



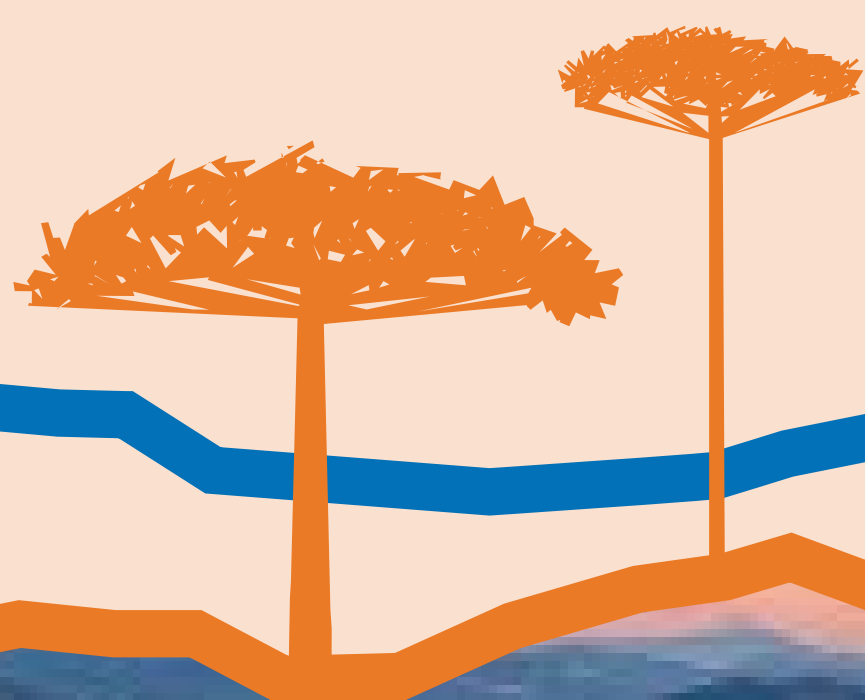
Information GUIDE Excursions

11th International Conference

UNESCO Global Geoparks

September 8th to 12th, 2025

ARAUCANÍA REGION - CHILE



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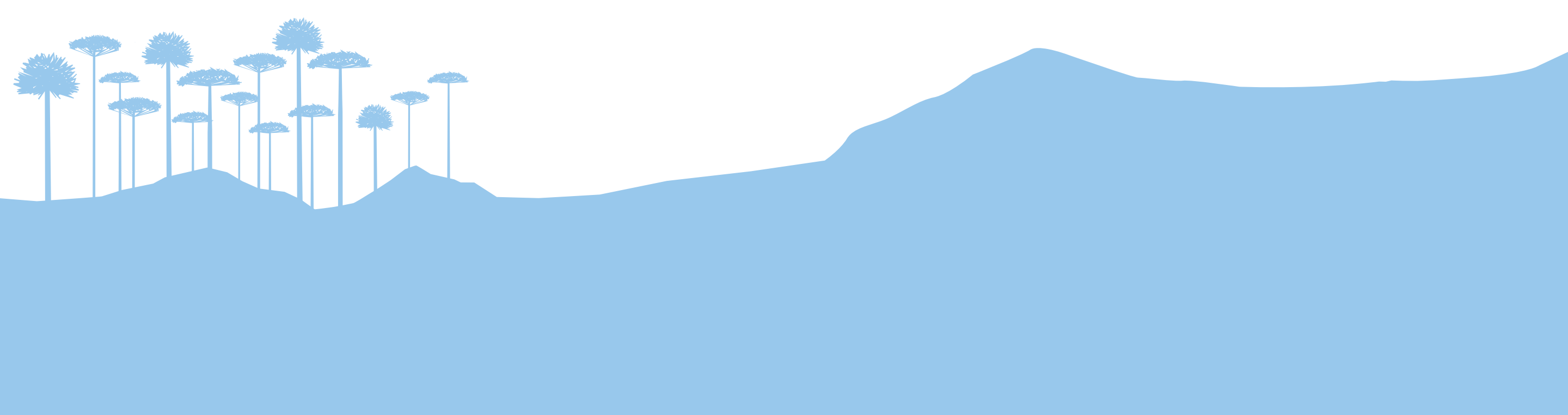
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Desarrolla
Araucanía

Excursions

Volcanic Waterfalls: A Natural Symphony Melipeuco	1
The Footprints of a Giant: The Llaima Volcano Melipeuco	2
The Secret of the Forests: Making the Invisible Visible Melipeuco	3
Ngen-ko and the Strength of the Truful Truful river Cunco y Melipeuco	4
<i>Wuentekurra muley mawiza</i> / Above the Rocks are Mountains Melipeuco	5
<i>Via ferrata</i> through geological time at Saltos de Pocolpén Curarrehue	6
Waterfalls, Lagoons, and Villarrica National Park Curarrehue	7
Garganta del Brujo: the Magic of Kalfukura Cunco	8
Connection with Mapuche Culture and Geological Heritage Lautaro	9
The Heritage Route: Lautaro, History and Living Culture Lautaro	10
San Pedro Wetland and Lagoon Lonquimay	11
Witnesses to the Memory of the Earth Lonquimay	12
Pewenche Quinquén experience Lonquimay	13
Walking Between Pewenche Borders Lonquimay	14
Between Volcanoes and Waterfalls: Discovering the Secrets of the Earth Curacautín	15
The Breath of the Earth: Malleco Hot Springs and Geyser Curacautín	16
Traces of Llaima’s Fury Curacautín	17
Voices of the <i>Pillan</i>: Walking Among Forests and Lava Curacautín	18
Weaving Ancestral Landscapes Vilcún	19
Traces of the Red Earth / <i>Pu rüpu ta kelu mapu</i> Vilcún	20
Geologic Map of Kütralkura	





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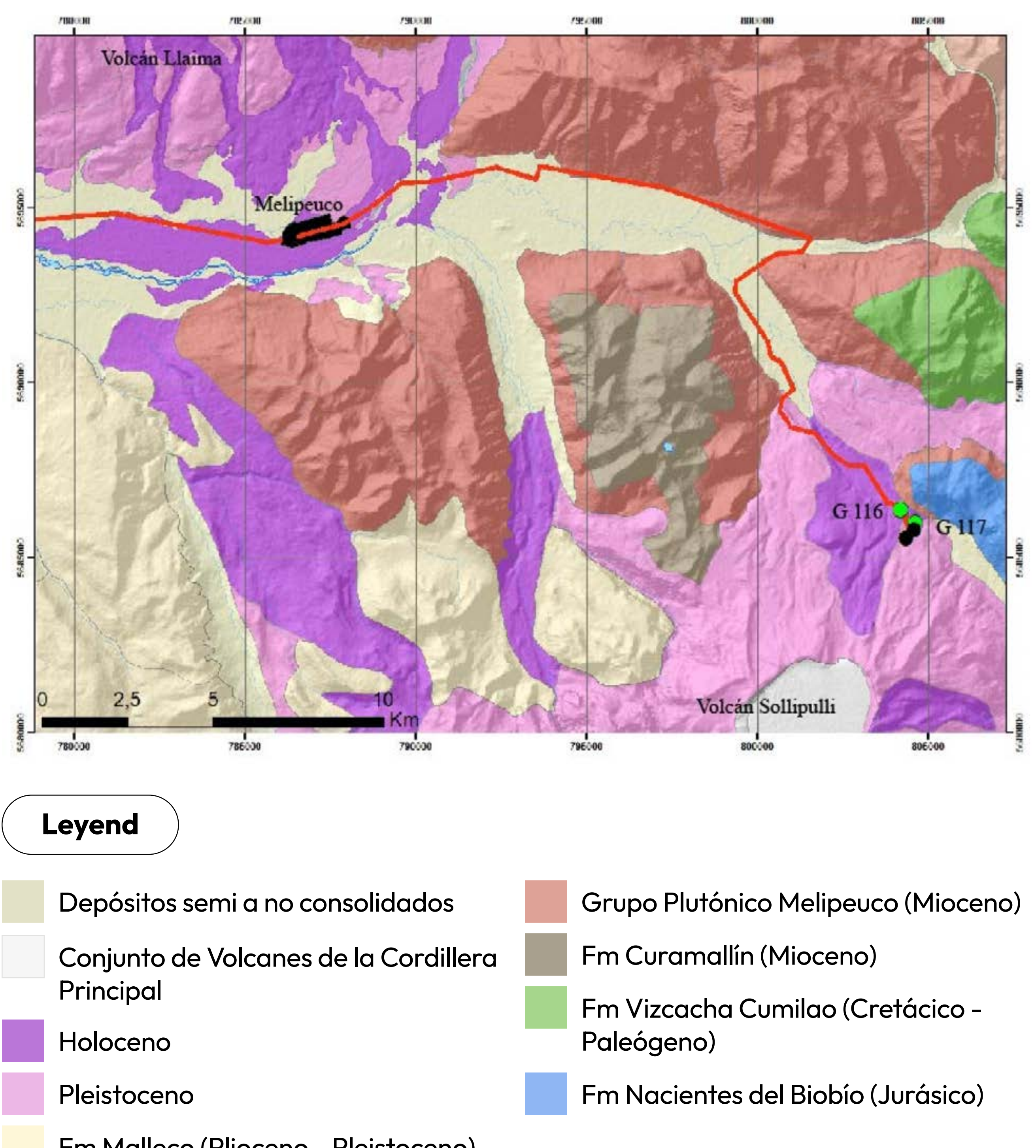
Volcanic Waterfalls:
A Natural Symphony

Melipeuco

DESCRIPTION

This tour is an ode to nature, where waterfalls, lagoons, and biodiversity take center stage in a unique experience. Begin your journey with the imposing **Carilafquen waterfall**, a majestic cascade flowing over volcanic rocks, creating a hypnotic and relaxing spectacle. The trail will lead you to the **Carilafquen lagoon**, surrounded by lush forest and a path that seems to come straight out of a dreamlike landscape. Along the way, sightings of birds such as the black woodpecker, the chucao, and the jergón duck add a magical touch to the environment. This medium-difficulty trek is an opportunity to reconnect with the pure beauty of the Andean Araucanía.

GEOLOGICAL MAP



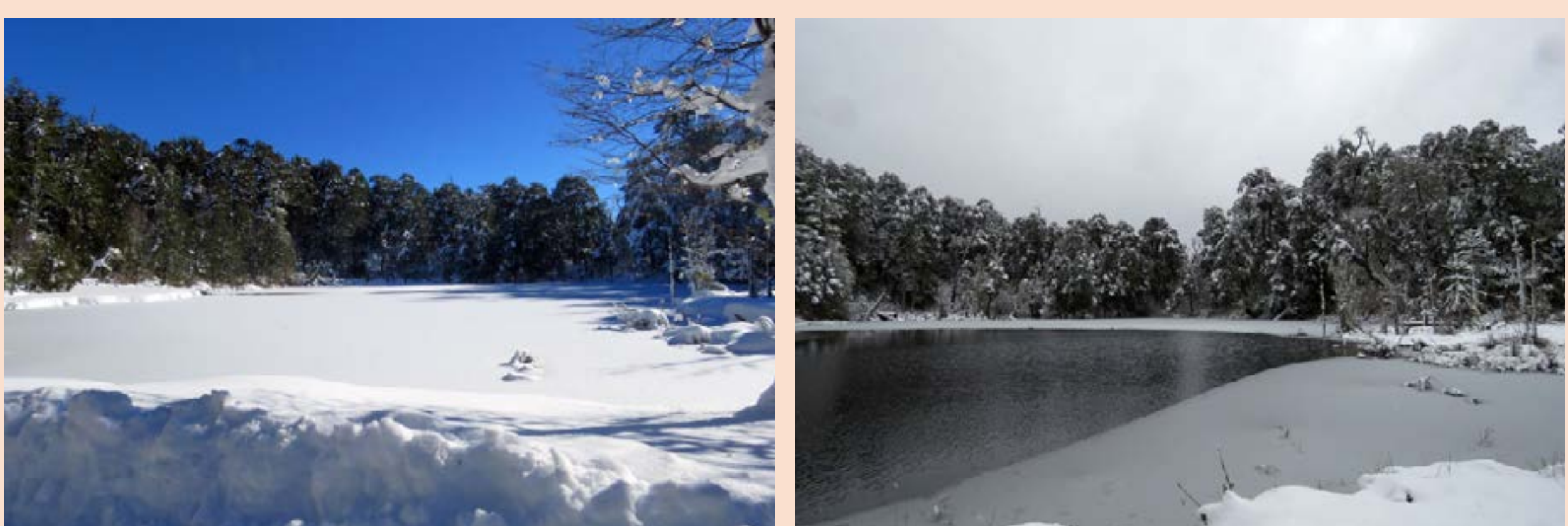
TECHNICAL SHEET

Geodiversity and geosites

- Carilafquen waterfall (G117)**

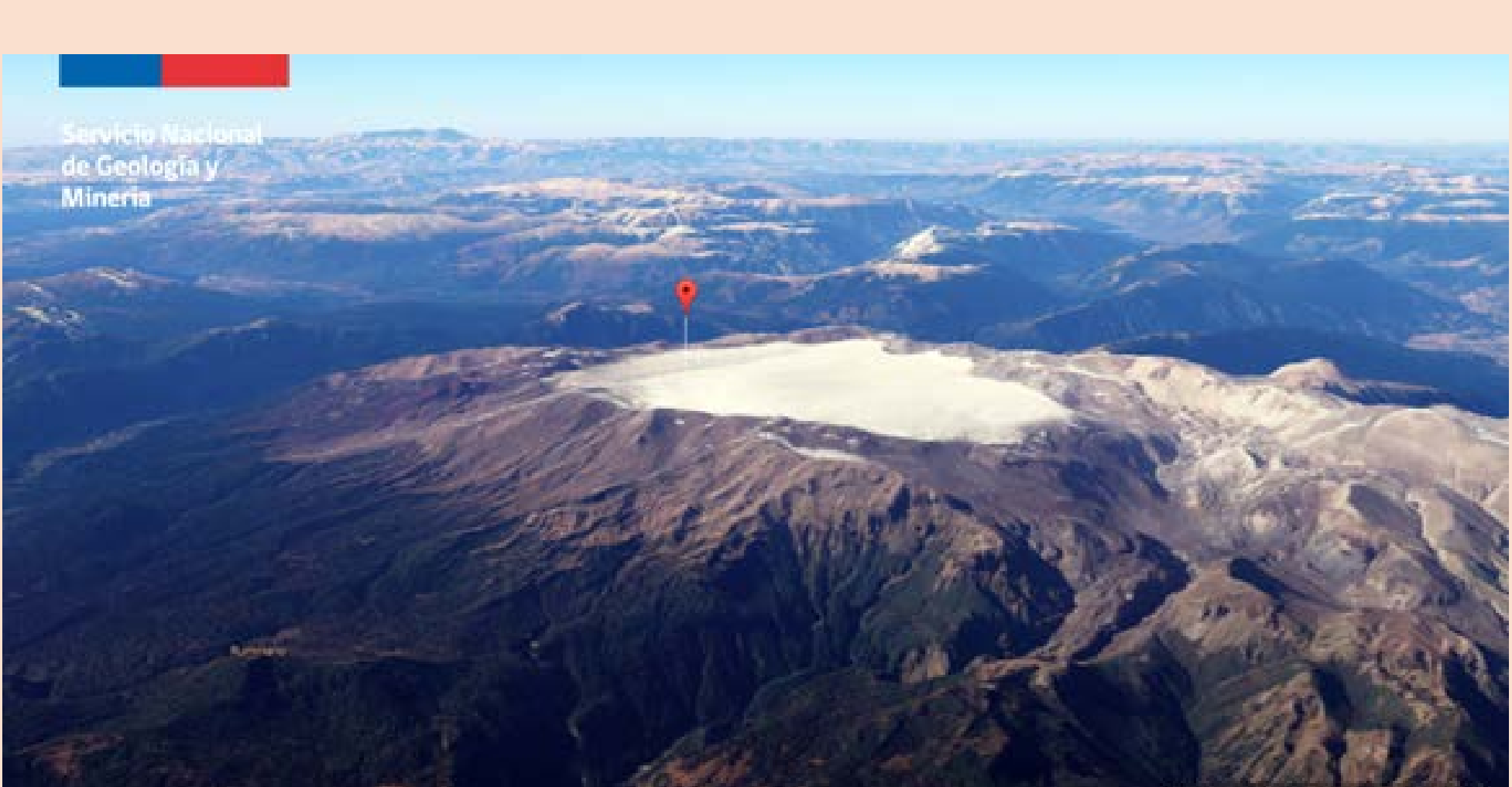
It is located next to the S-575 road. It falls from the top of a lava wall of the Sollipulli volcano, approximately 10 m. As a result of this waterfall, a large cave is formed that is home to abundant native fauna.
- Carilafquen lagoon (G116)**

This lake was formed after an eruption of the Sollipulli volcano dammed the Carilafquen River. A forest of coigües was submerged beneath its waters.



- Sollipulli volcano**

The Sollipulli volcano was formed in the Pleistocene. It has a well-preserved caldera with an average diameter of 4 km, which houses a large glacier of about 2 km³ covering a total area of 12.5 km². The Sollipulli volcano is surrounded by a dozen craters and pyroclastic cones, some with associated lava flows, the last of which correspond to the Redondo and Chufquén cones.



Biodiversity and cultural heritage

Native birdwatching

- 

Chucao (*Scelorchilus rubecula*): It is between 18 and 19 cm long. Its back is reddish brown and it has an orange stripe behind its eyes. The ears and sides of the neck are gray. The belly has black and white transverse stripes and the flanks are gray.
- 

Black woodpecker (*Campephilus magellanicus*): It is between 36 and 45 cm long. Males of this species weigh between 312 and 363 grams, while females weigh between 276 and 312 grams. This species is unmistakable in its range. It is the largest woodpecker in South America and one of the largest in the world. This species is mainly black in color, with touches of white on the wings and a gray chisel-shaped beak. Males have crimson heads and crests, while females have mainly black heads with a red area near the base of the beak. Young black woodpeckers resemble females, except that their crests are smaller and their plumage has a brown tint. Like many woodpecker species, this bird pecks trees loudly and rhythmically, two pecks at a time.
- 

Jergón duck (*Anas georgica*): It can be confused with the *Anas flavirostris*, but the *Anas georgica* is larger. Its total length ranges from 48 to 54 cm. The male weighs between 700 and 800 g, while the female, which is slightly smaller, weighs between 600 and 700 g. The jergón duck has a long, pointed tail, and its neck is longer than that of the *Anas flavirostris*. It resembles the *Anas acuta*, but cannot be confused with it because its geographical distribution is different and the jergón's beak is yellow.



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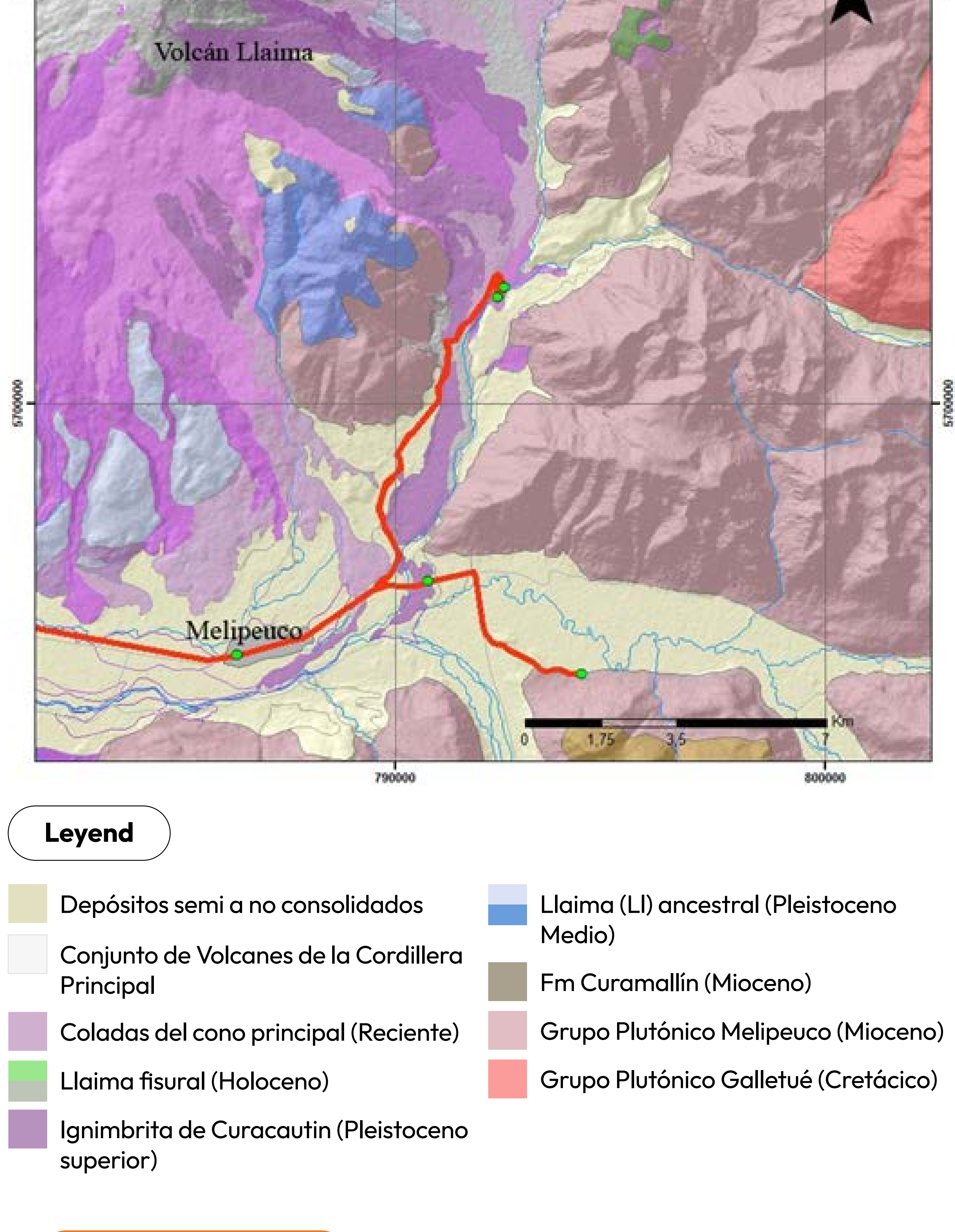
The Footprints of a Giant: The Llama Volcano

 **Melipeuco**

DESCRIPTION

This tour will take you on an exploration of the legacy of the **Llama volcano**, from its geological traces to the cultural heritage of its surroundings. Begin your journey at the **Parador Turístico**, in Melipeuco, where you will visit the **Intercultural Museum** to learn about the worldview of its ancestral inhabitants. Then you will walk through the **Truful Truful canyon**, a living classroom that tells the story of 13,000 years of volcanic eruptions. After the walk, you will visit the **keepers of the food heritage** in their mountain orchards, a place where nature and culture intertwine.

GEOLOGICAL MAP

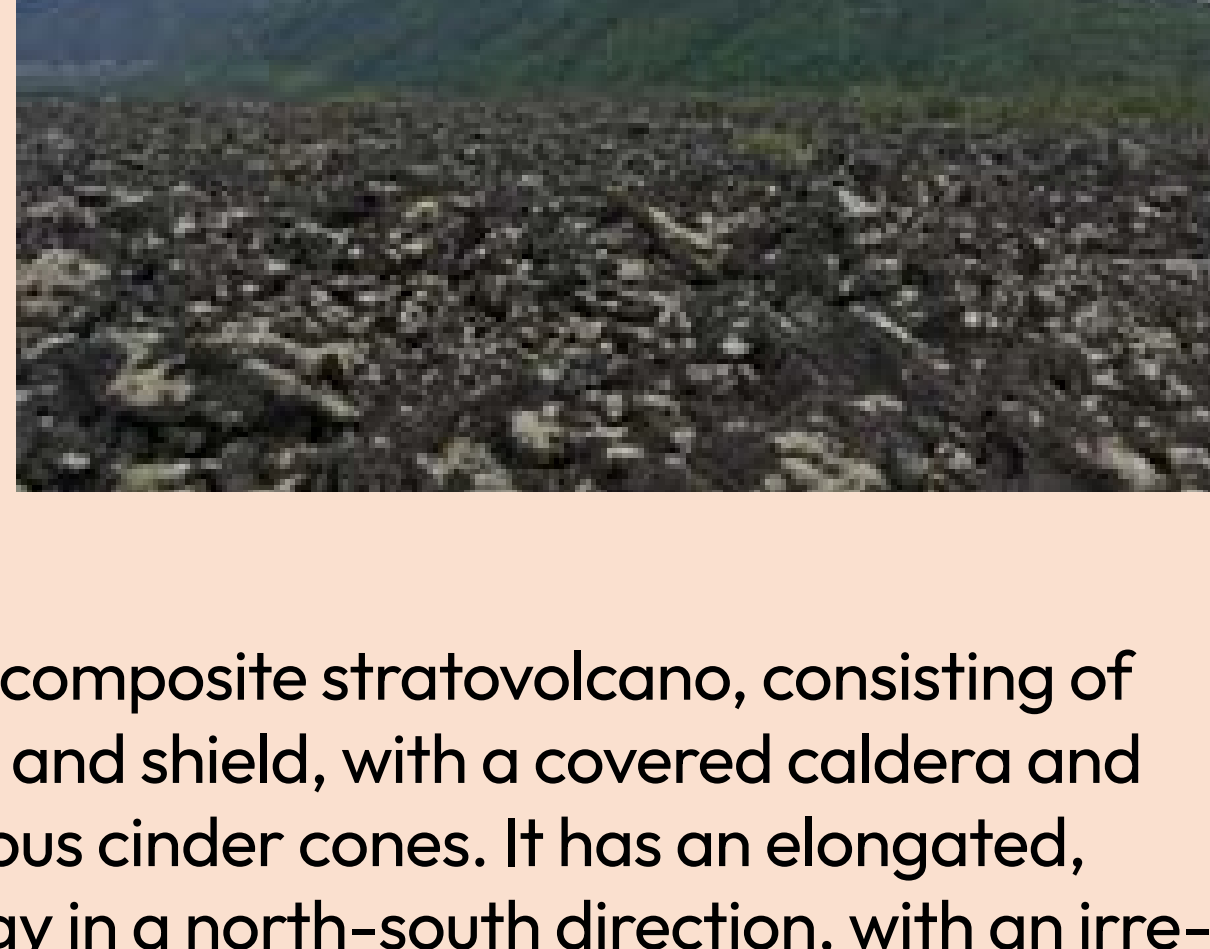
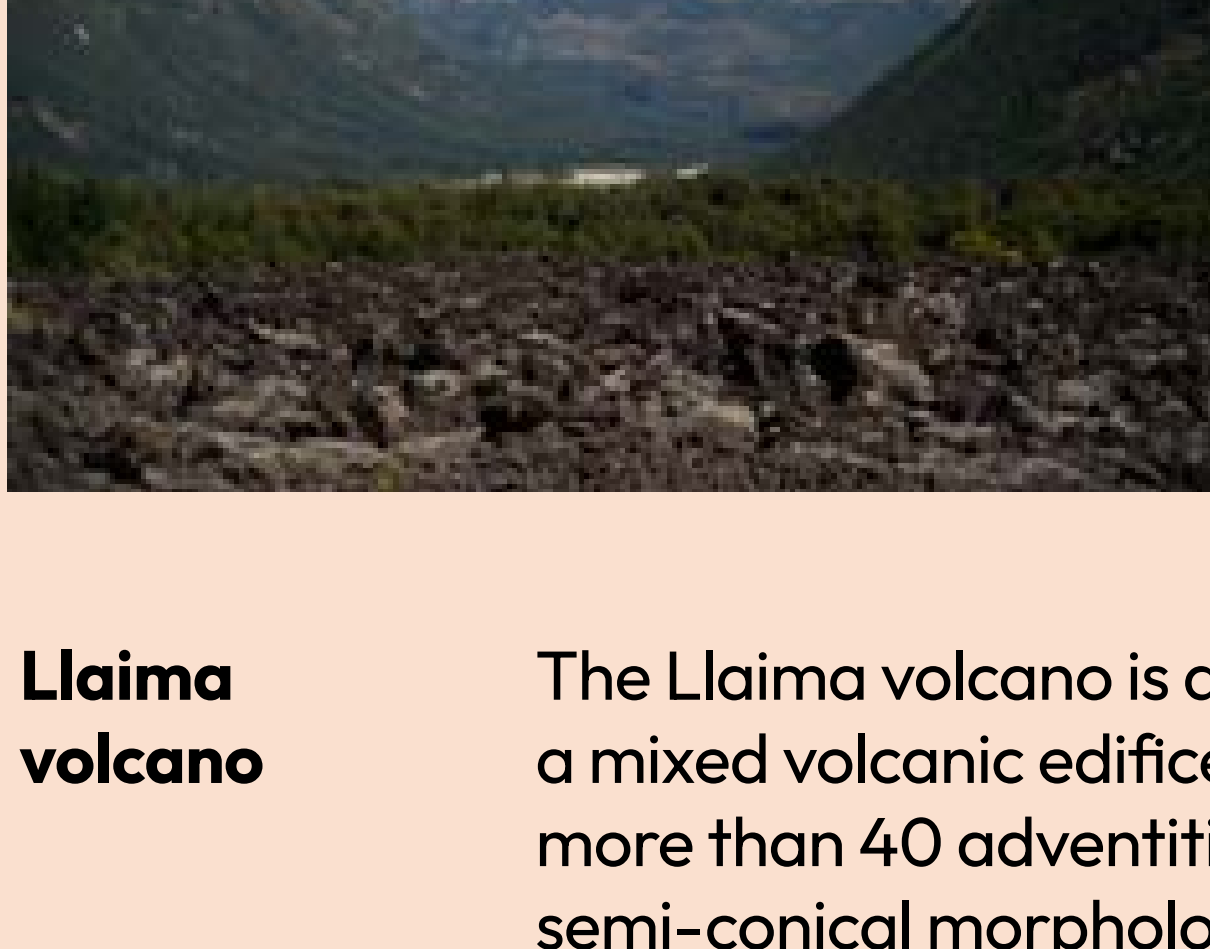


TECHNICAL SHEET

Geodiversity and geosites

Barbecho del diablo (G1)

Here you can see a glacial valley covered by aa-type basaltic lava from the summit of the Llama volcano, which advanced about 16 km to reach this point. You can also see the Llama volcano, the Sollipulli volcano, and the glacial valley of the Alpehue River.



