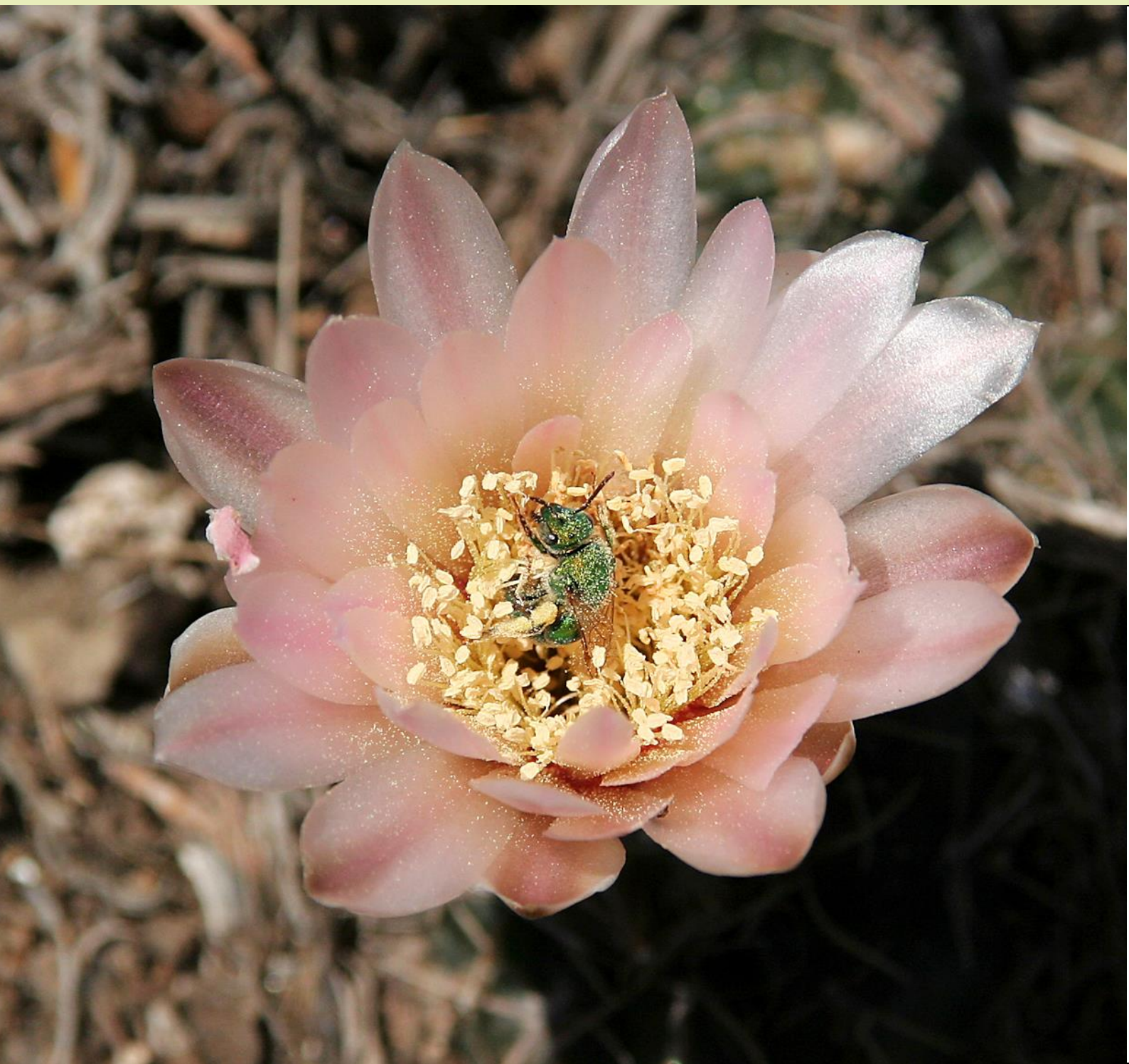


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裸萼在线杂志



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目录(Content)

Wick, Mario	编者语	p. 2
Schädlich, Volker Wick, Mario	裸萼属种子 (二) : 裸萼亚属 (subgenus <i>Gymnocalycium</i>)	p. 3-88

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封面图片: *Gymnocalycium borthii* MaW 05-139/194, Ruta 2, 500 m south of the turning Ruta 8a, Province San Luis, Argentina, 1030 m, with an Orchid Bee (图片: M. Wick)

编者语(Editorial)

亲爱的裸萼迷们

Mario Wick



本期 *Schütziana* 我们通过裸萼亚属 (subgenus *Gymnocalycium*)，继续概述裸萼属的种子。

裸萼亚属的确是极其有趣的。除了一个例外，所有在最近三年才有首次描述的新物种都是此亚属的代表：

Gymnocalycium alenae Kulhánek 2017 (Argentina, Province Córdoba, subgenus *Gymnocalycium*)

Gymnocalycium ponomarevae Gapon et Neuhuber 2017 (Argentina, Province Córdoba, subgenus *Gymnocalycium*)

Gymnocalycium ilseae F. Berger 2016 (Argentina, Province Córdoba, subgenus *Gymnocalycium*)

Gymnocalycium kulhanekii Papsch 2016 (Argentina, Province Córdoba, subgenus *Gymnocalycium*)

Gymnocalycium pinalii Merregalli & Kulhánek 2016 (Argentina, Province Córdoba, subgenus *Gymnocalycium*)

Gymnocalycium campestre Řepka 2015 (Argentina, Province Córdoba, subgenus *Gymnocalycium*)

Gymnocalycium mendozaense Bercht & Schädlich 2015 (Bolivia, subgenus *Muscosemineum*)

较为特别的是，除了 *G. mendozaense*，这些物种都原产于 Córdoba 北部。那里看来存在裸萼亚属发展的一个“热点”。不是该地区的每个种群都能被明确指定是一个已经被描述的物种。这里我们不能简单地进行进一步的形态学比较了。多倍体、杂交、基因重组和分离，似乎都能使植物发展出不同物种的特征。很遗憾，一如既往，我们这里只有原产地自然环境的快照。

遗憾的是，我们至今还没有最近被描述的物种 *Gymnocalycium ponomarevae* Gapon et Neuhuber 的材料可供发表。这个我们以后将会弥补。

阅读愉快！

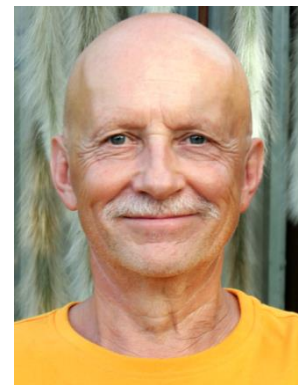
我们想对以下人士表达最热烈的感谢：帮助我们将杂志译成英文的 Iris Blanz 女士 (Fernitz, 奥地利)、Brian Bates 先生 (玻利维亚) 和 Graham Charles 先生 (英国)，帮助我们将杂志译成俄文的 Larisa Zaitseva 女士 (Tscheljabinsk, 俄罗斯)，帮助我们将杂志译成日文的 Takashi Shimada 先生 (日本)，以及在网站 <http://www.cactuspro.com/biblio/> 转载我们杂志的 Daniel Schweich 先生 (法国)。

裸萼属种子 (二) : 裸萼亚属 (*Gymnocalycium*)

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概要(ABSTRACT)

作者就他们所接受的裸萼属物种发表了一篇文章。通过栖息地、自然环境、种子的照片各一张 (条件允许的话) 来介绍这些物种。每个物种将附上一张原产地地图。裸萼属种子 (二) 是关于裸萼亚属 (subgenus *Gymnocalycium*) 的。

关键词(KEYWORDS): Cactaceae, *Gymnocalycium*, subgenus *Gymnocalycium*, affine, *alena*, *amerhauseri*, *andreae*, *baldianum*, *berchtii*, *borthii*, *bruchii*, *calochlorum*, *campestre*, *capillense*, *carolinense*, *erinaceum*, *erollesii*, *fischeri*, *frankianum*, *gaponii*, *gertii*, *gibbosum*, *ilseae*, *kieslingii*, *kroenleinii*, *kuehhasii*, *kulhanekii*, *mariana*, *mergallii*, *morroense*, *nataliae*, *neuhuberi*, *papschii*, *parvulum*, *pinalii*, *platense*, *poeschlii*, *reductum*, *robustum*, *schreiteri*, *strigianum*, *sutterianum*, *tangingense*, *uebelmannianum*.

引言(INTRODUCTION)

在我们的“裸萼属种子”工作的第二部分，我们将展示裸萼亚属 (Subgenus *Gymnocalycium*) 的种子。地图由免费 GIS 软件 QGIS 制成 (<http://www.qgis.org/de/site/forusers/download.html>)。地图背景由 Google Inc. data 形成 (可在 QGIS 中与 Nextgis 公司 (<http://nextgis.com/>) 提供的 QGIS 扩展 Quick Map Services (<http://nextgis.com/blog/quickmapservices/>) 联合)。

裸萼亚属 (subgenus *Gymnocalycium*) 的模式种是 *Gymnocalycium gibbosum* (Haw.) Pfeiff. ex Mittler (1844)。

裸萼属 Genus *Gymnocalycium* Pfeiffer ex Mittler (1844)

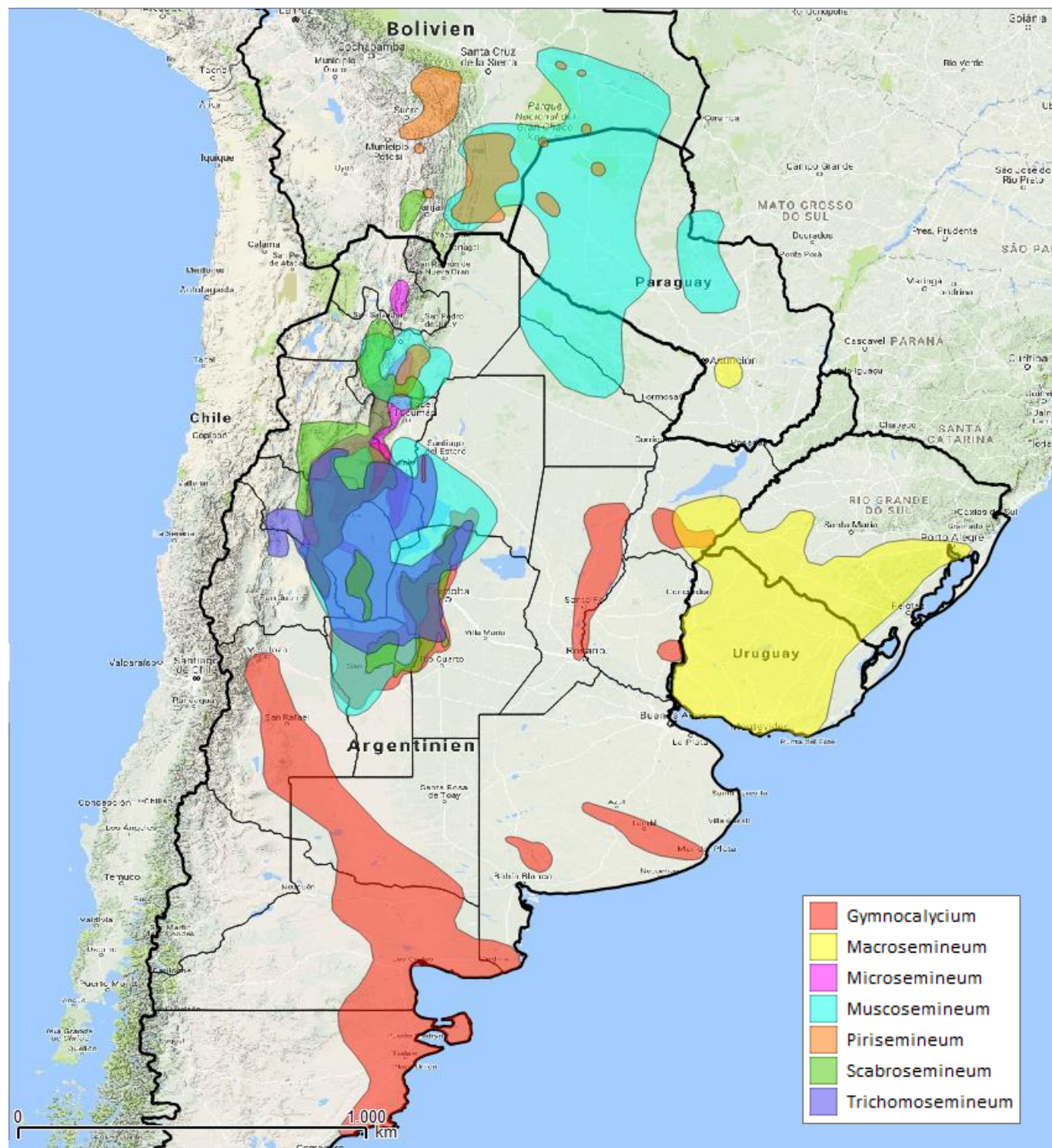


Fig. 1: 裸萼属各个亚属的分布区域示意图

裸萼亚属 (Subgenus *Gymnocalycium*)

球体: 从很小到中等大, 扁平, 球形或短柱状, 须根或有主根, **刺:** 从多毛到极其粗壮坚硬, **花:** 尖端状、漏斗状、钟状, 通常较大, **果实:** 球形、纺锤形或棒形, 棕色、灰绿色或绿色, 通常是灰色或蓝色带白粉, 纵向开裂, **种子:** 尺寸0.9-1.1 mm, **种皮:** 有突起, 无光泽或半光泽, 棕色到黑色, 通常有部分或完全分离的褐色表皮, 该亚属的种子大小较为均匀, **原产地:** 阿根廷和乌拉圭。

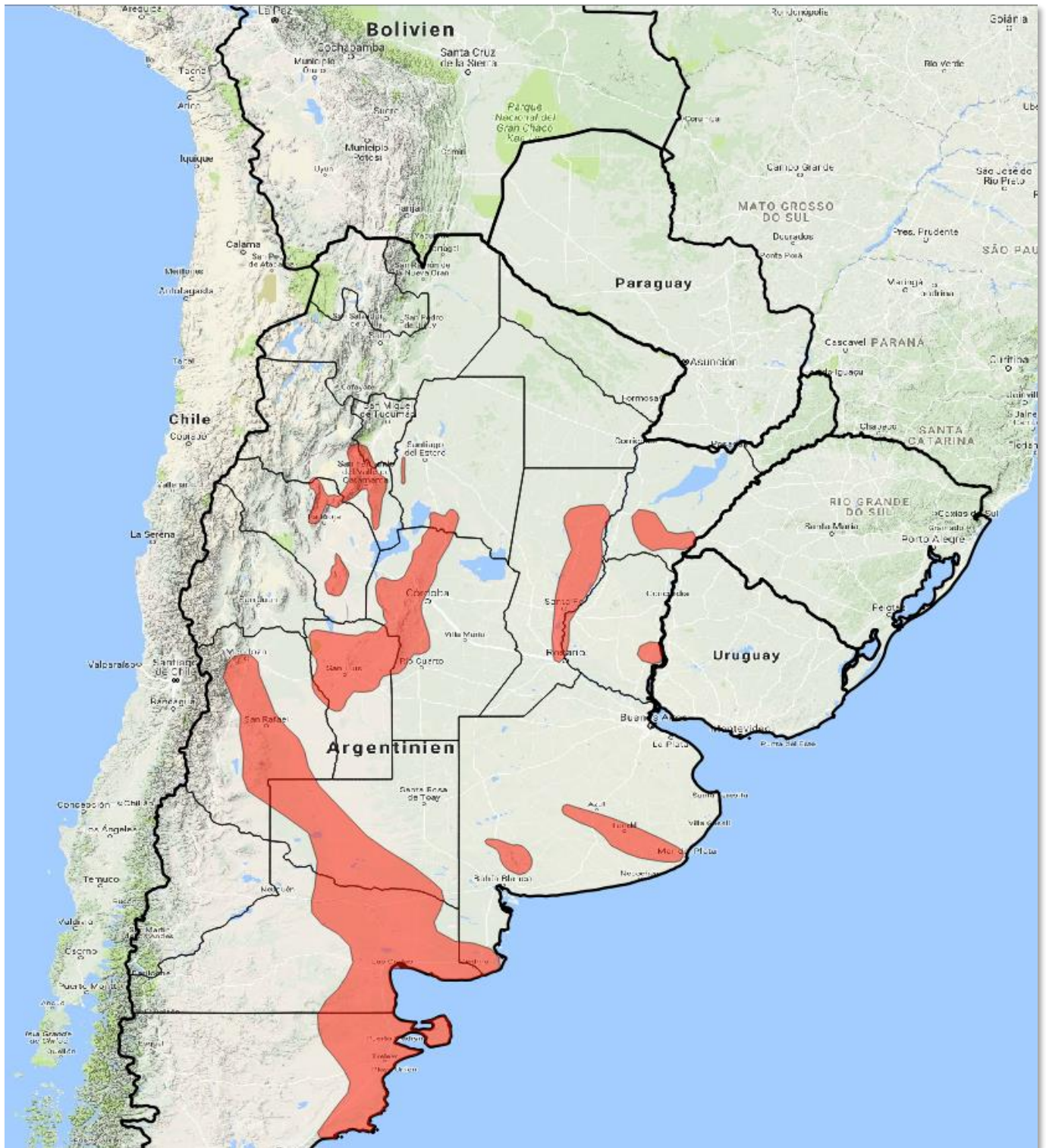


Abb. 2: 裸萼属各个亚属的分布区域示意图, 模式种: *G. gibbosum*

***Gymnocalycium affine* Řepka (2010)**



Fig. 3: *Gymnocalycium affine* VoS 1380, northeast of San Francisco del Chañar, Province Córdoba, Argentina, 618 m



Fig. 4: *Gymnocalycium affine* VoS 1380 栖息地



Fig. 5: *Gymnocalycium affine* VoS 1380 种子 (20x 拍摄)

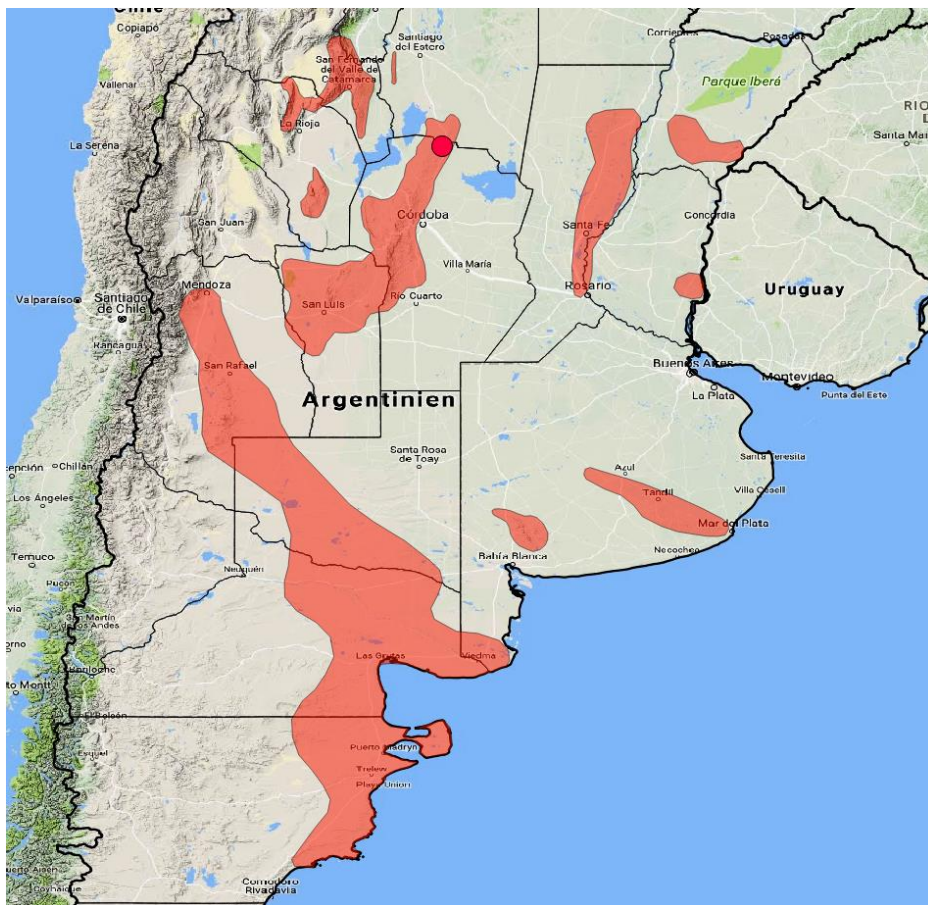


Fig. 6:
Gymnocalycium affine
VoS 1380 原产地

***Gymnocalycium alenae* Kulhánek (2017)**



Fig. 7: *Gymnocalycium alenae* VoS 795, south of San Francisco de Chañar, Province Córdoba, Argentina, 672 m



Fig. 8: *Gymnocalycium alenae* VoS 795 栖息地

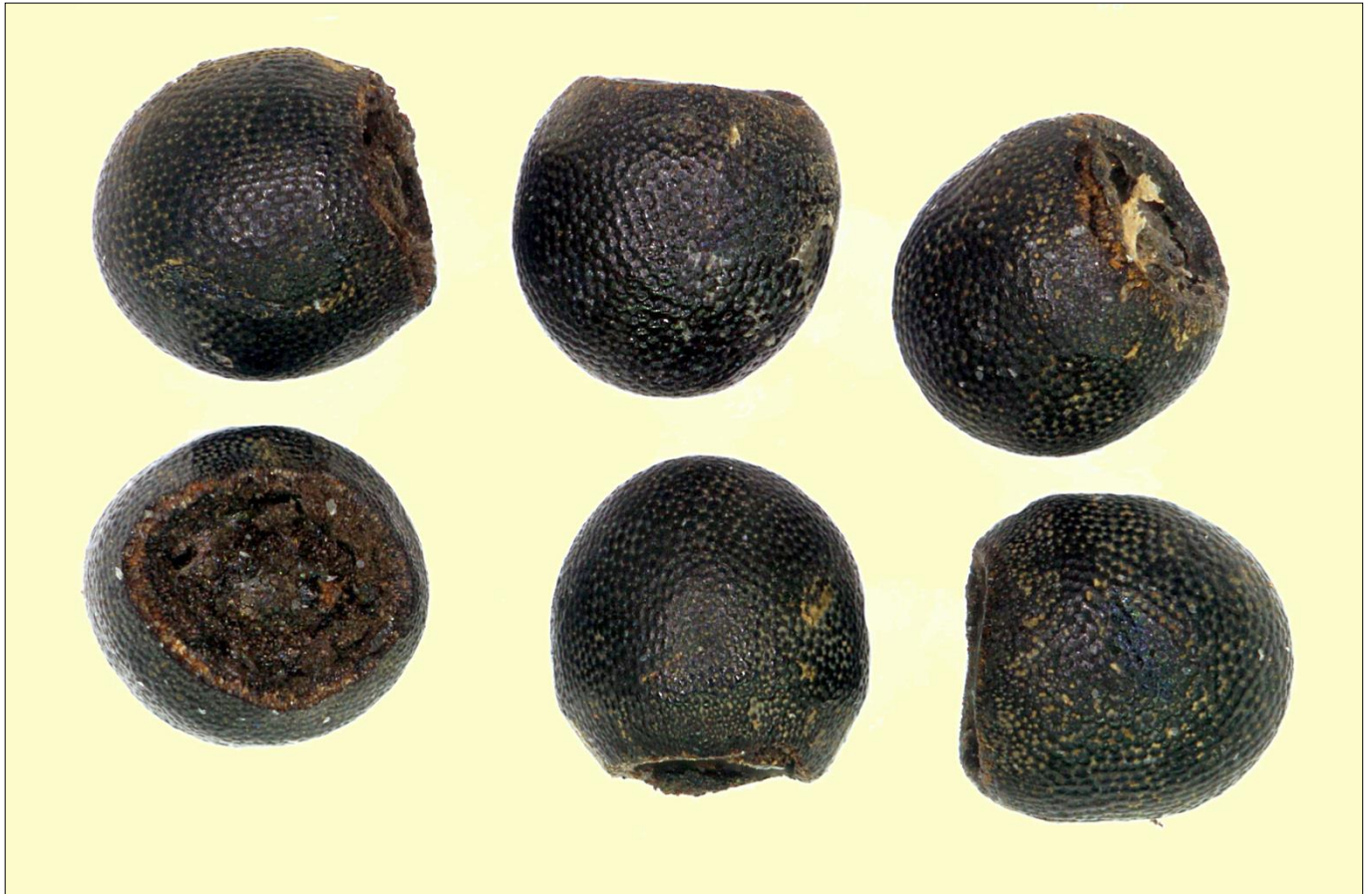


Fig. 9: *Gymnocalycium alenae* VoS 795 种子 (20x 拍摄)

