards the tip; **flower golden yellow**.

Type location: Calalaste

As in the Philippi's first description plants from the provinces Antofagasta and Tarapaca were described, Ritter assumed that Antofagasta in Chile was meant. However the Quebrada de Calalaste is near **Antofagasta de la Sierra** in Argentina today.



**„n. Antofagasta de la Sierra“, 3907
m**



SAR 13833







„Quebrada de Calalaste“, 3764 m

A small, yellowish, fuzzy plant with a dense, rounded, and somewhat flattened appearance, growing on a rocky, gravelly ground. The plant has a soft, woolly texture and is surrounded by numerous small, reddish-brown and greyish rocks. The ground is covered in a layer of fine gravel and larger stones. The lighting is bright, casting shadows on the rocks.

SAR 13841





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***Maihueniopsis wagenknechtii* RITTER 1980**

Clusters with dens segments; **segments** more conical than in other species of this genus; ca. 6 – 7 cm long and 1.5 – 2 cm thick; areoles with white felt, the lower ones with tufts of honey yellow short glochids; **spines 5 – 7**, white darkbrown ends, not flattened; the larger ones 1 – 2 cm long, spread horizontally or a little pointing downwards; the smaller ones bent downwards, the finest pressed down to the stem; **flower, fruit and seeds unknown.**

Type locality: **Cordillera de la Punilla**, ca. 50 km east of the train station

Tres Cruces, in about 2000 m altitude, Prov.

Coquimbo



„Potrerillo“, 2087 m



SAR 15891







NEXT

STEPS

Which characteristics
are stable and can be used
to separate the taxa?

**Make
a key**

