Base information to study gypsum ecosystems in Argentina

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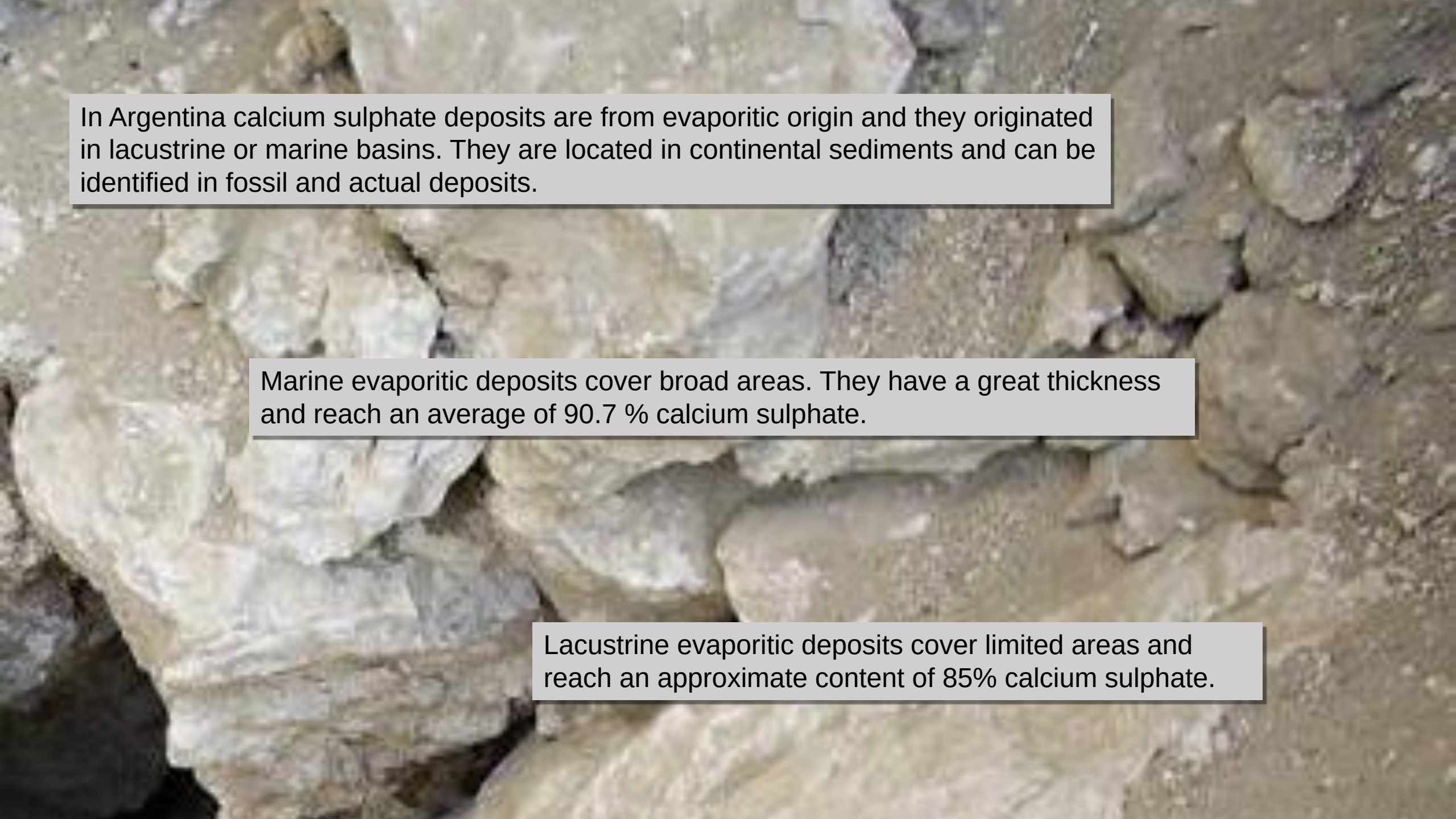
Geotectonical environment is characterized by zones where plates and volcanic areas converge.