Llama volcano

The Llama volcano is a composite stratovolcano, consisting of a mixed volcanic edifice and shield, with a covered caldera and more than 40 adventitious cinder cones. It has an elongated, semi-conical morphology in a north-south direction, with an irregular base that begins at altitudes between 500 and 900 meters and reaches a maximum elevation of 3,125 meters above sea level.

It is believed to have begun its activity during the Upper Pleistocene, approximately 250,000 years ago, and has been built up through frequent eruptions of fluid lava from a central or flank source. The historical eruption record includes 48 documented events between 1640 and 2009, during which lava flows, lahars, pyroclastic projections, and occasionally pyroclastic flows were generated, as in 1640, its largest historical eruption on record.

The last eruptive cycle began in May 2007 with a weak ash emission, followed by a moderate Strombolian eruption with lahar generation in January 2008, and culminated in April 2009 with a vigorous Strombolian eruption.

The Llama volcano is controlled by the Liquiñe-Ofqui Fault Zone, which governs the volcanic zone of the Southern Andes and whose trace, it is thought, would pass through the Truful Truful River valley.



Truful Truful canyon (G3)

The Truful Truful River canyon offers a magnificent view of a 75-meter-high wall that has been exposed by the erosive action of the Truful Truful River and shows an important part of the eruptive history of the Llama volcano over the last 13,000 years. The oldest events are recorded in the lower part, while the deposits of volcanic events that are progressively younger are found higher up.

At the bottom of this wall, a gray deposit of pyroclastic material can be seen, which was ejected during the largest eruption of the volcano recorded to date, some 13,000 years ago. This eruption produced a pyroclastic flow that created a deposit known as the Curacautín Ignimbrite and partially destroyed the ancient volcano, releasing a large amount of material that can be recognized in extensive areas of the region. It is believed that this major eruption may have led to the formation of a volcanic caldera.

After this major eruption, rains and rivers displaced the material on the surface, producing several lahars, whose deposits can be seen immediately above the Curacautín Ignimbrite.

Among the upper layers, a white layer can be distinguished, consisting mainly of pumice stones of varying diameters that were transported by air. This deposit was formed after a Plinian eruption, with an estimated height of 30 km, which occurred about 9,000 years ago. The stones were scattered hundreds of kilometers away from the volcano and even covered regions of Argentina.

Above the white layer are two layers consisting of deposits from high-speed, high-temperature pyroclastic flows that occurred approximately 7,000 years ago, destroying a significant portion of the existing vegetation. The flows are recognizable by their cross-stratification, unlike the other deposits.

Finally, at the top, there are several darker layers formed by falling slag, the product of numerous Strombolian eruptions. These eruptions are characteristic of the volcano's final evolutionary stage, during which the volcanic cone we know today was formed. These eruptions are generally associated with the emission of basaltic lava.



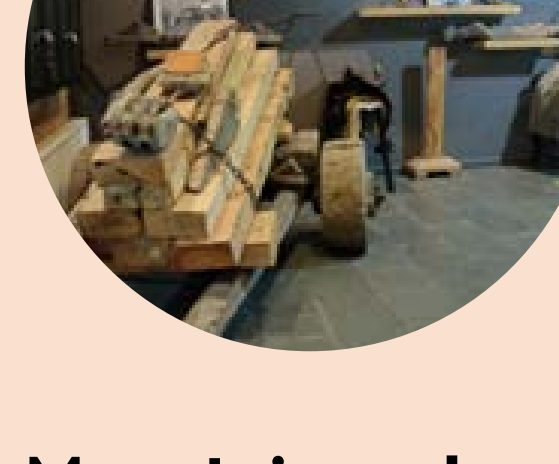
Pichi Truful waterfall (G4)

The Pichi Truful waterfall is a small waterfall on the Truful Truful River that is about 30 m high and 10 m wide. The waterfall is located on a sequence of ancient lava flows from the Llama volcano, which feature columnar jointing at the top. From this spot, there is an excellent view of the Llama and Sierra Nevada volcanoes.



Biodiversity and cultural heritage

Cultural heritage



Melipeuco Intercultural Museum: A space that showcases the worldview, art, and ancestral knowledge of the Mapuche people, who consider the Llama volcano to be an important spiritual element.

Mountain orchards: The women who work in these gardens are the guardians of our biocultural food heritage. These guardians of tradition preserve agricultural practices that connect the past with the present, following a sustainable and ancestral approach.



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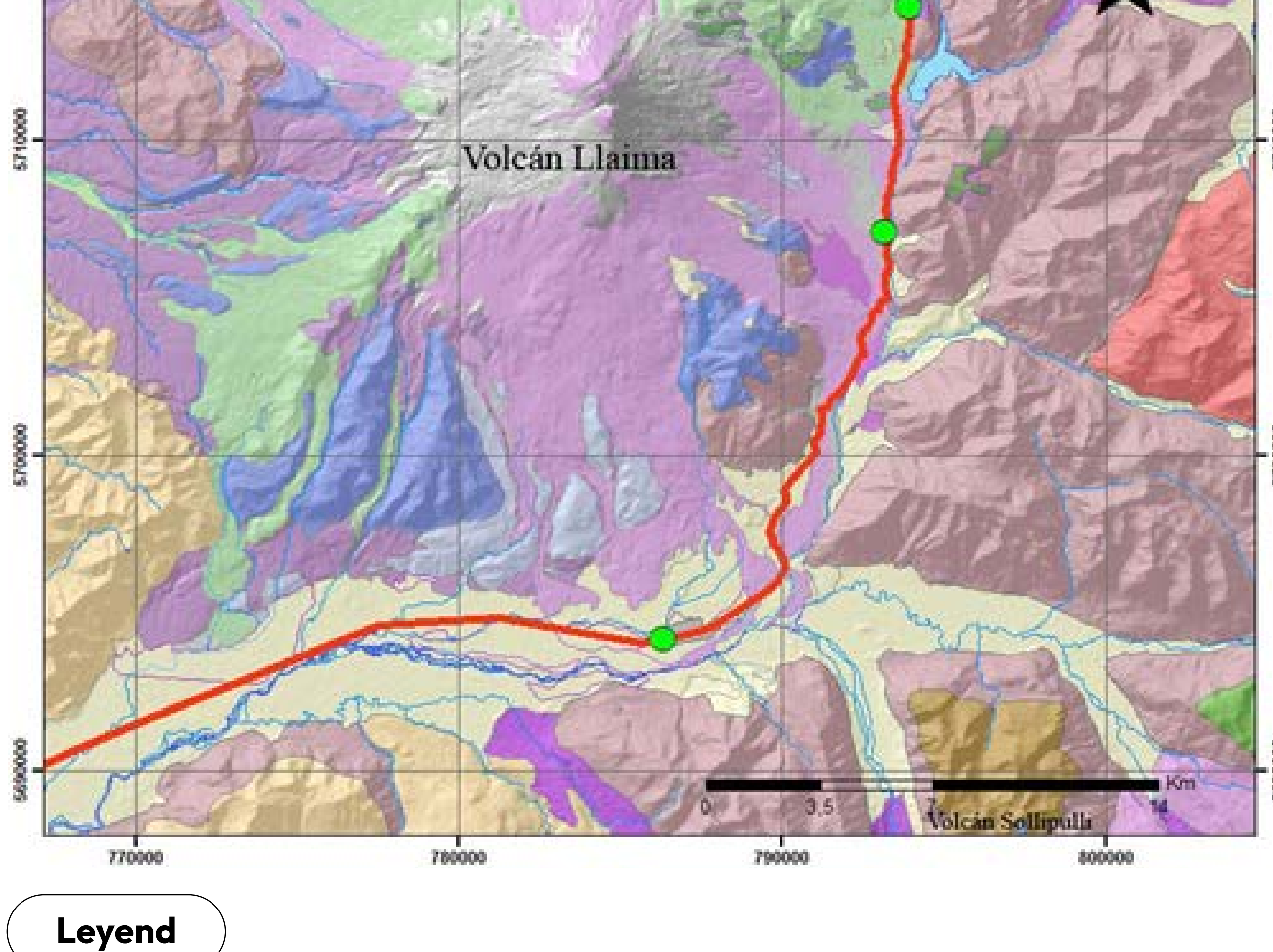
The Secret of the Forests: Making the Invisible Visible

 **Melipeuco**

DESCRIPTION

In **Conguillio National Park**, where biodiversity meets geology, an unforgettable adventure awaits you. From Melipeuco, you will explore the **majestic temperate rainforest**, home to ancient araucaria trees, the enigmatic Liquiñe-Ofqui fault, and lagoons formed by ancient lava flows. Accompanied by local guides and the **iconic black woodpecker**, symbol of the Kütralkura Geopark, you will experience a unique tour where you will learn about geology, conservation, and the rich natural heritage of the Araucanía region.

GEOLOGICAL MAP



Legend

Depósitos Cuaternarios semi a no consolidados	Llaima (LI) ancestral
Conjunto Volcánico de la Cordillera Principal	Formación Malleco (Plioceno - Pleioceno)
Registro Holoceno del Llaima	Formación Curamallín (Mioceno)
Llaima fisural	Grupo Plutónico Melipeuco (Mioceno)
Volcanes Sierra Nevada y Sollipulli (Plioceno)	Complejo Viscacha Cumilao (Cretácico - Paleógeno)
	Plutón Galletué (Cretácico)

TECHNICAL SHEET

Geodiversity and geosites

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Vegetation island (G5)

It corresponds to a coigüe forest that survived the 1957 eruption of the Llaima volcano.

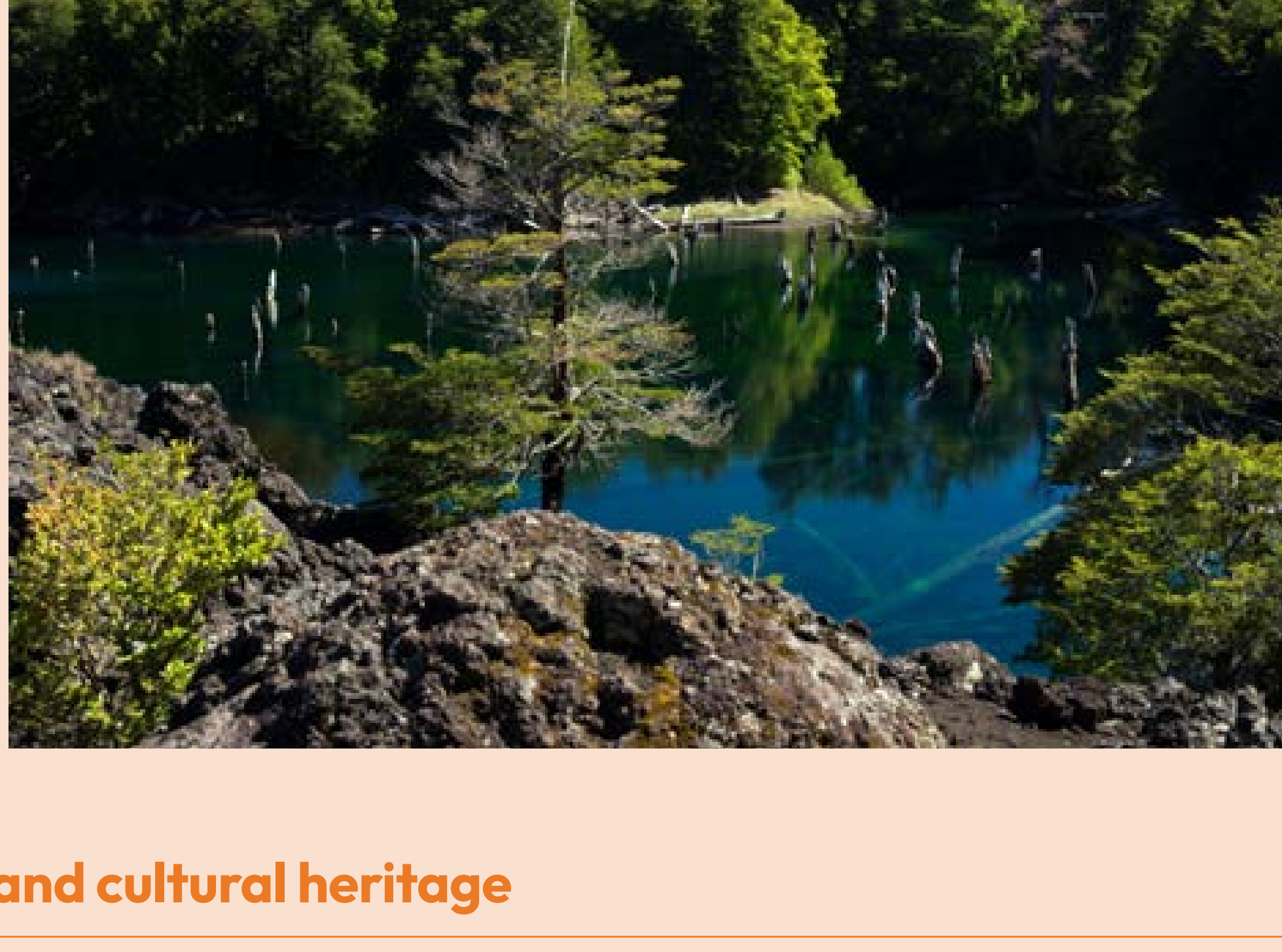
During the eruption, the forest was hit by a lahar that descended down the eastern flank of the volcano. This volcanic flood carried water, sediment, and rock fragments at high speed, uprooting and dragging away part of the forest vegetation. At the base of the trunks that remained standing, it is still possible to see the marks left by the impact of the rocks carried by the flow.

Next to the island of vegetation, you can also see the lava flow that was emitted by the volcano during the same eruption in 1957. This flow descended from the west, burning and covering the western portion of the forest, and then descended about 1.5 km further south, through the Truful Truful River valley. Remains of burnt tree trunks can still be seen at the front of the petrified lava flow. More than 60 years after this eruption, it is now possible to see how lichens have begun to colonize the volcanic rock, the first step in the expansion of the forest.



Arcoiris lagoon (G6)

A small lagoon formed by the damming of ancient water currents. This event is estimated to have occurred around 320 years ago, based on radiocarbon measurements of wood charred by lava. This Llaima flow comes from a series of parasitic volcanic cones of Llaima, located on its northeastern flank and aligned in a northeasterly direction, suggesting that they are controlled by the existence of pre-existing fissures that were exploited by the magma to rise to the surface. The lava flow observed at the site is of the aa type, with a surface of rough, rugged, and sharp blocks. Chemically, it corresponds to a basaltic andesite. The Arcoiris lagoon reservoir flooded an ancient Nothofagus forest, the remains of which can still be seen through the transparent blue and green waters.



Biodiversity and cultural heritage

Wildlife watching

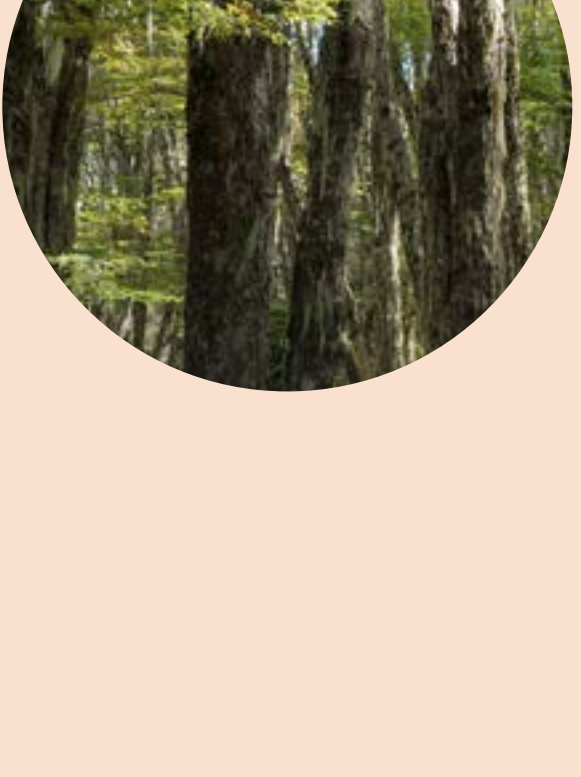


Black woodpecker (*Campephilus magellanicus*): It is between 36 and 45 cm long. Males of this species weigh between 312 and 363 grams, while females weigh between 276 and 312 grams. This species is unmistakable in its range. It is the largest woodpecker in South America and one of the largest in the world. This species is mainly black in color, with touches of white on the wings and a gray chisel-shaped beak. Males have crimson heads and crests, while females have mainly black heads with a red area near the base of the beak. Young black woodpeckers resemble females, except that their crests are smaller and their plumage has a brown tint. Like many woodpecker species, this bird pecks trees loudly and rhythmically, two pecks at a time.

Flora watching



Coihue (*Nothofagus dombeyi*): It is a leafy tree with bark ranging from chestnut to dark gray in color, with large surface cracks. Its horizontally flattened branches give it a distinctive appearance. Its leaves are evergreen and leathery, with a very short petiole and a rounded diamond shape with serrated edges. Its flowers are not very visible because they are green and less than 5 mm long. The same individual has both male flowers, with red anthers, and female flowers. Its pollen is dispersed by the wind. They grow in clusters of three on a peduncle in mid-spring. Its fruits are small and inconspicuous, which may lead one to think that its fruit is the llao llao (*Cyttaria hariofi*), an edible globular fungus, or the galls (tumors) that the tree creates to defend itself from the egg-laying of a certain hymenoptera. Its wood is similar to oak. It can grow up to 35 m tall and remain standing for up to 600 years.



Lenga (*Nothofagus pumilio*): Its leaves are deciduous, 2 to 4 cm long and dark green in color. They are rounded or elliptical in shape with a crenate edge, where two crenations can be distinguished between veins. In autumn, they turn yellow and red. Its wood is of very good quality and is used for construction and the manufacture of fine furniture. Depending on where it grows, it can reach over 30 m in height and diameters that can exceed 1 meter. When it grows at high altitudes, near the snow line, it only appears as a medium-sized shrub, also known as lenga achaparrada.



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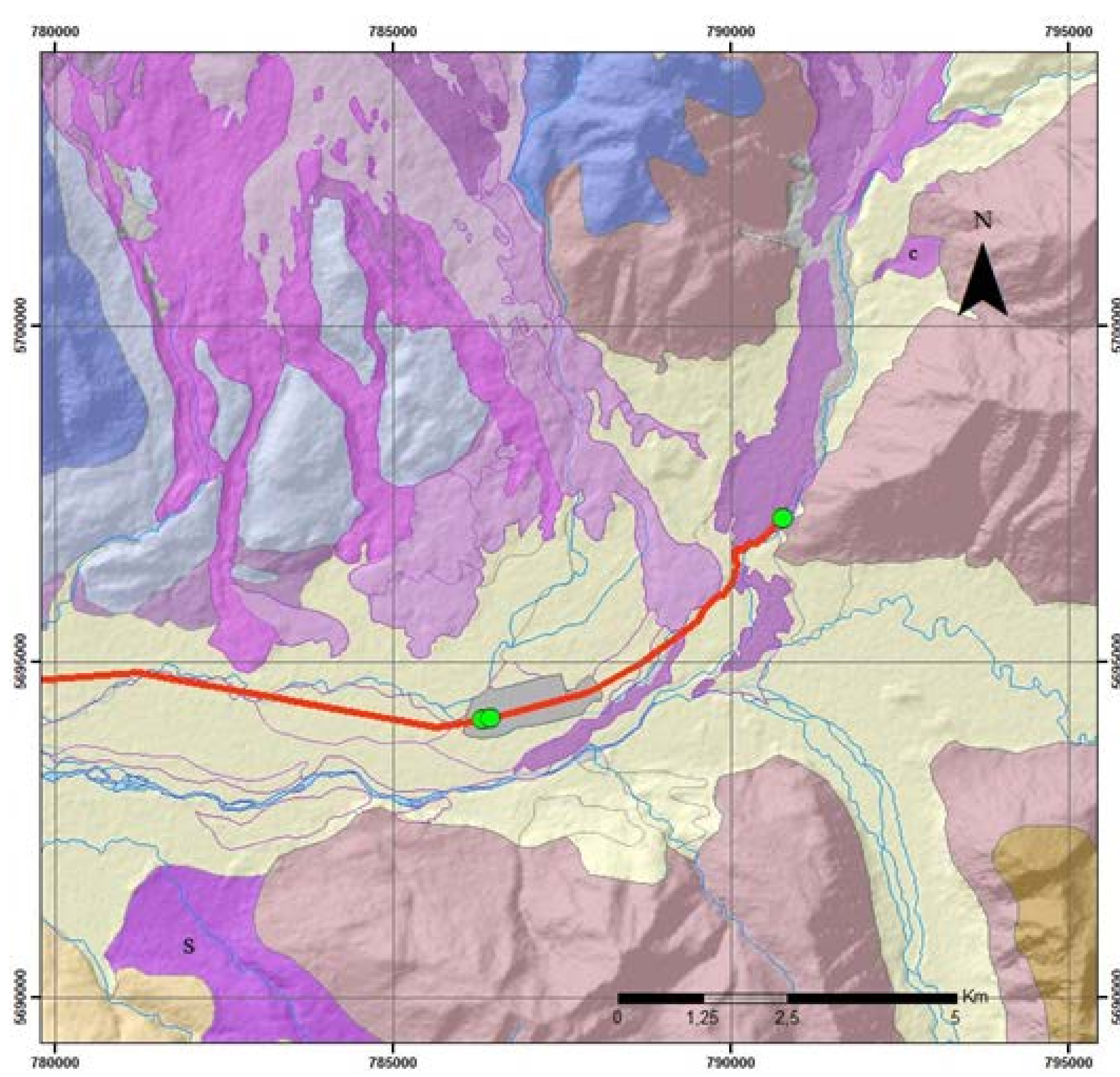
Ngen-ko and the Strength of the Truful Truful river

 **Cunco y Melipeuco**

DESCRIPTION

Embark on a geoscience and adventure tour in **Conguillío National Park**, where the **Truful Truful River**, which originates between the imposing Llaima and Sierra Nevada volcanoes, flows through ancient lava flows and lush nature. During the tour, you will learn about the mystical power of water while enjoying the majestic **Salto Grande del Truful Truful** waterfall and discovering the cultural and natural treasures of the area.

GEOLOGICAL MAP



Legend

	Depósitos Cuaternarios semi a no consolidados		Colada 1640 LI
	Conjunto Volcánico de la Cordillera Principal		Colada LI
	Colada 1780 LI		S Depósitos Solipulli
	Colada 1751 LI		Llaima (LI) ancestral
	Depósitos coluviales		Formación Curamallín (Mioceno)
			Plutón Galletué (Cretácico)

TECHNICAL SHEET

Geodiversidad y geositios

Truful Truful waterfall (G2)

An 8-meter-high waterfall, next to which Miocene rock outcrops can be seen beneath lava flows from the Llaima volcano.