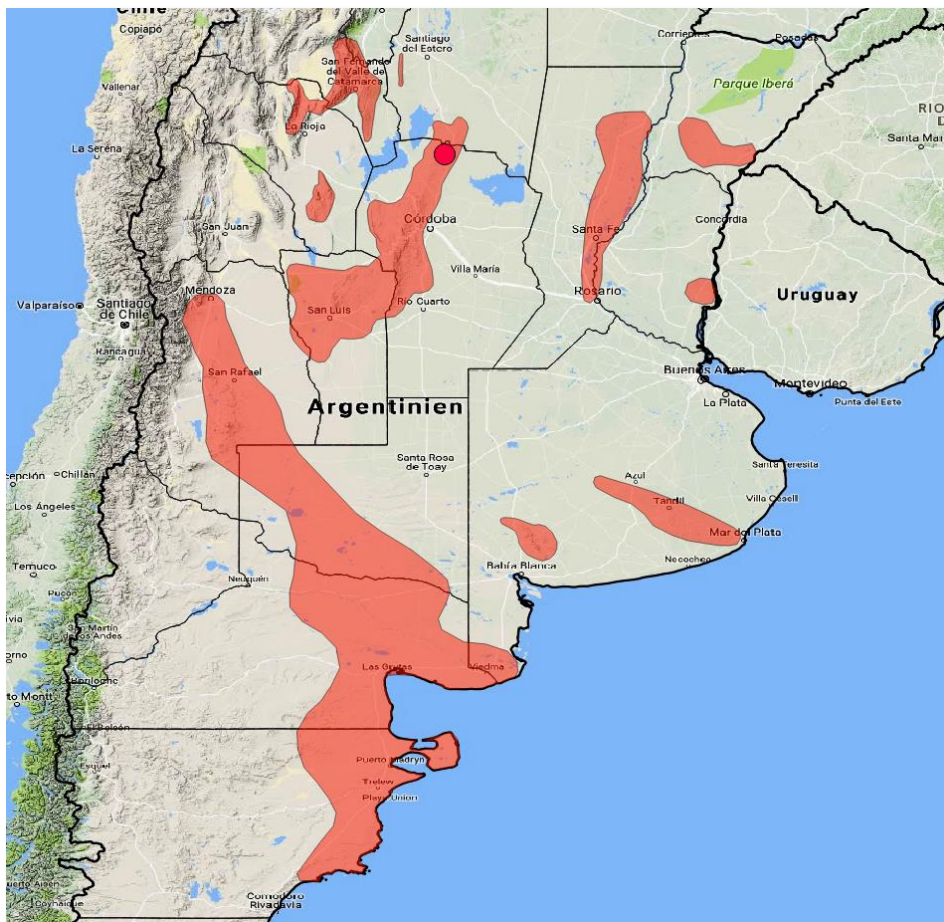


Fig. 10:
Gymnocalycium alenae
VoS 795 原产地

***Gymnocalycium amerhauseri* H. Till (1994)**



Fig. 11: *Gymnocalycium amerhauseri* VoS 690, southwest of La Falda, Province Córdoba, Argentina, 1160 m



Fig. 12: *Gymnocalycium amerhauseri* VoS 690 栖息地



Fig. 13: *Gymnocalycium amerhauseri* VoS 690 种子 (20x 拍摄)

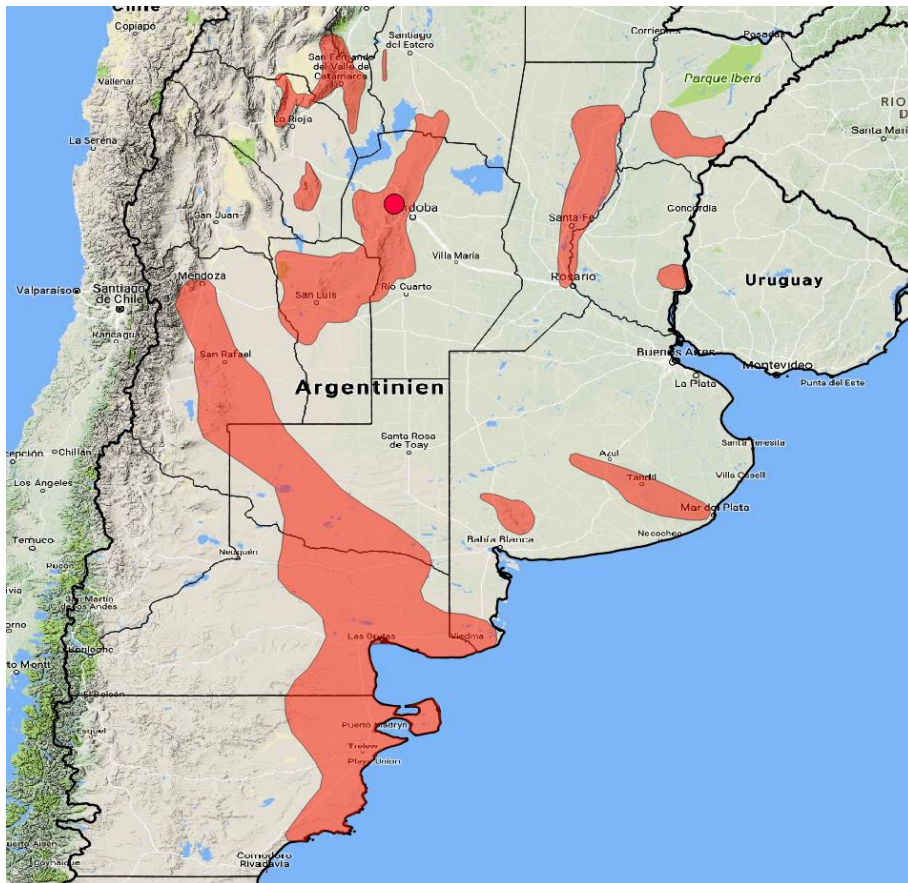


Fig. 14:
Gymnocalycium
amerhauseri VoS 690
原产地

***Gymnocalycium andreae* (Boedeker) Backeb. & F. M. Knuth (1936)**



Fig. 15: *Gymnocalycium andreae* VoS 1490, road from Merlo to Lutti, Province Córdoba, Argentina, 2109 m



Fig. 16: *Gymnocalycium andreae* VoS 1490 栖息地



Fig. 17: *Gymnocalycium andreae* VoS 1490 种子 (20x 拍摄)

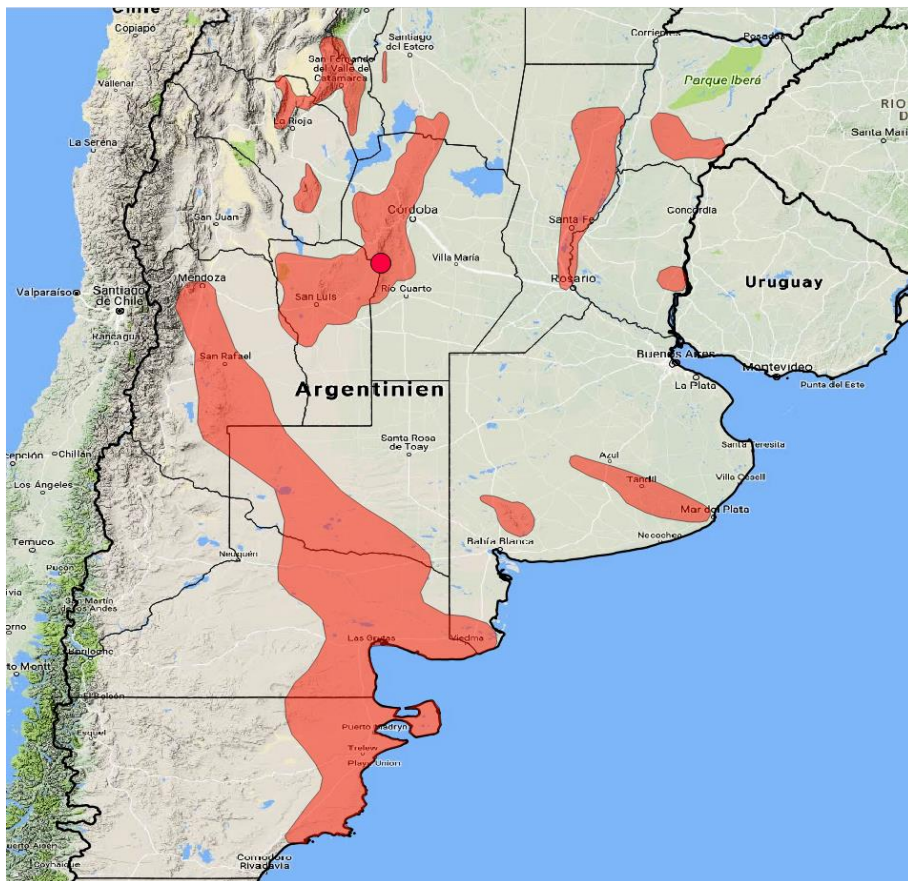


Fig. 18: *Gymnocalycium andreae* VoS 1490 原产地

***Gymnocalycium baldianum* (Speg.) Speg. (1925)**



Fig. 19: *Gymnocalycium baldianum* VoS 117, Cuesta del Portezuelo, Province Catamarca, Argentina, 1823 m



Fig. 20: *Gymnocalycium baldianum* VoS 117 栖息地



Fig. 21: *Gymnocalycium baldianum* VoS 844, Cuesta del Totoral, Province Catamarca, Argentina, 1122 m 种子 (20x 拍摄)

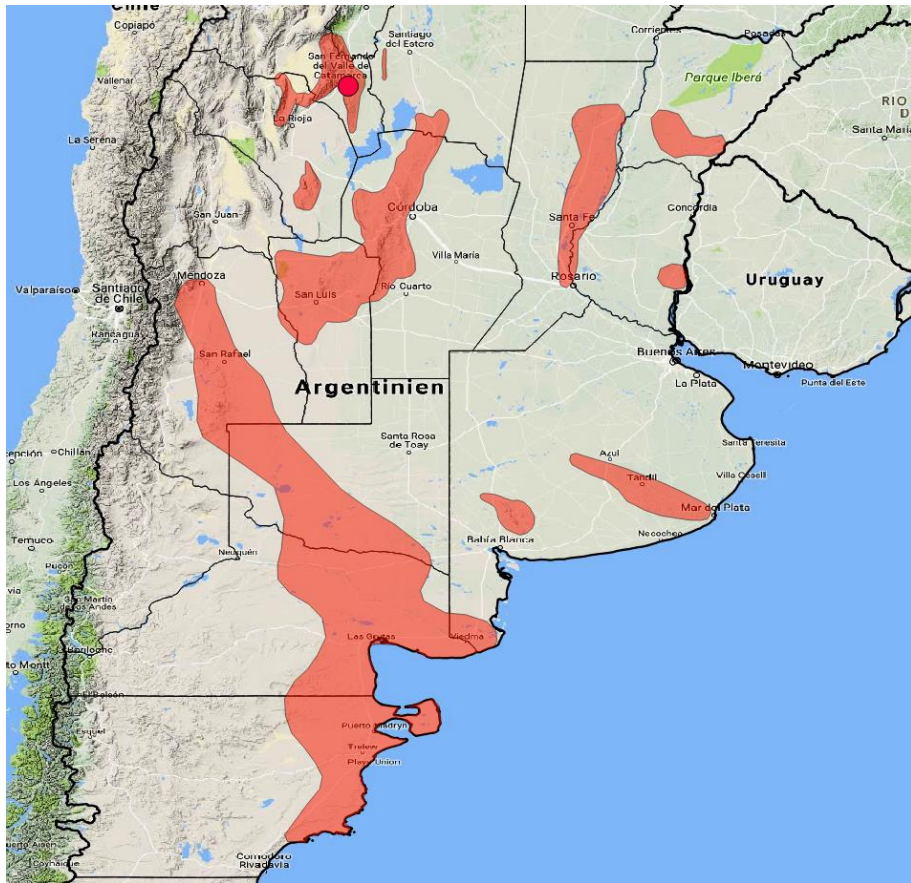


Fig. 22: *Gymnocalycium baldianum* VoS 117 and VoS 844 原产地

***Gymnocalycium berchtii* Neuhuber (1997)**



Fig. 23: *Gymnocalycium berchtii* VoS 170, northwest turnout Ruta 5 X Ruta 5a, Province San Luis, Argentina, 731 m



Fig. 24: *Gymnocalycium berchtii* VoS 170 栖息地

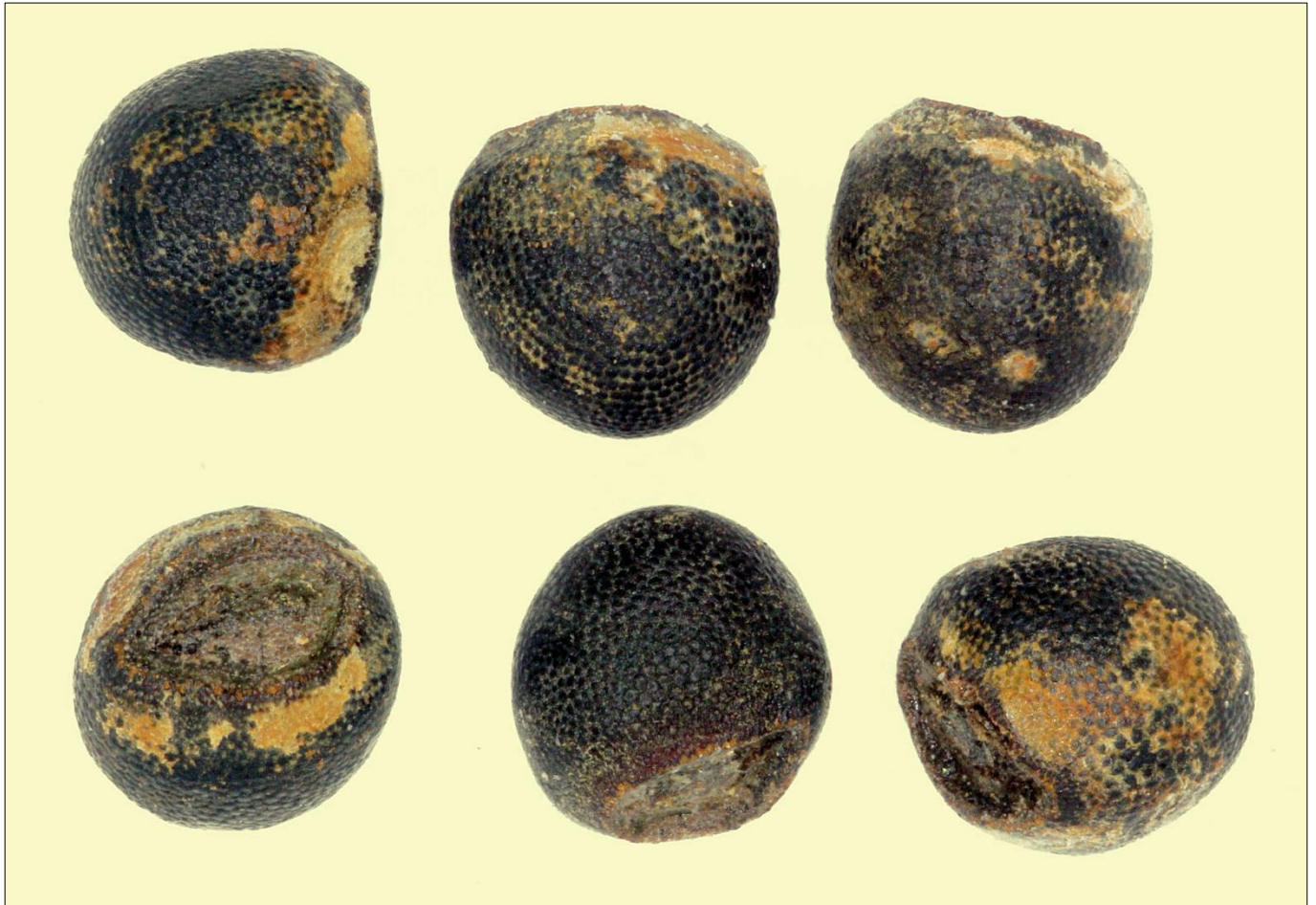


Fig. 25: *Gymnocalycium berthtii* VoS 170 种子 (20x 拍摄)

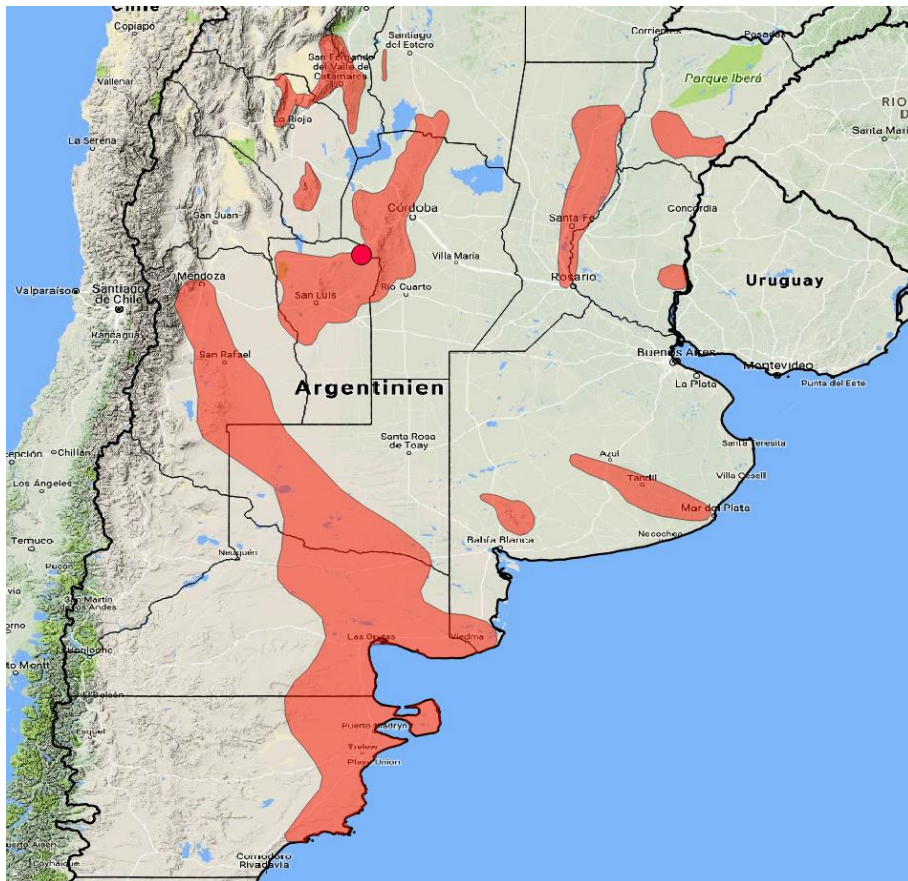


Fig. 26:
Gymnocalycium berthtii
VoS 170 原产地

***Gymnocalycium borthii* Koop ex H. Till (1987)**



Fig. 27: *Gymnocalycium borthii* LB 4367, Escuela Los Chañares, Province San Luis, Argentina, 753 m



Fig. 28: *Gymnocalycium borthii* LB 3187 = LB 4367 栖息地



Fig. 29: *Gymnocalycium borthii* MM 634 种子 (20x 拍摄)

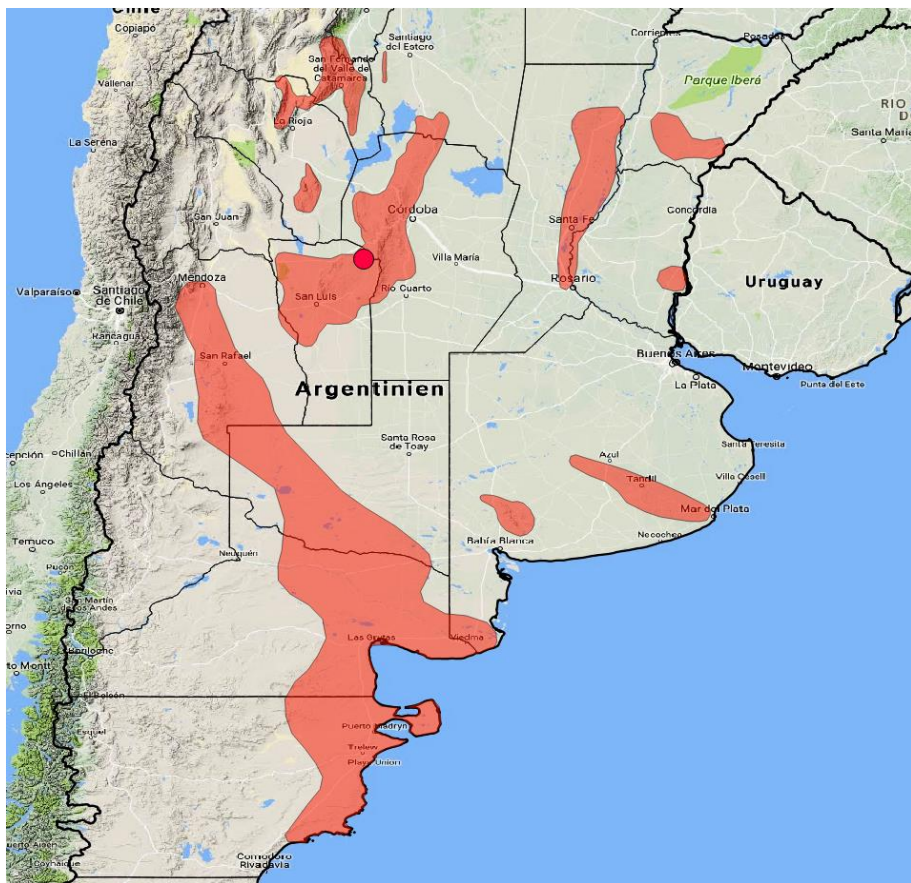


Fig. 30:
Gymnocalycium borthii
MM 634 = LB 3187 =
LB 4367 原产地

***Gymnocalycium bruchii* (Speg.) Hosseus (1926)**



Fig. 31: *Gymnocalycium bruchii* var. *niveum* VoS 727, north of Ongamira, Province Córdoba, Argentina, 1180 m



Fig. 32: *Gymnocalycium bruchii* var. *niveum* VoS 727 栖息地



Fig. 33: *Gymnocalycium bruchii* var. *niveum* VoS 727 种子 (20x 拍摄)

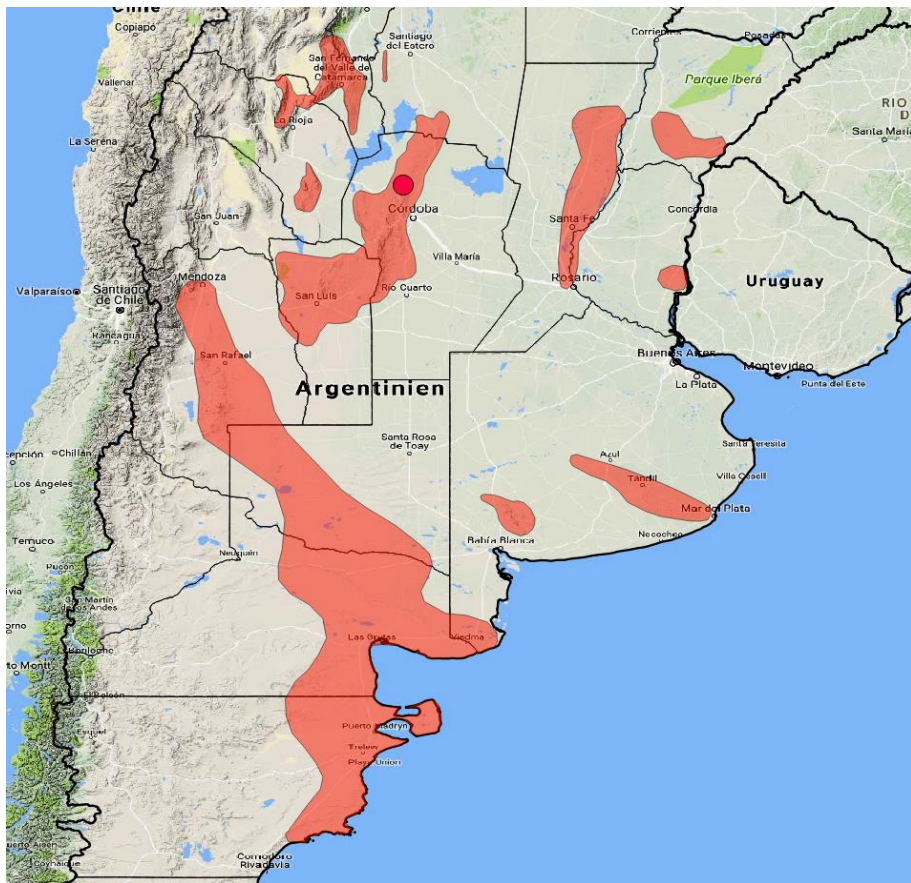


Fig. 34: *Gymnocalycium bruchii* var. *niveum* VoS 727 原产地

***Gymnocalycium calochlorum* (Boed.) Y. Itô (1952)**



Fig. 35: *Gymnocalycium calochlorum* VoS 663, northwest of Villa Carlos Paz, Province Córdoba, Argentina, 760 m