These deposits occupy closed basins mainly in arid regions.

In the deposits there is a great diversity of gypsum conditions, from coarse to fine crystal granular state.



In Argentina calcium sulphate deposits are from evaporitic origin and they originated in lacustrine or marine basins. They are located in continental sediments and can be identified in fossil and actual deposits.

Marine evaporitic deposits cover broad areas. They have a great thickness and reach an average of 90.7 % calcium sulphate.

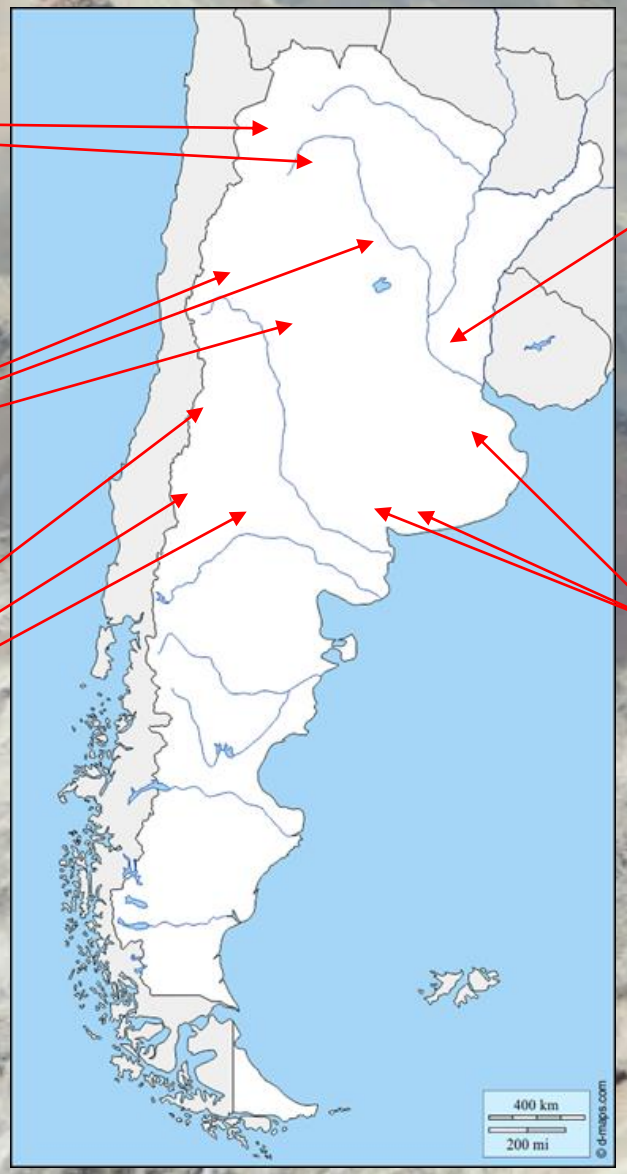
Lacustrine evaporitic deposits cover limited areas and reach an approximate content of 85% calcium sulphate.