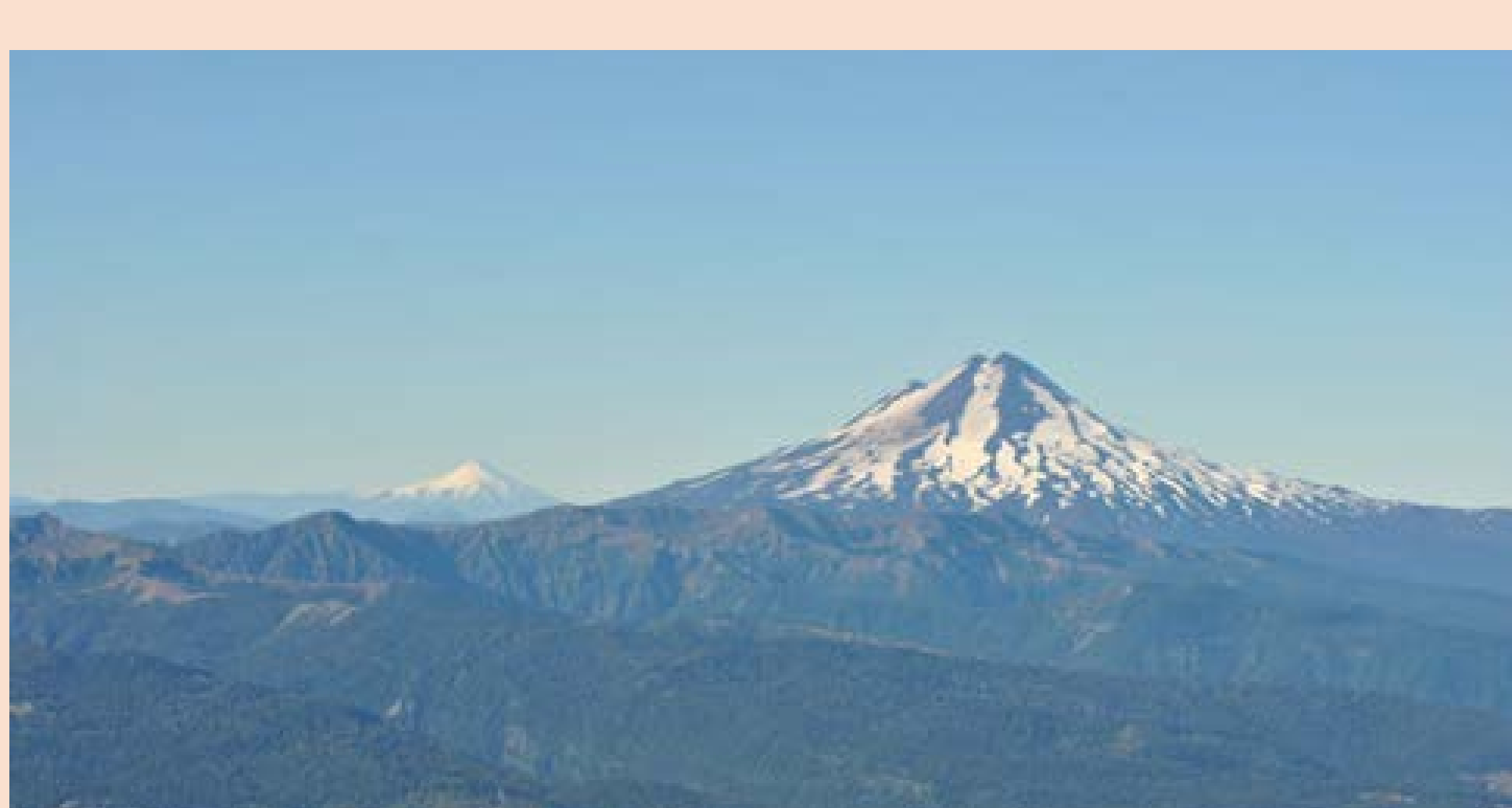
Llaima volcano

The Llaima volcano is a composite stratovolcano, consisting of a mixed volcanic edifice and shield, with a covered caldera and more than 40 adventitious cinder cones. It has an elongated, semi-conical morphology in a north-south direction, with an irregular base that begins at altitudes between 500 and 900 meters and reaches a maximum elevation of 3,125 meters above sea level.

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Biodiversity and cultural heritage

Cultural heritage



Villa García: The first town to be declared a traditional area in Araucanía. The San Conrado chapel, recognized as a historical monument, is located in its central square.



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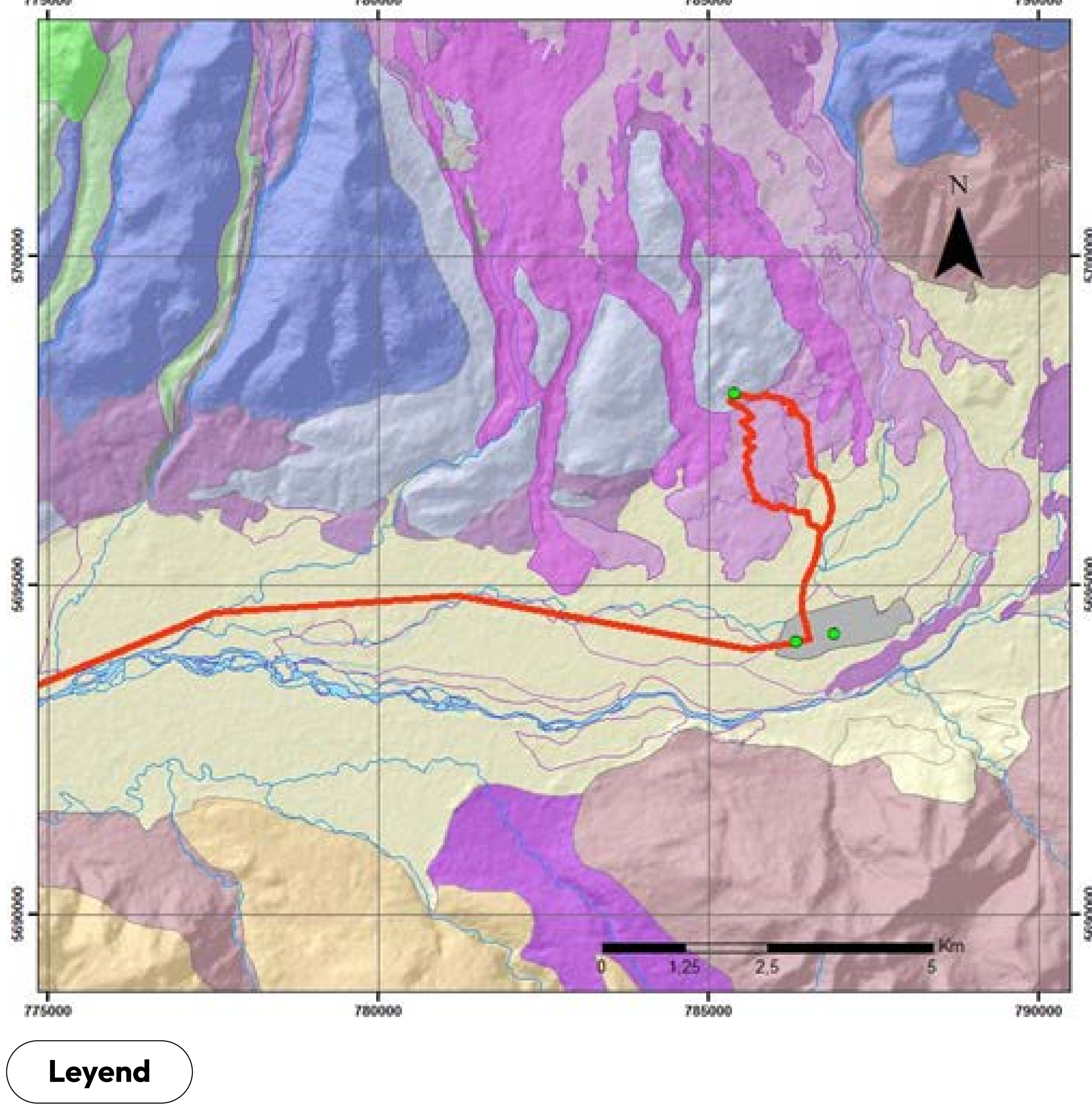
Wuentekurra muley mawiza / Above the Rocks are Mountains

 **Melipeuco**

DESCRIPTION

This unique tour will take you along a trail that combines volcanic landscapes and the cultural richness of the Mapuche people. We will start at the **Melipeuco Intercultural Museum**, where you will explore the history of the region. Then we will head out into nature. We will explore a **trail surrounded by forests growing on volcanic rock**. During the hike, you will be able to spot copihues, native birds, and, with a little luck, traces of pumas and other native wildlife. The trail ends at **Folil Koyam**, a restaurant with a Mapuche identity, where the cuisine is a tribute to nature. Here, **Mercedes Painevil** and her team will offer you a culinary experience that combines fresh ingredients harvested from their own gardens, ancestral techniques, and a deep respect for the land.

GEOLOGICAL MAP



TECHNICAL SHEET

Geodiversity and geosites

Trail along the slopes of Llaima

The trail runs along the slopes of the Llaima volcano, first through lahars generated in 1780, and then through lava flows from the main cone, which are andesitic-basaltic in composition and estimated to be around 3,000 years old. In the upper part, the route reaches a record of the ancestral Llaima (Middle-Upper Pleistocene), part of the remains of the ancient volcanic edifice of Llaima: a sequence of andesitic-basaltic lavas with few volcanoclastic intercalations.

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Biodiversity and cultural heritage

Cultural heritage



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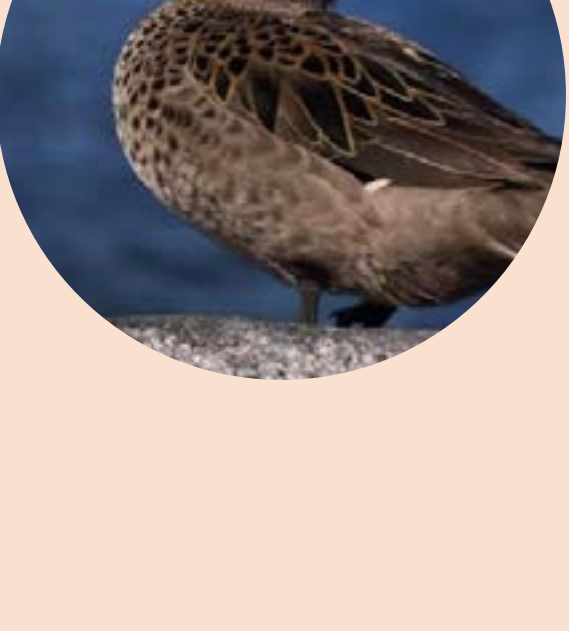
Wildlife watching



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Jergón duck (*Anas georgica*): It can be confused with the *Anas flavirostris*, but the *Anas georgica* is larger. Its total length ranges from 48 to 54 cm. The male weighs between 700 and 800 g, while the female, which is slightly smaller, weighs between 600 and 700 g. The jergón duck has a long, pointed tail, and its neck is longer than that of the *Anas flavirostris*. It resembles the *Anas acuta*, but cannot be confused with it because its geographical distribution is different and the jergón's beak is yellow.



Puma (*Puma concolor*): A carnivorous mammal of the Felidae family native to the Americas. This feline lives in more places than any other wild land mammal on the continent, ranging from the Yukon in Canada to the southern Andes and Patagonia in South America. The puma is adaptable and generalist, living in the main biomes throughout the Americas. It is the second largest cat on the American continent, after the jaguar. It is slightly larger than the leopard, although it is more closely related to the small cats, since, unlike the large felids of the Panthera genus, which can roar, the puma purrs. As a hunter and ambush predator, the puma obtains a wide variety of prey. Its main food source is ungulates, such as deer, particularly in the northern part of its range, but it also hunts camelids, such as guanacos, and small species, such as insects and rodents. It prefers a habitat with dense vegetation during hunting hours, but it can also live in open areas.

Flora watching



Puma (*Puma concolor*): A branchy shrub with a twining, jointed stem that can reach up to 6 m in height. The copihue has alternate leaves on the twig, lanceolate-ovate in shape, up to 12 cm long. The leaves have a smooth edge, a sharp apex (acuminate leaves), a heart-shaped base (cordate), a leathery texture, and prominent parallel veins.

Copihue flowers reach a size of up to 10 cm in length, have a peduncle up to 1.5 cm long, are hairless (glabrous), and have small bracts. The flower consists of six free tepals, arranged in two series of three tepals, one intercalated with the other. The tepals are linear-spatulate in shape, up to 8.5 cm long on the outside and up to 9.5 cm long on the inside, keeled at the base, and range in color from ivory white and pink to red. The stamens of the flower can reach a length of up to 7 cm, with white filaments. The ovary is linear-oblong in shape, thinner towards the apex and green in color.

The fruit of the copihue is a berry between ovate-oblong and spherical in shape, with a smooth texture, tending to be pointed at the apex (acuminate), green to yellow in color when ripe, with numerous seeds inside, contained in a white, sweet pulp inside the berry.



ITINERARY

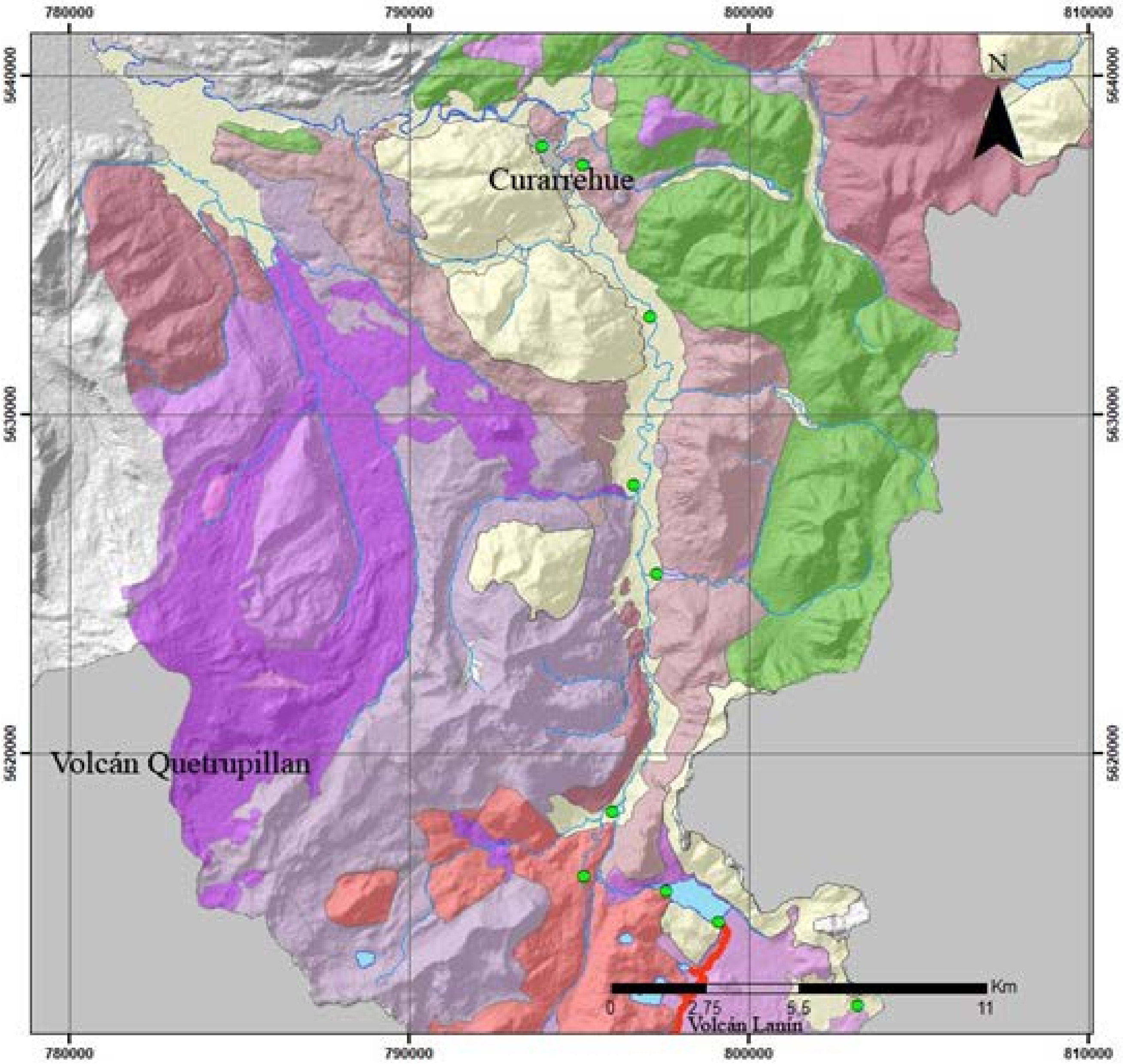
Vía ferrata through geological time at Saltos de Pocolpén

Curarrehue

DESCRIPTION

On this excursion, we will travel to the mountain village of Curarrehue and continue on to **Saltos Pocolpén Park**. Strategically located within the Kütralkura Geopark, the park offers a unique immersion in the dynamic interaction between tectonic and glacial processes. There, we will visit **Pocolpén Canyon**, a rock canyon of significant geological interest, where an impressive via ferrata runs through it, allowing us to explore it vertically. Not only will it be an exciting experience, but it also presents an exceptional opportunity to observe *in situ* the evidence of the geological history of the Kütralkura Geopark: from the rock structures fractured by tectonics to the marks of glacial abrasion and the continuous modeling action of water. Once the activity is over, we will have lunch in Pocolpén, where we can also visit a **craft and rural produce fair**.

GEOLOGICAL MAP



Leyend

- | | |
|---|-------------------------------------|
| Depósitos Cuaternarios semi a no consolidados | Grupo Plútonico Melipeuco (Mioceno) |
| Conjunto Volcánico de la Cordillera Principal | Estratos de Relicura (Paleógeno) |
| (Holoceno - Pleistoceno) | Intrusivos del Cretácico |
| Volcanismo del Pleistoceno inferior | |

TECHNICAL SHEET

Geodiversidad y geositios

Cañón del Pocolpén

The genesis of this canyon is attributed to a large-scale seismic event that fractured the mountain range and created an initial fissure. Subsequently, the erosive action of Quaternary glaciers, through abrasion processes, sculpted and deepened this pre-existing fissure. The current morphology of the canyon, with its steep walls and bed through which crystal-clear waterfalls flow, is the result of continuous river incision on the fractured rock.





ITINERARY

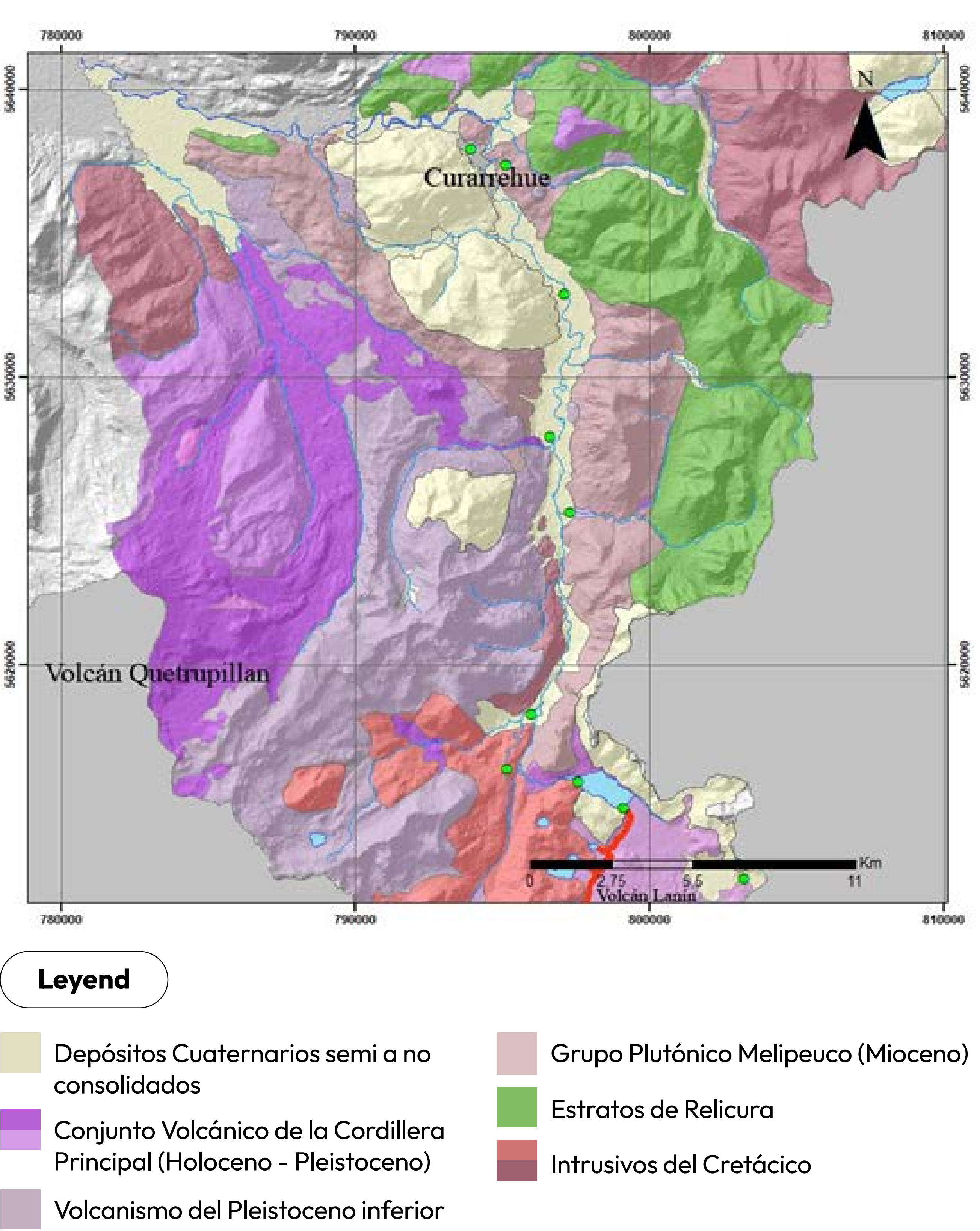
Waterfalls, Lagoons, and Villarrica National Park

Curarrehue

DESCRIPTION

We will begin this activity in **Curarrehue Square**, where we will give an initial welcome, and then visit the man-made **Careau Lagoon**. Its imposing circular rock walls allowed its waters to be channeled to the first mill in Curarrehue, generating the first communal electricity network in the 1960s by means of a turbine. Next, we will head to the **Caren waterfalls**, where we will visit three waterfalls and a cave. From there, we will visit **Salto de Pocolpén Park**, where we will see three waterfalls and walk along a via ferrata that runs along one of the rock walls of the Pocolpén Canyon. Finally, we will head to **Villarrica National Park** to see the imposing Lanin volcano, walk through a forest of araucaria trees, and reach Quillelhue Lagoon.

GEOLOGICAL MAP



TECHNICAL SHEET

Geodiversity and geosites

Momolluco waterfall (G52) A 310-meter waterfall originating from the drainage of the Quillelhue lagoon. It is surrounded by great biodiversity and intrusive (plutonic) rocks from the Cretaceous and Miocene periods. The territory is marked by megaregional structures, which control the current volcanic morphology, and by the pas-sage of ancient glaciers.



Quillelhue lagoon (G121) A beautiful lake located at the foot of the Lanin volcano and surrounded by hills covered in native vegetation. This place is part of the Andean Lakes Route.



Biodiversity and cultural heritage

Cultural heritage

The Trawupeyüm Intercultural Village (‘Where we Gather’) consists of a museum dedicated to promoting local heritage (both tangible and intangible); a cultural center, where various artistic and cultural activities are held throughout the year, such as film, dance, theater, and music events; an artisan market, Llallen Kuse, consisting of four stalls selling local crafts made from wood, basketry, and wool, among other materials, and a stall selling Mapuche cuisine and culinary creations; and, finally, the Curarrehue Public Library, a community information center that offers a range of services (book lending, training, and internet access).

Flora watching



Pewen (*Araucaria araucana*): Considered a living fossil, with a history spanning more than 240 million years, *Araucaria araucana* is a large conifer with a distinctive and striking umbrella shape. It is a species adapted to the harsh and demanding conditions of the Andean territories, with months of cold and snow. It grows in rocky and volcanic soils, derived from recent volcanic ash deposits. It is also part of the mountain forests, alongside specimens of the *Nothofagus* genus. Its seed, the nguilliu or piñón, is the basis of the food, family, and spiritual heritage of the pewenche people.

It is possible to find specimens up to 45 meters high and 2 meters in diameter at their base. They are characterized by slow growth. Their distribution covers a small area of Chile and Argentina, at an altitude of around 900 meters above sea level. *Araucaria araucana* was declared a Natural Monument in 1990, which means that its felling and destruction are prohibited throughout the national territory, as is the extraction of its pine nuts and cones.