Fig. 36: *Gymnocalycium calochlorum* VoS 663 栖息地

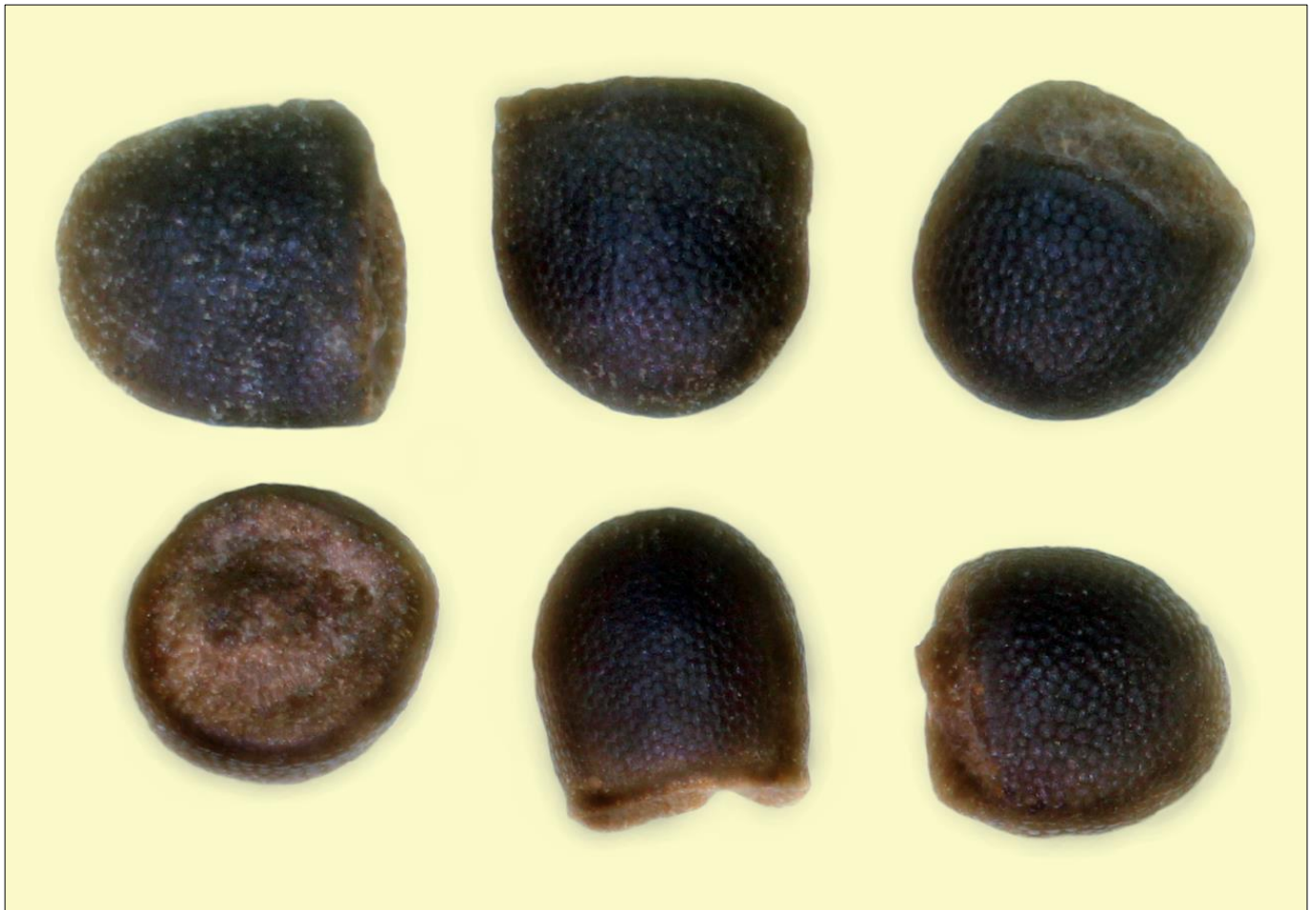


Fig. 37: *Gymnocalcium calochlorum* VoS 663 种子 (20x 拍摄)

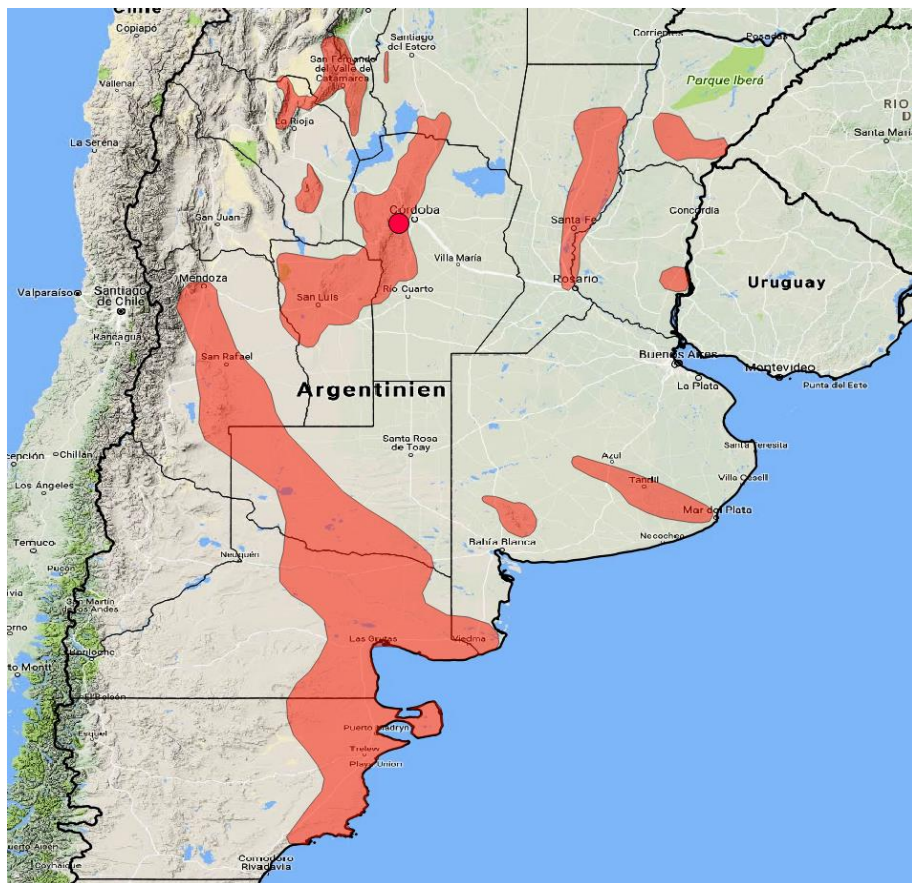


Fig. 38: *Gymnocalcium calochlorum* VoS 663 原产地

***Gymnocalycium campestre* Řepka (2015)**



Fig. 39: *Gymnocalycium campestre* VoS 1308, east of Copacabana, Province Córdoba, Argentina, 1003 m



Fig. 40: *Gymnocalycium campestre* VoS 1308 栖息地



Fig. 41: *Gymnocalcium campestre* VoS 1308 种子 (20x 拍摄)

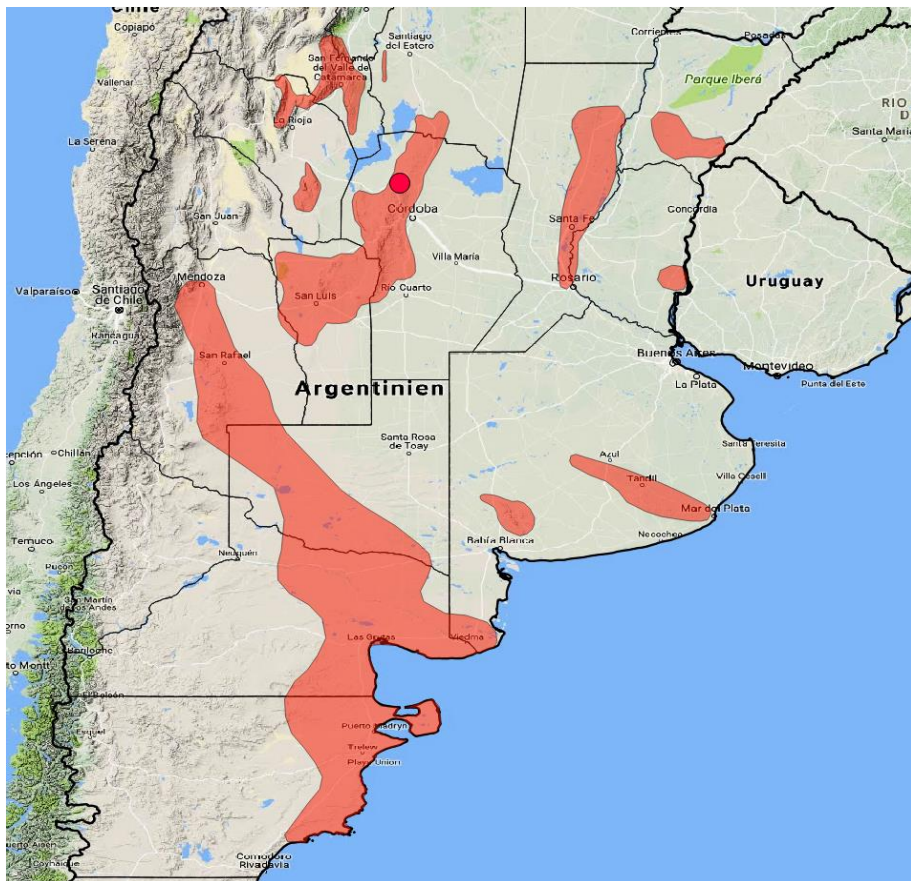


Fig. 42: *Gymnocalcium campestre* VoS 1308 原产地

***Gymnocalycium capillense* (Schick) Hosseus (1926)**



Fig. 43: *Gymnocalycium capillense* VoS 1478, northeast of Ambul, Province Córdoba, Argentina, 1397 m



Fig. 44: *Gymnocalycium capillense* VoS 1478 栖息地

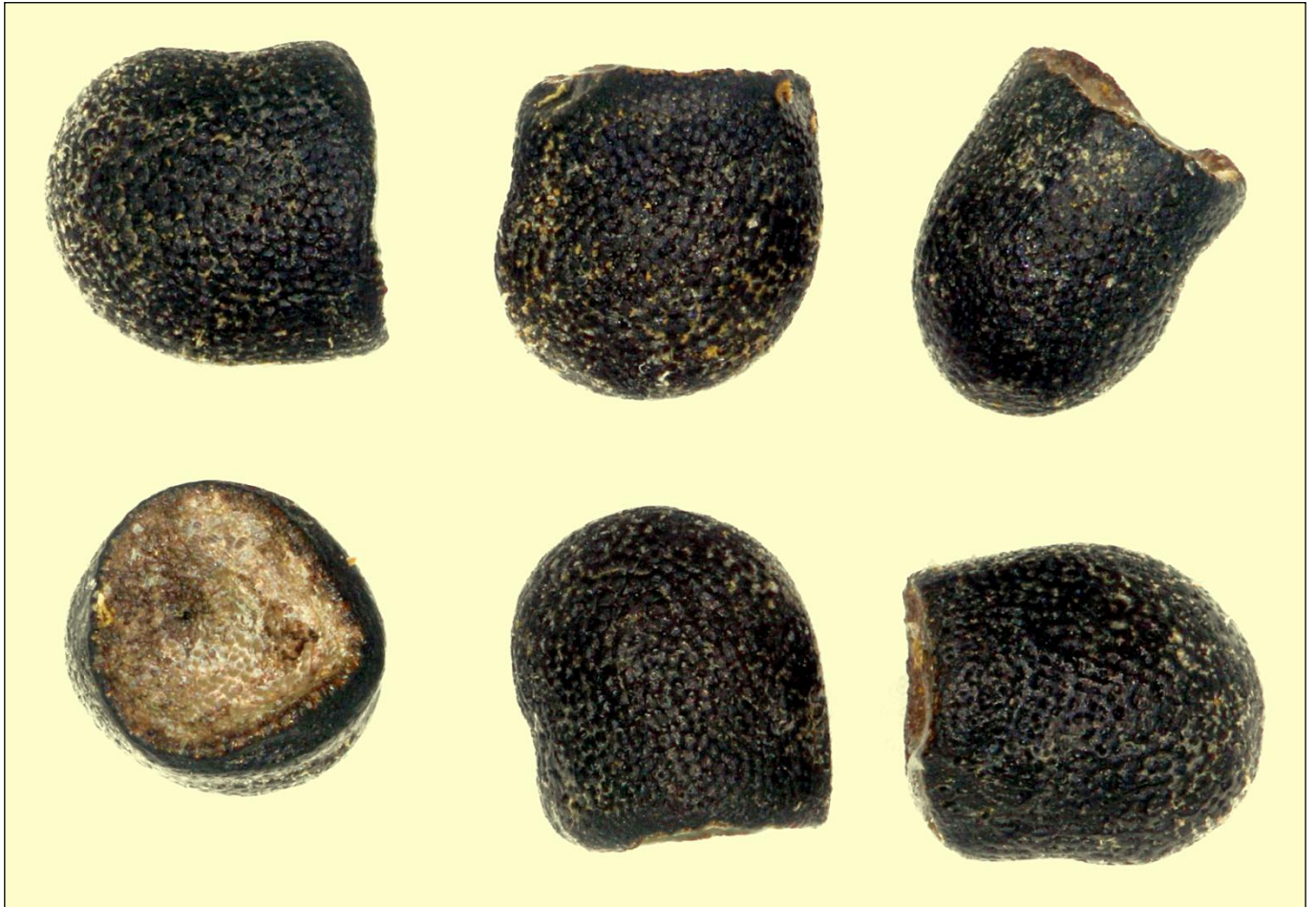


Fig. 45: *Gymnocalycium capillense* VoS 1478 种子 (20x 拍摄)

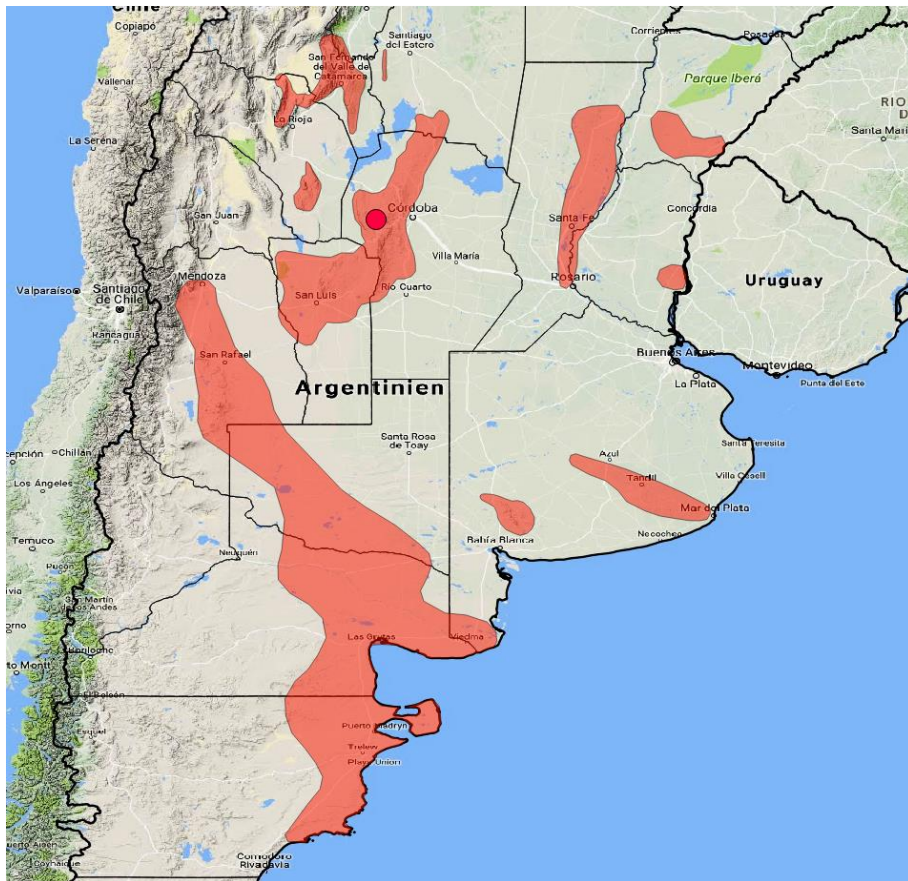


Fig. 46: *Gymnocalycium capillense* VoS 1478 原产地

***Gymnocalycium carolinense* (Neuhuber) Neuhuber (2005)**



Fig. 47: *Gymnocalycium carolinense* VoS 198, north of La Carolina, Ruta 9, Province San Luis, Argentina, 1706 m



Fig. 48: *Gymnocalycium carolinense* VoS 198 栖息地

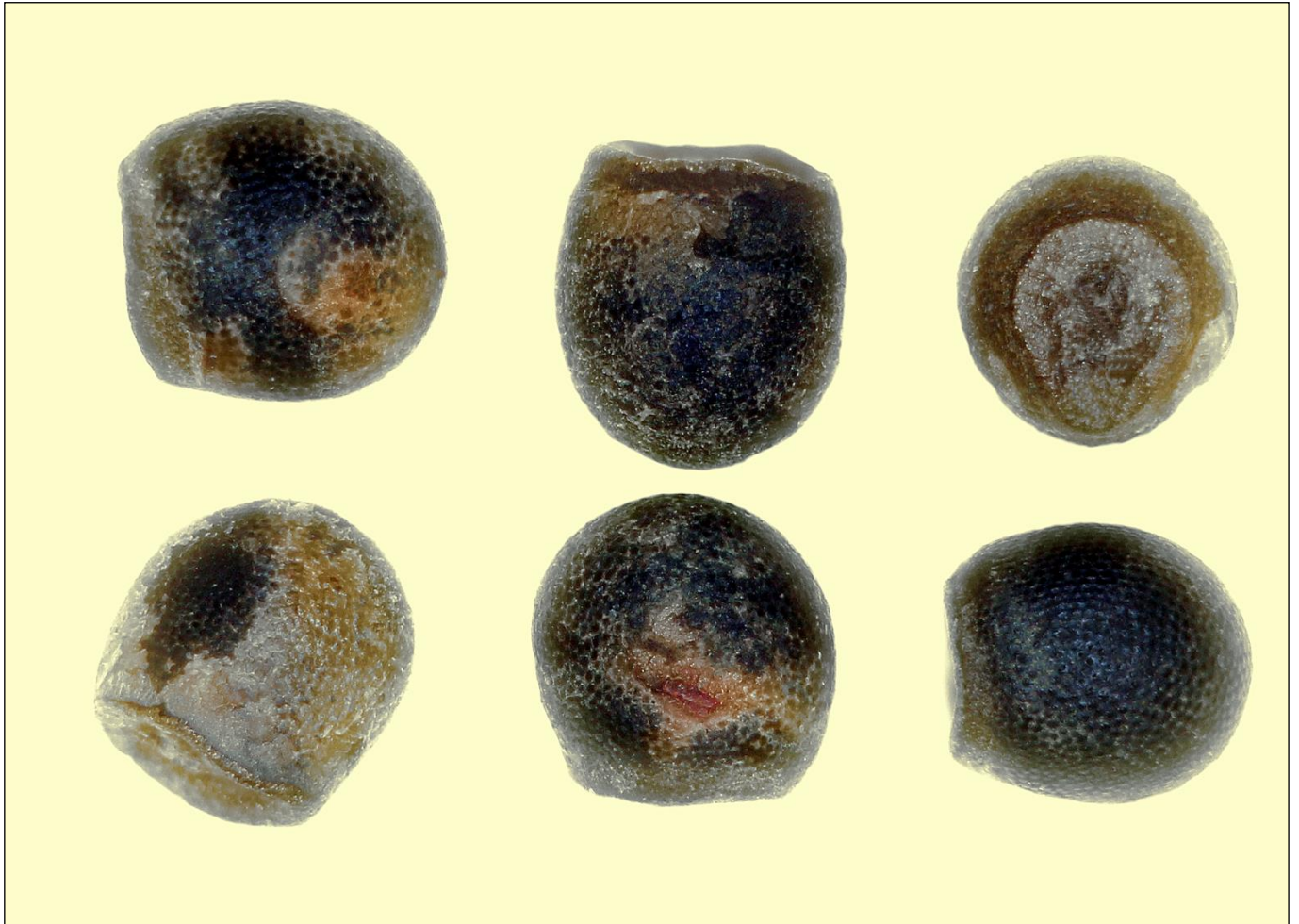


Fig. 49: *Gymnocalycium carolinense* VoS 198 种子 (20x 拍摄)

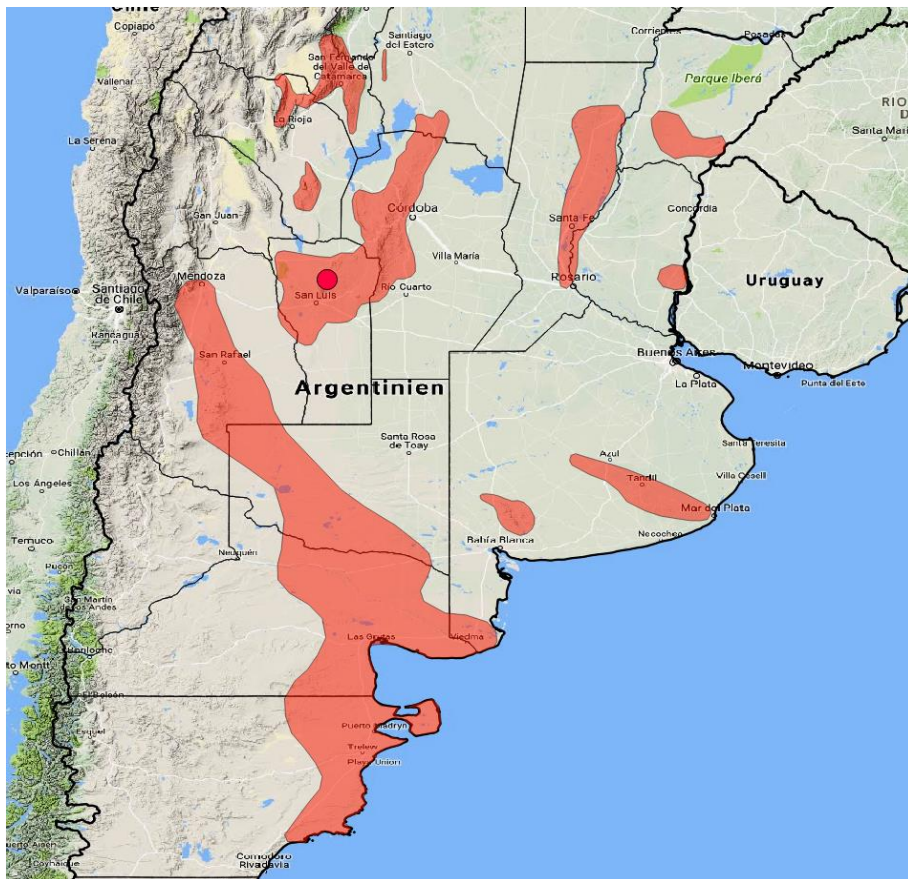


Fig. 50: *Gymnocalycium carolinense* VoS 198 原产地

***Gymnocalycium erinaceum* Lambert (1985)**



Fig. 51: *Gymnocalycium erinaceum* VoS 1331, Sauce Punco, Province Córdoba, Argentina, 862 m



Fig. 52: *Gymnocalycium erinaceum* VoS 1331 栖息地



Fig. 53: *Gymnocalycium erinaceum* VoS 1331 种子 (20x 拍摄)

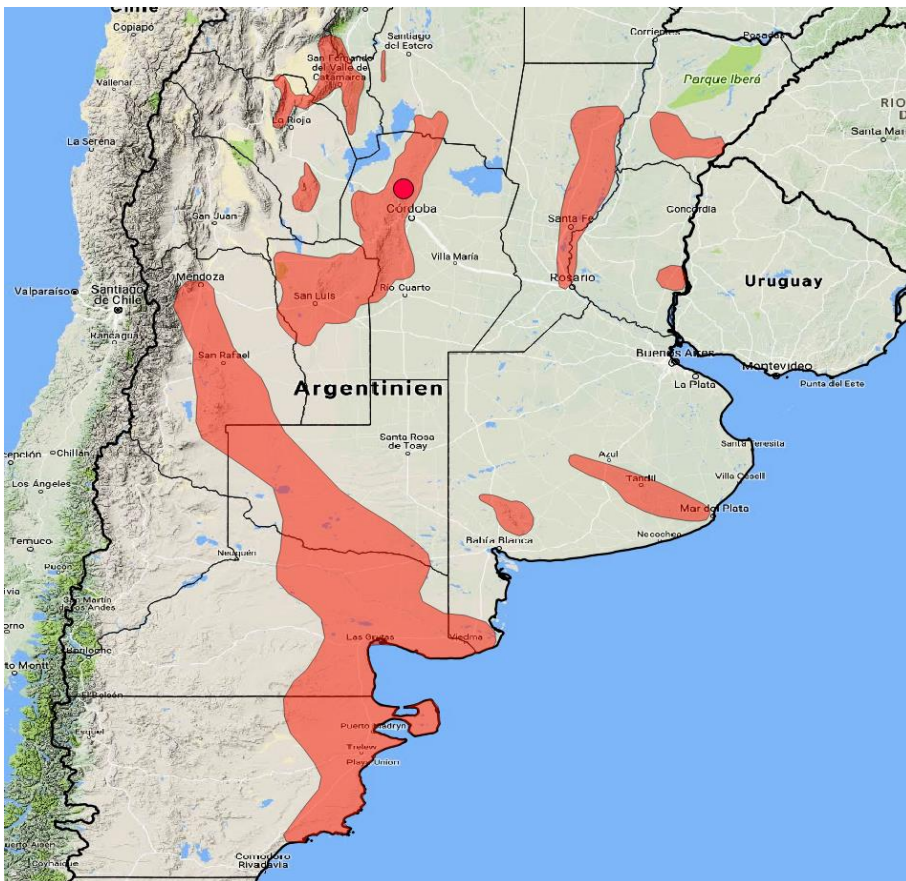


Fig. 54: *Gymnocalycium erinaceum* VoS 1331 原产地

***Gymnocalycium erolesii* Neuhuber & Bercht (2002)**



Fig. 55: *Gymnocalycium erolesii* VoS 83, Ruta 11, northeast of Vera, Province Santa Fe, Argentina, 64 m



Fig. 56: *Gymnocalycium erolesii* VoS 83 栖息地



Fig. 57: *Gymnocalycium erolesii* VoS 83 种子 (20x 拍摄)