Gypsum deposits in Argentina

North West Region

West and Central West Region

Neuquén Basin



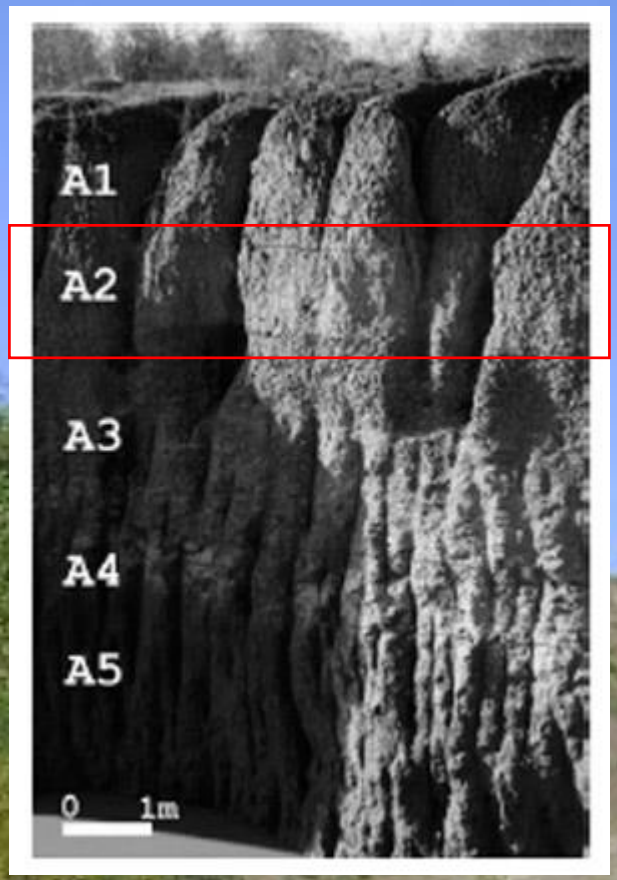
South West of Mesopotamia

Buenos Aires-La Pampa

South West of Mesopotamia and Buenos Aires – La Pampa regions

Hernandarias and Luján-Lobos geological formations

Origin: Pleistocene from lacustrine basins



North West Region

Origin: Late Tertiary from lacustrine basins

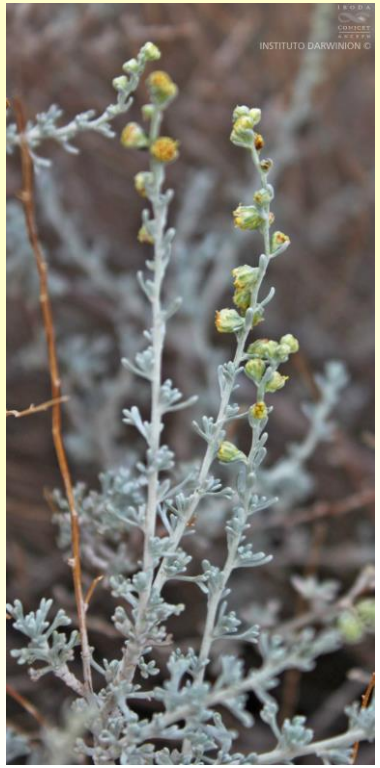