ITINERARY

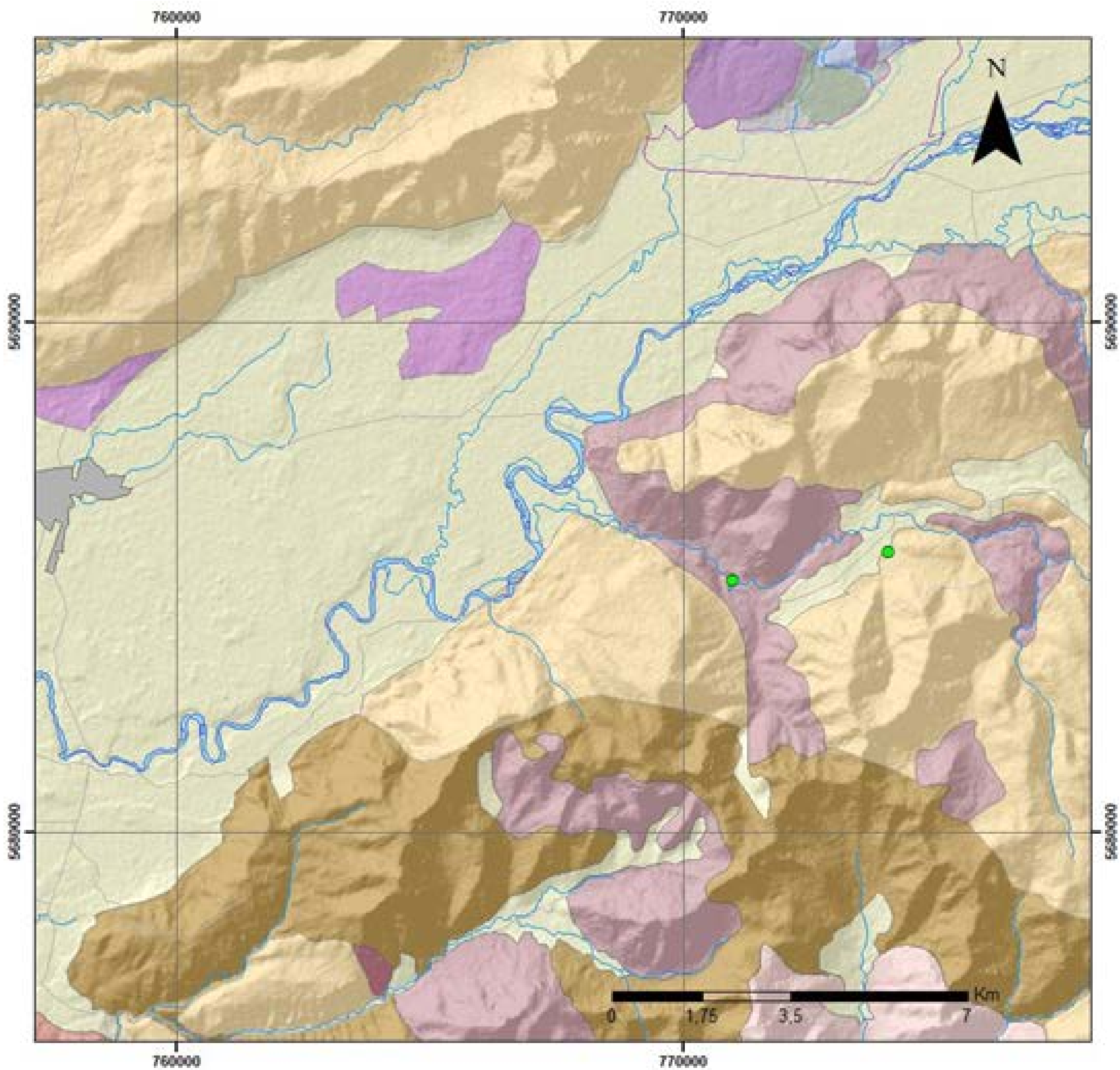
Garganta del Brujo: the Magic of Kalfukura

 **Cunco**

DESCRIPTION

Join us where volcanic history and Mapuche legends intertwine to create an unforgettable adventure. Along the **Kalfukura route**, you will explore the **Garganta del Brujo (Wizard’s Gorge)**, a geosite that combines spectacular geological formations and the cultural richness of the Mapuche people. Complete your experience with a visit to the **Rosa Sandoval Grandón Anthropological Museum**, where Mapuche tradition, anthropology, and gastronomy come together to tell the story of Kütralkura, Chile’s first UNESCO Global Geopark.

GEOLOGICAL MAP



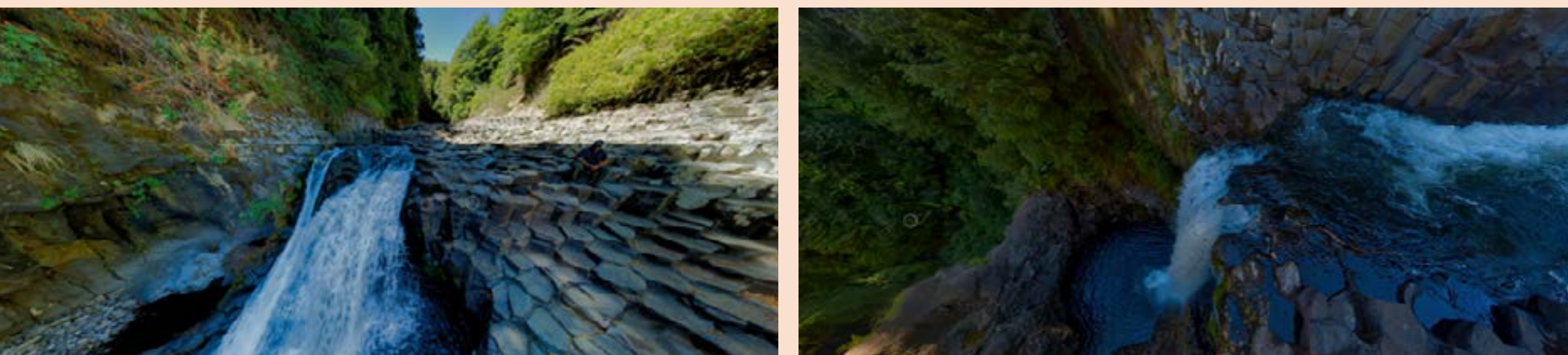
Leyend

- | | |
|--|---|
|  Depósitos Cuaternarios semi a no consolidados |  Formación Curamallín (Mioceno) |
|  Conjunto Volcánico de la Cordillera Principal Registro del Llaima |  Grupo Plutónico Melipeuco (Mioceno) |
|  Formación Malleco (Plioceno - Pleistoceno) | |

TECHNICAL SHEET

Geodiversidad y geositios

Gargata del Brujo (G87) The drop corresponds to two knickpoints of 3 and 20 meters, which occur at the eroded end of a lava flow composed of columnar basalts from the Malleco Formation. The height of the waterfall, combined with the resistance of the basalt to erosion, formed a circular pool where the waterfall drops. This pool, which resembles a gorge, is what gives the site its name.



Biodiversity and cultural heritage

Cultural heritage



Rosa Sandoval Grandón Anthropological Museum: It is located at the entrance to Cunco, in a wooden building covering an area of 700 square meters with a native park, which is very attractive to visitors.

The museum has three rooms: one showing the history of the Mapuche people; the second, Chilean and foreign colonization from 1883 onwards; and the third, a gallery with photographic exhibitions. It has a total of 220 heritage objects on display.

Its work began with the collection of museum objects: items from the daily life of immigrants and testimonies of the mapuche presence in the area. It was created by two teachers who took the initiative to bring to life a space where the history of Cunco and its surroundings, home to thirty mapuche communities, could be told.



Villa García: The first town to be declared a traditional area in Araucanía. The San Conrado chapel, recognized as a historical monument, is located in its central square.



ITINERARY

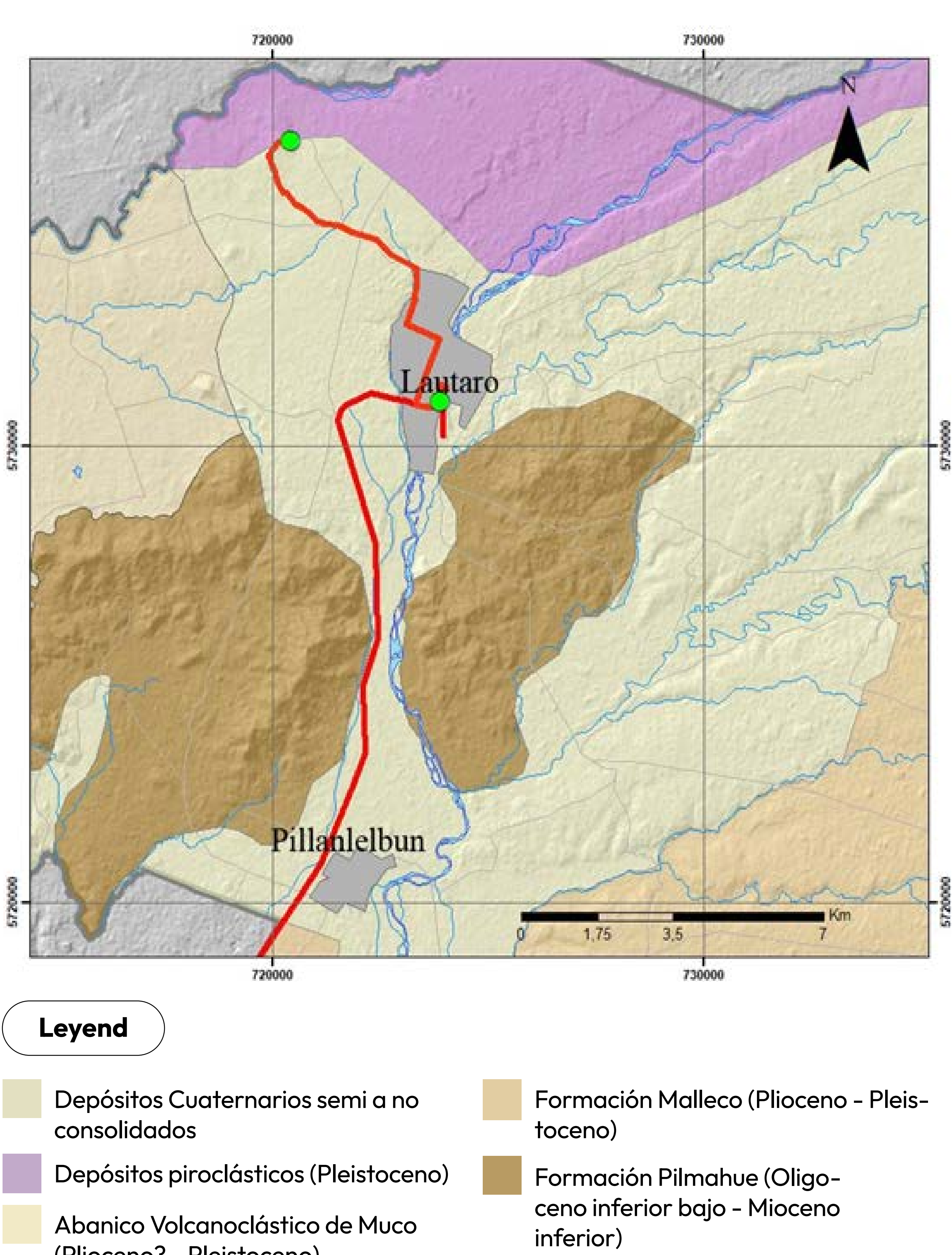
Connection with Mapuche Culture and Geological Heritage

 Lautaro

DESCRIPTION

In Lautaro the land and culture weave unique stories. Upon arrival, we will visit **Isabel Riquelme Park**, a unique geosite in the territory, where nature, local culture, and ancestral culture blend together. We will be welcomed in a **ruka**, the ancestral home of the Mapuche people, where we can taste typical cuisine and learn more about this culture. We will then visit **the fish farm**, one of the oldest in South America, which tells us about the past of Lautaro. Finally, we will visit the **Sillón del Diablo** (Devil's Chair), an ancient *reni*, or cave where ancient sorcerers and machis communicated with energies and spiritual beings.

GEOLOGICAL MAP



TECHNICAL SHEET

Geodiversity and geosites

Isabel Riquelme Park

A municipal area popularly used for recreation on the banks of the Cautín River. This park is located on Quaternary sedimentary rocks that correspond to ancient river terrace levels. Within the park there are artificial lagoons and native flora.

There are several lagoons in this area, and the surrounding area is home to mainly native tree species and shrubs.

The fauna of the area includes a diversity of birds and mammals linked to the Valdivian forest ecosystem. Among the birds, the American kestrel, the yellow-billed duck, the Chilean pigeon, the Dominican gull, the Magellanic pitío, and the churrete stand out.

The ecological management of the park incorporates tree planting, interpretive trails, signage, and sustainable development. Today, it is the main green lung of the commune.



Sillón del Diablo (G68)

Located within the territory of the Pancho Calluqueo indigenous community, in the Malpichahue sector, the Sillón del Diablo (Devil's Chair) is an outcrop of andesitic lava and volcanic breccia. Its origin is not entirely clear, but it is believed to be part of the volcanic member of the Pilmahue Formation, linking it to Cenozoic (Oligocene) volcanism.

The lava has an irregular and rough morphology, with blocks and clasts of metric and sub-centimeter sizes. Plagioclase and pyroxenes are present in its composition, and it has an aphanitic texture (no crystals visible to the naked eye).

The lava has been weathered by natural decomposition processes, which partly hinders geological analysis, as some minerals are no longer visible. In addition, vegetation partially covers the outcrop, which can also interfere with the direct study of its geological elements. The site has gentle hills, possibly associated with the glacial action experienced throughout the territory.



Biodiversity and cultural heritage

Cultural heritage

Ruka: This ancestral home of the Mapuche people connects us with the interculturality and identity of our community and its inhabitants. It reflects a living culture that shows us its worldview, beliefs, ways of life, and closeness. Important ceremonies and rituals for the Mapuche people are held in its surroundings.



ITINERARY

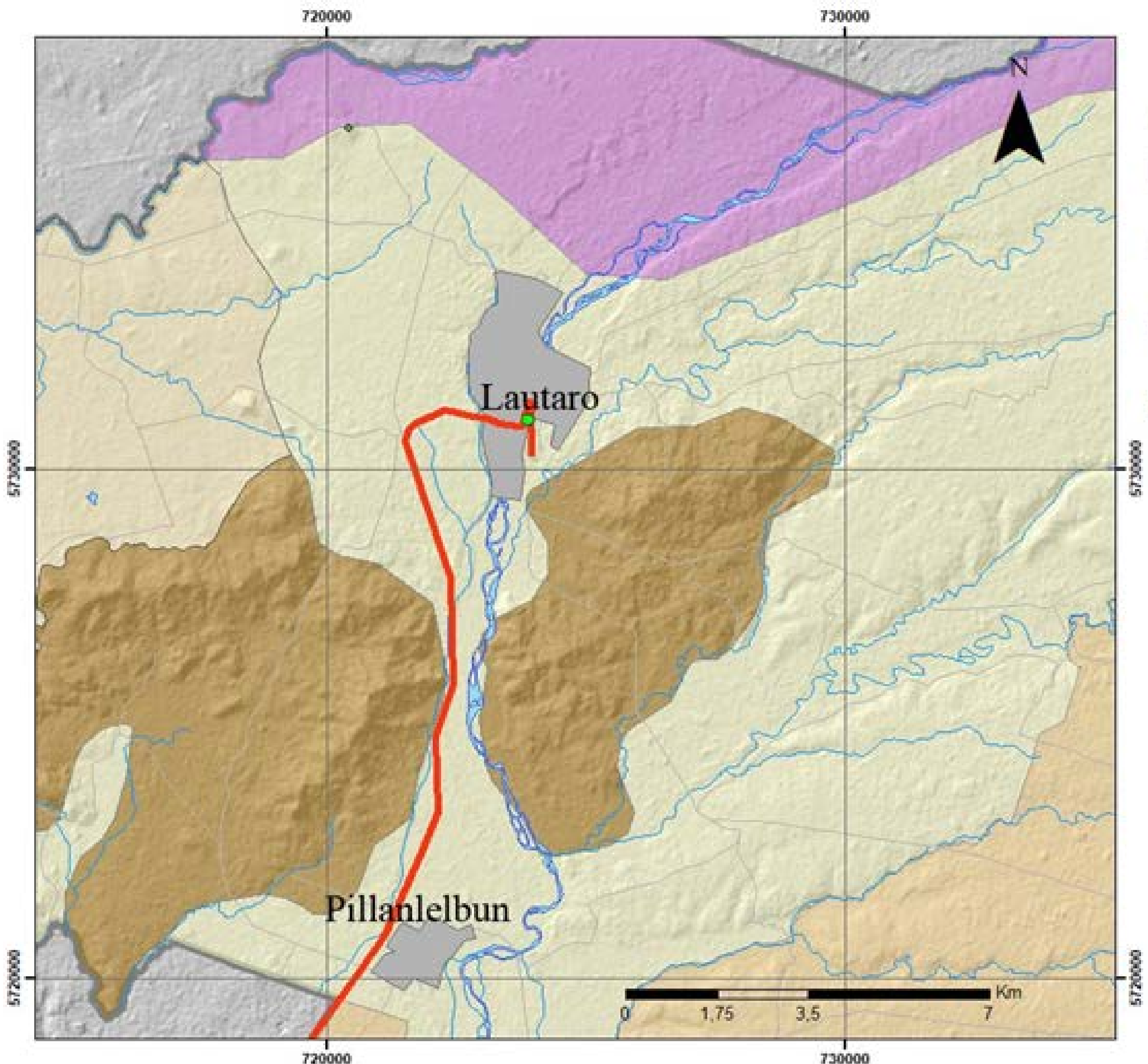
The Heritage Route: Lautaro, History and Living Culture

Lautaro

DESCRIPTION

Discover the origins of **Lautaro** and its cultural heritage on a tour that combines poetry, history, and architecture. This is a journey through the history of Lautaro, its multicultural identity, the arrival of the railroad, and the legacy of its poets. This afternoon tour invites you to explore the cultural and heritage landmarks that have shaped the community. In the **Plaza de Armas**, you will walk through the place where the city was founded, and at the **railway station**, you will feel the echo of a time when progress arrived on rails. At the **Nuestra Señora del Carmen** church, you will reflect on the role that religion played in the development of Lautaro. Poetry will accompany us throughout the tour, revisiting the memories that intertwine to tell the story of the town.

GEOLOGICAL MAP



Leyend

- | | |
|--|---|
| Depósitos Cuaternarios semi a no consolidados | Formación Malleco (Plioceno - Pleistoceno) |
| Depósitos piroclásticos (Pleistoceno) | Formación Pilmahue (Oligoceno inferior bajo - Mioceno inferior) |
| Abanico Volcanoclástico de Muco (Plioceno - Pleistoceno) | |

TECHNICAL SHEET

Biodiversity and cultural heritage

Heritage buildings



Old Government Building: It was built in 1907 to house the government offices of the Llama department. In 1975, following the country’s regionalization process, the building ceased to be the seat of government. Today it houses the Municipality of Lautaro and has become the heart of local administration and a meeting point for the community.



Nuestra Señora del Carmen Church: It is located on a hill overlooking the city of Lautaro, on the east side of the Cautín River, in the area known as Ultracautín. One of its main values lies in the topographical quality of its location, the only church in the Araucanía vicariate with this characteristic, which highlights, in its most primitive concept, the idea of distance from the mundane and its relationship with nature. In 2013, it was declared a Historic Monument.



ITINERARY

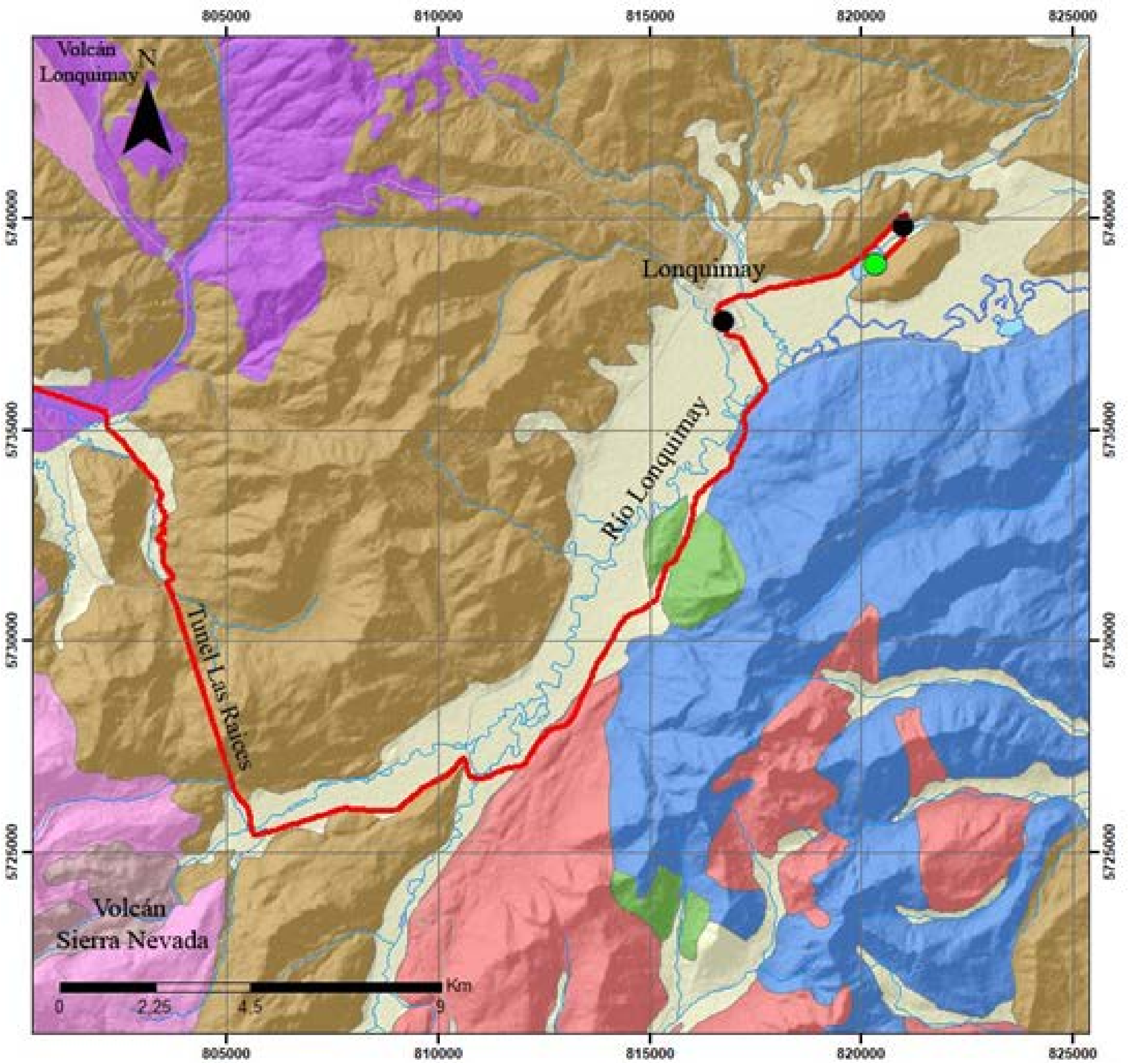
San Pedro Wetland and Lagoon

Lonquimay

DESCRIPTION

San Pedro Lagoon is a glacial lake surrounded by wetlands. The lagoon is located 4 km from the town of Lonquimay, on the banks of Route R-791. Upon arrival at our destination, we will be welcomed by the *lonko* (chief) of the **Wentru Lafken community**. We will then explore the area to marvel at the biodiversity of the environment and go bird watching. Upon our return, our host family will be waiting for us with a range of handicrafts made by its members. Back in **Lonquimay**, we will have lunch with the typical dish of the region: *asado al palo*, made with goat or lamb.

GEOLOGICAL MAP



Legend	
	Depósitos Cuaternarios semi a no consolidados
	Conjunto Volcánico de la cordillera Principal
	(Holoceno)
	(Pleistoceno)
	Formación Curamallín (Mioceno)
	Fm Vizcacha Cumilao (Cretácico - Paleógeno)
	Grupo plutónico Galletue (Cretácico)
	Nacientes del Biobío (Jurásico)

TECHNICAL SHEET

Geodiversity and geosites

San Pedro Wetland and Lagoon (G71)

A body of water formed by the last glaciation recorded in the area, the Llanquihue glaciation, which began 70,000 years ago and reached its peak 20,000 years ago. The lagoon is bounded to the west by a moraine and on its other sides by a barrier sculpted from mainly volcanic rocks of the Cura Mallín Formation, Guatripio Member, from the Miocene.

Here, you can see the breadth of the glacial valleys and the current modeling of fluvial processes, both marked by the intersection of a NE (dextral normal fault) and NNE (dextral fault) fault system, terminal parts of the Liquiñe-Ofqui Fault zone, which controls much of the volcanism in the Southern Andes volcanic zone.



Biodiversity and cultural heritage

Biodiversity

The San Pedro wetland and lagoon form an ecosystem of great ecological richness, home to a remarkable diversity of flora and fauna, sustained by the coexistence of three key ecosystems: forests, grasslands, and the lagoon's water mirror. This combination of habitats creates an ecological mosaic that favors the presence of resident and migratory species in this essential wildlife refuge. The interaction between these three ecosystems promotes high biodiversity, in addition to providing fundamental ecosystem services such as water regulation, carbon capture, soil conservation, and environmental education.

Cultural heritage

The San Pedro lagoon has great cultural value for the Wentru Lafken community, a name that refers to a lagoon with a masculine spirit, due to its rough waters. This makes it impossible to navigate, and fishing and swimming are not allowed in the lake. On the other side of San Pedro Hill, the feminine spirit is represented in the Jara lagoon, also called Domo Lafken, which refers to calm, tranquility, or peace.



ITINERARY

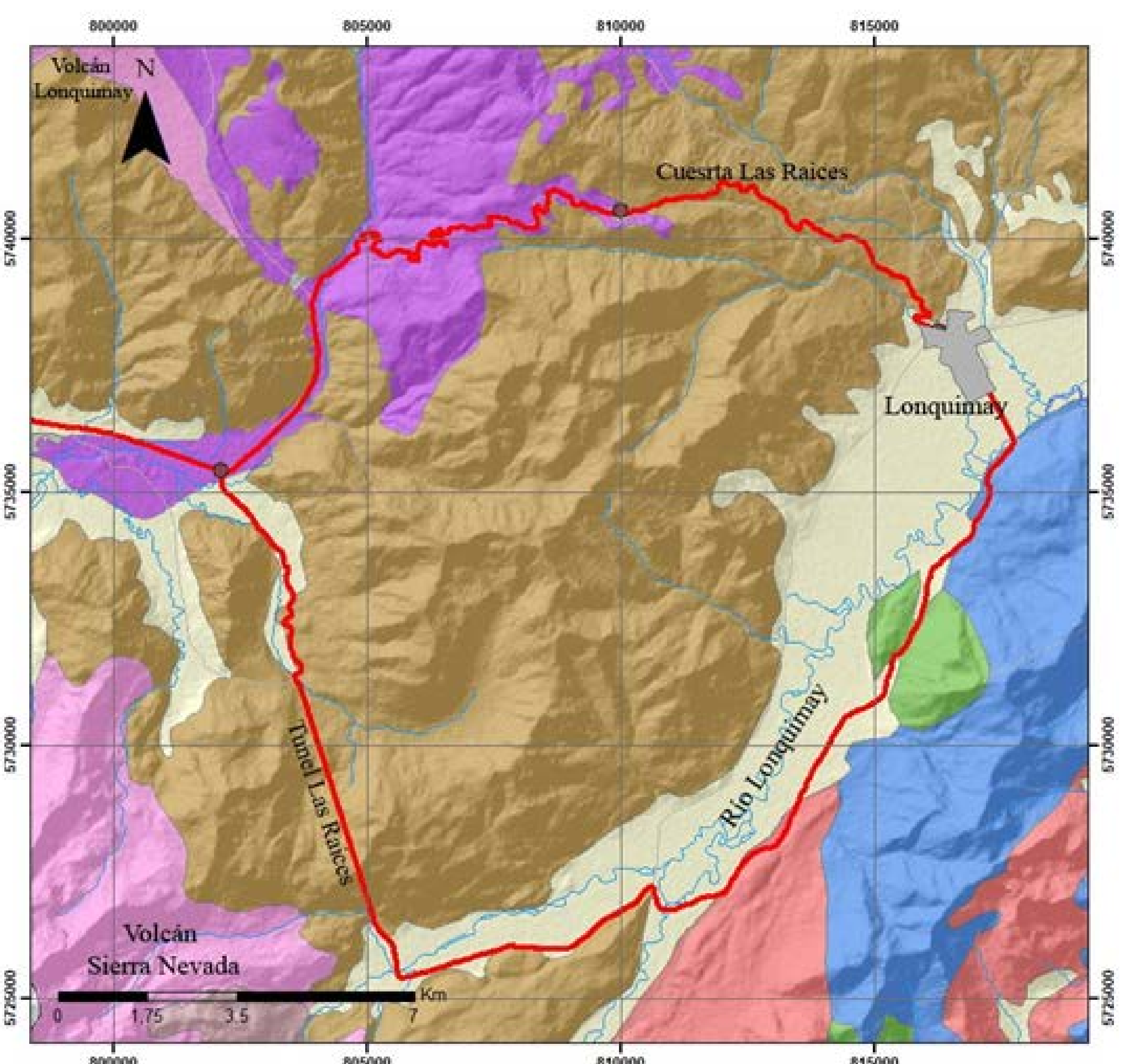
Witnesses to the Memory of the Earth

 **Lonquimay**



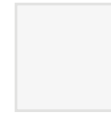






DESCRIPTION

After arriving in the commune of Lonquimay, we will climb the Las Raíces hill to reach the **Arenales Mountain Center**. There we will be welcomed with gastronomic preparations that have cultural significance and relevance, learning, through **Nancy Meliñir's story**, about the history of the old Arenales ski center, which was consumed by a voracious fire. Then, we will take a tour surrounded by ancient araucaria trees that will transport us to a Jurassic past, where we will witness the memory of the earth.