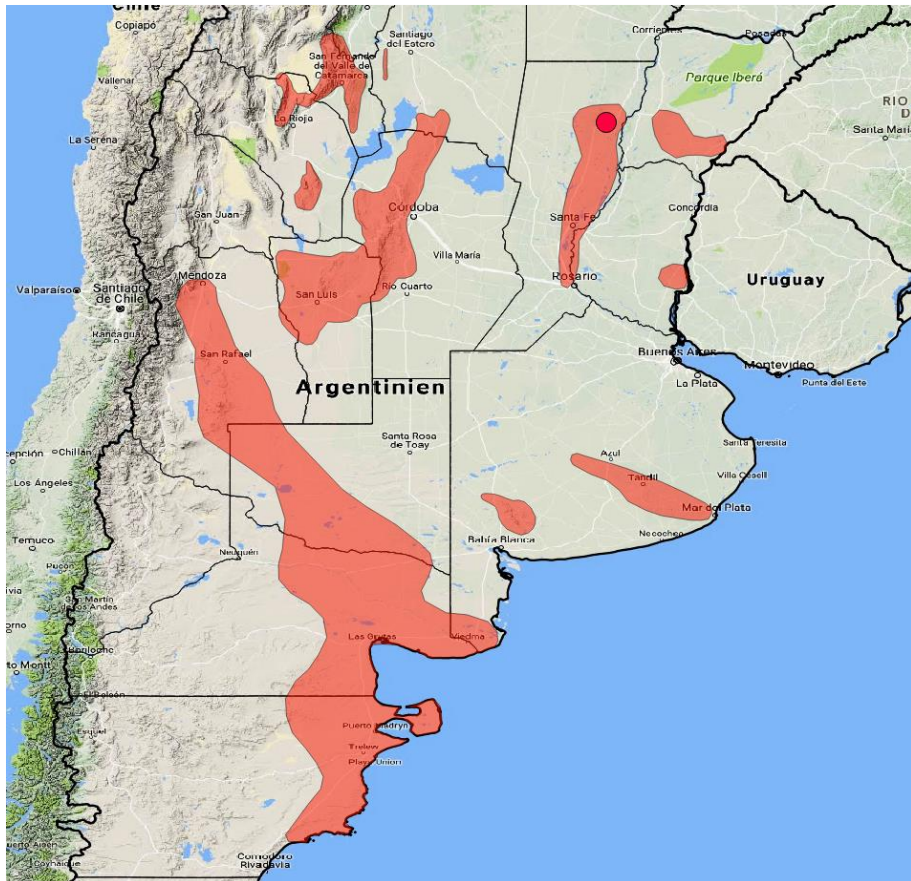


Fig. 58:
Gymnocalycium erolesii
VoS 83 原产地

***Gymnocalycium fischeri* Halda, Kupcák, Lukašik & Sladk. (2003)**



Fig. 59: *Gymnocalycium fischeri* VoS 228, Campo La Sierra El Volcán, Province San Luis, Argentina, 963 m



Fig. 60: *Gymnocalycium fischeri* VoS 228 栖息地

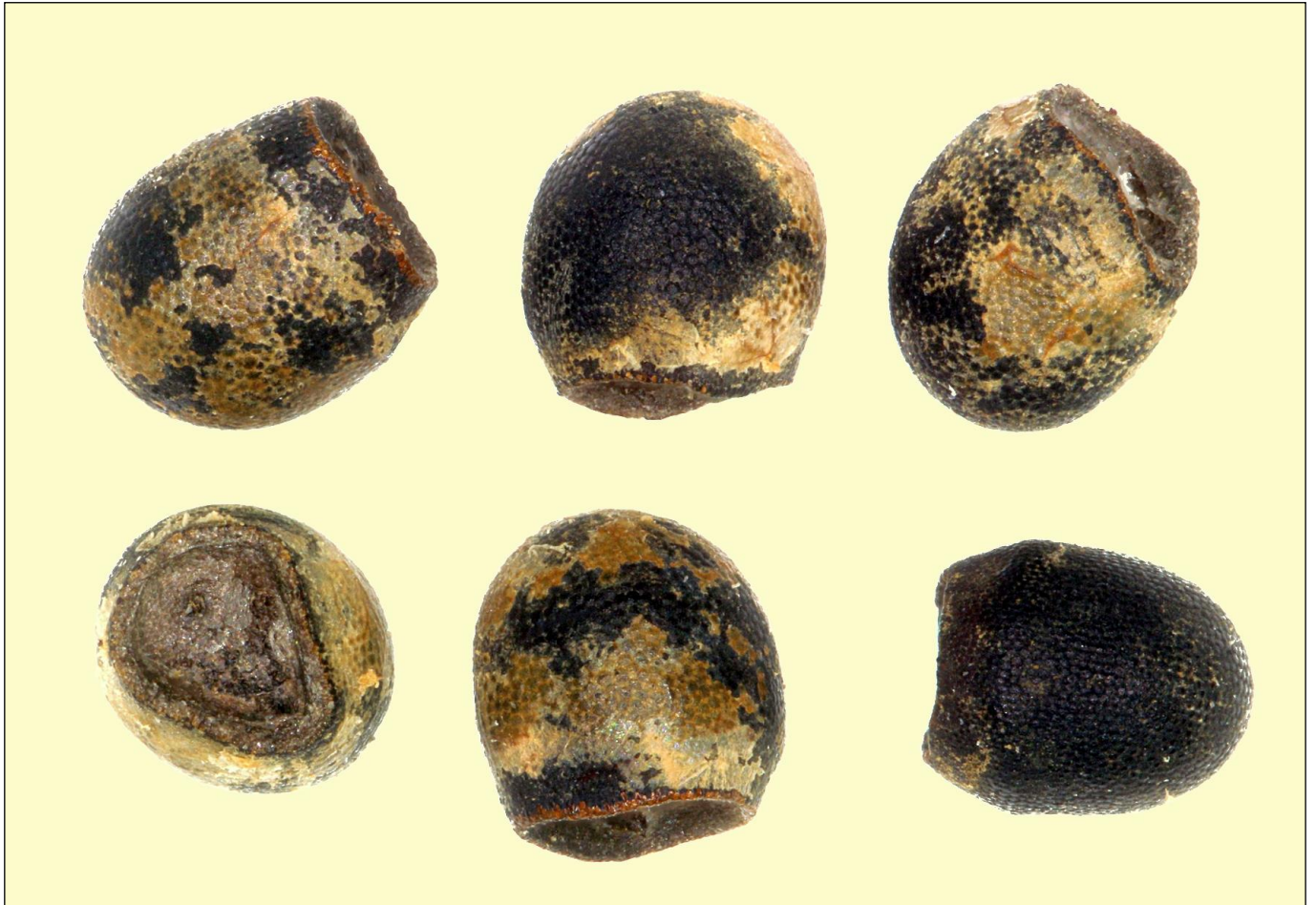


Fig. 61: *Gymnocalycium fischeri* VoS 228 种子 (20x 拍摄)

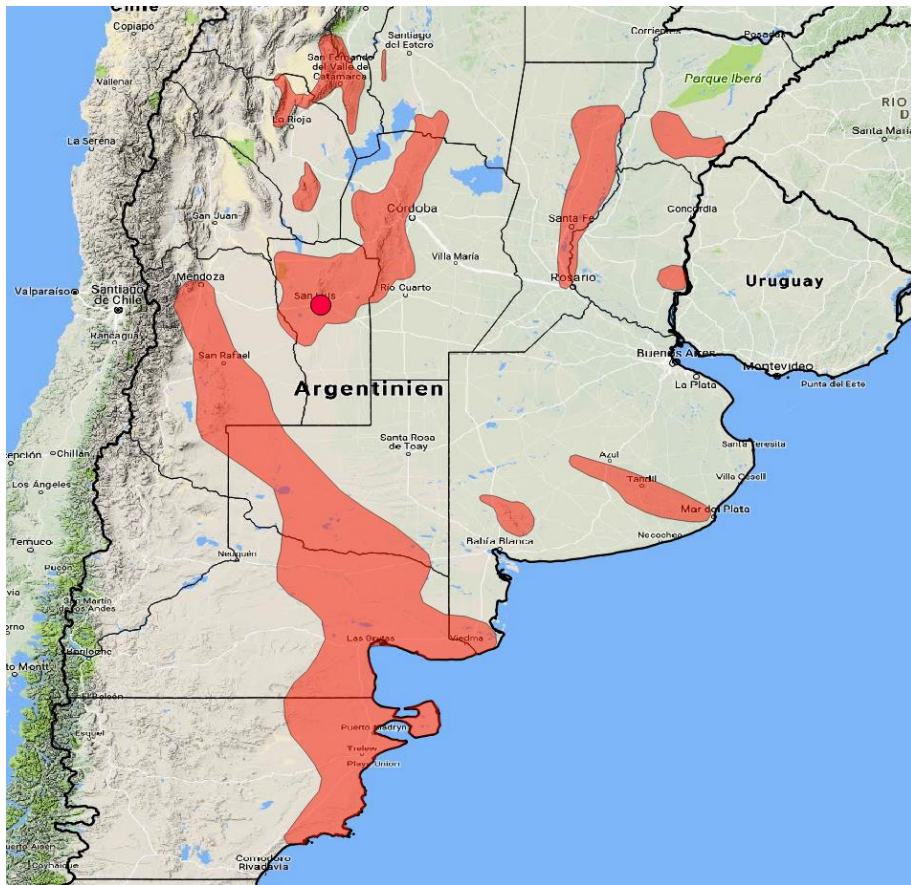


Fig. 62:
Gymnocalycium fischeri
VoS 228 原产地

***Gymnocalycium frankianum* Rausch ex H. Till & Amerh. (2007)**



Fig. 63: *Gymnocalycium frankianum* VoS 812, west of Santa Catalina, Province Santiago del Estero, Argentina, 600 m



Fig. 64: *Gymnocalycium frankianum* VoS 812 栖息地



Fig. 65: *Gymnocalycium frankianum* VoS 812 种子 (20x 拍摄)

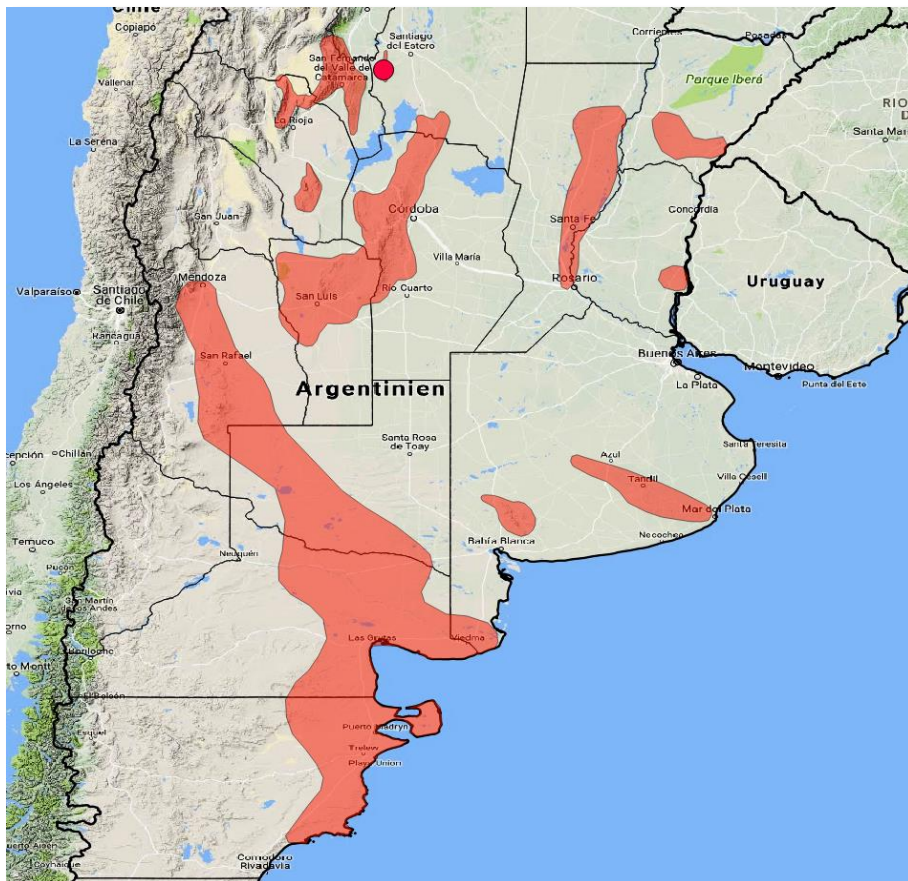


Fig. 66: *Gymnocalycium frankianum* VoS 812 原产地

***Gymnocalycium gaponii* Neuhuber (2001)**



Fig. 67: *Gymnocalycium gaponii* VoS 892, east of Panaholma, Province Córdoba, Argentina, 982 m



Fig. 68: *Gymnocalycium gaponii* VoS 892 栖息地



Fig. 69: *Gymnocalycium gaponii* VoS 892 种子 (20x 拍摄)

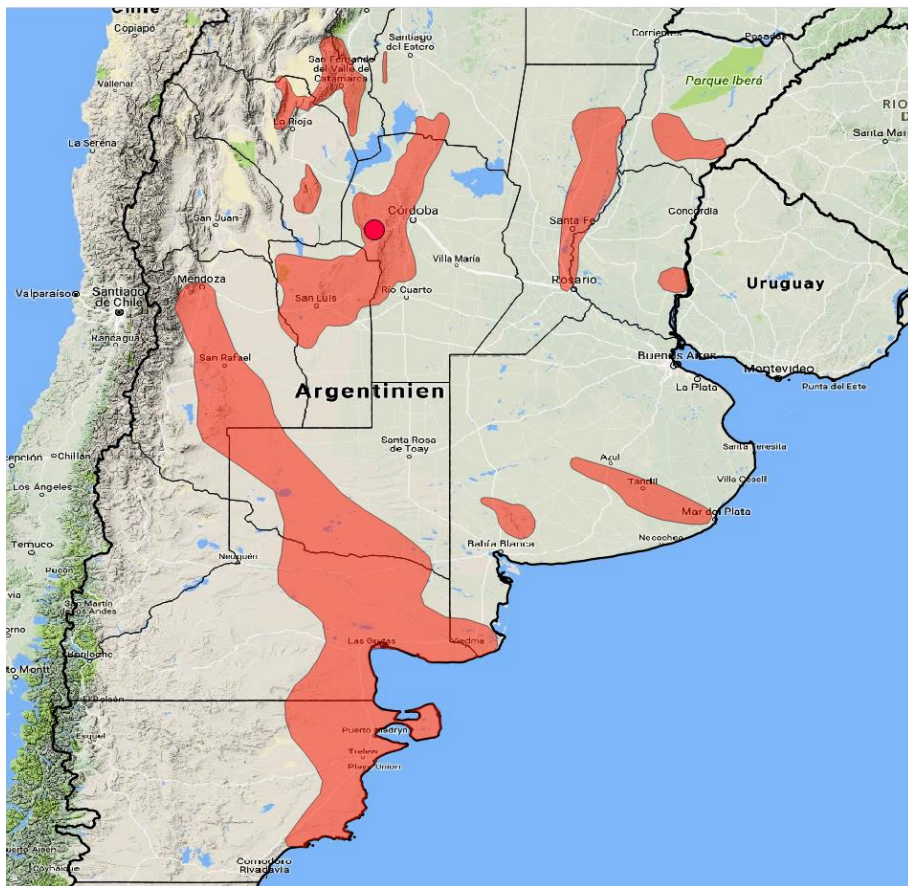


Fig. 70:
Gymnocalycium gaponii
VoS 892 原产地

***Gymnocalycium gertii* Gapon & Schelkun. (2010)**



Fig. 71: *Gymnocalycium gertii* VG 07-707, Loma Bola, Province Córdoba, Argentina, 935 m



Fig. 72: *Gymnocalycium gertii* VG 07-707 栖息地

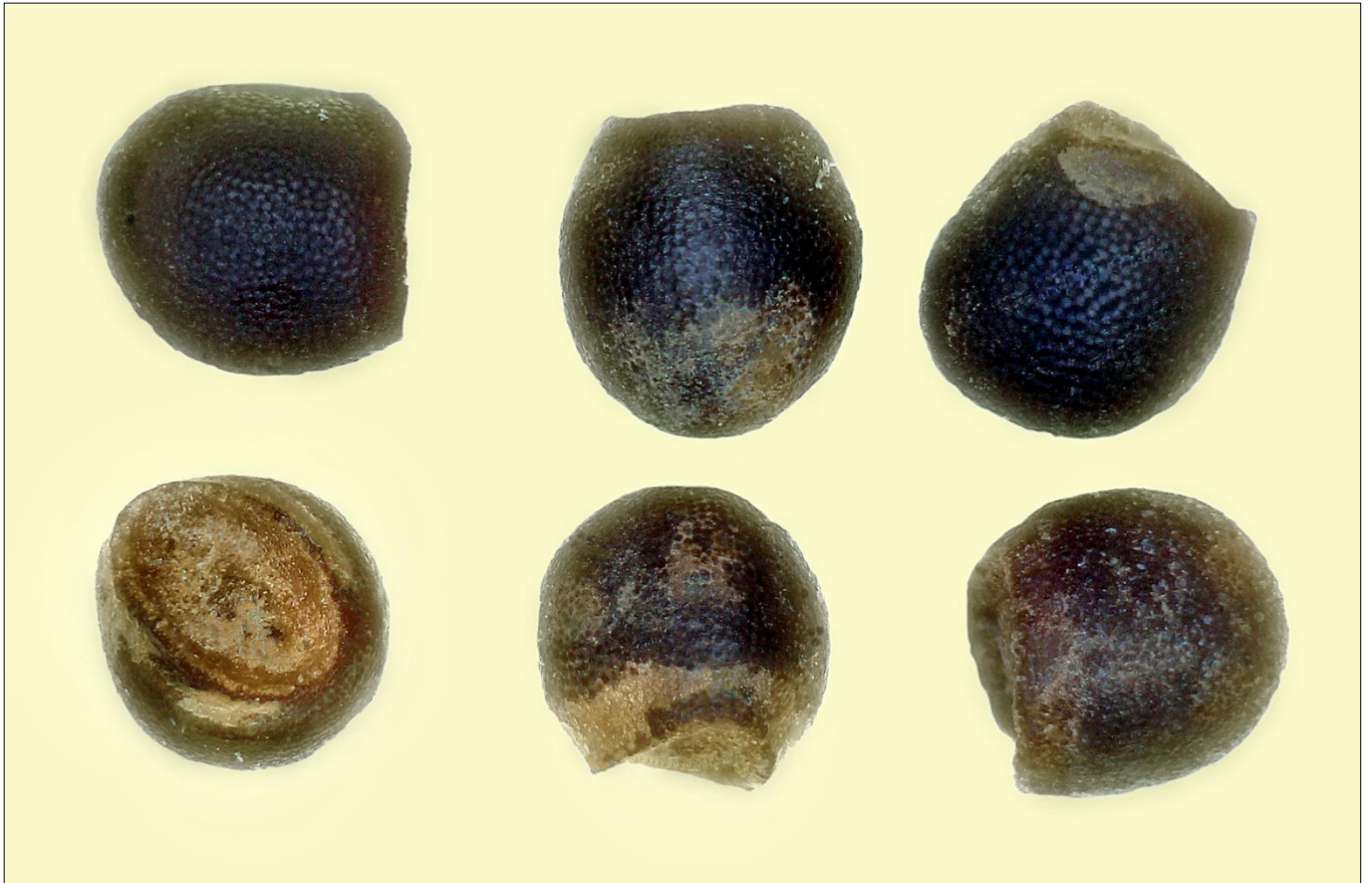


Fig. 73: *Gymnocalycium gertii* VG 07-707 种子 (20x 拍摄)

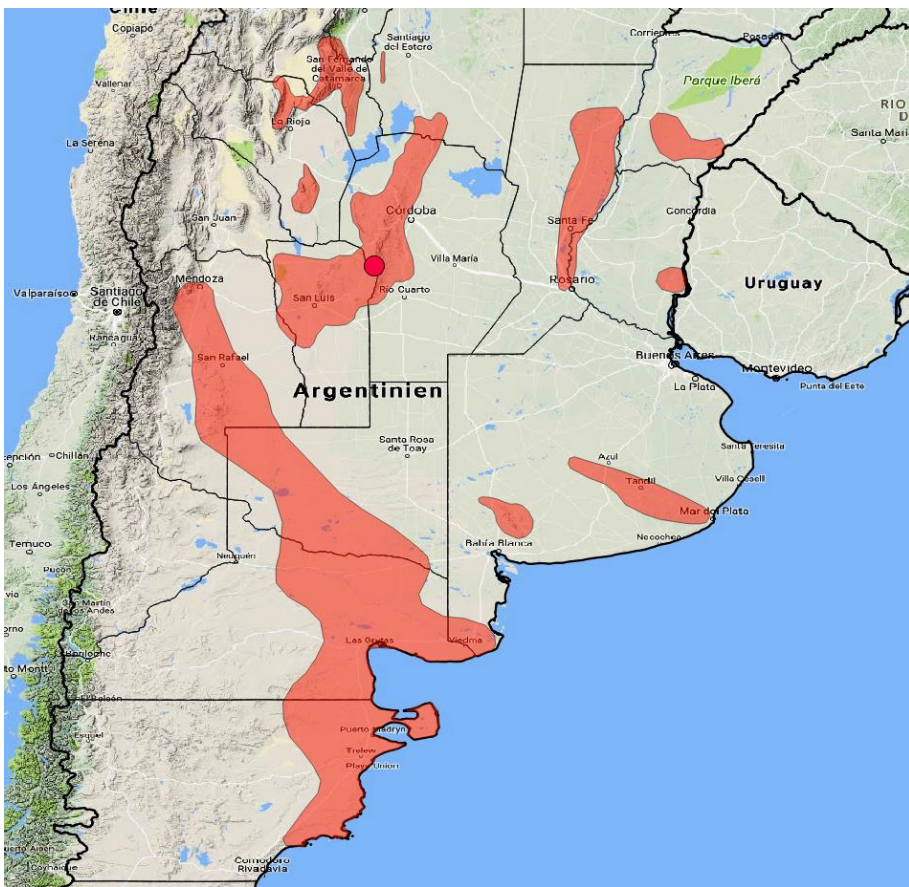


Fig. 74:
Gymnocalycium gertii
VG 07-707 原产地

***Gymnocalycium gibbosum* (Haw.) Pfeiff. ex Mittler (1844)**



Fig. 75: *Gymnocalycium gibbosum* subsp. *ferox* MT 14-606, Est. San Miguel, Province Chubut, Argentina, 5 m



Fig. 76: *Gymnocalycium gibbosum* subsp. *ferox* MT 14-606 栖息地



Fig. 77: *Gymnocalycium gibbosum* WP 89-54/67, Carmen de Patagones, Province Buenos Aires, Argentina, 50 m 种子 (20x 拍摄)

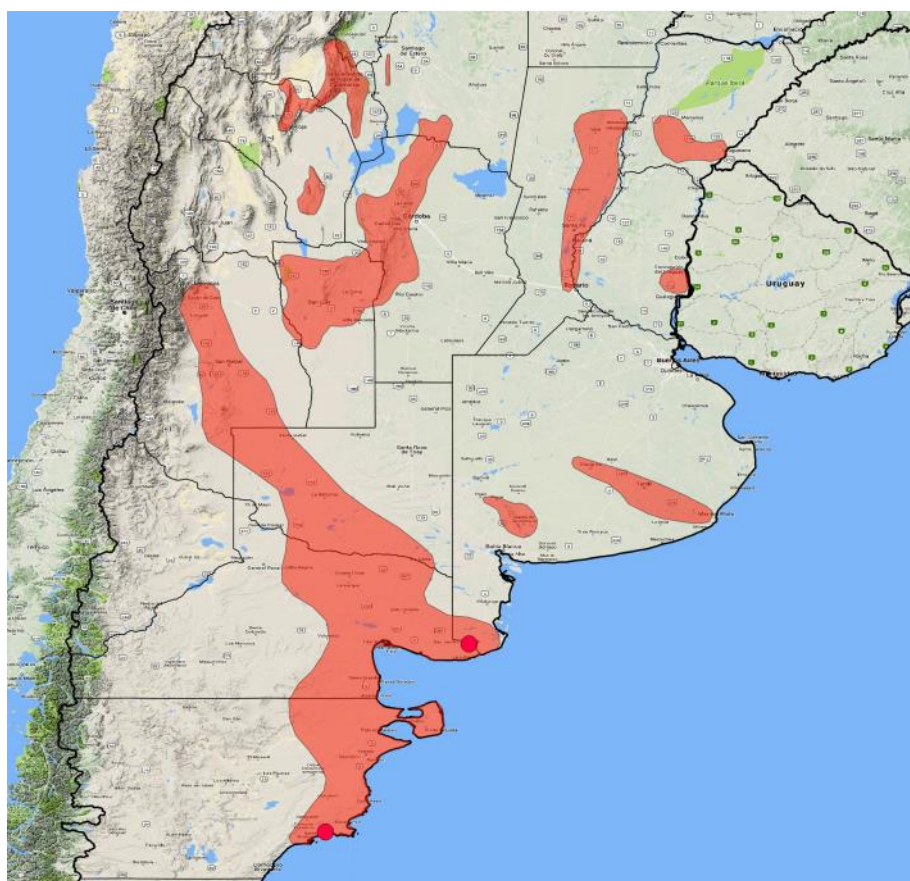


Fig. 78: *Gymnocalycium gibbosum* WP 89-54/67 (北部产地) and *Gymnocalycium gibbosum* subsp. *ferox* MT 14-606 (南部产地)