Tolar Grande, Salta

Vegetation in highland saline environments

Gypsum outcrops in Tapia, Tucumán

Gypsum areas in Recreo, Catamarca

Parastrephia quadrangularis



Artemisia copa

Xenophyllum poposum

Baccharis tola

Parastrephia lucida

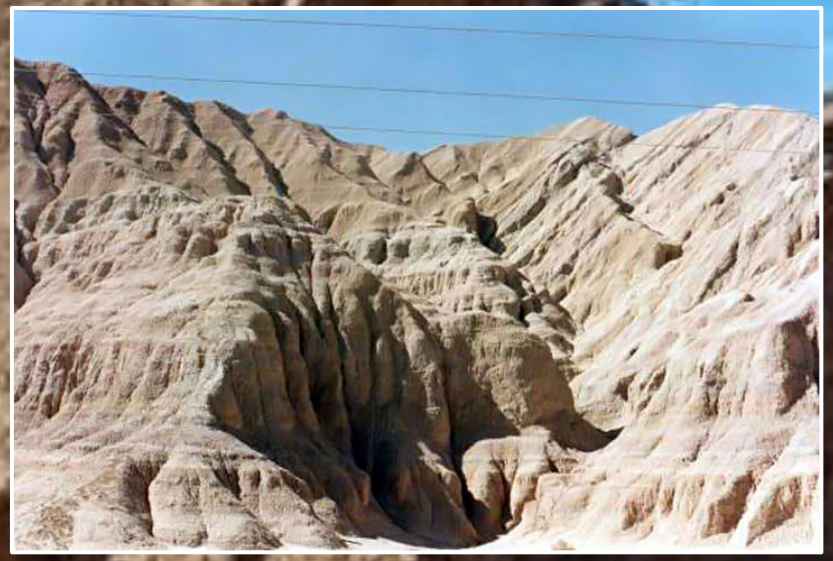
Adesmia horrida

Senecio nutans

West and Central West Region

Origin: Tertiary (Medium Miocene) from lacustrine basins

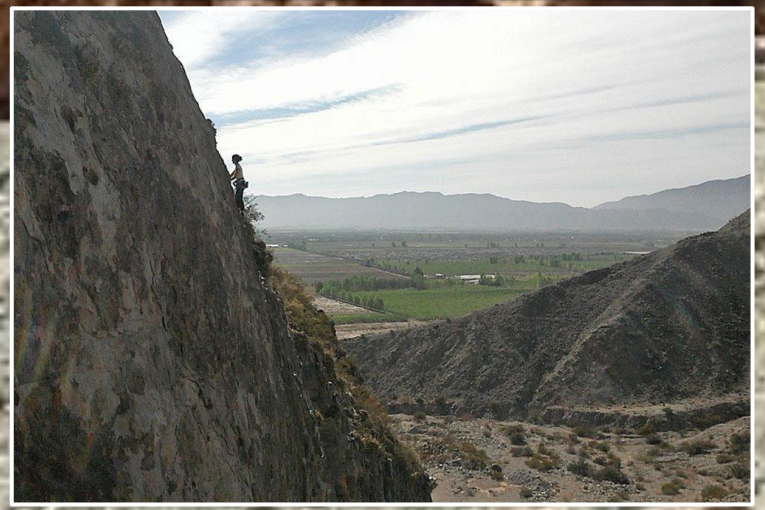
Angualasto, San Juan