GEOLOGICAL MAP



Legend

	Depósitos Cuaternarios semi a no consolidados		Formación Curamallín (Mioceno)
	Conjunto Volcánico de la cordillera Principal		Fm Vizcacha Cumilao (Cretácico - Paleógeno)
	(Holoceno)		Grupo plutónico Galletue (Cretácico)
	(Pleistoceno)		Nacientes del Biobío (Jurásico)
	Grupo Plutónico Cumilao (Cretácico - Paleógeno)		

TECHNICAL SHEET

Geodiversity and geosites

Valleys

The route passes through the Cautín River valley, a fluvio-glacial valley that narrows in sections running east-west and still shows significant vertical erosion. We will then cross the Las Raíces mountain range through the tunnel of the same name, towards the Lonquimay River valley, a more mature valley with wide meanders and controlled by northeast and north-northeast structures, which are part of the structural arrangement of the Liquiñe-Ofqui Fault Zone. During the journey, we will observe a variety of landscapes marked by the presence of volcanoes and glaciers. Upon reaching the Las Raíces slope, we will find ourselves on rocks from the Cura Mallín formation, which are between 11 and 20 million years old and covered in places by evidence of volcanism from the main mountain range.

Biodiversity and cultural heritage

Biodiversity

The territory is immersed in ancient araucaria forests alongside a lenga-ñire forest association, which is home to a large number of high Andean flora and fauna species, such as paramela, quinchamalí, and coirón, as well as black-chested buzzard eagles, condors, foxes, and short-tailed snakes, among others.

Cultural heritage

Through Nancy Meliñir's testimony, not only is the history of the place reconstructed, but also the cultural and spiritual value of the natural environment and the culinary traditions associated with it. All this takes place in the midst of a thousand-year-old native forest and around the fire of an imposing ruka at 1,800 meters above sea level.



ITINERARY

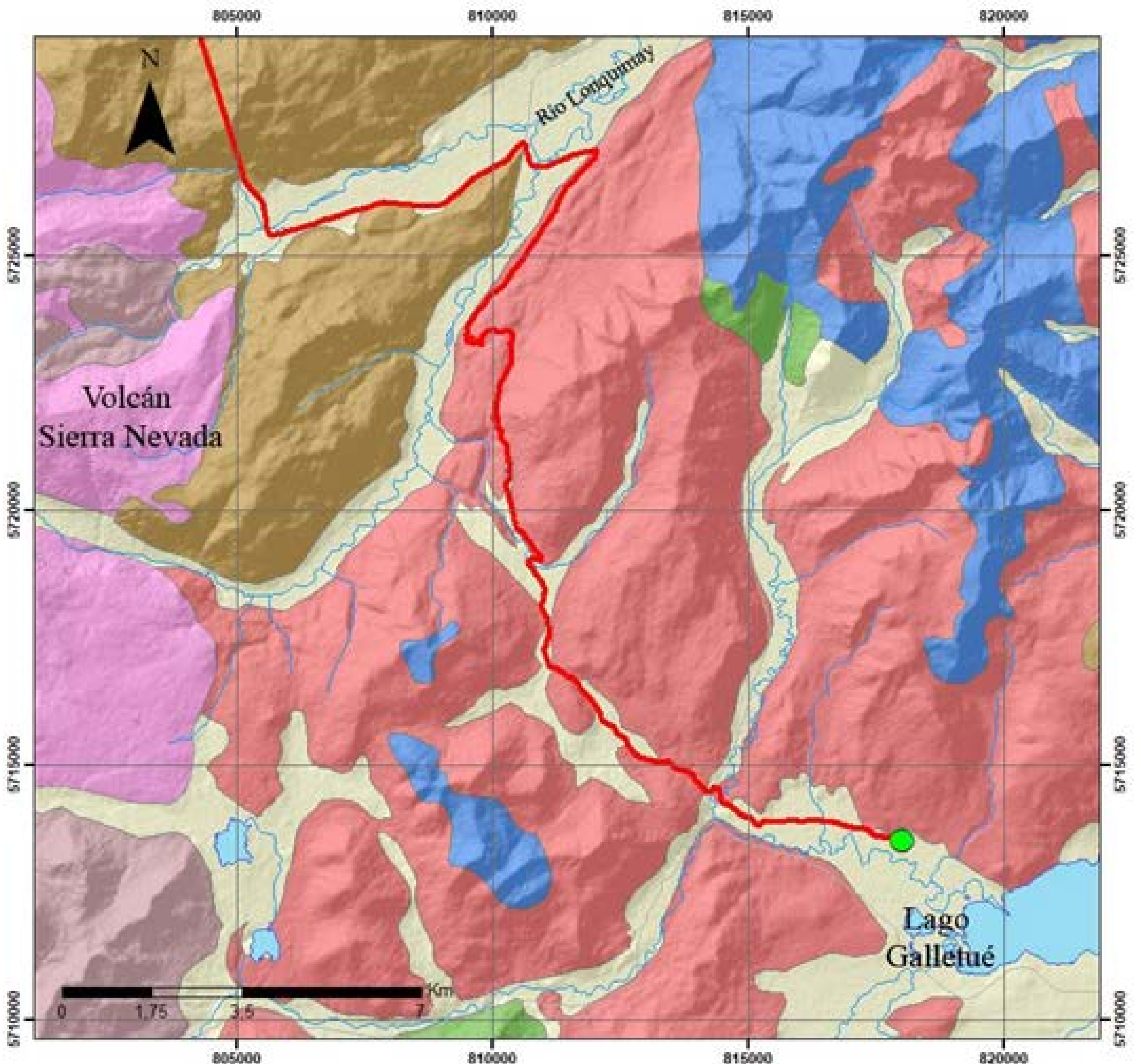
Pewenche Quinquén experience

Lonquimay

DESCRIPTION

In the early 1990s, **the community of Quinquén** became an icon of ecological defense, especially in protecting the pewen (*Araucaria araucana*), a tree sacred to the Mapuche Pewenche people, which was being indiscriminately logged at that time. We will be welcomed by the protagonists of this story, who will open up their culture to us through stories in a *matetun en ruka* and a walk along the **Epu Lliwiñko trail**. All accompanied by cuisine featuring local products, where the piñón is the star, in its various preparations, along with the traditional goat roast on a spit.

GEOLOGICAL MAP



Legend

- | | |
|--|---|
| Depósitos Cuaternarios semi a no consolidados | Fm Vizcacha Cumilao (Cretácico - Paleógeno) |
| Conjunto Volcánico de la cordillera Principal (Holoceno) | Grupo plutónico Galletue (Cretácico) |
| Grupo Plutónico Melipeuco (Mioceno) | Nacientes del Biobío (Jurásico) |
| Formación Curamallín (Mioceno) | Estratos de Huenucal Ivante (Pre Jurásico) |

TECHNICAL SHEET

Geodiversity and geosites

Epu Lliwiñko trail This trail runs through rocks from the Galletué Plutonic Group, an intrusive unit consisting of monzogranites, quartz diorites, and tonalites, dating from 80 to 90 million years ago. It also passes through ancient araucaria forests, as well as beautiful waterfalls with crystal clear waters and viewpoints offering panoramic views of the Quinquén Valley, where various glacial landforms can be observed. The trail ends at Lake Galletué, of glacial origin.

It is interesting to recognize along the way the same glacial features that interact with river action, both marked by the presence of structural features strongly influenced by the Liquiñe-Ofqui Fault Zone.

Biodiversity and cultural heritage

Biodiversity

The biodiversity present in the area is very interesting due to a lush ancient forest with watercourses from springs, which allows the development of other species that live in this type of ecosystem, such as the lenga-ñire association, as well as coigües and coligues, among others.

Cultural heritage

The cultural narrative in this place is one of the most powerful in the region due to the significance of the struggle to protect the *Araucaria araucana*, or pewen, both to prevent its logging in the 1990s and to promote its recovery and conservation in the context of sustainable tourism.



ITINERARY

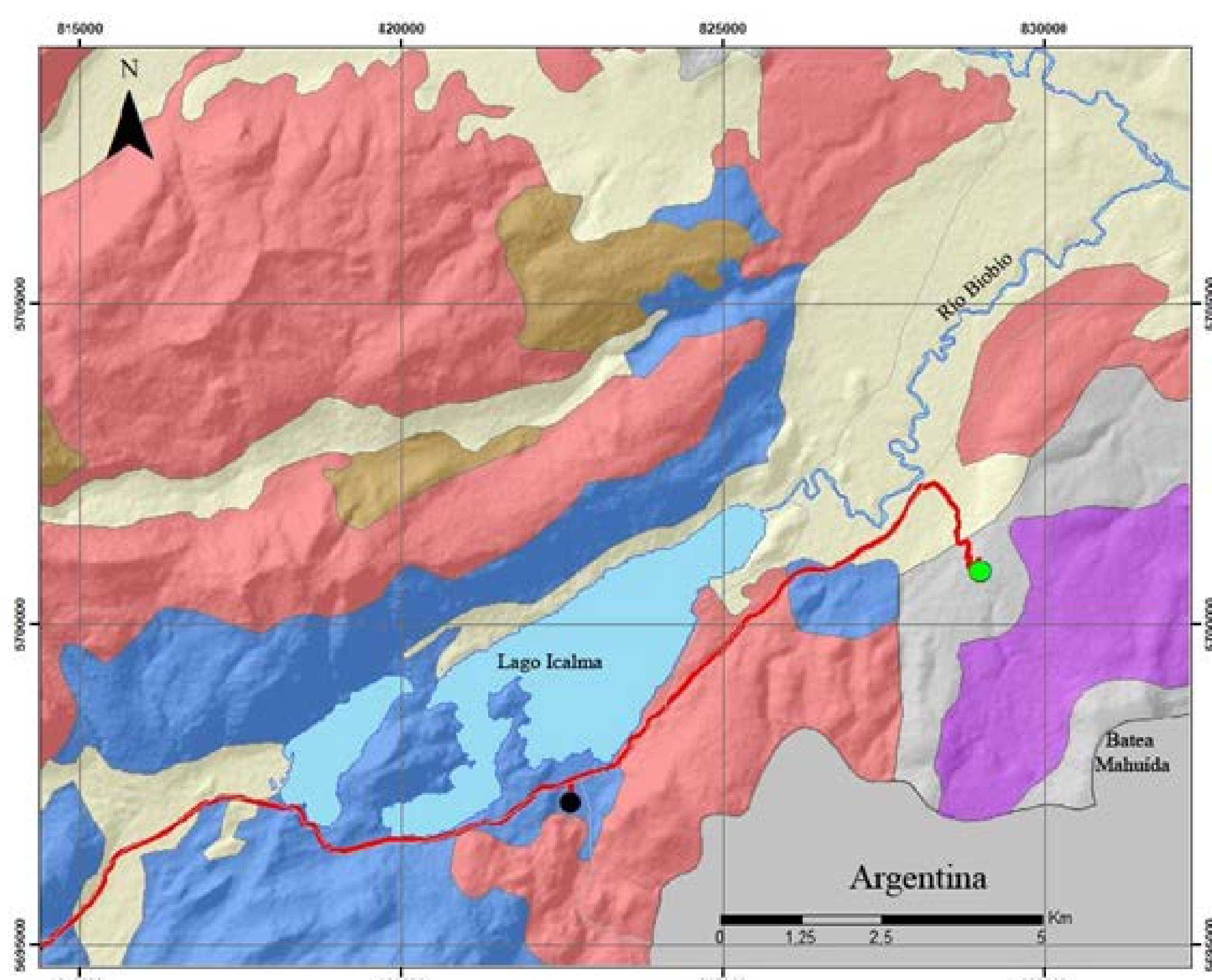
Walking Between Pewenche Borders

Lonquimay

DESCRIPTION

We will head towards the commune of Lonquimay, where we will arrive at the town of **Icalma**. Specifically, we will go to **Turismo Icalma Amuley**, where we will be welcomed by its owner, Carlos Catrileo, a guide specializing in geotourism and cultural tourism. After a **matetun in the Pewenche ruka**, we will travel to the **Cruzaco sector** to begin a hike along the slopes of the **Batea Mahuida plateau** until we reach the binational summit. From there, you can see several lakes, such as **Moquehue, Aluminé, and Icalma**. Upon our return, we will sample the typical cuisine of the region in the Pewenche ruka and discuss caring for nature and good living in Pewen Mapu.

GEOLOGICAL MAP



Legend

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|--|--------------------------------------|
| Depósitos Cuaternarios semi a no consolidados | Grupo plutónico Galletue (Cretácico) |
| Conjunto Volcánico de la cordillera Principal (Holoceno) | Nacientes del Biobío (Jurásico) |
| Conjunto volcánico de la precordillera oriental (Plioceno - Pleistoceno) | |
| Formación Curamallín (Mioceno) | |

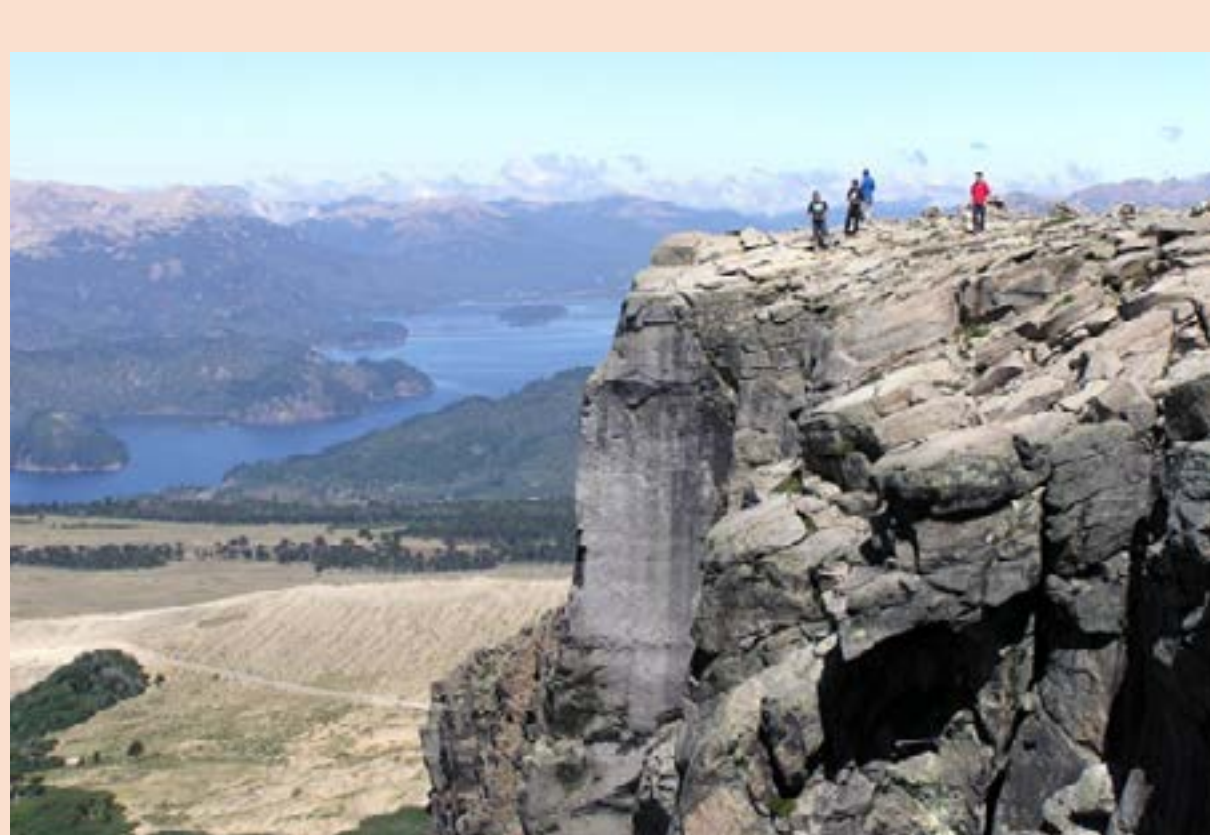
TECHNICAL SHEET

Geodiversity and geosites

Batea Mahuida plateau (G19)

The upper part of the plateau, located right on the border between Chile and Argentina, is rectangular in shape, measuring approximately 1 x 2 km, and is made up of volcanic rocks that are around 5 million years old. The unique shape of the plateau is thought to be related to the greater resistance of these volcanic rocks to the glacial erosion that affected the area during the last ice age. The ice that covered this territory reached its maximum extent and thickness about 20,000 years ago, creating deep valleys with smooth, rounded U-shaped bottoms. Apparently, the plateau was surrounded by large glaciers, which finished melting about 10,000 years ago, forming several glacial lakes, such as Icalma and Galletué in Chile, or Aluminé and Moquehue in Argentina.

Much of the plateau is covered by pyroclastic fall material, corresponding to pumice stones that were ejected and transported through the air some 2,900 years ago during the last major Plinian eruption associated with the formation of the Alpehuevo crater, located on the southwestern margin of the Sollipulli volcano caldera, more than 30 km to the southwest. This fact, together with the presence of two lakes at the top, which, located within ancient glacial cirques, resemble craters of volcanic origin, has led to the mistaken popular belief that the Batea Mahuida plateau is a volcano. These glacial lakes are now part of Argentine territory, as their waters flow eastward.



Biodiversity and cultural heritage

Biodiversity

Due to the characteristics and location of the Batea Mahuida plateau, its biodiversity consists mainly of short, high Andean flora and fauna, such as coirón, chaura, and pingo pingo, as well as birds such as the yal cordillerano, the mero gaucho, and the Andean condor, which form vulture colonies on the rocky edge of the plateau.

Cultural heritage

For the Mapuche people, it is a place of great cultural significance, as this plateau served as a lookout point to watch for attacks from Argentina or Chile during the conquest. It is also a spiritual place of connection with the forest, the wind, the snow, the rain, and all the biodiversity present in the area. The main protagonists and owners of the house are the spirits called püllí, who are always asked for permission to enter this and other places in the territory in a respectful manner, or who are thanked for being able to live in this beautiful mapu, rich in culture and biodiversity.



ITINERARY

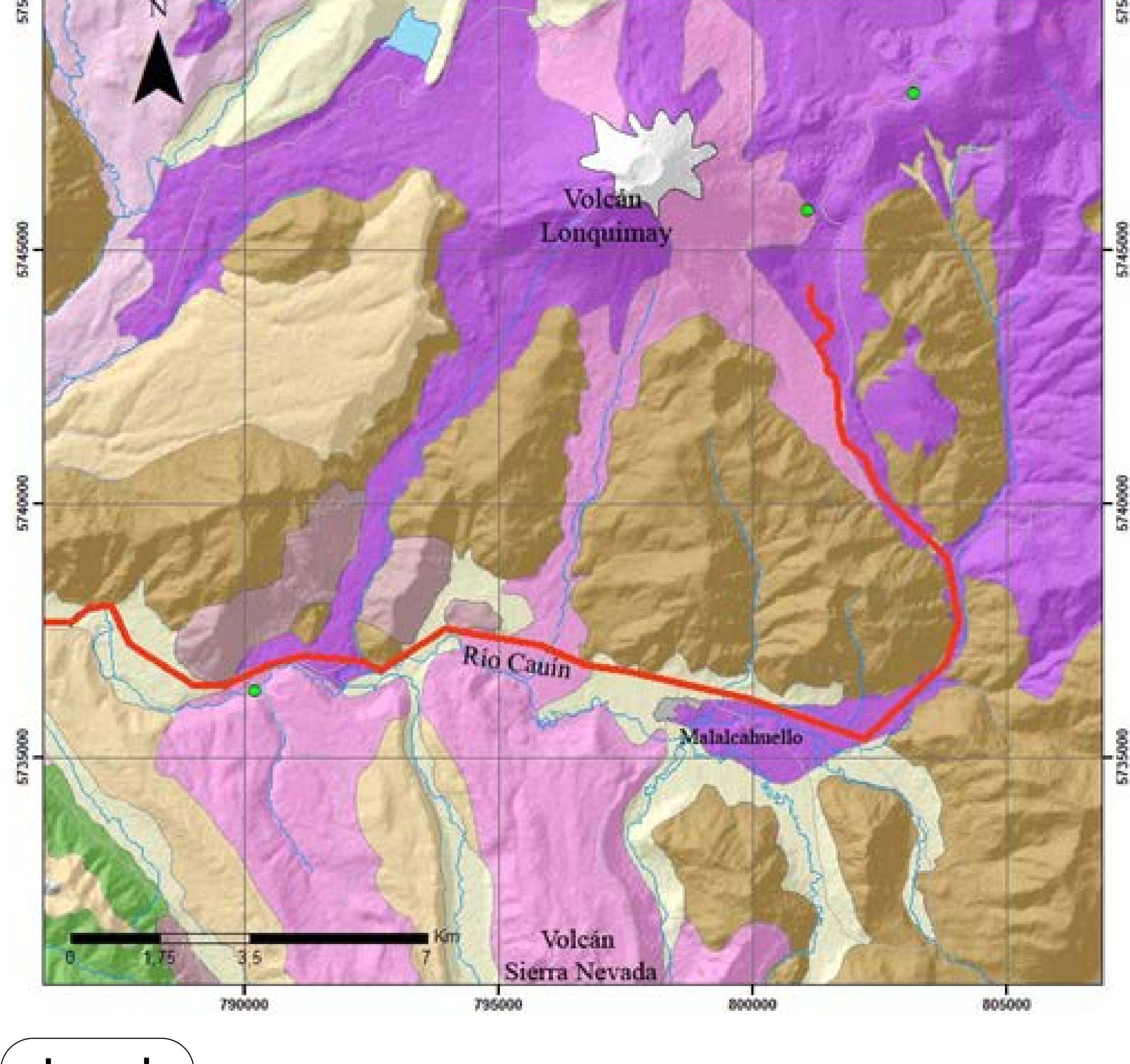
Between Volcanoes and Waterfalls:
Discovering the Secrets of the Earth









 Curacautín

DESCRIPTION

The tour invites us, first, to contemplate the majesty of the **Lonquimay volcano**, like a colossus of fire, and learn more about its origin and its impact on life on the planet. Through a snowy snowshoe hike to the **Navidad cone**, part of the Lonquimay Volcanic Complex, we will peer into the beating heart of the Earth, exploring landscapes forged by ancient eruptions, cultures that have learned to coexist with volcanic forces, and scientific secrets that still await discovery. Then, returning to **Curacautín**, we will visit the **Princesa waterfall** to explore not only its geological origin but also its profound cultural value for the Mapuche people. At the end of the tour, we will visit a **craft center**, where pieces of ancient wood—including *picoyo*—wool fabrics, and agricultural products made by local artisans are on display.

GEOLOGICAL MAP



Legend	
	Depósitos Cuaternarios semi a no consolidados
	Conjunto Volcánico de la cordillera Principal
	(Holoceno)
	(Pleistoceno)
	Formación Malleco (Plioceno - Pleistoceno)
	Formación Curamallín (Mioceno)
	Grupo Plutónico Melipeuco (Mioceno)
	Fm Vizcacha Cumilao (Cretácico - Paleógeno)

TECHNICAL SHEET

Geodiversity and geosites

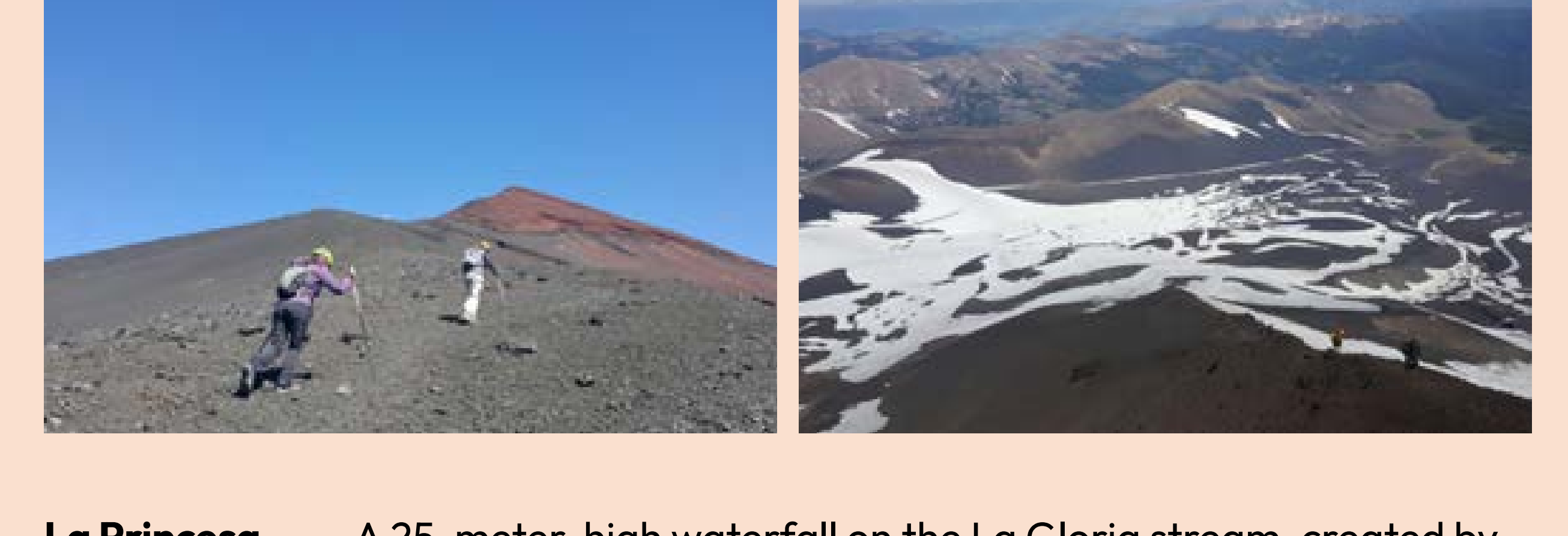
Navidad cone (G27) Parasitic cone of the Lonquimay volcano formed during the last eruption, which began on December 25, 1988, and lasted 13 months. This eruption had a major impact on the eastern sector of the Kütralkura Geopark due to the high fluoride content in its ash, which caused the death of much of the livestock in the area. From this location, there is a panoramic view of the Lonquimay, La Holandesa, Callaqui, and Copahue volcanoes.