***Gymnocalycium ilseae* F. Berger (2016)**



Fig. 79: *Gymnocalycium ilseae* EZ 1031, northwest of Capilla del Monte, Province Córdoba, Argentina, 960 m



Fig. 80: *Gymnocalycium ilseae* EZ 1031 栖息地



Fig. 81: *Gymnocalycium ilseae* EZ 1031 种子 (20x 拍摄)

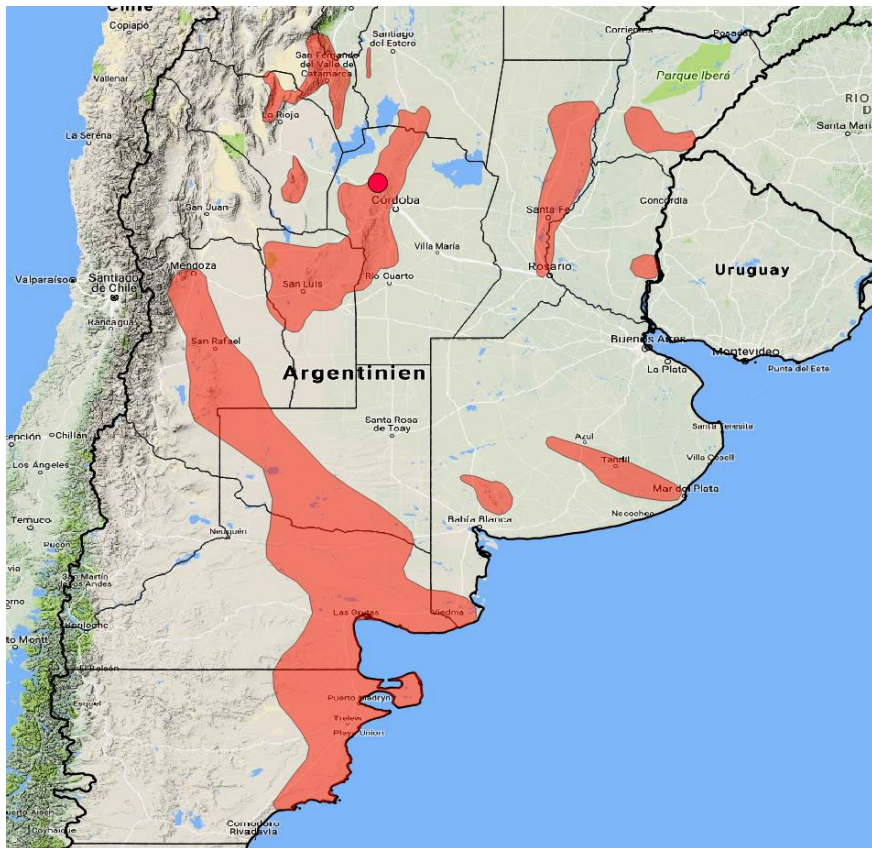


Fig. 82: *Gymnocalycium ilseae* EZ 1031 原产地

***Gymnocalycium kieslingii* O. Ferrari (1985)**



Fig. 83: *Gymnocalycium kieslingii* fa. *castaneum* VoS 1761, Cuesta de Huaco, Province La Rioja, Argentina, 1334 m



Fig. 84: *Gymnocalycium kieslingii* fa. *castaneum* VoS 1761 栖息地



Fig. 85: *Gymnocalycium kieslingii* fa. *castaneum* VoS 1761 种子 (20x 拍摄)

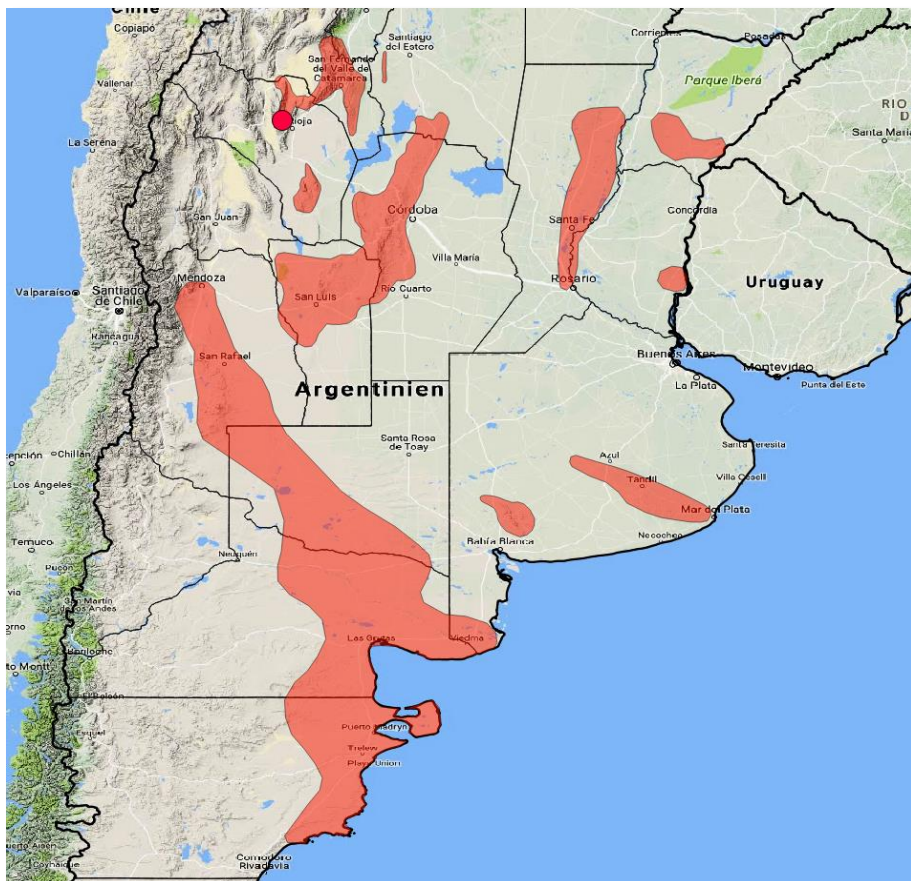


Fig. 86: *Gymnocalycium kieslingii* fa. *castaneum* VoS 1761 原产地

***Gymnocalycium kroenleinii* R. Kiesling, Rausch & O. Ferrari (2000)**



Fig. 87: *Gymnocalycium kroenleinii* subsp. *funettae* VoS 1436, Sierra de Los Quinteros, Province La Rioja, Argentina, 1424 m



Fig. 88: *Gymnocalycium kroenleinii* subsp. *funettae* VoS 1436 栖息地



Fig. 89: *Gymnocalycium kroenleinii* subsp. *funettae* VoS 1436 种子 (20x 拍摄)

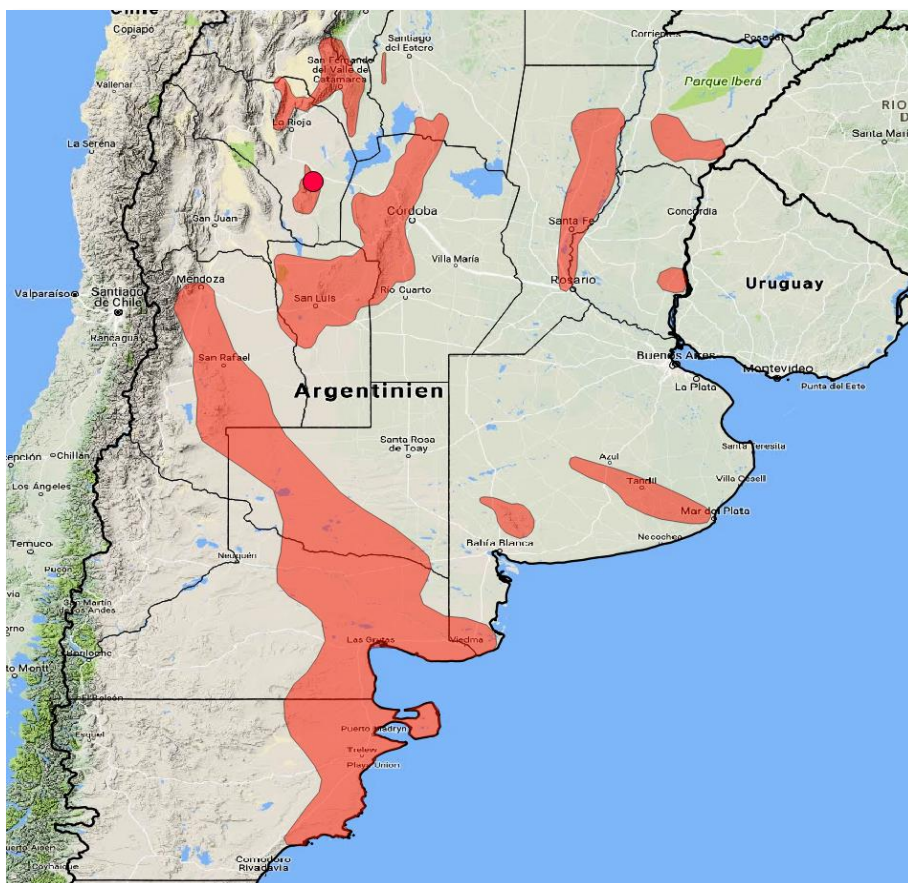


Fig. 90: *Gymnocalycium kroenleinii* subsp. *funettae* VoS 1436 原产地

***Gymnocalycium kuehhasii* Neuhuber & R. Sperling (2008)**



Fig. 91: *Gymnocalycium kuehhasii* VoS 798, north of Villa de Maria, Province Córdoba, Argentina, 544 m



Fig. 92: *Gymnocalycium kuehhasii* VoS 798 栖息地

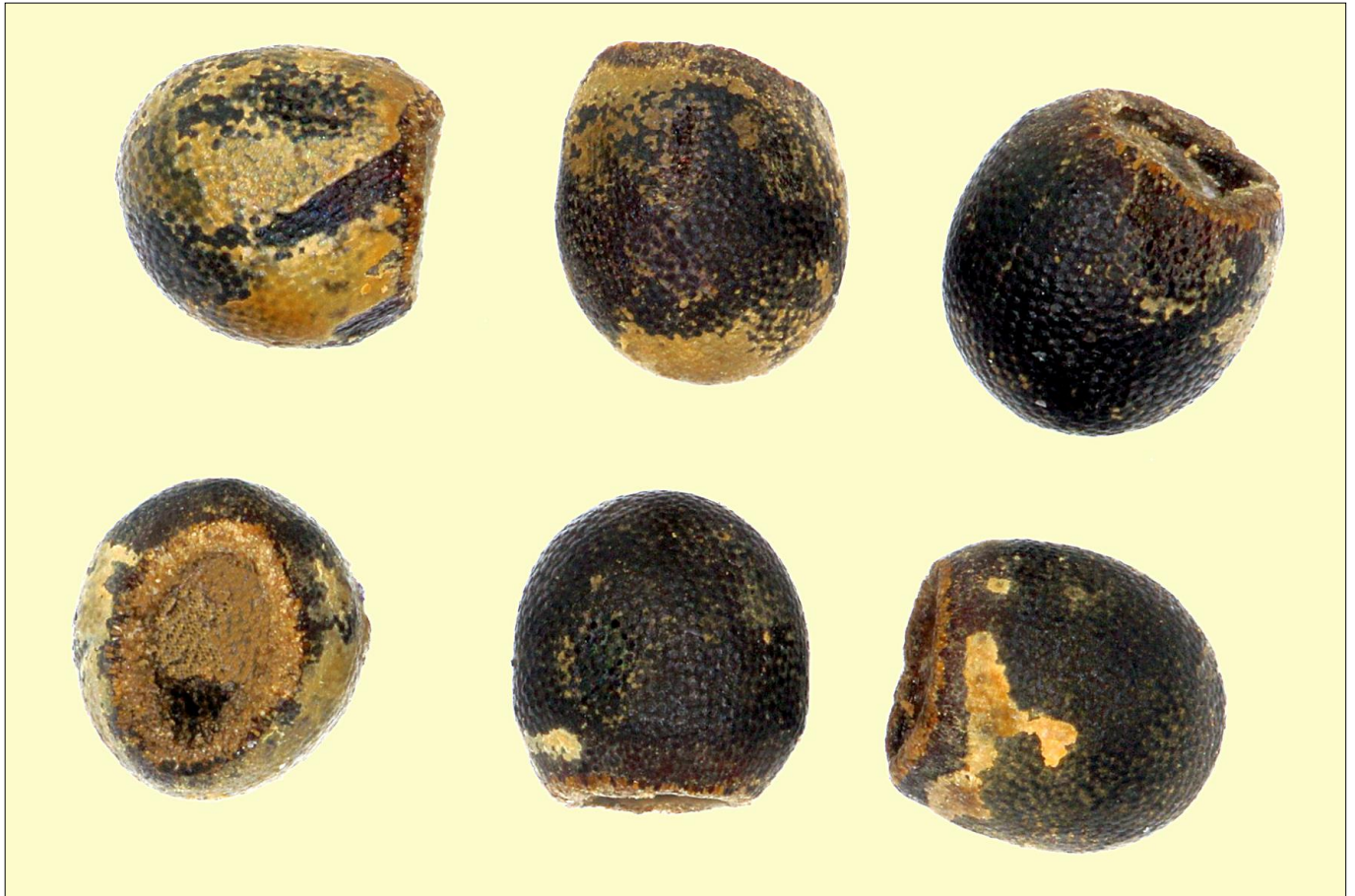


Fig. 93: *Gymnocalycium kuehhasii* VoS 798 种子 (20x 拍摄)

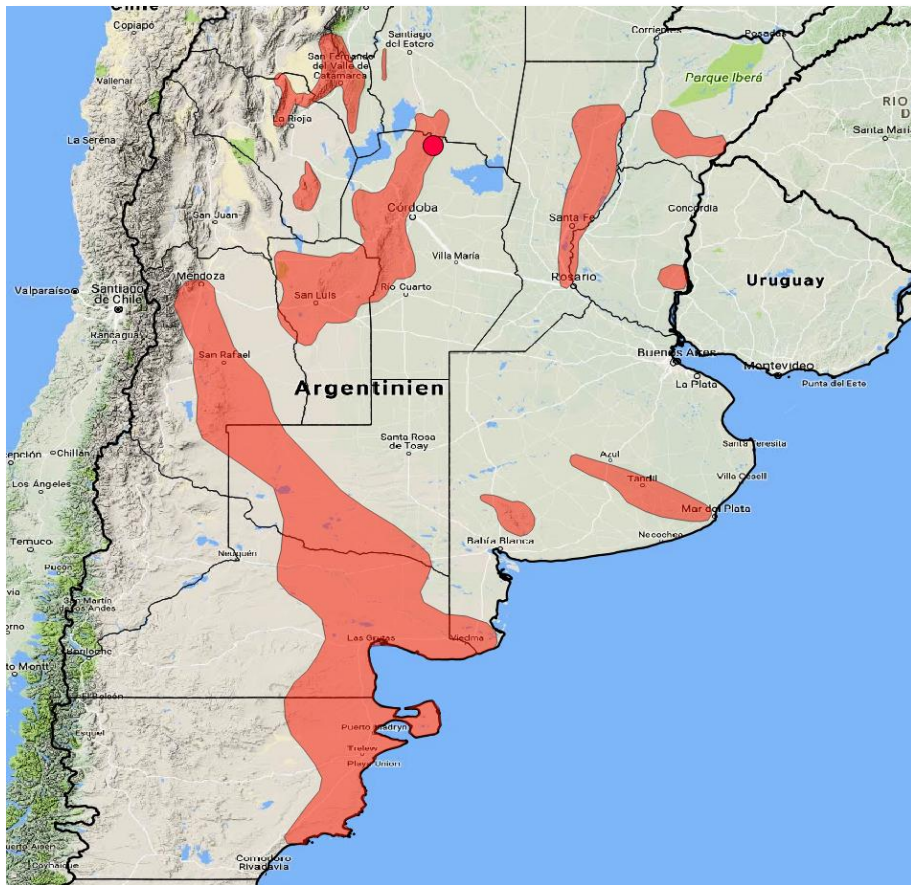


Fig. 94: *Gymnocalycium kuehhasii* VoS 798 原产地

***Gymnocalycium kulhanekii* Papsch (2016)**



Fig. 95: *Gymnocalycium kulhanekii* Tom 15-791, Cerro Uritorco, Province Córdoba, Argentina, 1820 m



Fig. 96: *Gymnocalycium kulhanekii* Tom 15-791 栖息地



Fig. 97: *Gymnocalycium kulhanekii* WP 04-442/859 种子 (20x 拍摄)

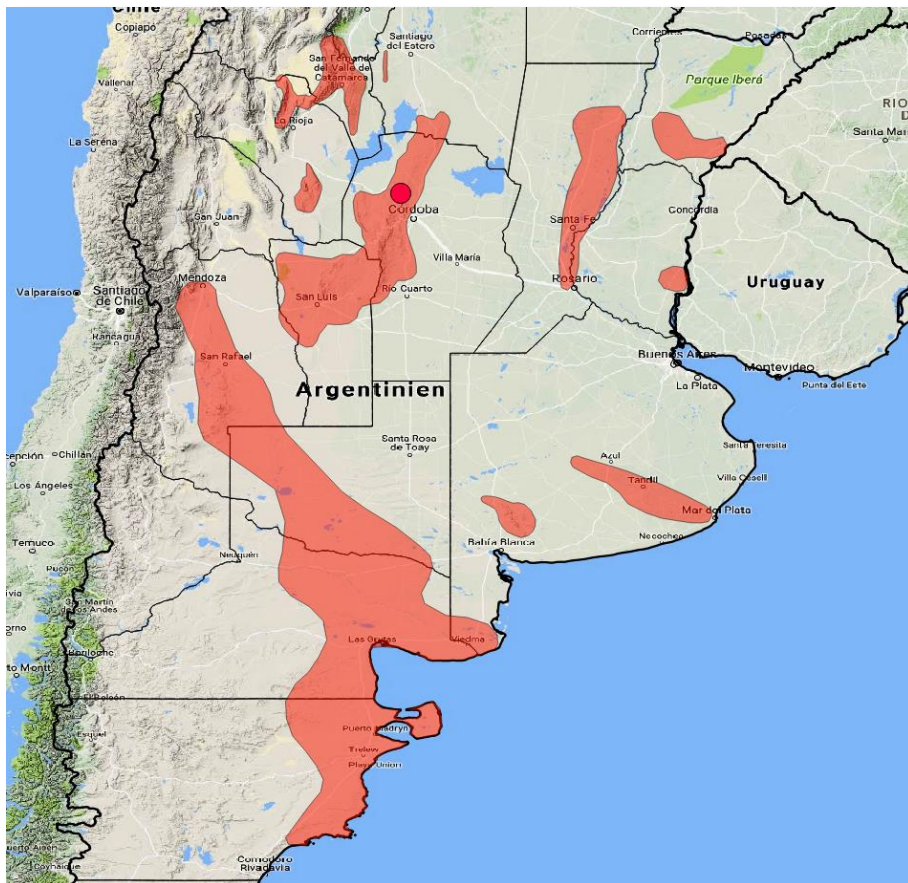


Fig. 98: *Gymnocalycium kulhanekii* Tom 15-791 and WP 04-442/859 原产地

***Gymnocalycium marianae* Perea, O. Ferrari, Las Peñas & R. Kiesling (2009)**



Fig. 99: *Gymnocalycium marianae* Tom 12-715, east of Agua de las Palomas, Ruta 48, Province Catamarca, Argentina, 1783 m



Fig. 100: *Gymnocalycium marianae* Tom 12-715 栖息地



Fig. 101: *Gymnocalycium marianae* Tom 12-715 种子 (20x 拍摄)

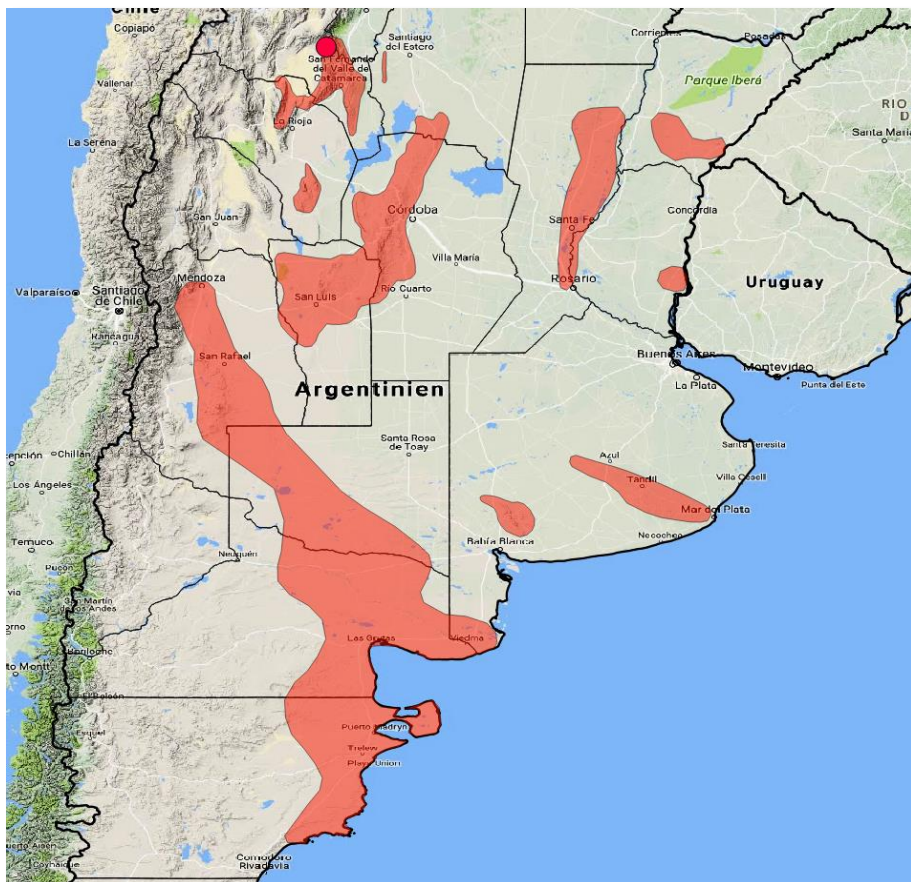


Fig. 102: *Gymnocalycium marianae* Tom 12-715 原产地

***Gymnocalycium meregallii* Bercht (2012)**



Fig. 103: *Gymnocalycium meregallii* VoS 1486, road from Merlo to Lutti, Province Córdoba, Argentina, 1656 m



Fig. 104: *Gymnocalycium meregallii* VoS 1486 栖息地



Fig. 105: *Gymnocalcium meregallii* VoS 1486 种子 (20x 拍摄)

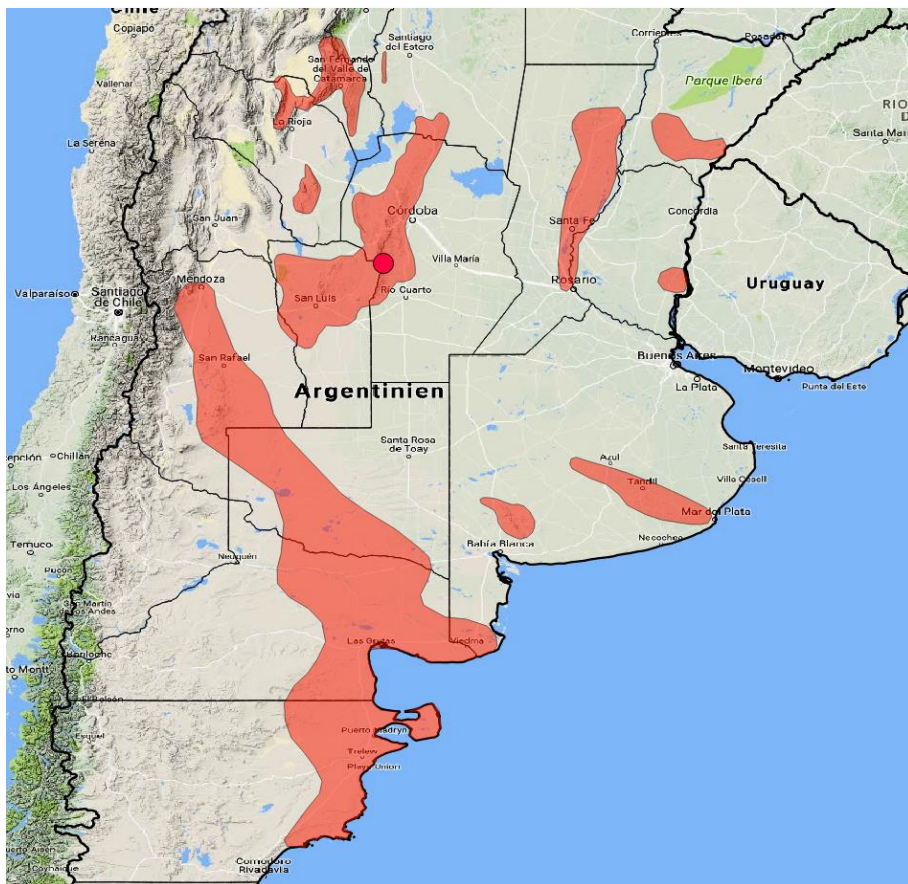


Fig. 106: *Gymnocalcium meregallii* VoS 1486 原产地

***Gymnocalycium morroense* Kulhánek, Řepka et J. Proch. (2010)**



Fig. 107: *Gymnocalycium morroense* VoS 1853, Las Chacras, Province San Luis, Argentina, 1110 m