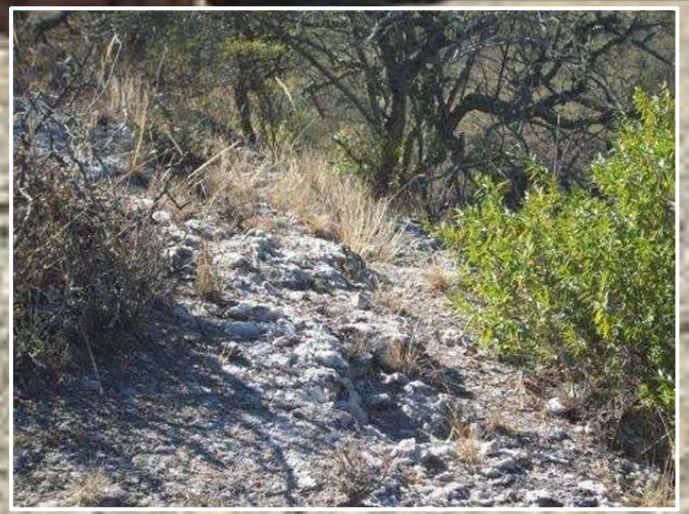
Rodeo, San Juan

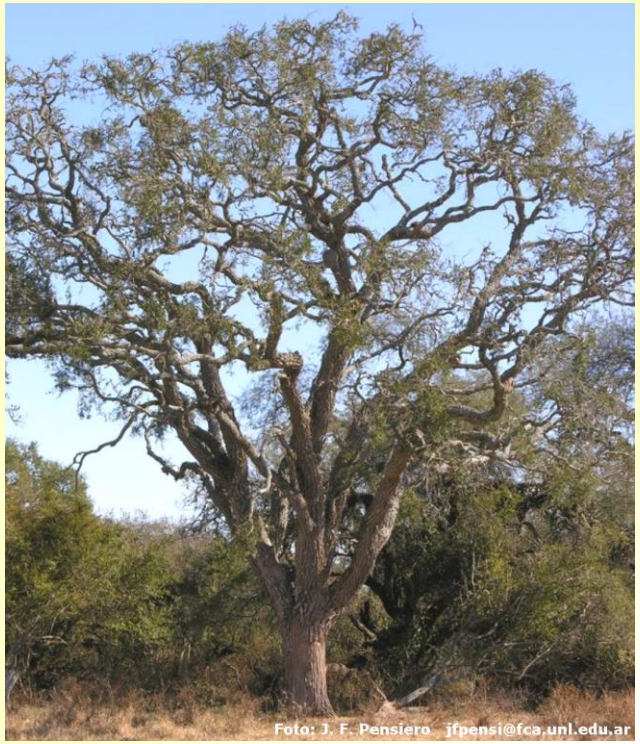
Sierra de los Llanos, La Rioja

Cerro Blanco, San Juan



Guasayán, Santiago del Estero





Aspidosperma quebracho-blanco

Cordobia agentea

Prosopis torquata

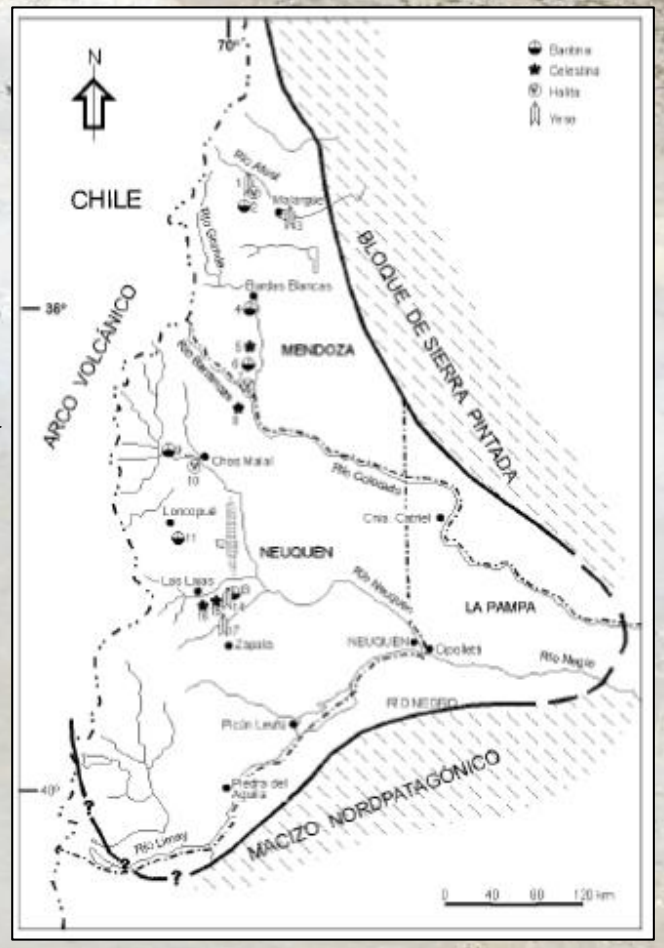
Ximenia americana

Larrea divaricata

Parkinsonia praecox

Neuquén Basin

Origin: Jurassic – Cretaceous from marine coastal deposits



Formations:

- Auquilco
- Huitrín
- Allen
- Roca

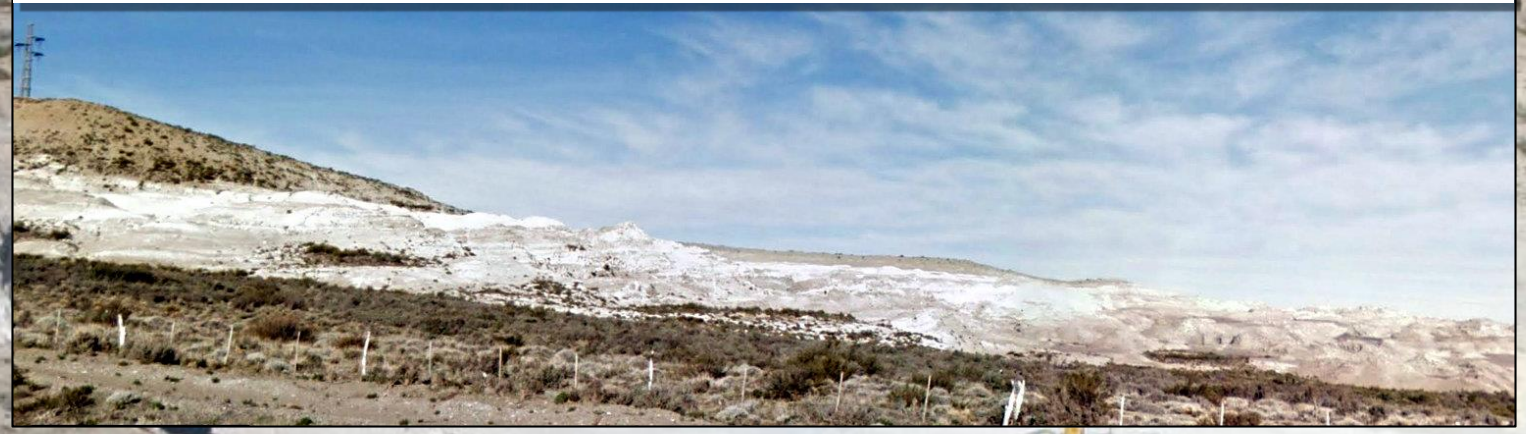
Landscape components from Auquilco Formation in Mendoza

Angel cavern, nearby Ranquil Norte

Gypsum quarry in Las Minas stream

Las Leñas Valley

Landscape components from Auquilco Formation, in Neuquén



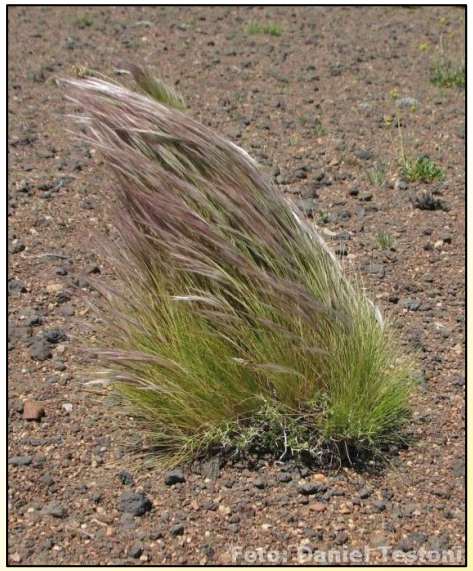
Gypsum quarry in Río Negro Valley, Allen Formation

Argylia robusta

Frankenia fischeri

Azorella prolifera

Jarava neaei



Pappostipa humilis

Atriplex patagonica

Therefore:

The Neuquén Basin was the selected region to make our survey works within the framework of GYPWORLD project.

Gypsum areas from Buenos Aires-La Pampa, South West of Mesopotamia and West and Central West of Argentina regions do not constitute extensive outcrops, and present a generalist vegetation with crops and exotic species.

Gypsum areas from North West region are above 3500 meters over the sea level with very scarce halophile vegetation.

However, the Neuquén Basin is a clear exponent of biological elements from the South American Dry Diagonal. It presents arid conditions with broader areas, landscapes with scarce current disturbance and peculiar floristic components from arid lands with several endemic species, all of them considered a key for conservation efforts on biodiversity.

Photographic acknowledgements:

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