Lonquimay volcano The Lonquimay volcano was built in five stages: the first, beginning in the Upper Pleistocene, generated basaltic and andesitic-basaltic lava flows that are now highly eroded remnants with clear signs of interaction with ice. The second stage, during the Upper Pleistocene and Lower Holocene, with emissions of basaltic and andesitic andesites, built much of the edifice. The three subsequent stages are clearly Holocene, during which mainly basaltic and andesitic lava flows were emitted, descending to the north, west, and south. The eruptive style of the Lonquimay volcano during the Holocene was also explosive and generated pyroclastic fall and flow deposits, the latter distributed radially around the edifice.

At the Navidad cone site, herbaceous plants colonizing volcanic environments can be observed. Therefore, it could be inferred that this corresponds to a zone of vegetation recovery.

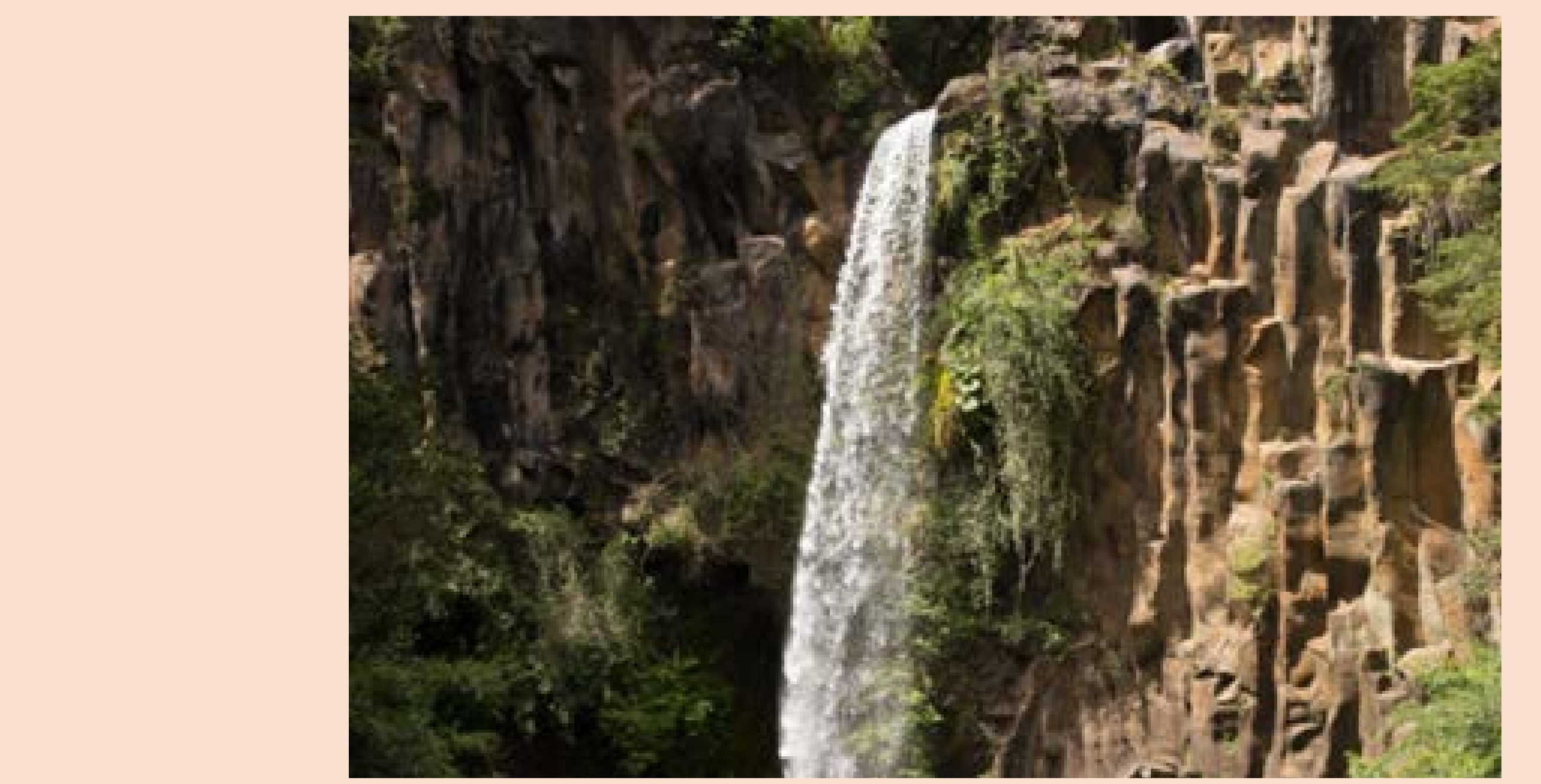
The Lonquimay volcano has profound cultural significance for the Mapuche people, who consider it a sacred element and a source of identity. Its name, Lonquimay, means “great ravine” in Mapudungun. This name is due to a large ravine on its slope, a distinctive feature that the Mapuche have recognized since ancient times.



La Princesa waterfall (G30) A 25-meter-high waterfall on the La Gloria stream, created by the uneven terrain generated by a lava flow, possibly associated with the Sierra Nevada volcano. After this waterfall, the stream flows into the Cautín River, one of the main rivers in the area. To the west of the geosite, a significant mass movement occurred in 2023.

It is characterized by the presence of species associated with Andean-Patagonian forests and evergreen forests, influenced by the humid climate of the area. Ferns, mosses, and varied shrub vegetation can be found, as well as fauna such as the gray fox, the ruddy-headed goose, the choroy parrot, and the short-tailed snake.

The cultural importance of Salto de la Princesa lies in a Mapuche legend that links it to an act of eternal love. The legend tells that a Mapuche princess named Rayén and her beloved Nahuelcura, faced with their tribe’s opposition to their relationship, decided to jump together from the waterfall to remain united forever. According to the legend, their bodies were transformed into the waters of the waterfall, making it a symbol of eternal love and a sacred place for the Mapuche people.




Biodiversity and cultural heritage

Cultural heritage

Malalcahuello National Reserve: The Malalcahuello unit is located in the Araucanía region, in the municipality of Curacautín, province of Malleco. It was created on March 31, 1931, by Supreme Decree 1670 of the Ministry of Southern Property. It has undergone subsequent modifications due to various decrees.

This unit is part of the Araucarias Biosphere Reserve, created by UNESCO in 1983. It is notable for the protection of native species such as the araucaria, coigüe, oak, lenga, and ñirre. Inside, there are pumas, güiñas, pudús, culpeo foxes, harriers, and black woodpeckers, among others.

Flora watching

**Pewen (*Araucaria araucana*):** Considered a living fossil, with a history spanning more than 240 million years, *Araucaria araucana* is a large conifer with a distinctive and striking umbrella shape. It is a species adapted to the harsh and demanding conditions of the Andean territories, with months of cold and snow. It grows in rocky and volcanic soils, derived from recent volcanic ash deposits. It is also part of the mountain forests, alongside specimens of the *Nothofagus* genus. Its seed, the *nguilliu* or *piñón*, is the basis of the food, family, and spiritual heritage of the pewenche people.

It is possible to find specimens up to 45 meters high and 2 meters in diameter at their base. They are characterized by slow growth. Their distribution covers a small area of Chile and Argentina, at an altitude of around 900 meters above sea level. *Araucaria araucana* was declared a Natural Monument in 1990, which means that its felling and destruction are prohibited throughout the national territory, as is the extraction of its pine nuts and cones.



ITINERARY

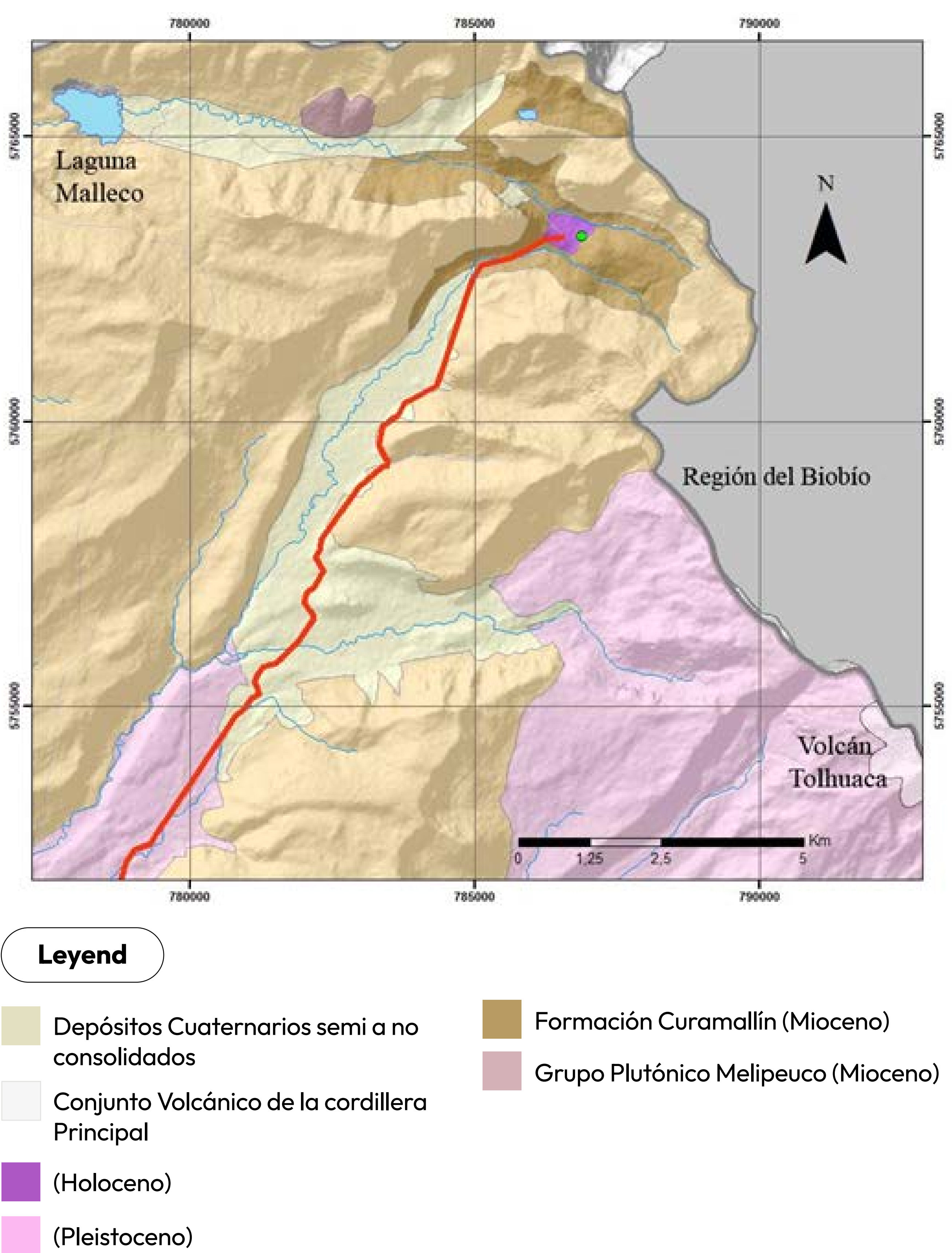
The Breath of the Earth: Malleco Hot Springs and Geyser

 **Curacautín**

DESCRIPTION

Deep in the Andes mountain range, where the earth still whispers the secrets of ancient fire, there is a place where nature breathes with visible force. The first destination is the **Malleco Hot Springs**, thermal waters hidden among ancient forests and mountains that touch the sky. There, a geyser rises like a volcanic exhalation, a living column of steam and boiling water that breaks the silence with its sulfurous breath. Around it, fumaroles draw invisible maps of underground heat in the air. This is not just a thermal destination: it is a sensory experience, a reminder that the earth is alive and, in Malleco, it breathes. Back in **Curacautín**, you will visit a **craft center** where pieces of ancient wood—including picoyo—wool fabrics, and agricultural products made by local artisans are on display.

GEOLOGICAL MAP



Legend

TECHNICAL SHEET

Geodiversity and geosites

Tolhuaca Hot Springs and Fumaroles (G33)

Geyser next to which there is an iconic hotel with thermal pools. It is a thermal water source that flows at a temperature of 86 °C, along with fumaroles that constantly emit steam. It is considered to be of the bicarbonate type, with significant interaction between shallow aquifers and meteoric waters. The waters originate from inside a dark cave on the banks of the Dillo River, which runs through a deep, narrow valley crowned by araucaria trees. Here, you can directly appreciate and enjoy the effects of the heat generated by the Tolhuaca volcano, considered inactive but with an active geothermal system.



Tolhuaca volcano

The geothermal system that powers this hot spring originates from the Tolhuaca volcano. It consists of four stages and is believed to have originated during the Lower Pleistocene (ca. 661-201 ka), with abundant basal lahars generated in a glacial environment. Stages 2 and 3 developed between ca. 120 and 11.7 ka, while stage 4 also developed at the very end of the Pleistocene-Holocene boundary. The lava flows are basaltic andesites, andesites, and dacites. The ice from the last glaciation intensely eroded the volcanic edifice under construction. At the top of the volcano, there is a retreating glacier, a remnant of the last glaciation, Llanquihue, which reached its peak 20,000 years ago.

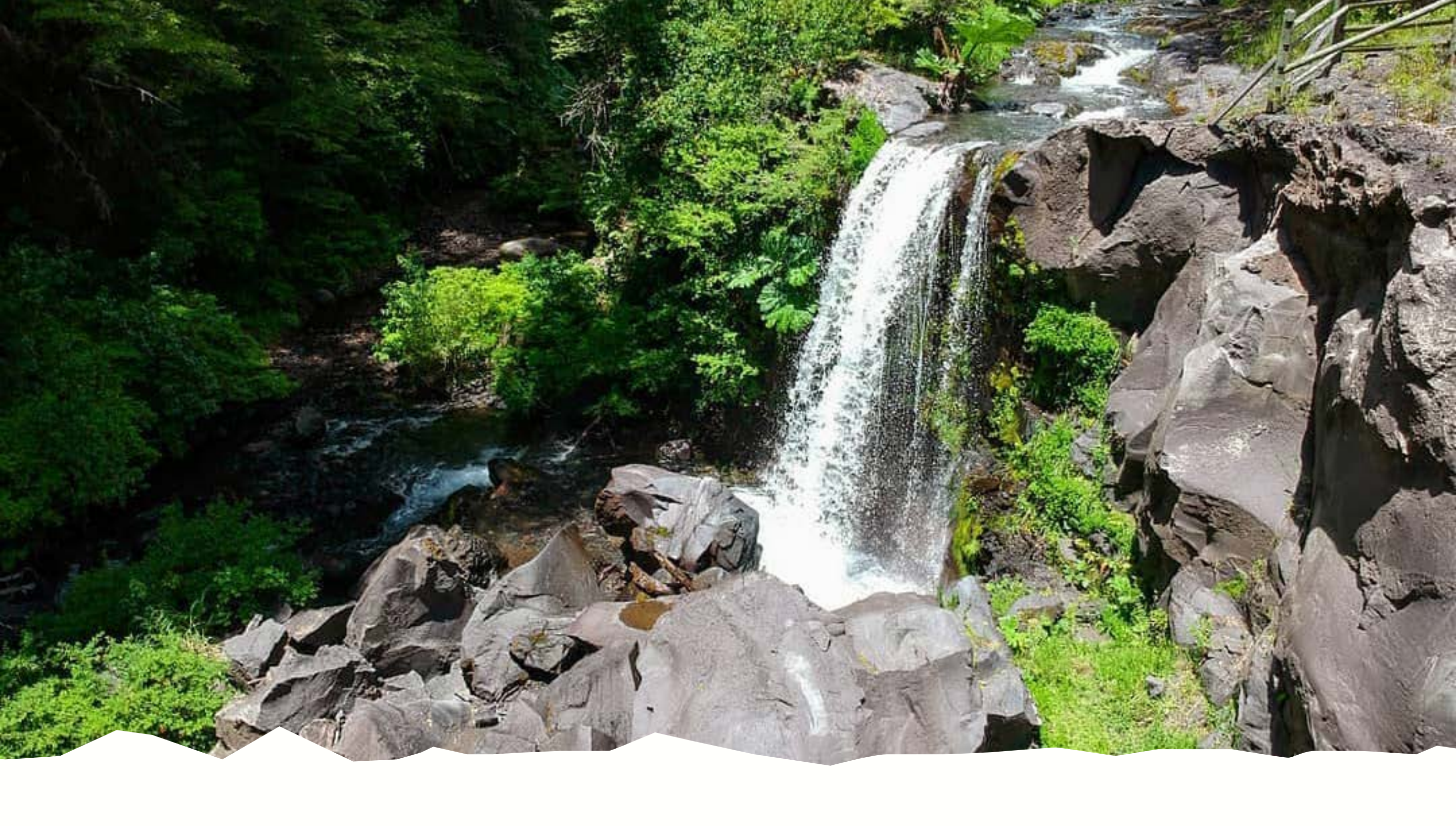


Biodiversity and cultural heritage

Flora and wildlife watching

The flora of the area includes iconic species such as the araucaria, the mountain cypress, the guindo santo, the dwarf radial, the nalca, and the murta.

As for its fauna, species such as the puma, the coypu, the gray fox, the güiña, the monito del monte, and the green lizard can be found in the surrounding area.



ITINERARY

Traces of Llaima's Fury

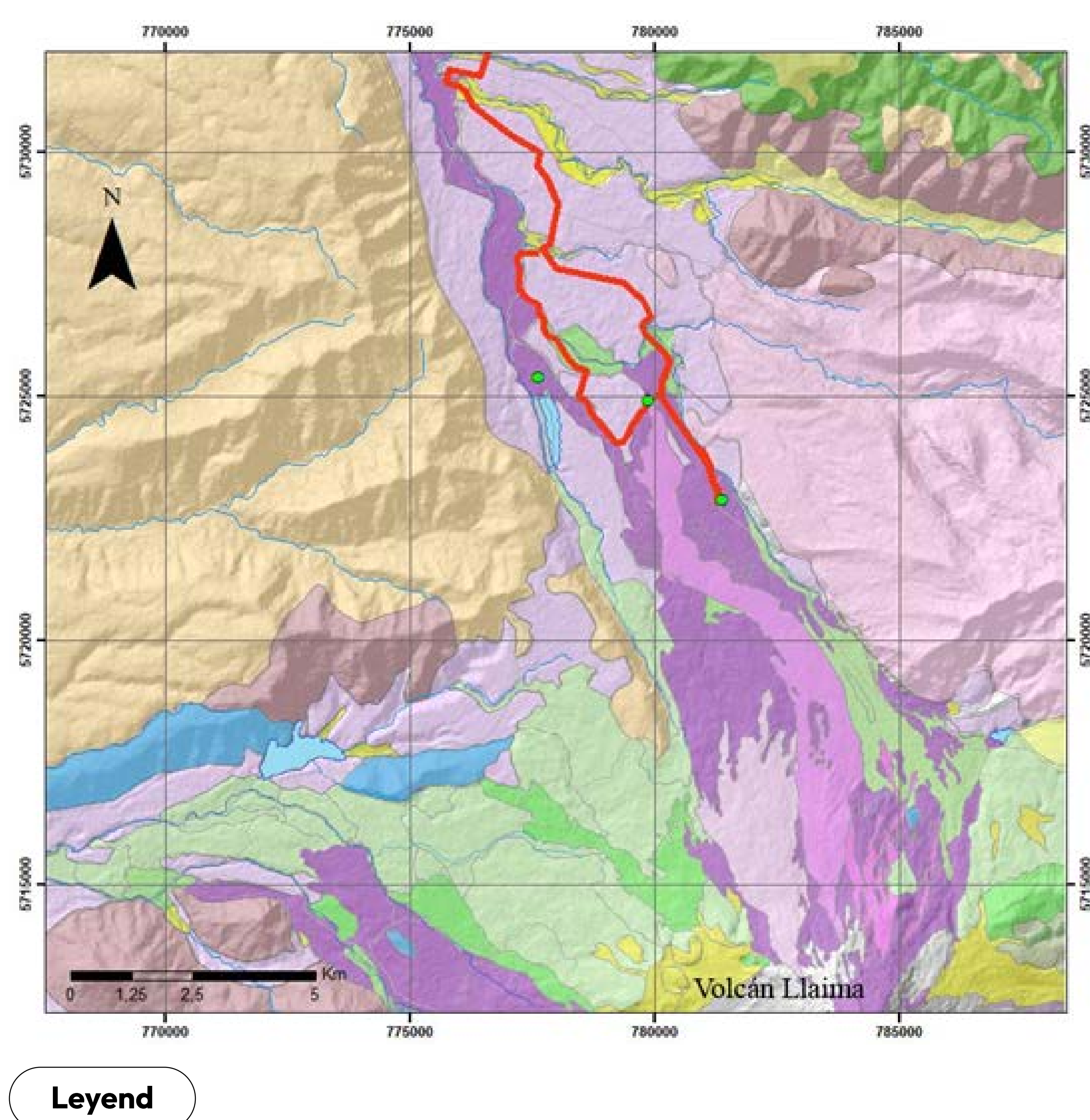
 **Curacautín**

DESCRIPTION

Traces of Llaima's Fury is a journey through the geological memory of southern Chile, where the echoes of ancient eruptions resonate in its rocks, rivers, forests, and ravines. We will begin the tour at the **Cascadas del Llaima** geosite, where the crystal-clear waters of the Captrén River converge with a historic lava flow from the Llaima volcano. This gives life to a lush ecosystem of native flora. Next, we will arrive at the **Captrén Viewpoint**. In its lava flow from 1957, you will discover traces of the shaping force of the Llaima volcano, the diversity of species that inhabit these forests, and the stories whispered by the wind among the treetops.

Magma and the patience of time have created lagoons such as **Laguna Negra**, which we will circle on a 2.5 km trail over volcanic rock. There we will be able to observe the traces of the last glaciations that sculpted this territory. At the end of the tour, back in Curacautín, we will visit a **craft center** where pieces of ancient wood—including pi-coyo—wool fabrics, and agricultural products made by local artisans are on display.

GEOLOGICAL MAP



Legend

Depósitos Cuaternarios semi a no consolidados	Llaima Fisural
Conjunto Volcánico de la cordillera Principal	Llaima Ancestral (Holoceno)
Depósitos Laháricos	Ignimbrita Curacautín (Pleistoceno)
Lavas de 1957	Formación Curamallín (Mioceno)
Lavas de 1640	Grupo Plutónico Curamallín (Mioceno)
Lavas de al menos 3.000 años	Fm Vizcacha Cumilao (Cretácico - Paleógeno)

TECHNICAL SHEET

Geodiversity and geosites

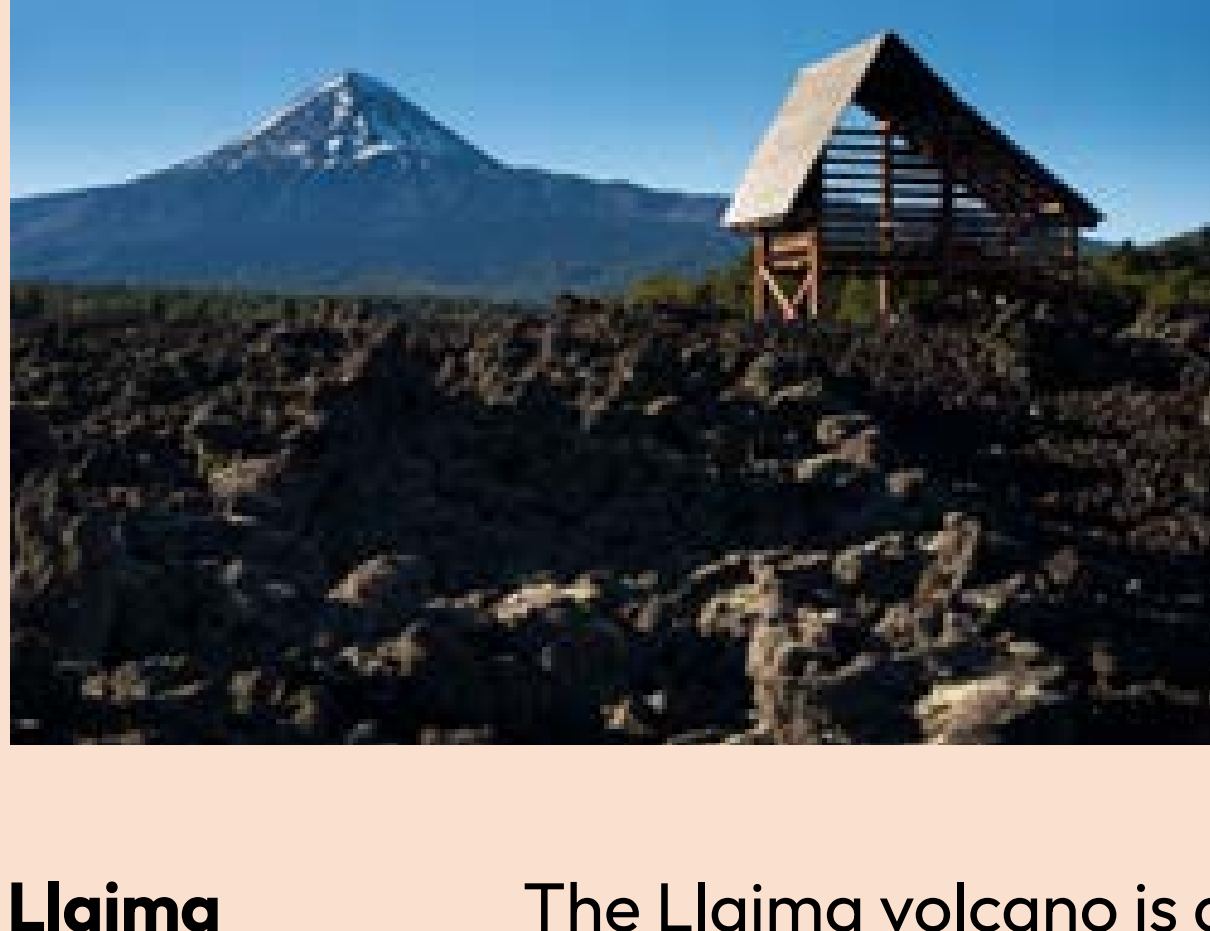
Llaima waterfalls (G88)

Waterfall on the Captrén River produced by the erosion of Pliocene-Pleistocene volcanic rocks from the Malleco Formation. This creates small, recurring waterfalls that are visually appealing and feature small pools where it is possible to bathe. This river carves out an ancient glacial valley oriented to the north-west. The site has a diverse ecosystem associated with the Captrén River, abundant in native forest and undergrowth, epiphytic and shrubby flora, and fauna characteristic of these ecotonal transition environments.