Fig. 108: *Gymnocalycium morroense* VoS 1853 栖息地

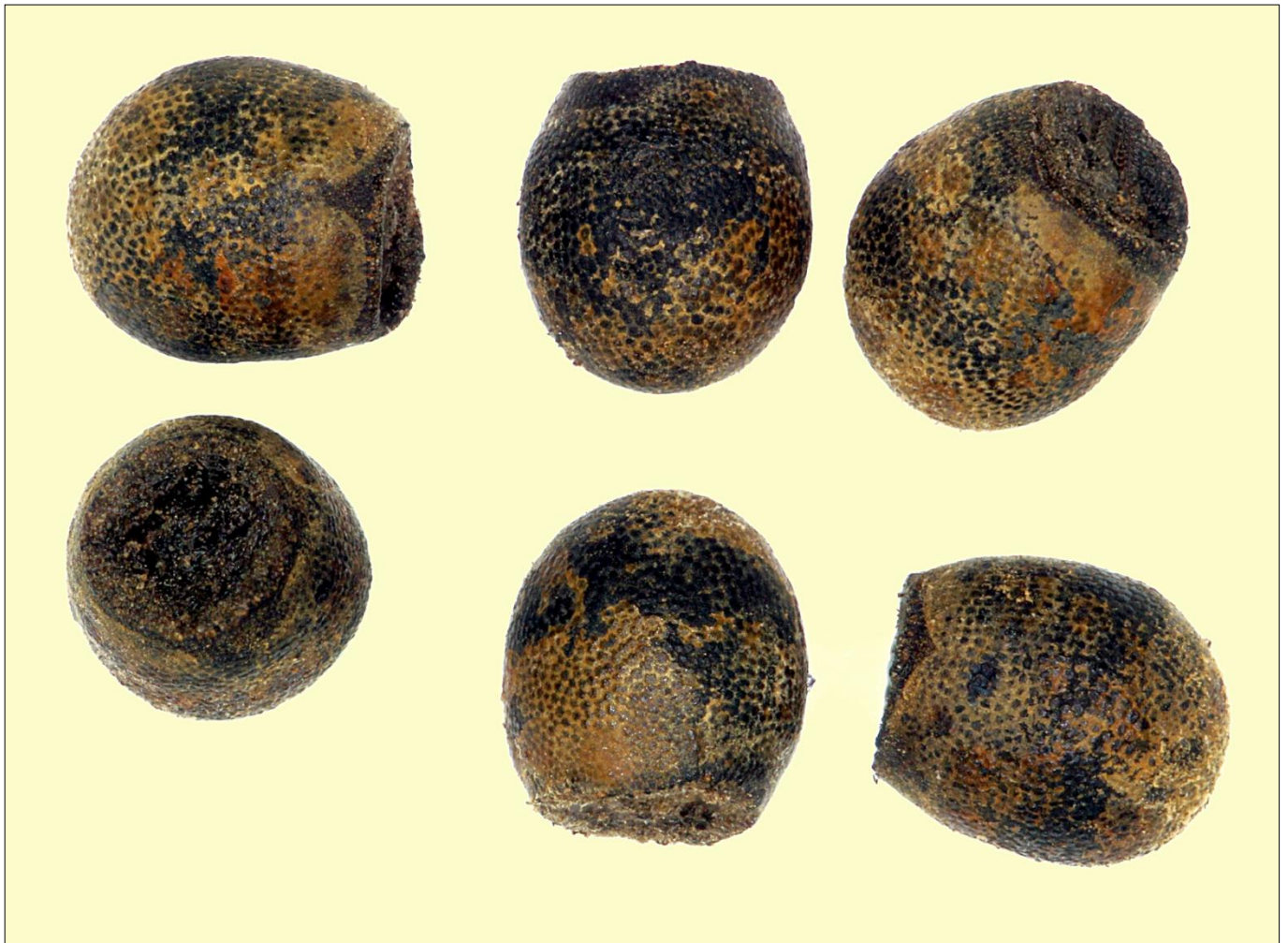


Fig. 109: *Gymnocalcium morroense* VoS 1853 种子 (20x 拍摄)

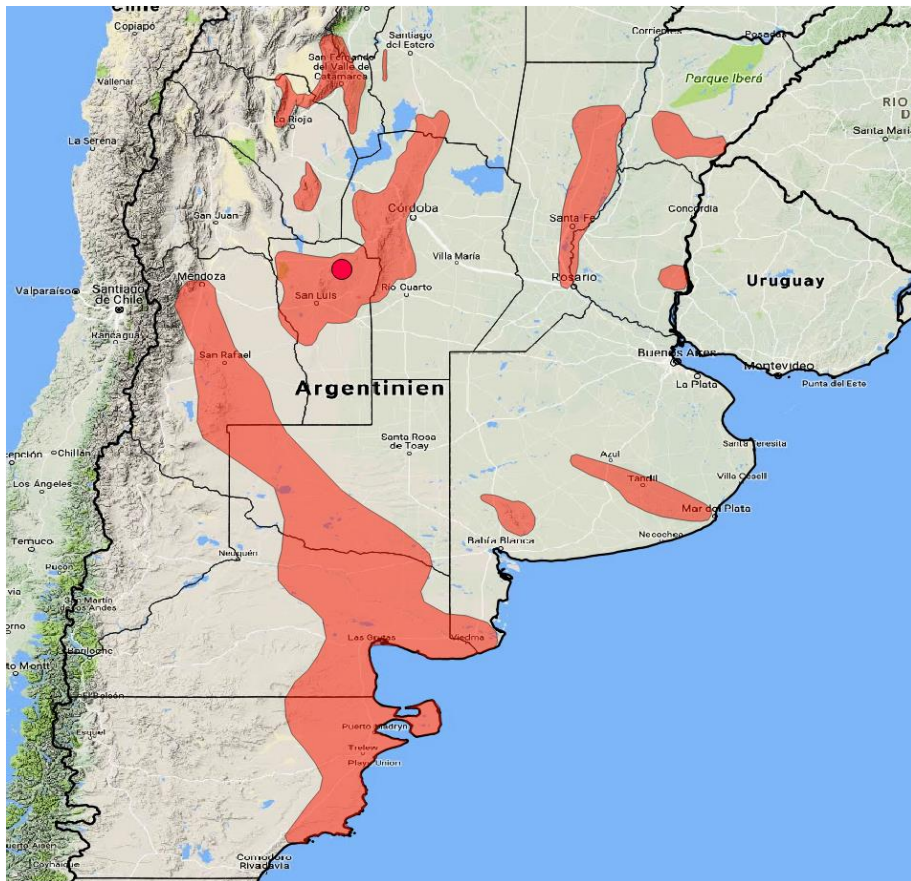


Fig. 110: *Gymnocalcium morroense* VoS 1853 原产地

***Gymnocalycium nataliae* Neuhuber (2005)**



Fig. 111: *Gymnocalycium nataliae* VoS 1855, San Isidro, Province San Luis, Argentina, 928 m



Fig. 112: *Gymnocalycium nataliae* VoS 1855 栖息地



Fig. 113: *Gymnocalycium nataliae* VoS 1855 种子 (20x 拍摄)

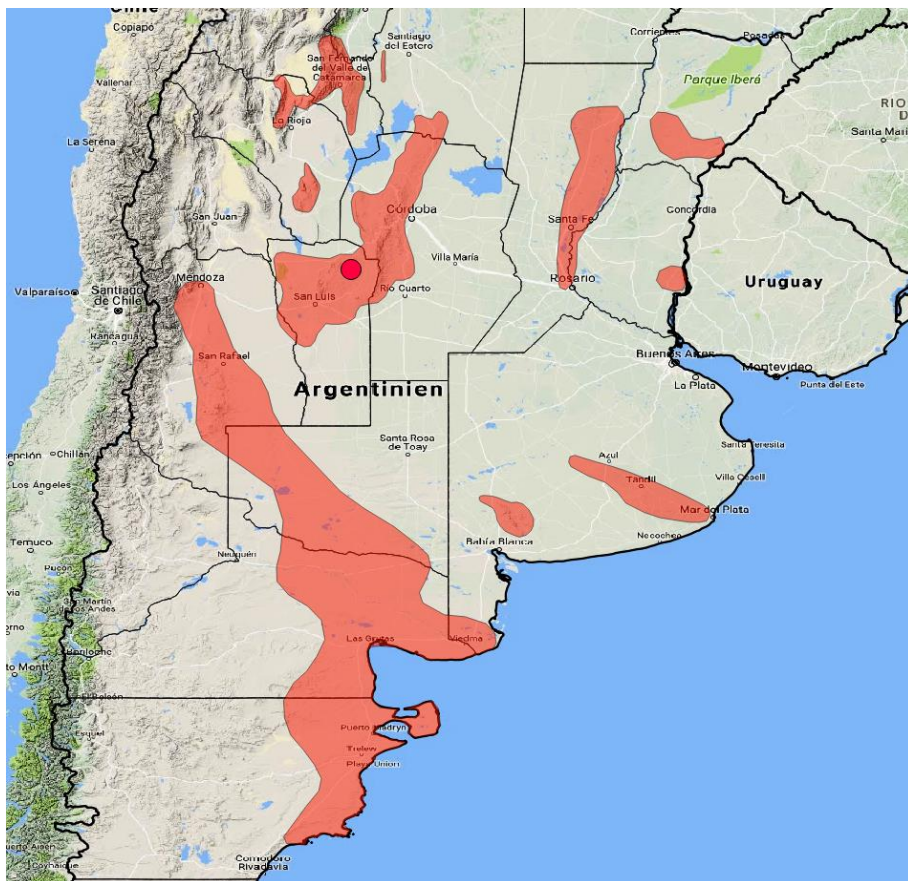


Fig. 114:
Gymnocalycium nataliae
VoS 1855 原产地

***Gymnocalycium neuhuberi* H. Till & W. Till (1992)**



Fig. 115: *Gymnocalycium neuhuberi* VoS 191, Suyuque Viejo, above the monastery, Province San Luis, Argentina, 1355 m



Fig. 116: *Gymnocalycium neuhuberi* VoS 191 栖息地

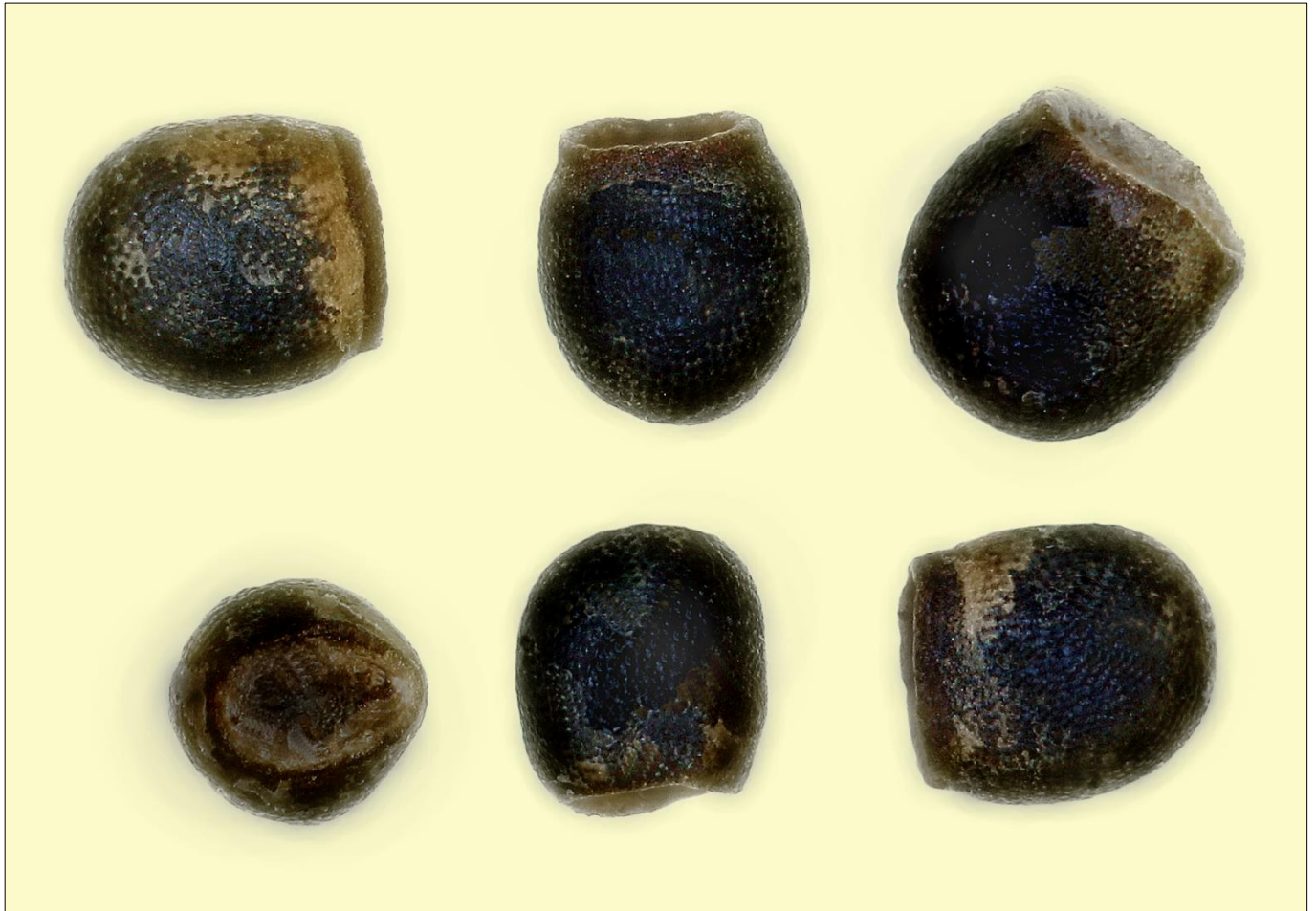


Fig. 117: *Gymnocalycium neuhuberi* VoS 191 种子 (20x 拍摄)

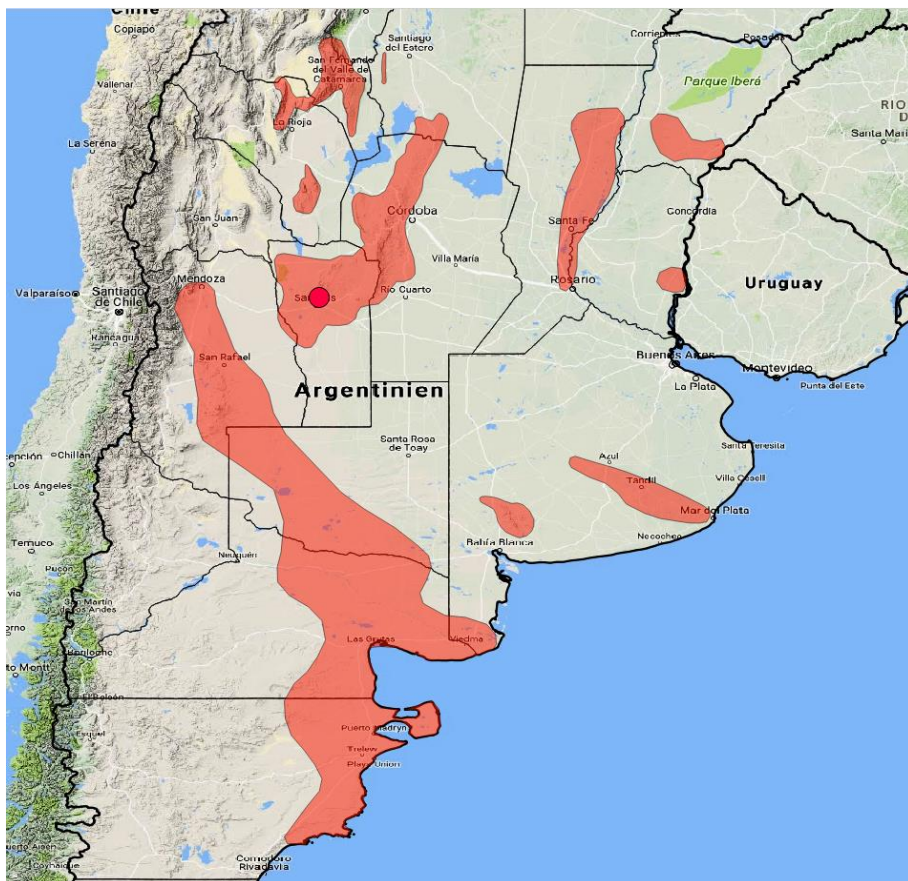


Fig. 118: *Gymnocalycium neuhuberi* VoS 191 原产地

***Gymnocalycium papschii* H. Till pro. part. (2001)**



Fig. 119: *Gymnocalycium papschii* VG 830, San Javier, Cerro Champaqui, Sierra de Comechingones, Province Córdoba, Argentina, 1200-1700 m



Fig. 120: *Gymnocalycium papschii* VG 830 栖息地



Fig. 121: *Gymnocalycium papschii* WP 89-83/111 种子 (20x 拍摄)

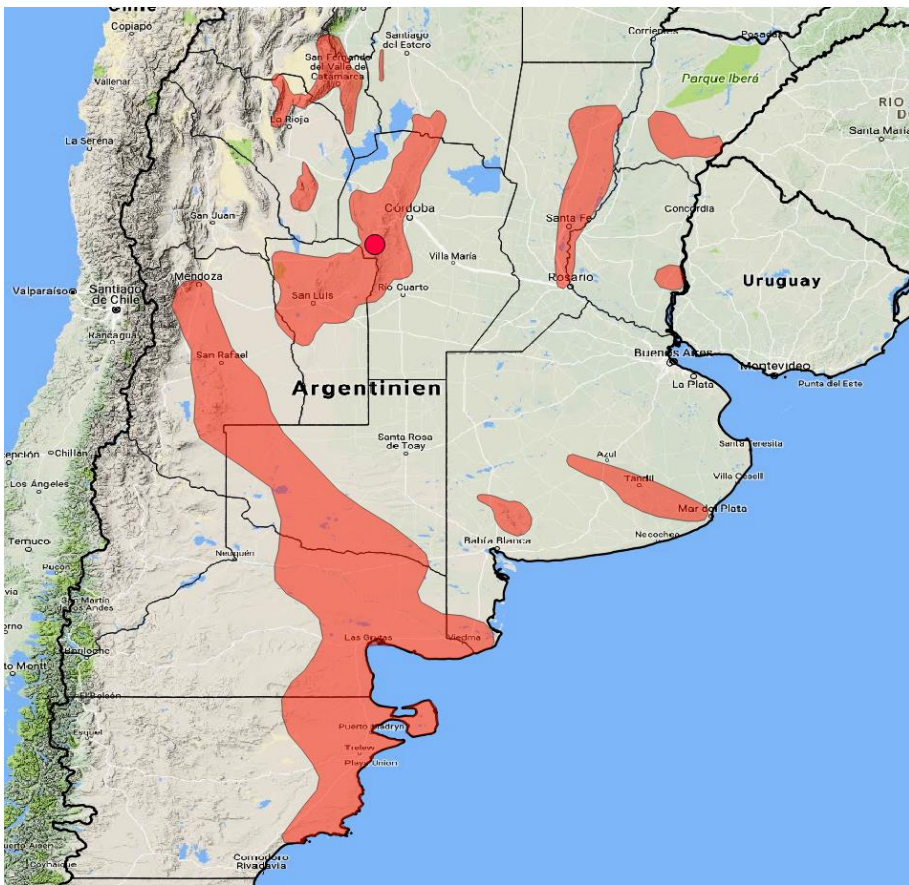


Fig. 122: *Gymnocalycium papschii* VG 830 and WP 89-83/111 原产地

***Gymnocalycium parvulum* (Speg.) Speg. (1925)**



Fig. 123: *Gymnocalycium parvulum* VoS 164, west of Villa Cura Brochero, Province Córdoba, Argentina, 1097 m



Fig. 124: *Gymnocalycium parvulum* VoS 164 栖息地

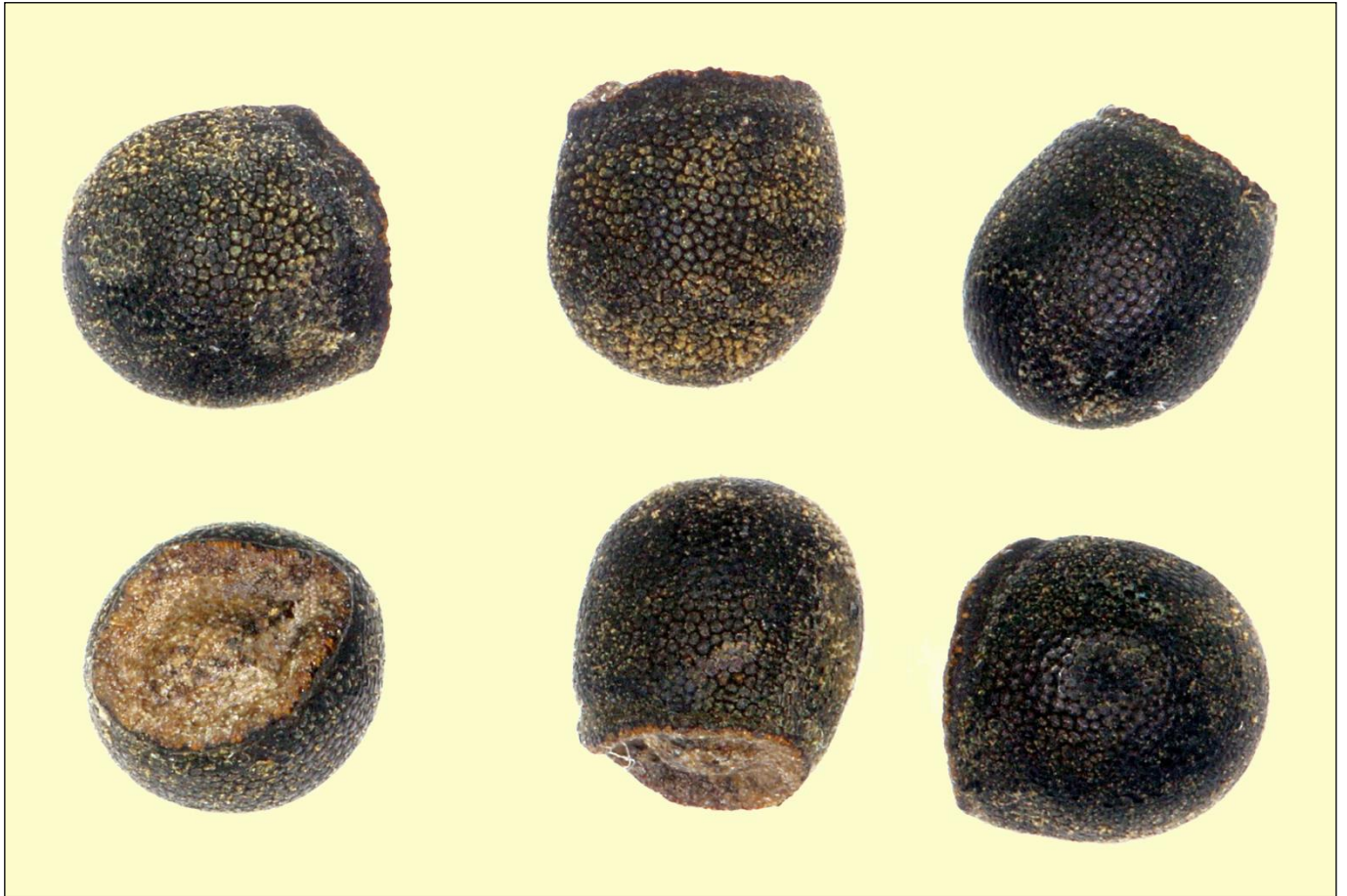


Fig. 125: *Gymnocalycium parvulum* VoS 164 种子 (20x 拍摄)

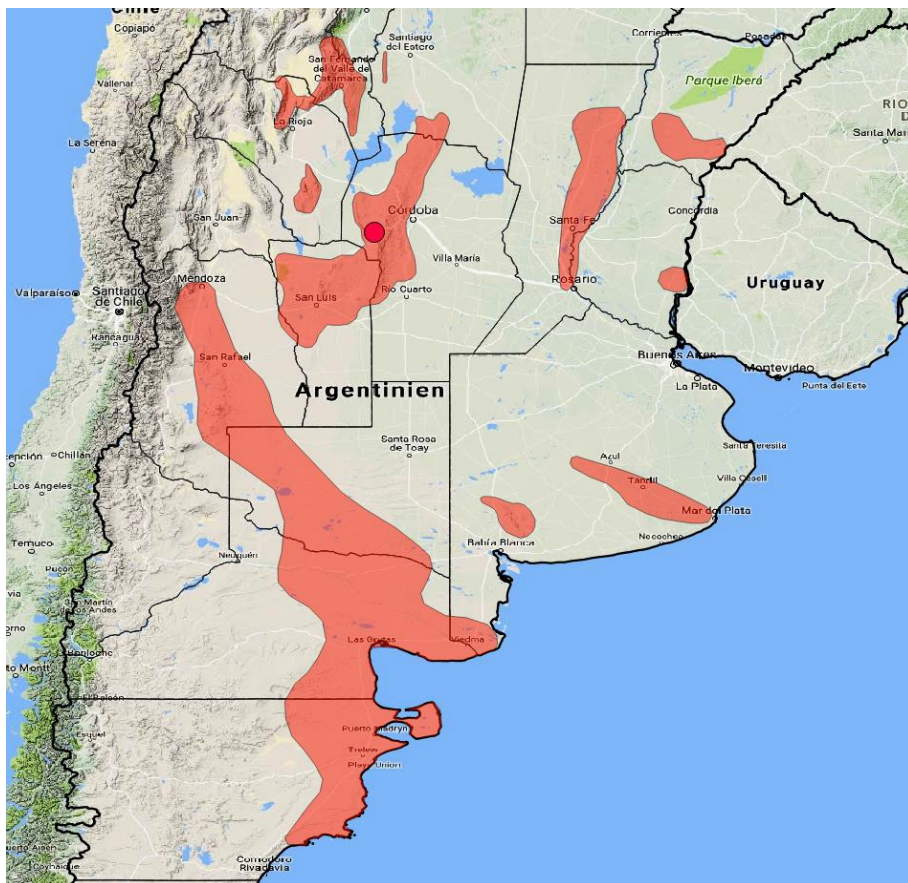


Fig. 126: *Gymnocalycium parvulum* VoS 164 原产地

***Gymnocalycium pinalii* Mereg. & Kulhánek (2016)**



Fig. 127: *Gymnocalycium pinalii* Tom 15-879, Capilla del Monte, Parque Los Terrones, Province Córdoba, Argentina, 1370 m