Captrén Viewpoint (lava from the 1957 eruption of the Llaima volcano)

From this point, it is possible to see an aa lava flow, 8 meters thick and 12 km long, formed after the 1957 eruption of the Llaima volcano. Small islands of vegetation can also be seen on the slopes of the Llaima volcano.



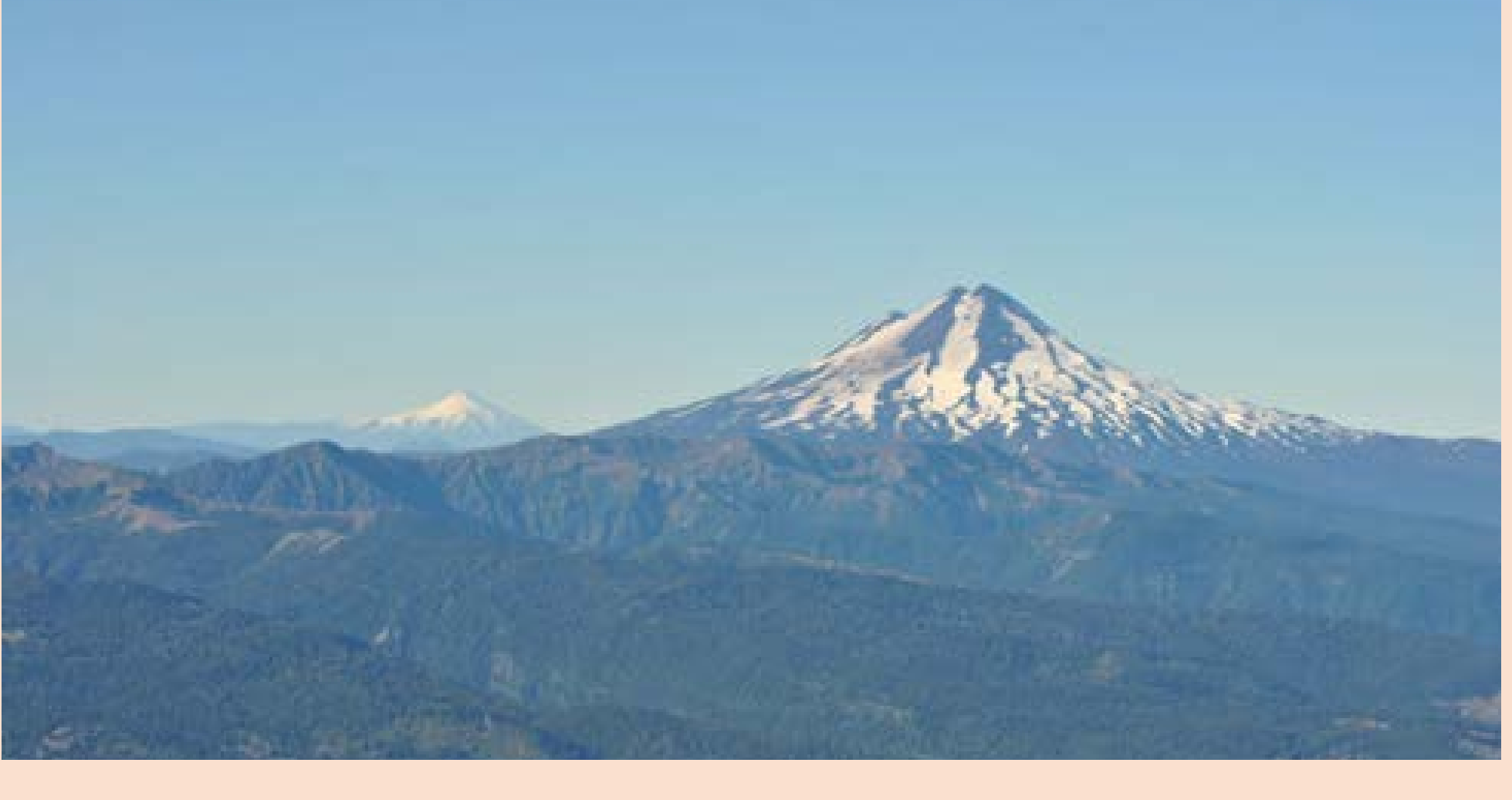
Llaima volcano

The Llaima volcano is a composite stratovolcano, consisting of a mixed volcanic edifice and shield, with a covered caldera and more than 40 adventitious cinder cones. It has an elongated, semi-conical morphology in a north-south direction, with an irregular base that begins at altitudes between 500 and 900 meters and reaches a maximum elevation of 3,125 meters above sea level.

It is believed to have begun its activity during the Upper Pleistocene, approximately 250,000 years ago, and has been built up through frequent eruptions of fluid lava from a central or flank source. The historical eruption record includes 48 documented events between 1640 and 2009, during which lava flows, lahars, pyroclastic projections, and occasionally pyroclastic flows were generated, as in 1640, its largest historical eruption on record.

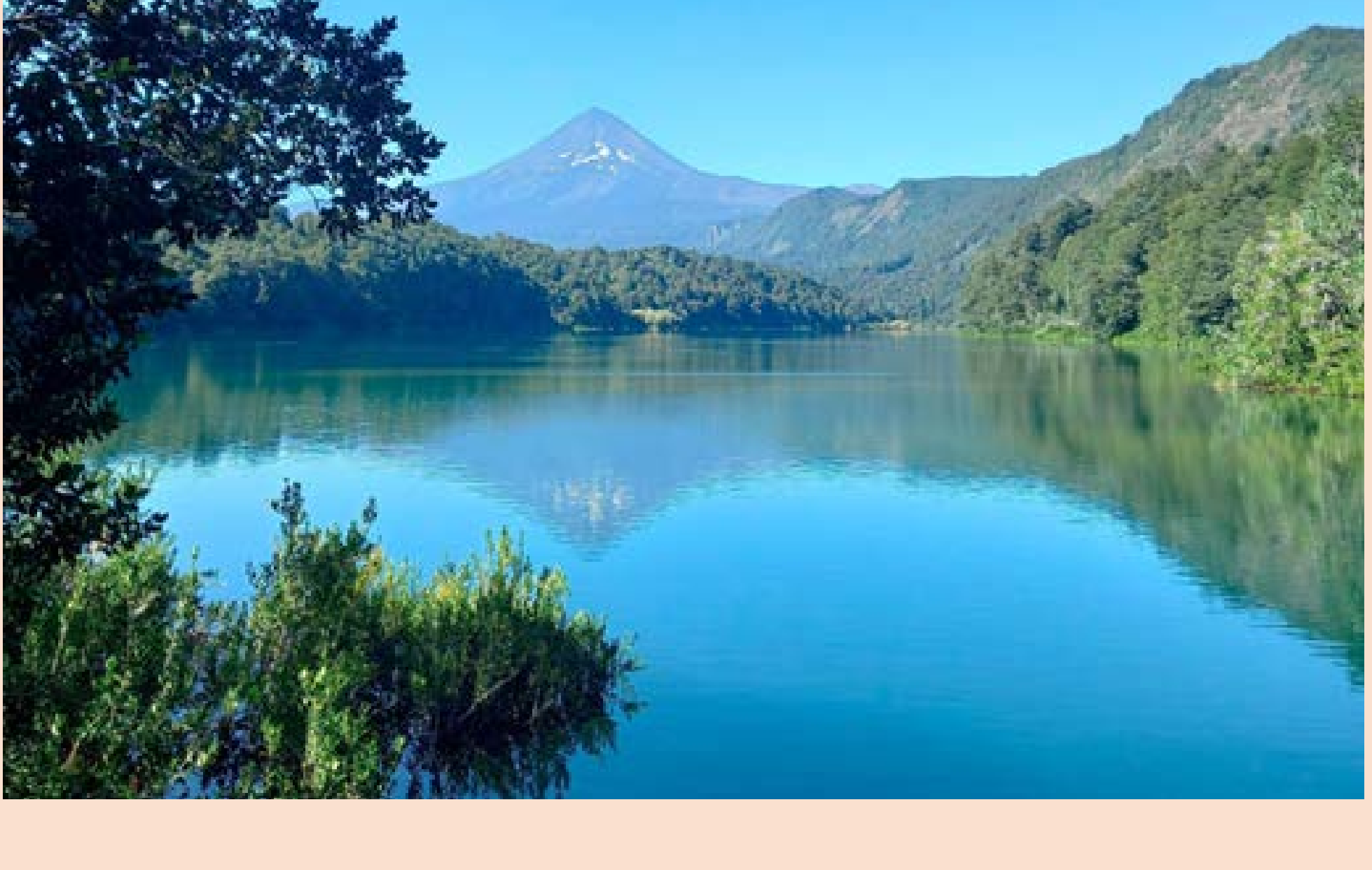
The last eruptive cycle began in May 2007 with a weak ash emission, followed by a moderate Strombolian eruption with lahar generation in January 2008, and culminated in April 2009 with a vigorous Strombolian eruption.

The Llaima volcano is controlled by the Liquiñe-Ofqui Fault Zone, which governs the volcanic zone of the Southern Andes and whose trace, it is thought, would pass through the Truful Truful River valley.



El Negro lagoon (G89)

El Negro Lagoon is a body of water of volcanic origin, fed by the El Negro River and dammed by a lava flow that emanated from the main cone of the Llaima volcano less than 3,000 years ago. The lake is located in a valley that underwent glacial erosion during the last ice age, where Patagonian Andean forest associated with evergreen forest can currently be observed.



Biodiversity and cultural heritage

Biodiversity

On the slopes of Llaima, bordering the lava, there are some oak, raulí, and coigüe forest regrowth areas, which are highly valuable as islands of vegetation that provide shelter for various species of birds, rodents, and carnivores, among others. In addition, on the lava it is possible to see species that colonize the rock, such as foliose and crustose lichens, as well as some mosses in the more humid areas with southern exposure.

On the shores of Laguna El Negro, there is primary Andean forest. From the access point to the lake, there is a wide variety of ecosystems, ranging from primary and secondary forest growing out of the lava to wetlands adjacent to the lake. Due to its low level of intervention, it is a priority site for bird nesting and as a refuge for biodiversity in general.

Cultural heritage

The Llaima volcano is considered a sacred place by the Mapuche-Pewenche people and has strong supernatural connotations. It is inhabited by protective spirits and linked to elements of good and evil within their worldview. It is a place ruled by a main spirit called Ngen-winkul, who is the owner and protector of the volcano. In addition to the ngen, it is believed that pillanes, lesser but powerful spirits, inhabit Llaima.

Llaima is associated with evil, the color red, the sun, fireballs falling from the sky (cherufe), the north, and the underworld (Minche Mapu). It is opposed to the Villarrica volcano, which is considered the good volcano and is associated with beneficial dreams.



ITINERARY

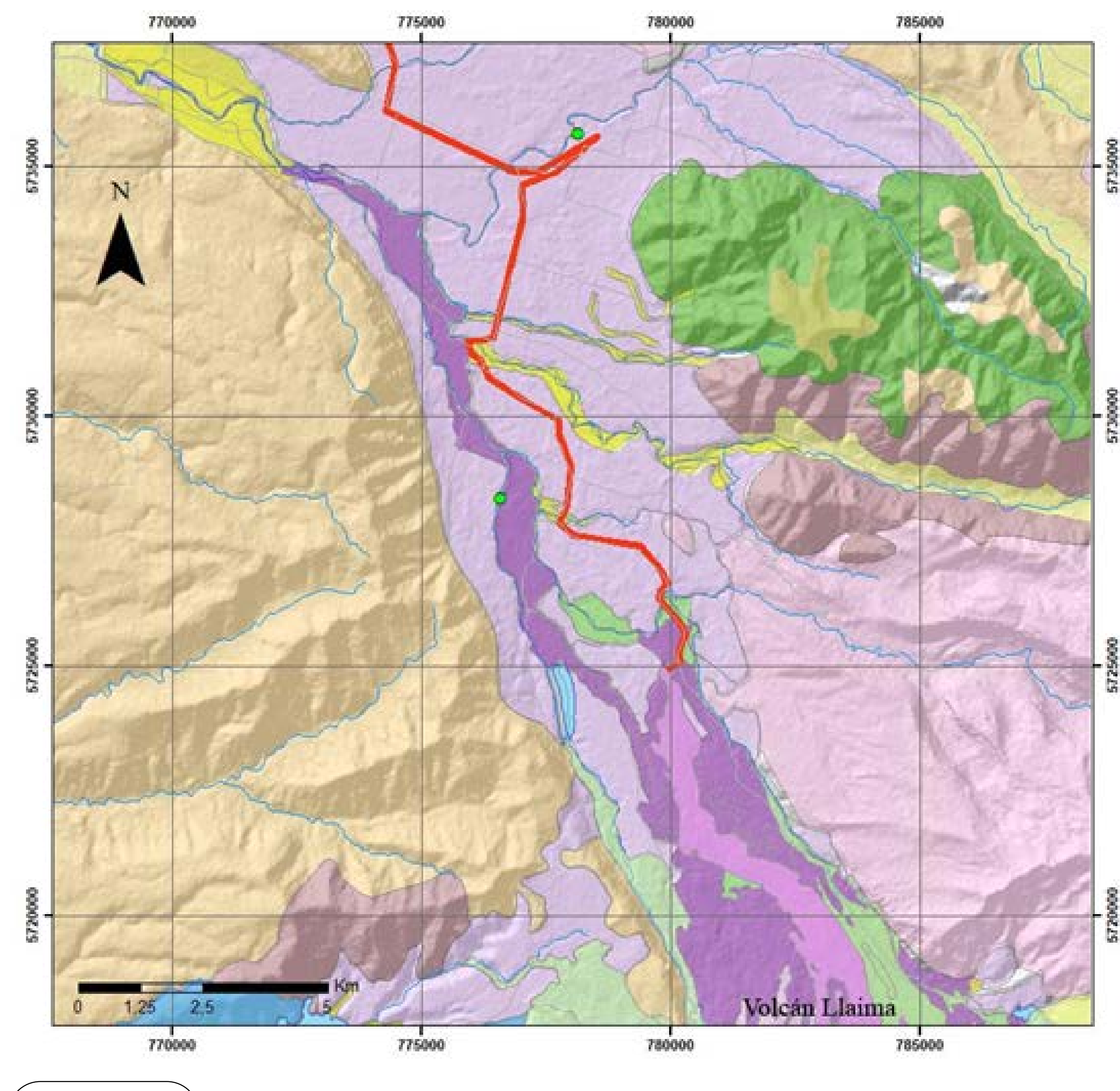
Voices of the *Pillan*: Walking Among Forests and Lava

 **Curacautín**











DESCRIPTION

Voices of the Pillan: Walking Among Forests and Lava is a journey through the Mapuche worldview and the geological memory of the territory. We begin the tour on the **Wünen Trekan / First Steps** trail within the Benancio Huenchupan Mapuche Community. This trail runs along the banks of the **Cautín River** and honors the respectful passage through a living territory, full of history, volcanic energy, and ancestral memories. Next, we will visit the **Llaima Geoforest**, a refuge for many species that live in balance, allowing a healthy and diverse ecosystem to flourish. It is a therapeutic space that invites silence, contemplation, and well-being. Finally, we will arrive at the **Captrén Viewpoint**. From there, we will see a lava flow from 1957, the traces of the shaping force of the Llaima volcano, the diversity of species that inhabit these forests, and the stories whispered by the wind among the treetops. At the end of the tour, back in Curacautín, we will visit a **craft center** where pieces of ancient wood—including picoyo—wool fabrics, and agricultural products made by local artisans are on display.

GEOLOGICAL MAP



Legend

 Depósitos Cuaternarios semi a no consolidados	 Llaima Fisural (Holoceno)
 Conjunto Volcánico de la cordillera Principal	 Ignimbrita Curacautín (Pleistoceno)
 Depósitos Laháricos	 Formación Curamallín (Mioceno)
 Lavas de 1957	 Grupo Plutónico Curamallín (Mioceno)
 Lavas de al menos 3.000 años	 Fm Vizcacha Cumilao (Cretácico - Paleógeno)

TECHNICAL SHEET

Geodiversity and geosites

Wünen Trekan / First Steps (G91)

Wünen Trekan is a geosite located within the lands of the Benancio Huenchupan community. It promotes conservation and reforestation. The site is located on the banks of the Cautín River, one of the main rivers and shapers of the geopark, where records of eruptions, possibly from the Lonquimay and Llaima volcanoes, can be seen.

The trail runs along the banks of the Cautín River, set in a mixed landscape of diverse ecosystems, including riparian, regenerating forest, mature forest, and grassland. This implies high biodiversity, with species such as radal, kila, myrtle, striped brown lizard, short-tailed duck, four-eyed frog, frog duck, and hualla.

For the Mapuche-Pewenche people, water is not only a vital resource, but also a sacred and essential element in their worldview. It is intrinsically linked to life, spirituality, and the balance of the natural world. Water, known as ko in Mapudungun, is seen as a living being with protective spirits (ngen) and is associated with fertility, purification, and connection with the divine.



Llaima Geoforest (G90)

It corresponds to a natural area of 21 hectares located at the foot of the Llaima volcano, which was formed by a lava flow estimated to be less than 3,000 years old, carved out by the El Negro River, on which an ancient nothofagus forest grows.

It is a very unique site, featuring a wide variety of biotopes, such as the one growing on the lava, which is gradually being inhabited by the microforest. Here, young trees and mature forest grow, predominantly nothofagus (such as coigüe, raulí, and oak) and pure Radal forests. Under the forest and on the lava, mosses and lichens complete a diverse, changing, and very fragile landscape.



Captrén Viewpoint (lava from the 1957 eruption of the Llaima Volcano)

From this point, it is possible to see an aa lava flow, 8 meters thick and 12 km long, formed after the 1957 eruption of the Llaima volcano. Small islands of vegetation can also be seen on the slopes of the volcano.



Llaima volcano

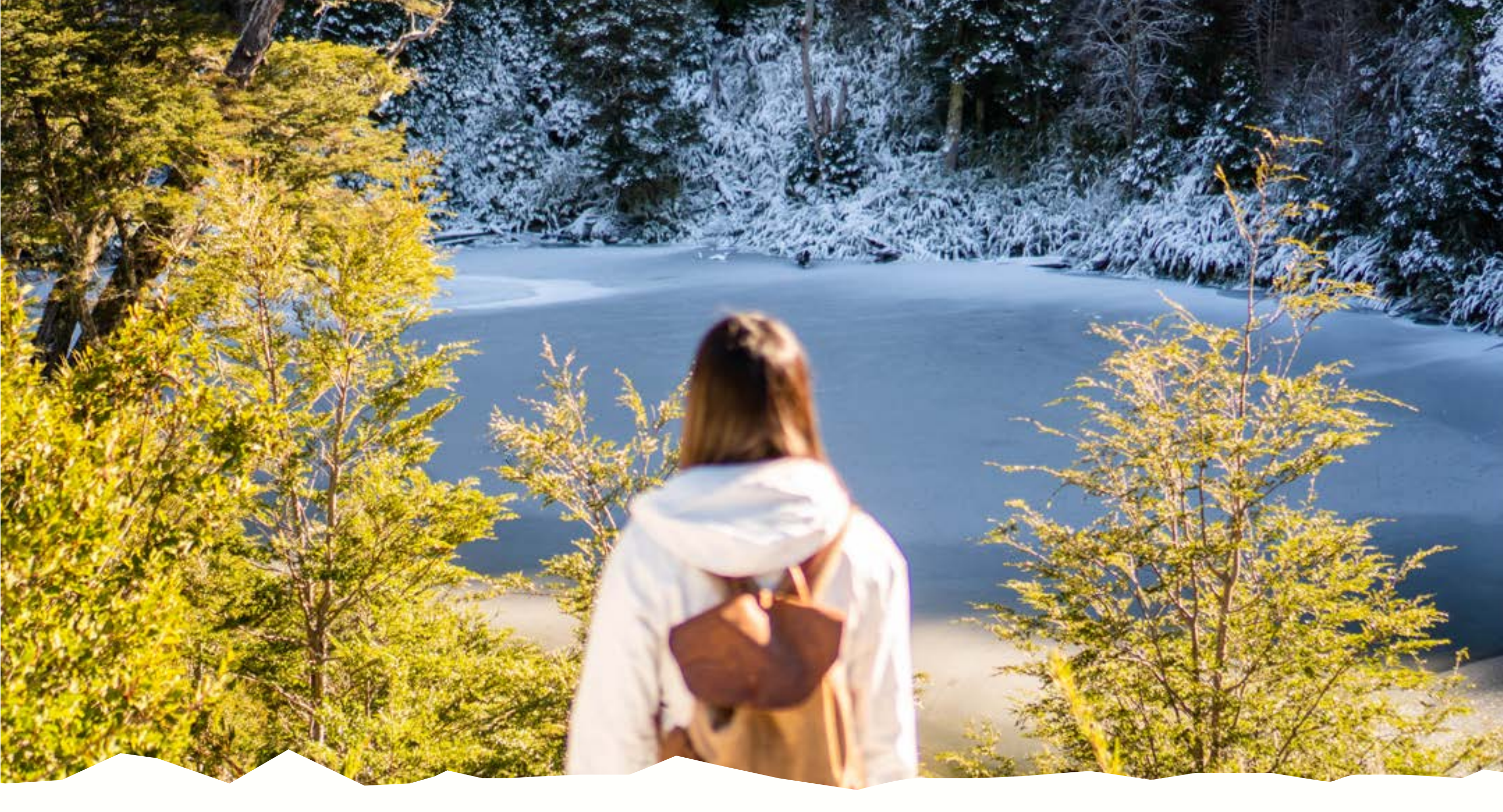
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The last eruptive cycle began in May 2007 with a weak ash emission, followed by a moderate Strombolian eruption with lahar generation in January 2008, and culminated in April 2009 with a vigorous Strombolian eruption.

The Llaima volcano is controlled by the Liquiñe-Ofqui Fault Zone, which governs the volcanic zone of the Southern Andes and whose trace, it is thought, would pass through the Triful Triful River valley.





ITINERARY

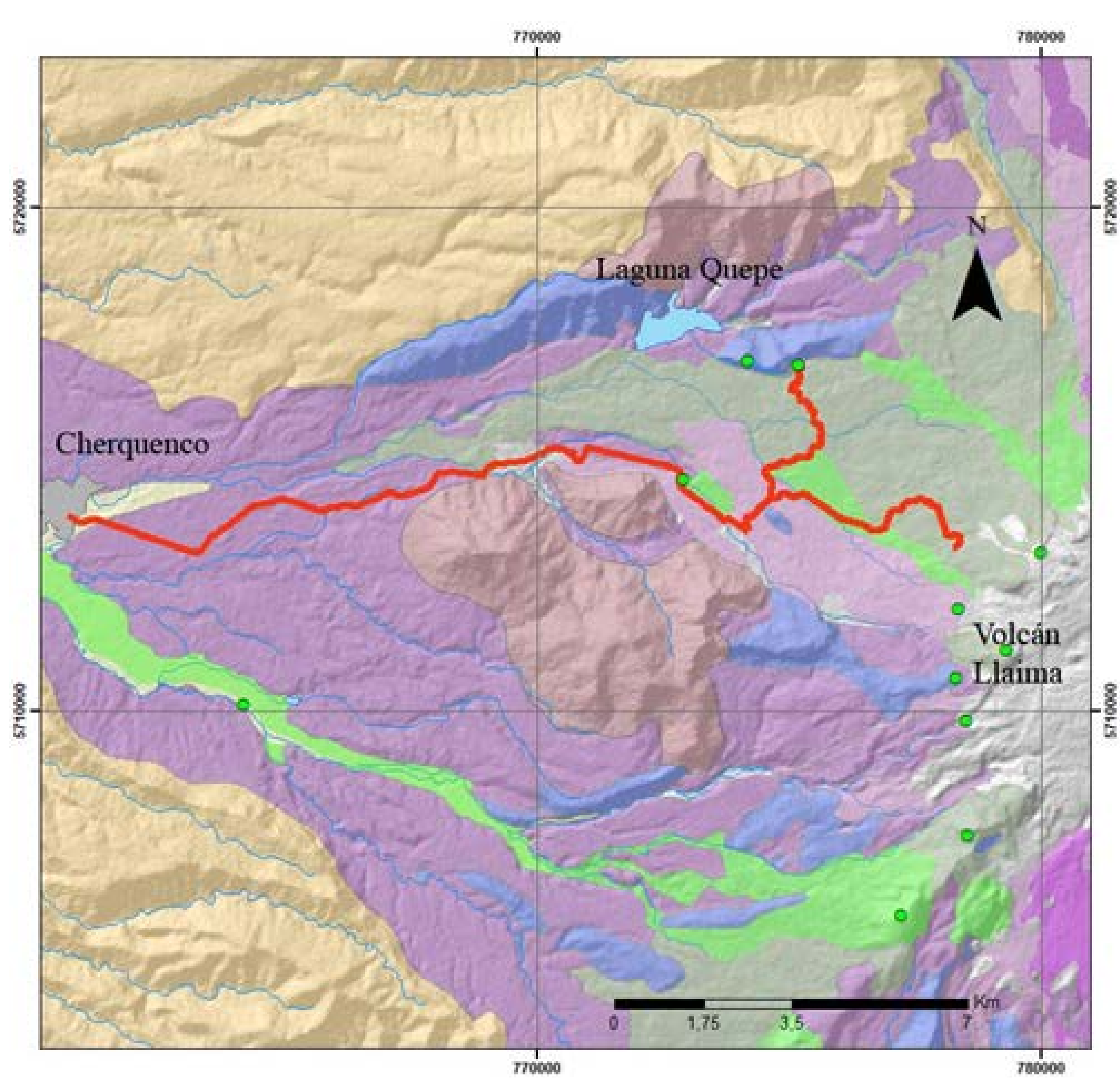
Weaving Ancestral Landscapes

 Vilcún









DESCRIPTION

The memories of the earth are not only reflected in rocks and volcanoes. This experience allows us to immerse ourselves in an ancestral dimension, through the stories of the loom route. Upon arrival, we will be welcomed by weavers inside their **ruka**, a meeting place for knowledge and stories about the **Mapuche weaving craft**. Then we will travel to the **Los Paraguas** sector of Conguillío National Park to take a chairlift ride to the base of the Llama Volcano and venture among ancient araucaria trees that hold a geological history of more than 300 million years. We will also visit the remains of the **ancestral Llama** and a unique hidden wetland called **Laguna Amarilla**. Finally, we will return to the town of **Cherquenco** to explore its railway past and learn about the process of recovering railroad ties and altarpieces from heritage houses. At the end of the day, we will travel to **Hornitos de los Tilos** for a gastronomic experience featuring cuisine made with local products.