Fig. 128: *Gymnocalycium pinalii* Tom 15-879 栖息地



Fig. 129: *Gymnocalycium pinalii* Tom 15-879 种子 (20x 拍摄)

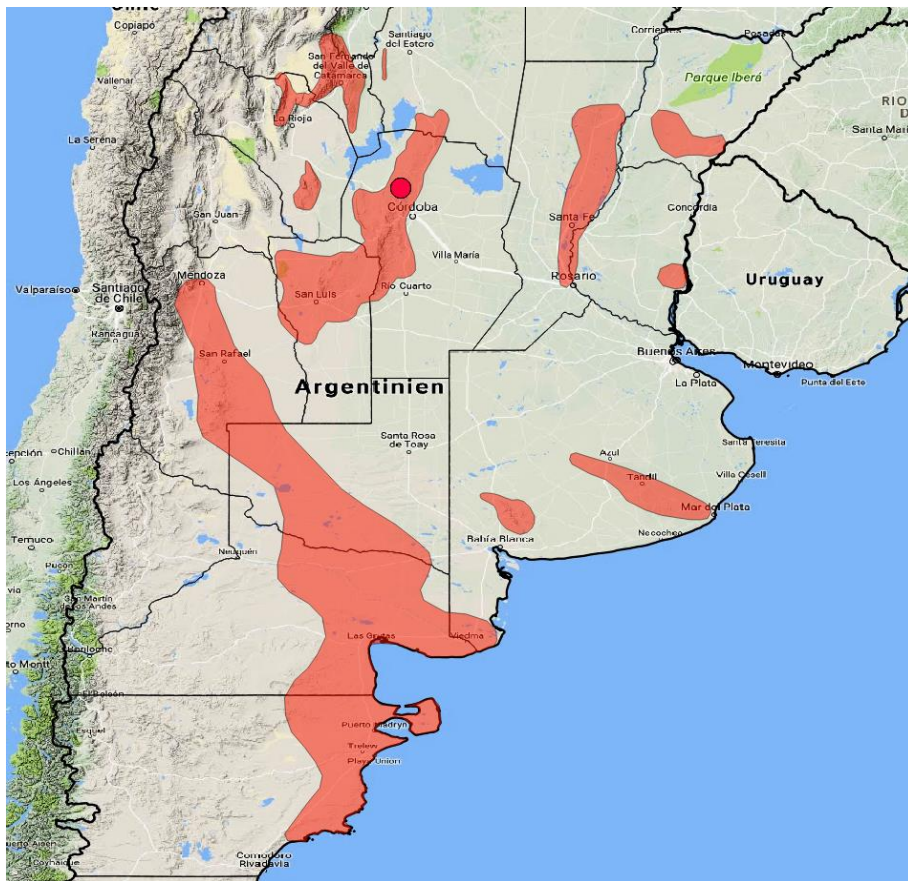


Fig.130:
Gymnocalycium pinalii
Tom 15-879 原产地

***Gymnocalycium platense* (Speg.) Britton & Rose (1922)**



Fig. 131: *Gymnocalycium platense* subsp. *paucicostatum* VoS 1533, southwest of Curuzu Cuatia, Province Corrientes, Argentina, 72 m



Fig. 132: *Gymnocalycium platense* subsp. *paucicostatum* VoS 1533 栖息地



Fig. 133: *Gymnocalycium platense* subsp. *paucicostatum* VoS 1533 种子 (20x 拍摄)

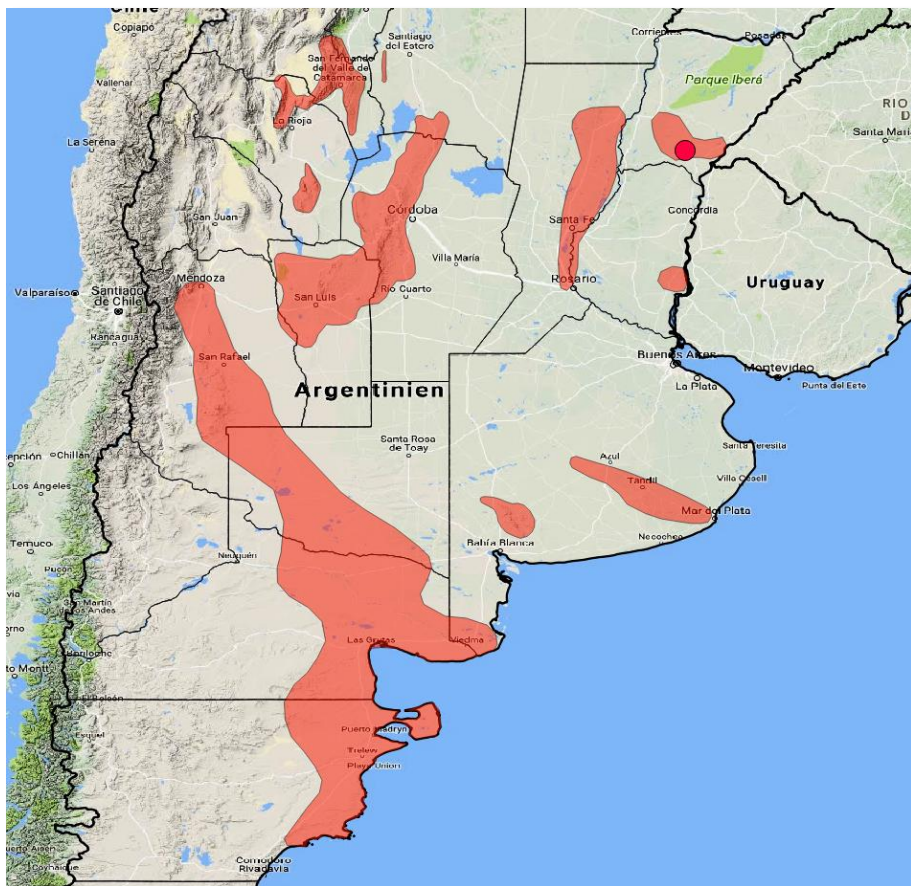


Fig. 134:
Gymnocalycium platense
subsp. *paucicostatum*
VoS 1533 原产地

***Gymnocalycium poeschlii* Neuhuber (1999)**



Fig. 135: *Gymnocalycium poeschlii* VoS 225, northeast of Saladillo, Province San Luis, Argentina, 916 m



Fig. 136: *Gymnocalycium poeschlii* VoS 225 栖息地

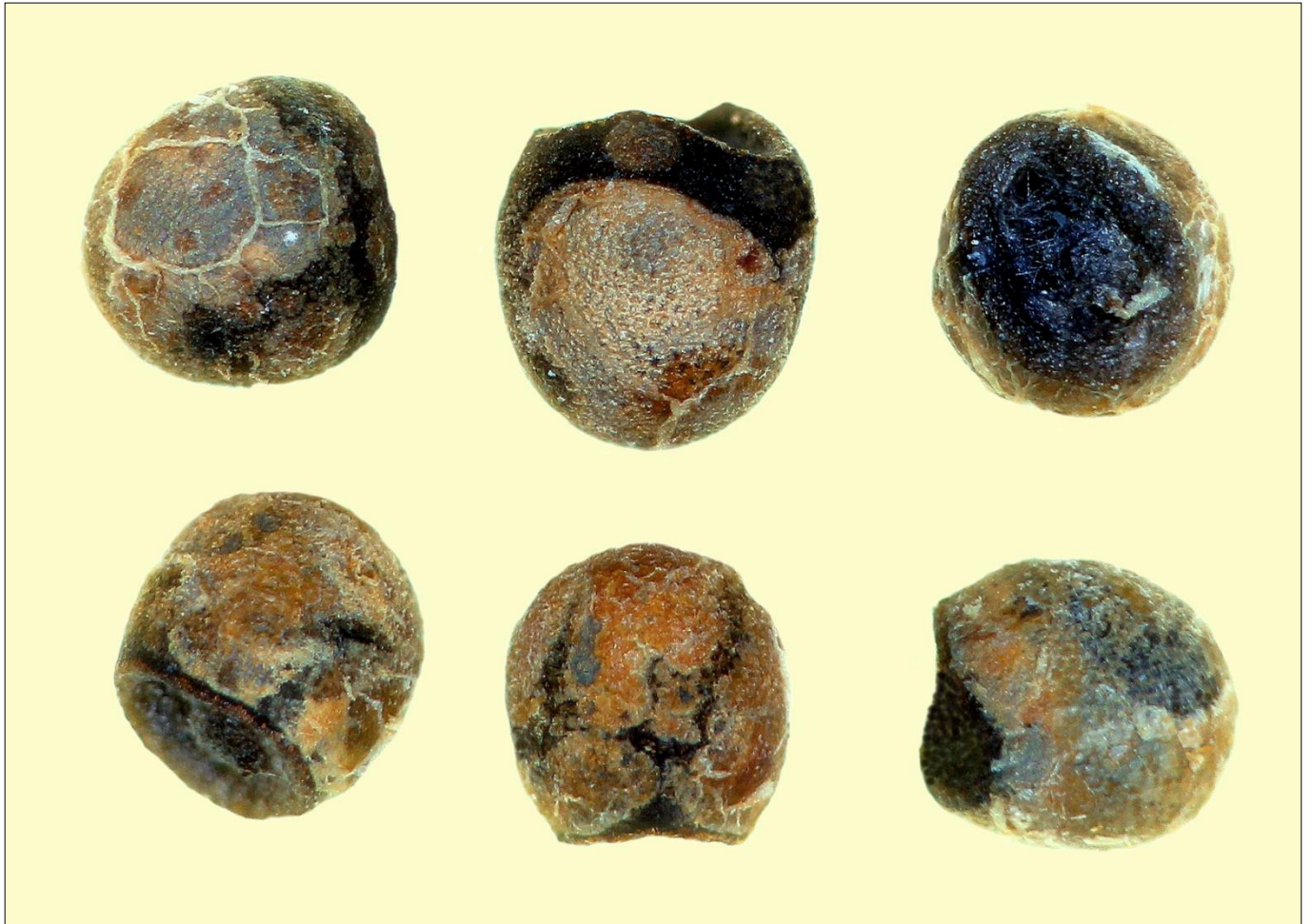


Fig. 137: *Gymnocalycium poeschlii* VoS 225 种子 (20x 拍摄)

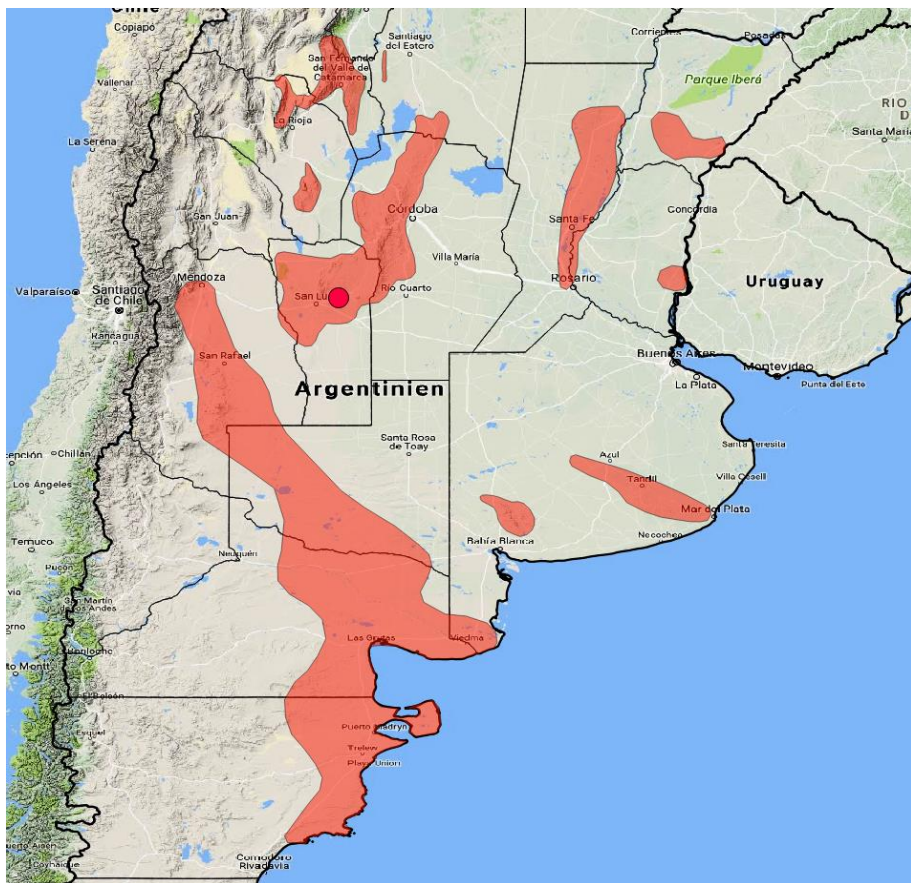


Fig. 138:
Gymnocalycium poeschlii
VoS 225 原产地

***Gymnocalycium reductum* (Link) Pfeiff. ex Mittler (1844)**



Fig. 139: *Gymnocalycium reductum* MT 08-322, Cerro Tornquist, Province Buenos Aires, Argentina, 334 m



Fig. 140: *Gymnocalycium reductum* MT 08-322 栖息地

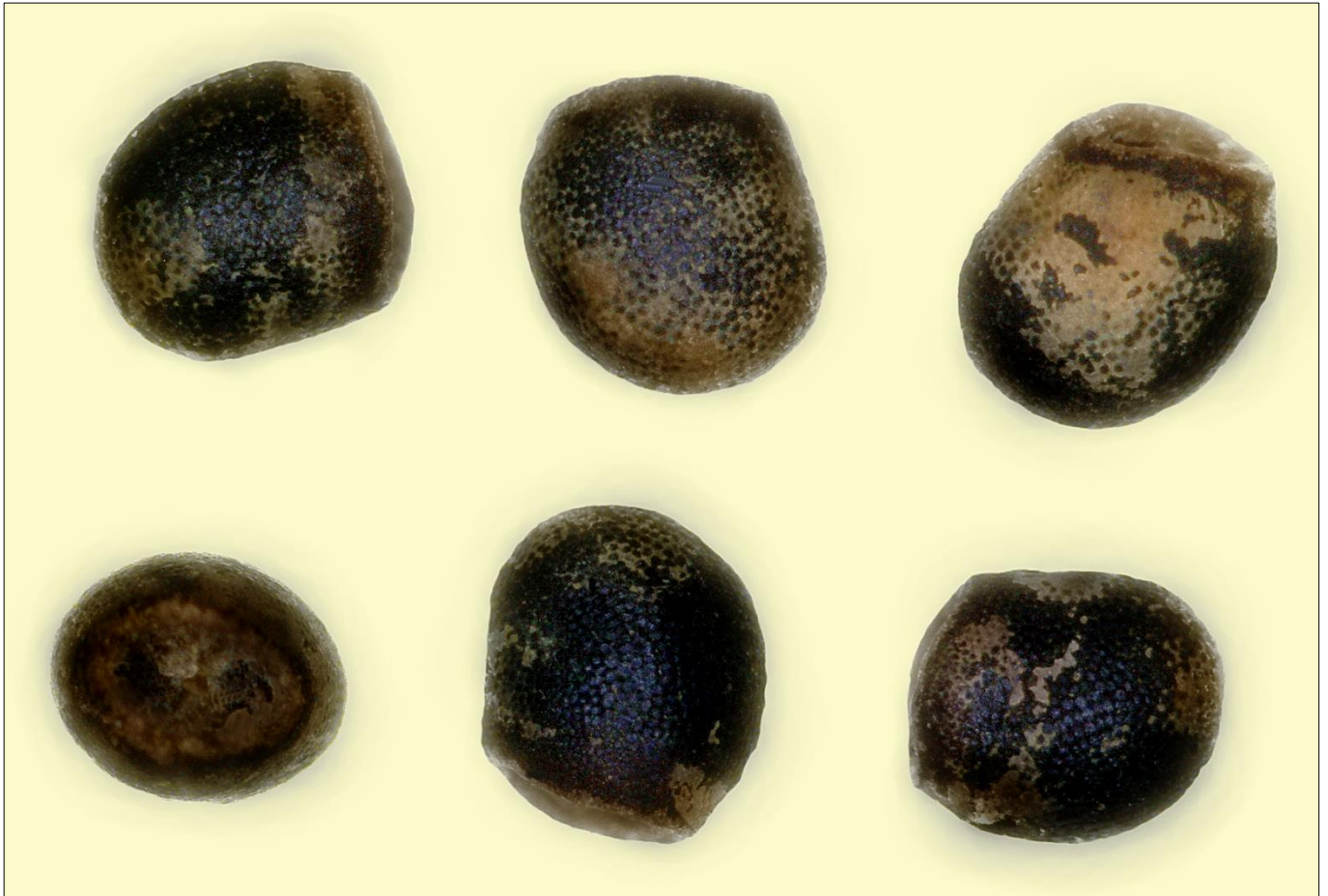


Fig. 141: *Gymnocalycium reductum* WP 89-23/26, Sierra Curu Malal Chico, Province Buenos Aires, Argentina, 350 m 种子 (20x 拍摄)

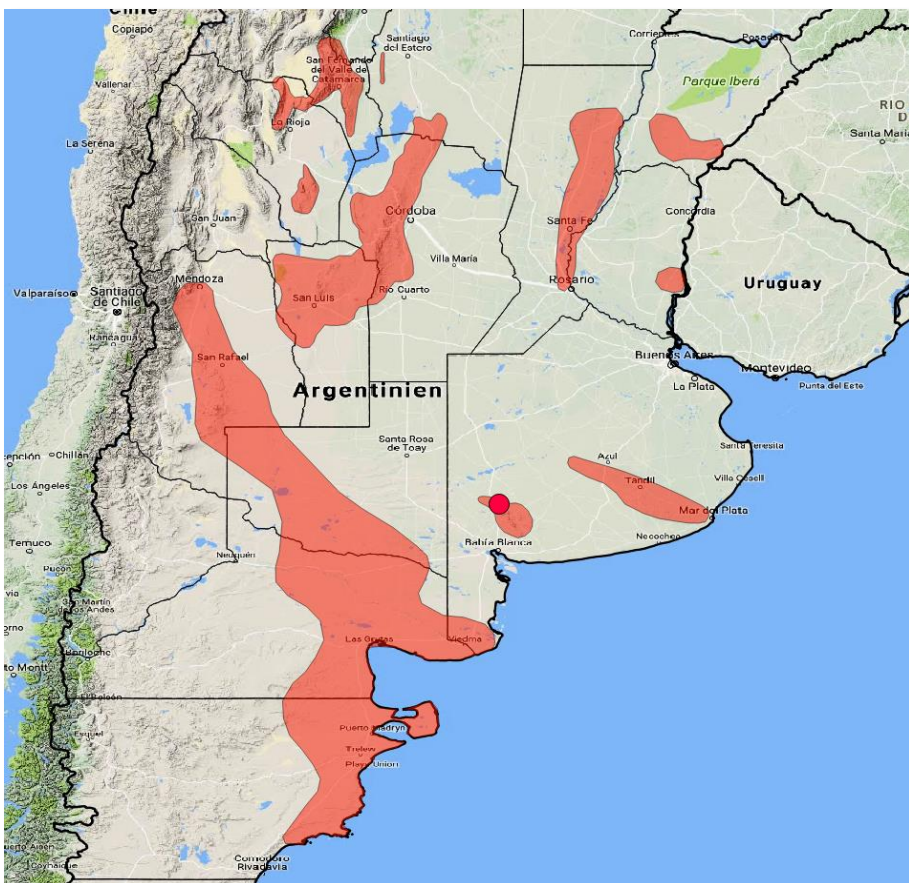


Fig. 142: *Gymnocalycium reductum* MT 08-322 and WP 89-23/26 原产地

***Gymnocalycium robustum* R. Kiesling, O. Ferrari et Metzging (2002)**



Fig. 143: *Gymnocalycium robustum* VoS 148, south of Quilino, Ruta 60, Province Córdoba, Argentina, 453 m



Fig. 144: *Gymnocalycium robustum* VoS 148 栖息地

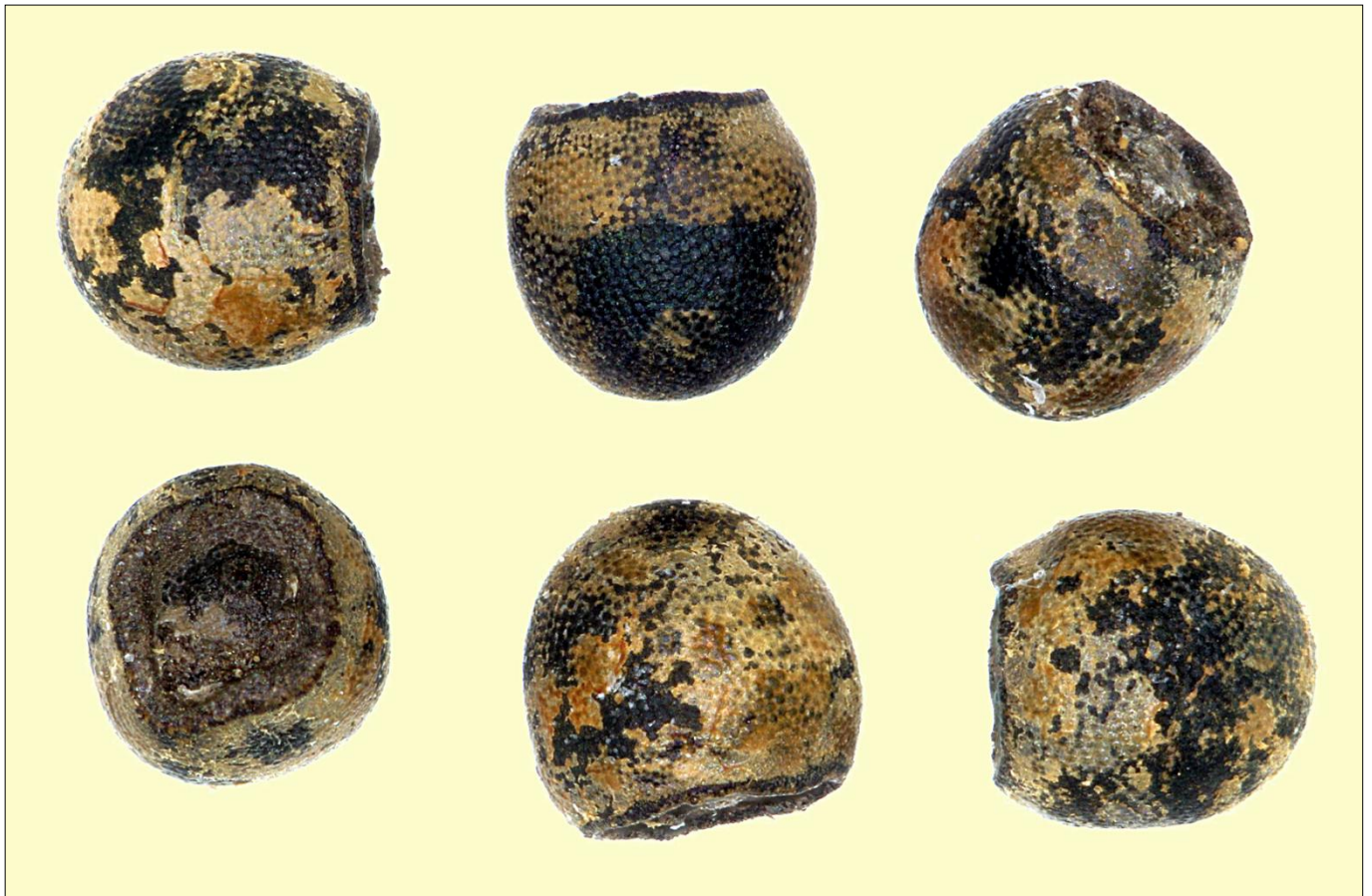


Fig. 145: *Gymnocalycium robustum* VoS 148 种子 (20x 拍摄)