GEOLOGICAL MAP



Legend

	Depósitos Cuaternarios semi a no consolidados		Ignimbrita de Curautín (Pleistoceno superior)
	Conjunto Volcánico de la cordillera Principal		Llama (LI) ancestral (Pleistoceno Medio)
	Coladas del cono principal (Reciente)		Formación Malleco (Plioceno - Pleistoceno)
	Llama fisural (Holoceno)		Grupo Plutónico Melipeuco (Mioceno)

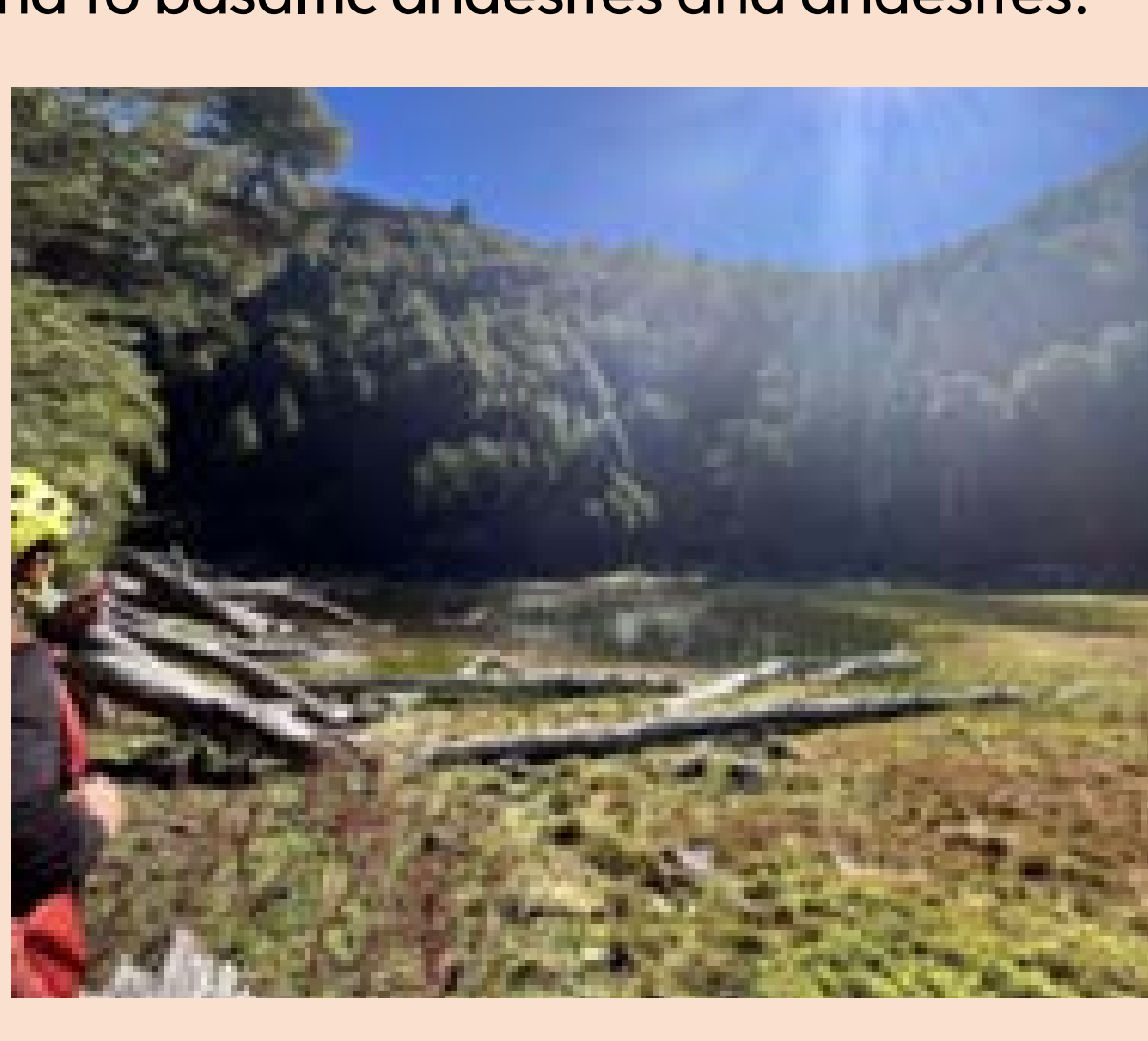
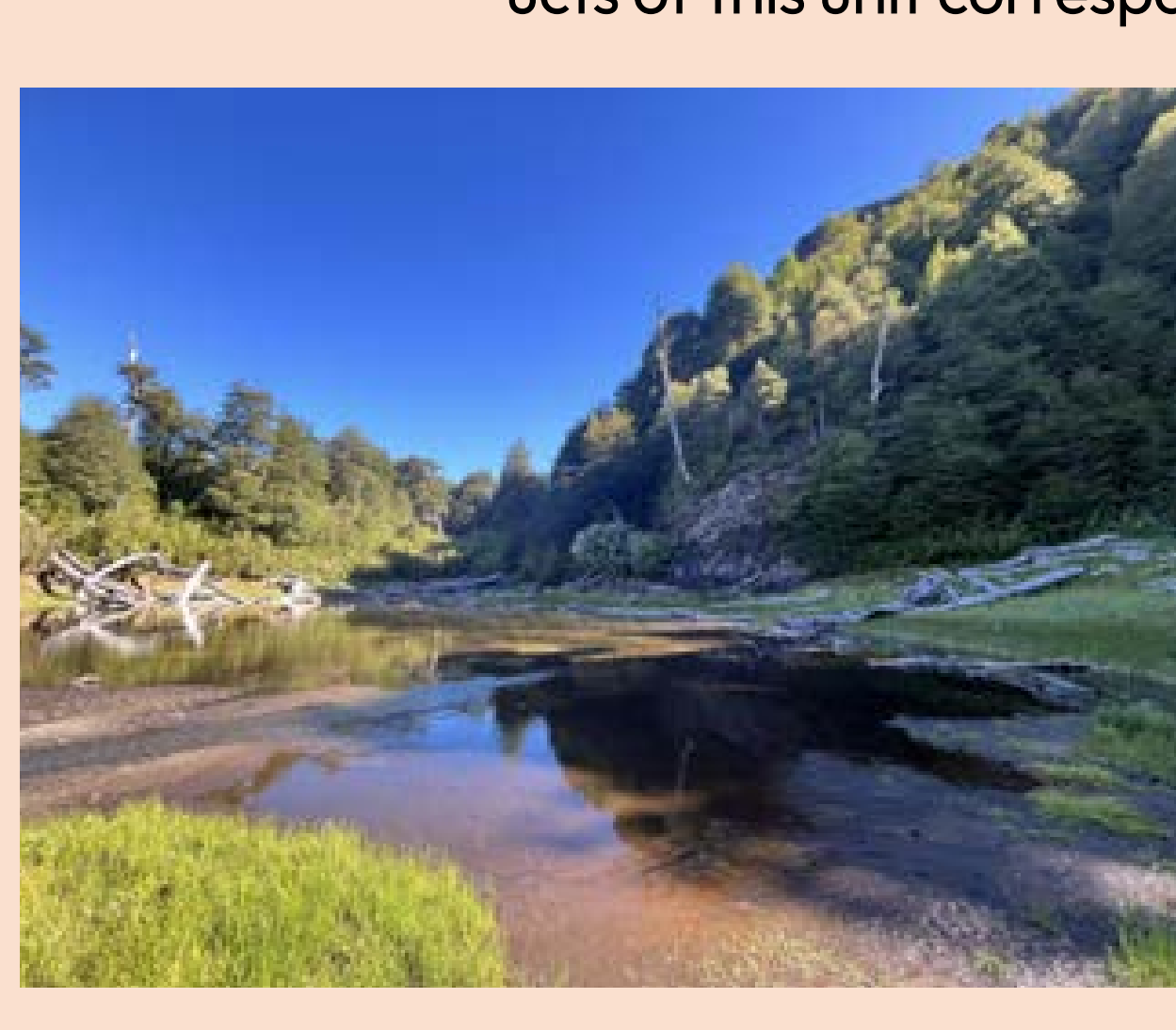
TECHNICAL SHEET

Geodiversity and geosites

Laguna Amarilla (G120)

Laguna Amarilla is a small volcanic lake located at the foot of the Cerro Los Mellizos geosite (G81), which was formed by the damming of water by recent lava flows emanating from a fissure on the flank of the volcano.

The lava flows that gave rise to this volcanic lake, and which can therefore be observed at various points in the area, correspond to the Llama Fisural 1 unit. These are aa-type lava flows that descended towards the northeast, northwest, and southwest sectors of the Llama volcano, reaching 3 to 5 m in thickness and up to 15 km in length along the Quepe River. The volcanic products of this unit correspond to basaltic andesites and andesites.



Los Mellizos Hill (G81)

This rock massif is characterized by two peaks, one at 1,190 meters above sea level and the other at 1,247 meters above sea level. For this reason, it was named Los Mellizos ("The Twins"). This geosite is part of the Llama Ancestral 1 unit, corresponding to sequences of basaltic to andesitic lavas, with brecciated intercalations and laccolith intrusions. From the summit of Los Mellizos hill, you can see the Llama volcano and the El Seco estuary valley, and appreciate the effect of the volcanic and glacial processes that have taken place in the area.



Biodiversity and cultural heritage

Birdlife and forest



Among the main bird species inhabiting the Laguna Amarilla wetland are: the jergón duck (*Anas georgica*), the quetru duck (*Tachyeres patachonicus*), and the great rhea or canquén (*Chloëphaga poliocephala*), as well as mammals such as the chilla fox (*Pseudalopex griseus*) and the coypu (*Myocastor coipus*).

In the ecotone between the humid environment of the lagoon and the forest, tree species of the *Nothofagus* genus dominate, such as the ñirre (*Nothofagus antarctica*), the coigüe (*Nothofagus dombeyi*), and the lenga (*Nothofagus pumilio*), as well as the emblematic pewen conifer (*Araucaria araucana*).

There we find the black woodpecker (*Campephilus magellanicus*), an insectivorous bird that is characterized by drilling into the trunks of native trees in search of insect larvae, which it finds by listening to the vibration they make when feeding on the pulp of the trees. Its head has an excellent set of bones that prevent it from being injured when it hits trees. They have claws on their feet with which they hold on tightly so as not to fall, and their tail acts as a stabilizer or third leg. Sexual dimorphism characterizes the male with a completely red crest and the females with black feathers, except at the base of the beak, where they have red feathers.

Cultural heritage



Cherquenco meaning "water from Chercan" in Mapudungun, is a historic place linked to the railroad. Originally, it was a nationally significant timber enclave, where araucaria, coigüe, and oak wood were extracted, raw materials used to make products such as linings, floors, overlaps, cornices, frames, and structural pieces such as beams and pillars. These products were used throughout the country to build everything from homes to mining structures in places such as Lota, Santa Laura, and Humberstone. The companies that had a presence in Cherquenco were BIMA, Madesal, and Korach.

In 1892, the railway station in Cajón was inaugurated. In 1908, the land in Colonia Mendoza was auctioned off, and the first houses and sawmills were built. Two years later, studies for the railway branch line began. In 1916, after four years of work, the Cherquenco station was inaugurated. This boosted the timber industry, along with livestock farming and agricultural production, particularly cereals, which were already booming.



ITINERARY

Traces of the Red Earth / *Pu rūpu ta*

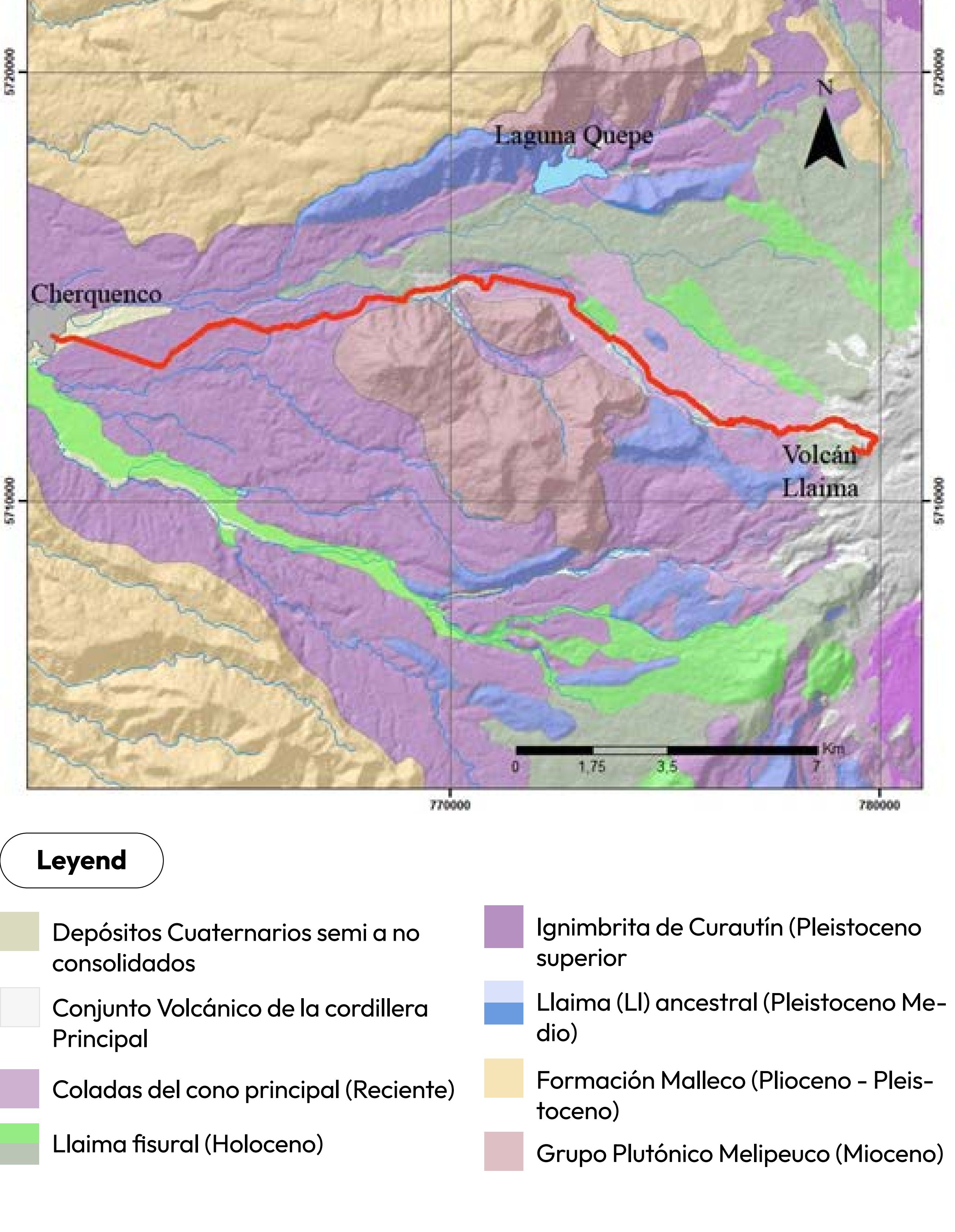
kelu mapu

Vilcún

DESCRIPTION

Discover the energies of an ancient land, an experience that fills you with excitement and gratitude as you reach the summit of the **Cerro Colorado geosite (G12)**. Beneath this reddish winter blanket, its parasitic cones reveal how eruptions have shaped this ecosystem. Along the way, you will enjoy unique views of **Cerro La Cruz and Cerro Montón de Trigo (G80)**, reaching the base of the imposing Llaima volcano, the star of the landscape. As we advance, you will see how natural processes have shaped this environment, offering a diverse and enriching visual experience. To end the day, we will travel to **Hornos Tañi Puche**, where we will be surprised by the typical flavors of the territory, through fusion cuisine preparations.

GEOLOGICAL MAP



TECHNICAL SHEET

Geodiversity and geosites

Cerro Colorado (G12)

Cerro Colorado (G12) is a pyroclastic cone of intensely reddish scoria, which is partially eroded. From this center, aa-type andesitic basaltic lava flows emanated and flowed down toward the southwest. This cone is part of a group of parasitic cones aligned in a northeast direction, which are associated with the existence of fissures that the magma used to reach the surface. No direct ages have been obtained for these lavas, but they have been narrowed down to between 3,440 and 2,940 years, which is consistent with the dense vegetation cover on the slopes below. From this geosite, there is a panoramic view of the Lonquimay, Llaima, Tolhuaca, Callaqui, Lanin, Quetrupillán, Villarrica, and Nevados de Solipulli volcanoes, as well as the Quepe lagoon.



Llaima volcano

The Llaima volcano is a composite stratovolcano, consisting of a mixed volcanic edifice and shield, with a covered caldera and more than 40 adventitious cinder cones. It has an elongated, semi-conical morphology in a north-south direction, with an irregular base that begins at altitudes between 500 and 900 meters and reaches a maximum elevation of 3,125 meters above sea level.

It is believed to have begun its activity during the Upper Pleistocene, approximately 250,000 years ago, and has been built up through frequent eruptions of fluid lava from a central or flank source. The historical eruption record includes 48 documented events between 1640 and 2009, during which lava flows, lahars, pyroclastic projections, and occasionally pyroclastic flows were generated, as in 1640, its largest historical eruption on record.

The last eruptive cycle began in May 2007 with a weak ash emission, followed by a moderate Strombolian eruption with lahar generation in January 2008, and culminated in April 2009 with a vigorous Strombolian eruption.

The Llaima volcano is controlled by the Liquiñe-Ofqui Fault Zone, which governs the volcanic zone of the Southern Andes and whose trace, it is thought, would pass through the Triful Triful River valley.



Montón de Trigo Hill (G80)

Pyroclastic cone produced in a fissure on the northwest flank of the Llaima volcano, which is part of the Llaima Ancestral 1 unit, consisting of massive basaltic to andesitic lavas. In addition, this geosite is partially covered by recent moraine deposits, corresponding to accumulations of poorly sorted matrix debris, mainly consisting of silt, sand, blocks, and boulders of volcanic material. Much of these deposits have been removed by lahars generated during most of the historical eruptions and, as a result, only outcrop on the western and northeastern flanks of the volcano.



Biodiversity and cultural heritage

Flora watching



Pewen (*Araucaria araucana*): Considered a living fossil, with a history spanning more than 240 million years, *Araucaria araucana* is a large conifer with a distinctive and striking umbrella shape. It is a species adapted to the harsh and demanding conditions of the Andean territories, with months of cold and snow. It grows in rocky and volcanic soils, derived from recent volcanic ash deposits. It is also part of the mountain forests, alongside specimens of the *Nothofagus* genus. Its seed, the *nguilliu* or *piñón*, is the basis of the food, family, and spiritual heritage of the pewenche people.

It is possible to find specimens up to 45 meters high and 2 meters in diameter at their base. They are characterized by slow growth. Their distribution covers a small area of Chile and Argentina, at an altitude of around 900 meters above sea level. *Araucaria araucana* was declared a Natural Monument in 1990, which means that its felling and destruction are prohibited throughout the national territory, as is the extraction of its pine nuts and cones.

Microforest



Poñpoñ mamul (*Protousnea magellanica*): Stem up to 90 cm long, with mostly terrestrial branches and a distal mass of soft, smooth, relatively long terminal branches. Old man's beard is a good bioindicator of air quality. It is a fruticose lichen that grows in wooded environments and is very sensitive to air pollution.

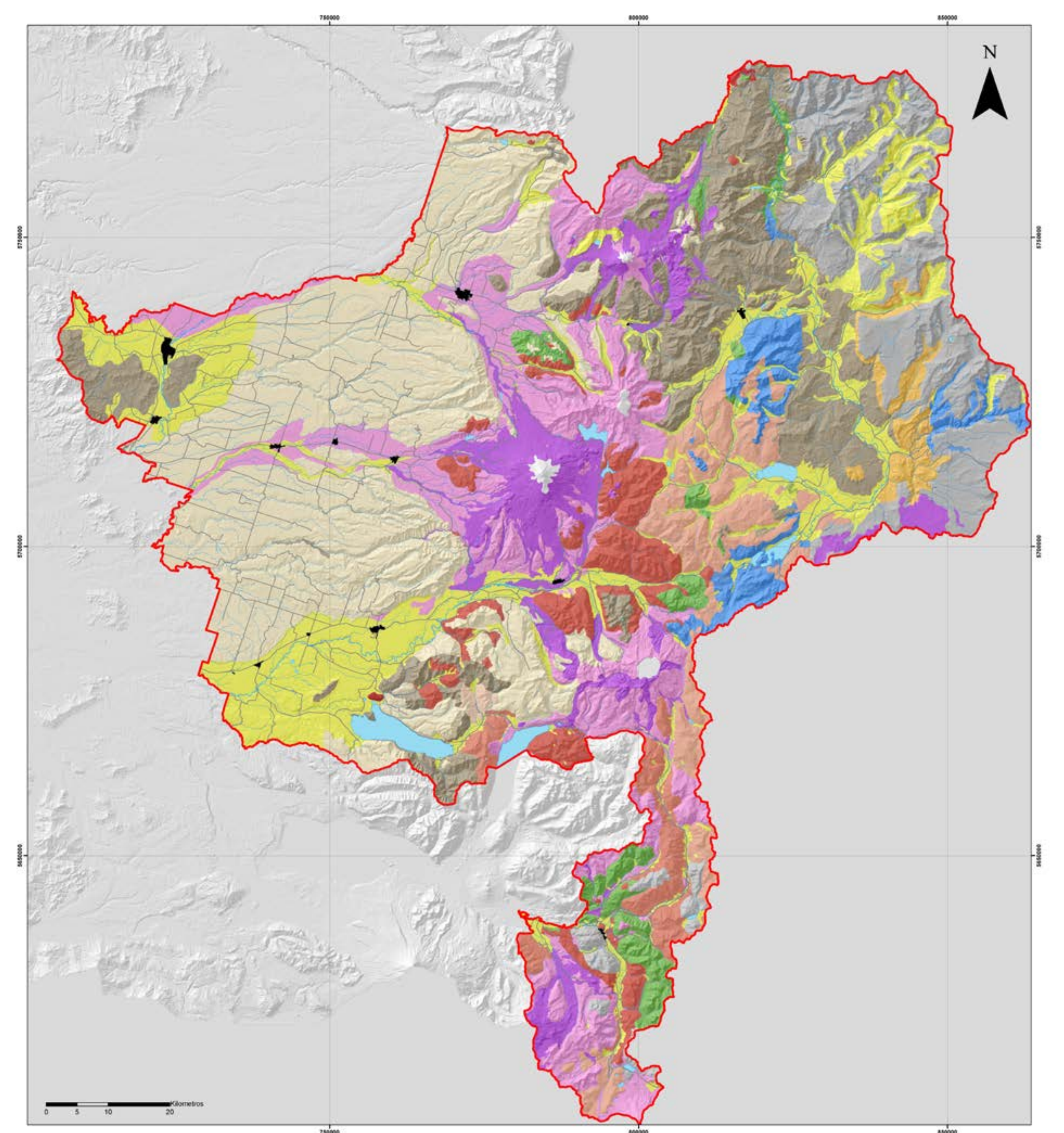


Musgo pinito (*Dendroligotrichum dendroides*): This moss has a main stem from which many branches grow, giving it a dendroid growth pattern. It can be easily seen on the forest floors of the Kütralkura Geopark, due to the humidity of the soil, rocks, and trees.



Changle (*Ramaria flava*): This is one of the most well-known edible mushrooms among the inhabitants of the Kütralkura Geopark, due to its high gastronomic value. It is coral-shaped, with yellow branches and a white base. It measures between 6 and 2 cm high and 10 to 15 cm wide.

Geologic Map of Kütralkura



Legend

- Town
- Water Bodies
- Kütralkura Geopark Boundary
- Hidric Network
- Roads

Geological Legend

- Sedimentary Deposits (*Quaternary*)**
Glacial deposits and non consolidated deposits
- Volcanoes of the Principal Mountain Range (*Quaternary*)**
Represent volcanics products of volcanoes (from north to south) Tolhuaca, Lonquimay, Sierra Nevada, Llaima, Sollipulli, Quetrupillan and Lanin.
- Volcanic Association of the Eastern Precordillera (*Lower Pliocene to Upper Pleistocene*)**
Groups volcanic structures and associated basaltic and andesitic lavas, products of a Pliocene-Pleistocene volcanic front.
- Western Volcanic Association (*Pliocene - Lower Pleistocene*)**
Andesitic to basaltic lavas with calco-alkaline signature, volcanic breccias, agglomerates and tuffs, interspersed with conglomerates and sandstones.
- Mitrauquen Formation (*Upper Miocene*)**
Sedimentary member: Conglomerates with intercalations of dacitic ignimbrites and andesitic lavas.
Volcanic member: Andesitic lavas and tuffs.
- Strata of Huichahue (*Miocene*)**
Informal unit, sequence of fine sandstones and conglomerates with abundant volcanic lithics and marine fossiliferous shales.
- Eocene - Miocene Batholith (*Eocene - Miocene*)**
Granites, granodiorites, tonalites, monzogranites and diorite.
- Cura Mallin Formation (*Lower to Middle Miocene*)**
Andesitic, dacitic and rhyolitic volcanic rocks, as well as lake and river sedimentary rocks.
- Volcanic Rocks from Cretaceous to Paleogene**
succession of pyroclastic rocks, massive andesitic and subordinately basaltic lavas
- Jurassic and Cretaceous Batholith (*Upper Jurassic to Upper Cretaceous*)**
Tonalites, Granodiorites and, to a lesser extent, monzogranites and quartz diorites.
- Nacientes del BioBío Formation (*Lower to Upper Jurassic*)**
Marine sedimentary sequence intercalated with continental and marine volcanic deposits. Its is composed of the Icalma, Lolen-Pacunto and Lonquimay members. The Icalma member is contituted by pillow lavas, basaltic breccia and basalt, with turbiditic marine sedimentary intercalation. The Lolen - Pacunto member corresponds to clastic fossiliferous sedimentary succession and The Lonquimay member comprises marine sedimentary and volcanoclastic rocks.
- Strata of Huenucal Ivante (*Pre-Jurassic?*)**
Sequence formed by foliated metasedimentary rocks (slate and metasandstone) sorrounded by granitic rocks of the Galletue Plutonic Complex.
- Futrono - Riñihue Batholith (*Upper Carboniferous - Permian*)**
Tonalites, granodiorites and granites of course to medium grain.