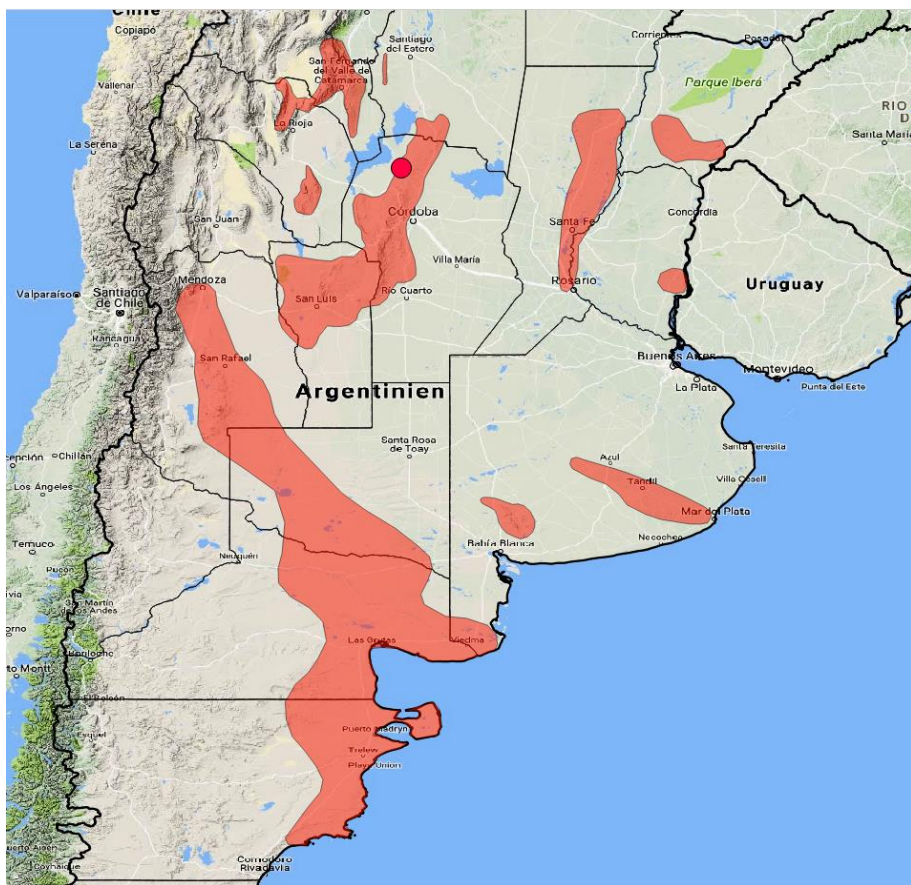


Fig. 146: *Gymnocalycium robustum* VoS 148 原产地

***Gymnocalycium schreiteri* H. Till (2009)**



Fig. 147: *Gymnocalycium schreiteri* RB 576, Sierra de Candelaria, Province Salta, Argentina, 2100 m



Fig. 148: *Gymnocalycium schreiteri* RB 576 栖息地

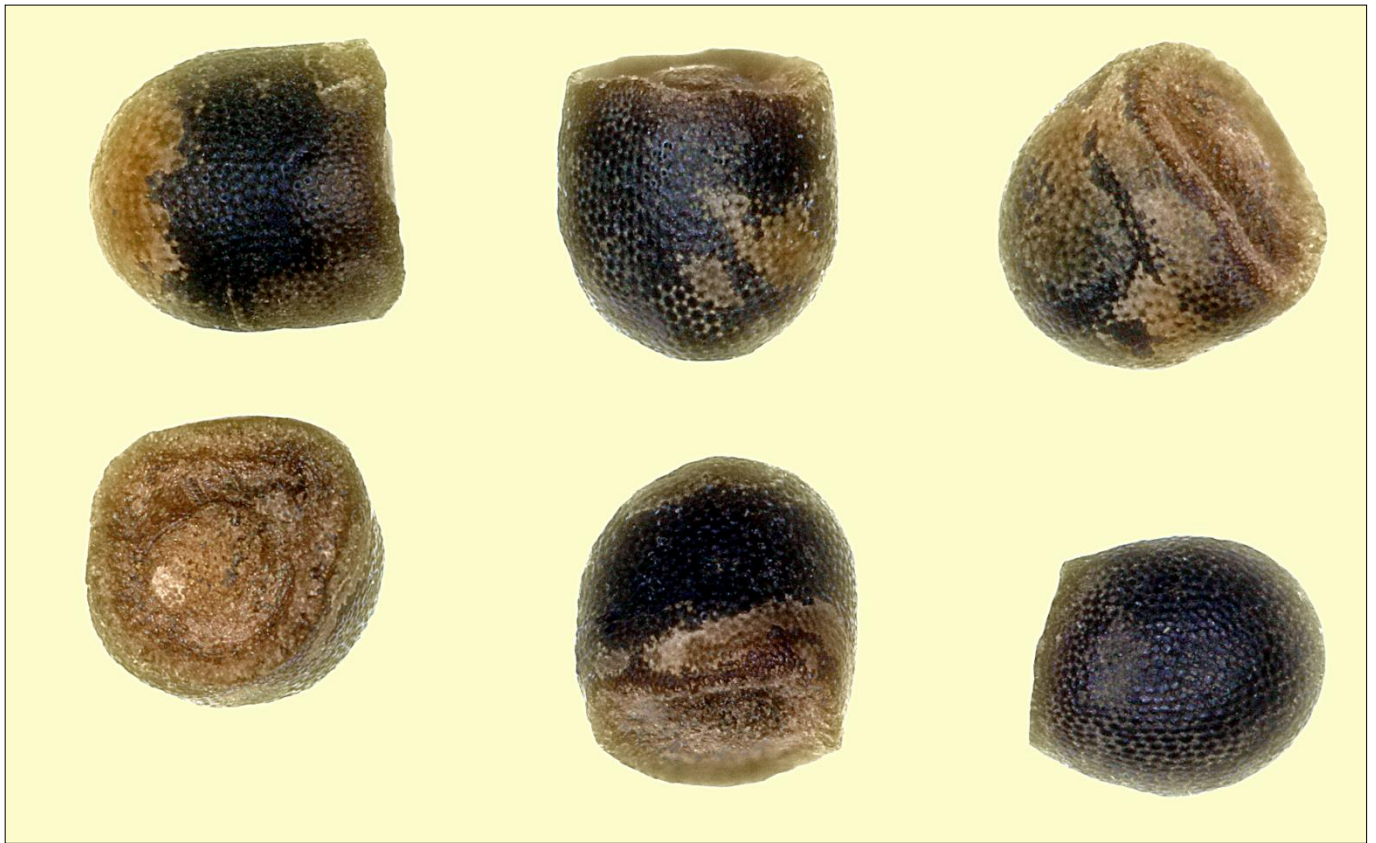


Fig. 149: *Gymnocalycium schreiteri* RB 576 种子 (20x 拍摄)

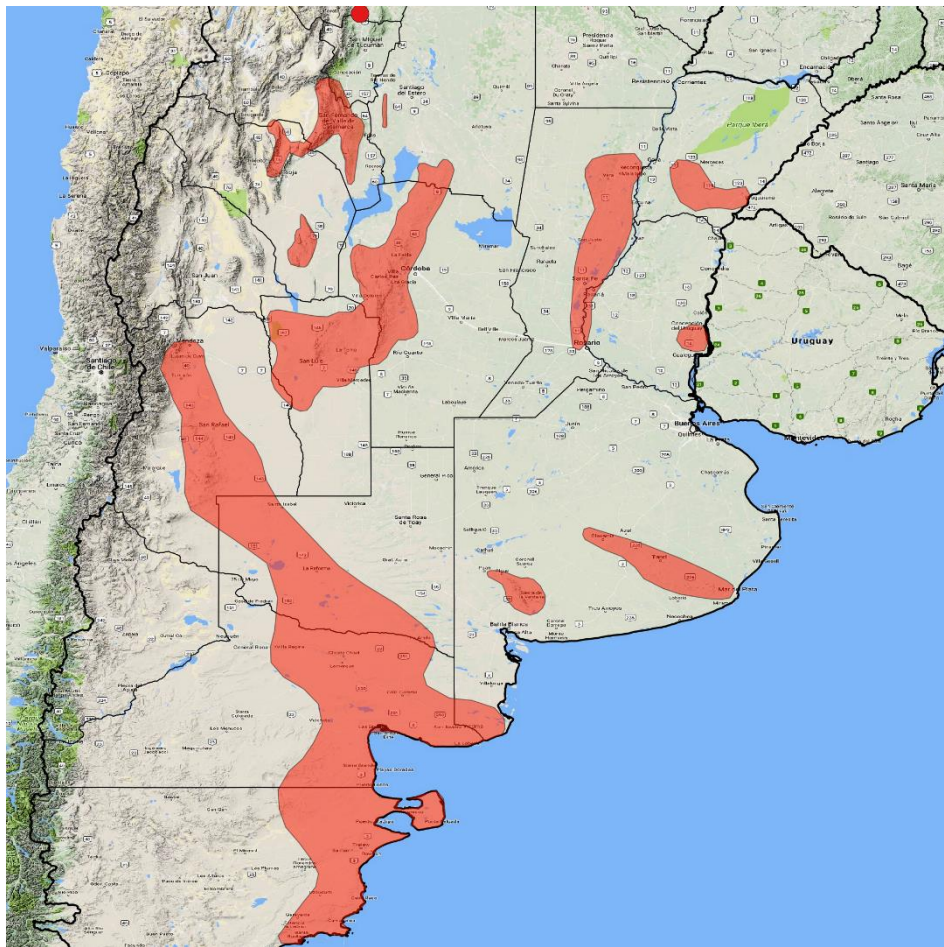


Fig. 150:
Gymnocalycium schreiteri RB 576
原产地

***Gymnocalycium strigianum* Jeggler ex H. Till (1987)**



Fig. 151: *Gymnocalycium strigianum* MT 08-341, Lujan de Cuyo, Province Mendoza, Argentina, 1179 m



Fig. 152: *Gymnocalycium strigianum* MT 08-341 栖息地

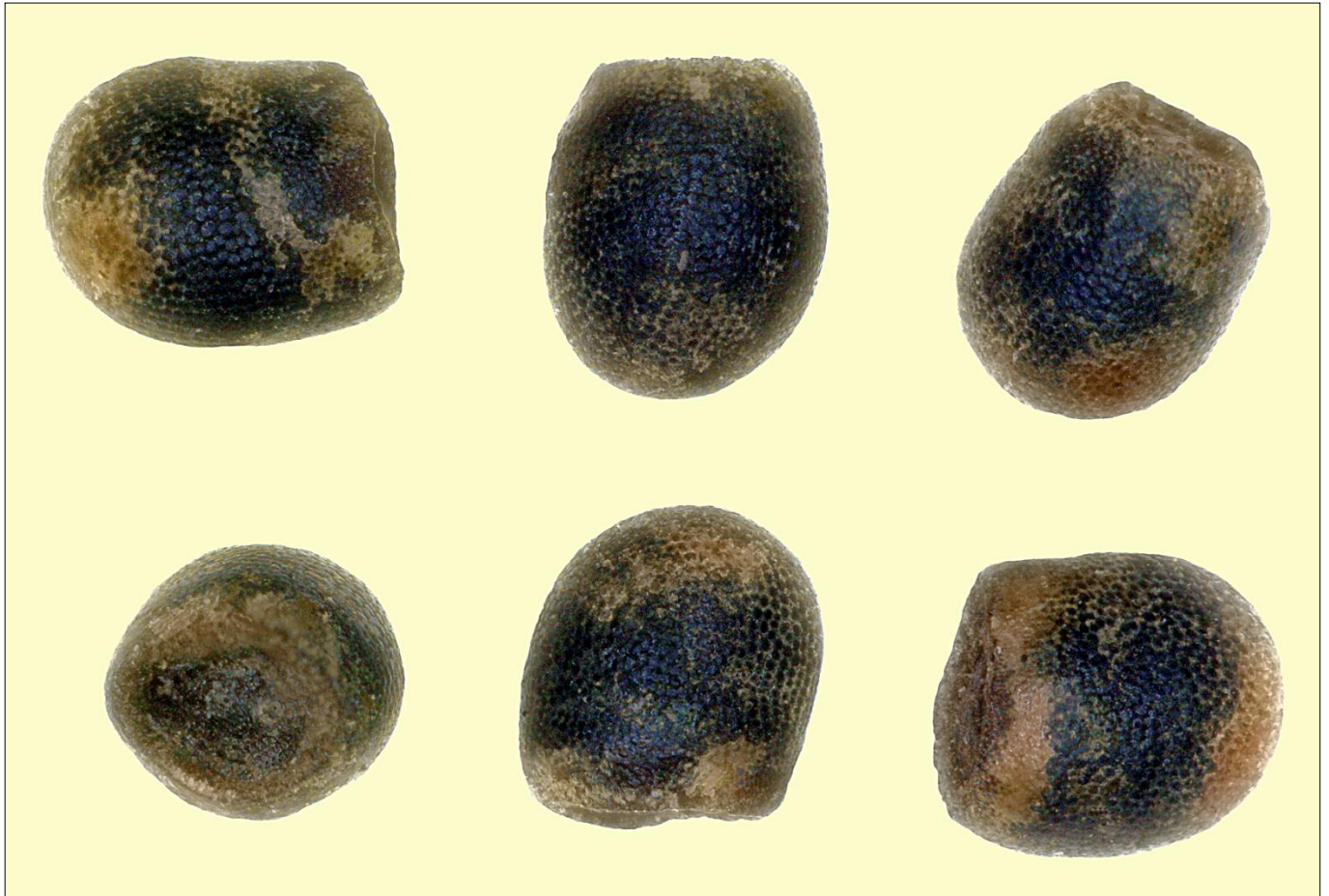


Fig. 153: *Gymnocalcium strigianum* MT 08-341 种子 (20x 拍摄)

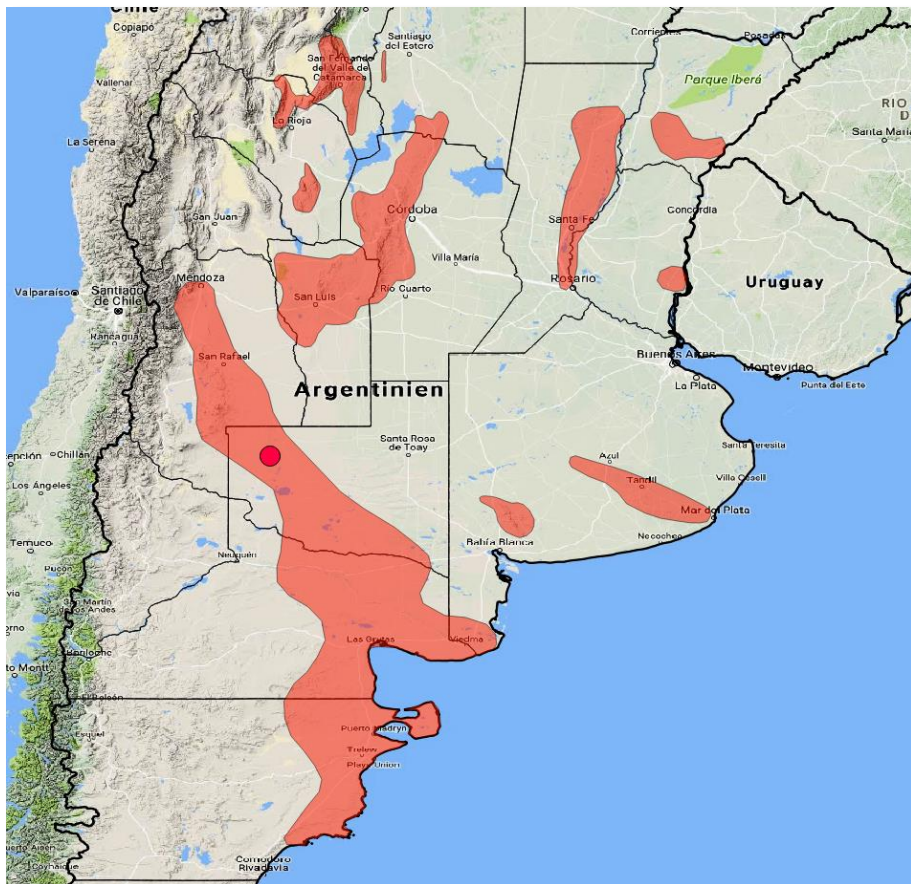


Fig. 154: *Gymnocalcium strigianum* MT 08-341 原产地

***Gymnocalycium sutterianum* (Schick) Hosseus (1926)**



Fig. 155: *Gymnocalycium sutterianum* subsp. *dolezalii* VoS 635, northeast of Berrotarán, Province Córdoba, Argentina, 716 m



Fig. 156: *Gymnocalycium sutterianum* subsp. *dolezalii* VoS 635 栖息地



Fig. 157: *Gymnocalycium sutterianum* subsp. *dolezalii* VoS 635 种子 (20x 拍摄)

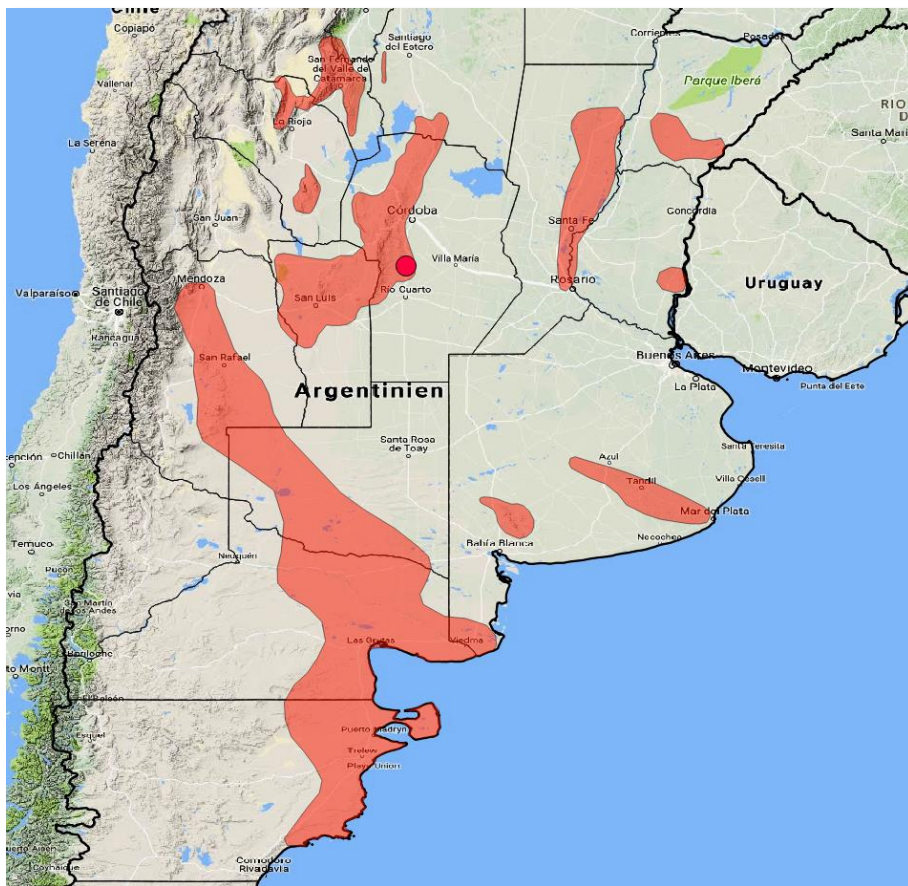


Fig. 158: *Gymnocalycium sutterianum* subsp. *dolezalii* VoS 635 原产地

***Gymnocalycium tanningaense* Piltz (1990)**



Fig. 159: *Gymnocalycium tanningaense* VoS 1462, east of Tanninga, Province Córdoba, Argentina, 988 m



Fig. 160: *Gymnocalycium tanningaense* VoS 1462 栖息地



Fig. 161: *Gymnocalycium taningaense* var. *lukasikii* VoS 183, south of La Esquina, Ruta 17, Province San Luis, Argentina, 1072 m 种子 (20x 拍摄)

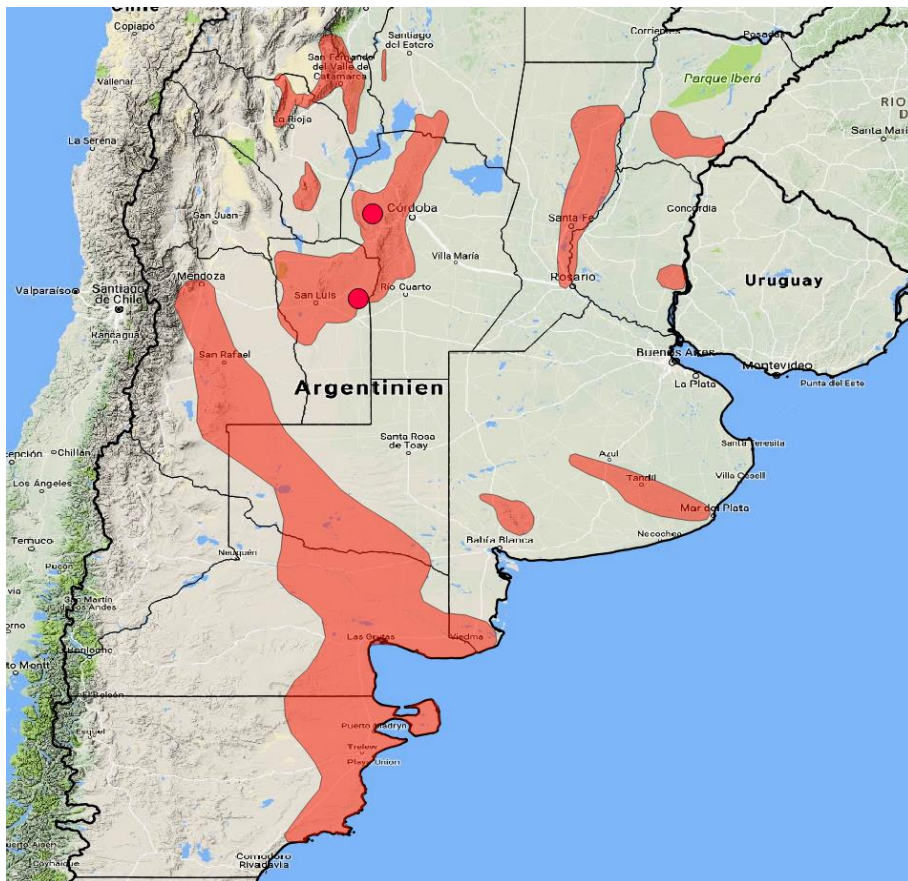


Fig. 162: *Gymnocalycium taningaense* VoS 1462 (北部产地) and *Gymnocalycium taningaense* var. *lukasikii* VoS 183 (南部产地)

***Gymnocalycium uebelmannianum* Rausch (1972)**



Fig. 163: *Gymnocalycium uebelmannianum* VoS 1757, Pampa de La Viuda, Province La Rioja, Argentina, 2160 m



Fig. 164: *Gymnocalycium uebelmannianum* VoS 1757 栖息地



Fig. 165: *Gymnocalycium uebelmannianum* VoS 1757 种子 (20x 拍摄)

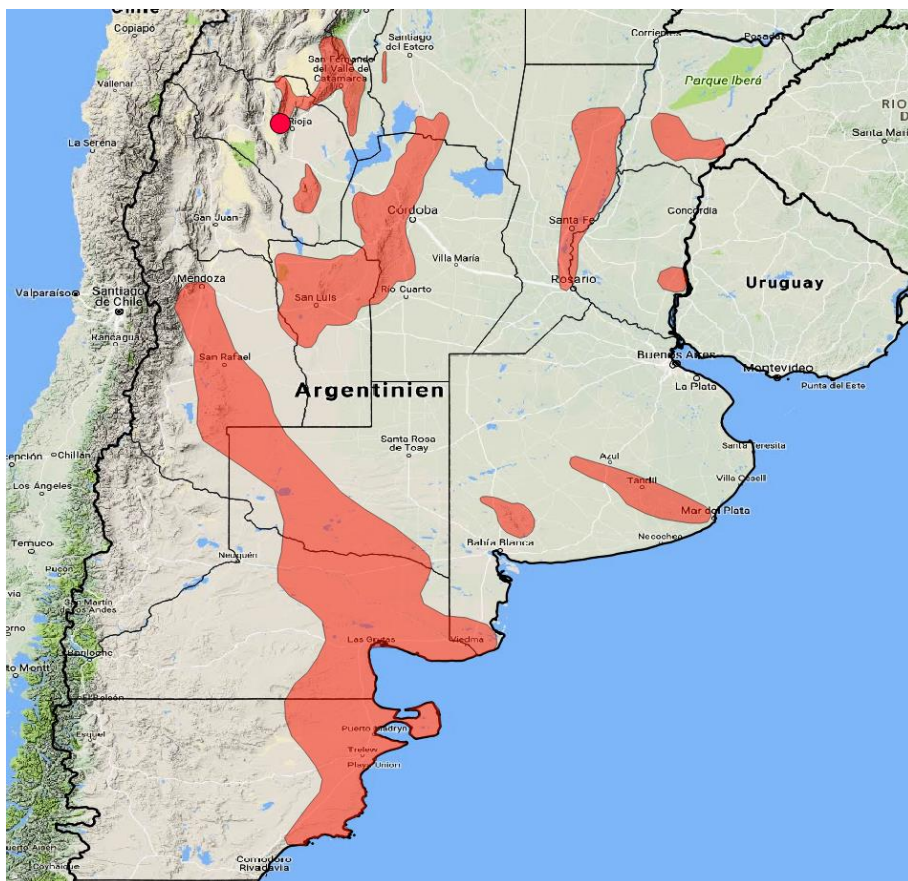


Fig. 166: *Gymnocalycium uebelmannianum* VoS 1757 原产地

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除非另有说明，所有照片由作者提供。

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