



ANNUAL REPORT 2018 · 2019





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A LETTER FROM OUR EXECUTIVE PRESIDENT, FRANCISCA CORTÉS SOLARI

Working Towards Comprehensive and Sustainable Development

Our society is facing great challenges, which are also great opportunities. These are related to the importance of planning and implementing a model of Comprehensive and Sustainable Development which will allow us to face the climate change crisis head on.

This challenge requires not only new and innovative solutions, but also a change in our awareness of, participation in, and collaboration with the so-called Virtuous Triangle; that is to say, the dialogue between the public sector, civil society, and the private sector. Only then can we collectively find solutions that will allow us, as a society, to reach higher degrees of well-being, not only economically, but also socially, culturally, and environmentally.

In this context, it is our role as philanthropists to take actions that benefit the public, in collaboration with the points on the Virtuous Triangle, in order to guarantee that their programs not only meet the necessary quality standards, but also achieve the desired impact.

At FCS, we have decided to work towards the Comprehensive and Sustainable Development of Chile and the region through science, education, culture, and conservation, and for that purpose, we have created different institutions. The Caserta Foundation, which has over 17 years of experience, aims at promoting Holistic Education through the design and implementation of school programs, teacher-training and executive programs, as well as training courses for mediation and leadership. Caserta's main goal is to educate students and teachers to be aware of their environment, and their role as agents of change in the challenges of the present and the future.

The MERI Foundation promotes the development of scientific research and environmental education programs for the conservation of Chile's strategic ecosystems.

Finally, Tata Mallku is focused on promoting our country's cultural and natural heritage. Furthermore, as we know, Chile's geography is unique. Our country is a real natural laboratory, which not only allows the monitoring of climate change, but also has strategic natural reserves for the future of humanity. In this context, eight years ago we decided to investigate and conserve three territories, which we call Elemental Reserves, located in San Pedro de Atacama, San José de Maipo and Patagonia Norte.

However, these territories are not the final goal. The goal is to develop a model of Effective Conservation that can be replicated at a national level in small, medium and large areas, and that will have a high impact in their respective ecosystems.



A LETTER FROM OUR GENERAL MANAGER, PATRICIA MORALES ERRÁZURIZ

Towards the consolidation of a philanthropic model

Throughout the years, we have learned that conservation requires a multi-sectorial approach that combines four dimensions; that is to say, environmental, social, cultural, and economic. Since people only protect what they love, and love what they know, the environmental approach requires a systemic understanding of the ecosystem and the threats it faces. With our MERI Foundation, we have decided to undertake scientific studies of some of the ecosystems in the Elemental Reserves in order to develop environmental education programs alongside members of the community.

But the programs associated with Effective Conservation must also take into account the social dimension, as well as cultural heritage, and the local relevance of the actions taken. Science and environmental education must be at the service of cultural heritage and the community to which we all belong.

I would like to take this opportunity to thank everyone at our Foundations and Elemental Reserves, as well as the students, on-site program facilitators, and associated scientists, women and men who enrich us with their views every day.

The commitment and passion put into this project is reflected not only in the recognition of our peers, but in the possibility of expanding our horizons, creating national and international alliances in order to advance our science, education, and conservation programs, so that together we can face the crisis at hand.

I would also like to thank my family for their unconditional support in the construction of this philanthropic project which seeks to transcend political borders.

In the context of nation-wide reflection, there is a call for a shift in consciousness. To unite for a higher purpose, that of bringing ideologies together and reflecting on a Comprehensive and Sustainable Development. This reflection must be inclusive and consensual among the different societal agents, because only then will we be able to reach appropriate solutions that involve all citizens in the economic, social, environmental, and cultural development of our beloved country, and to position Chile at the forefront of conservation, science, education, and culture worldwide.

Two years ago, as a product of more than fifteen years of work in the areas of science, education, environment, and culture, the Cortés Solari family, along with their Executive President, Francisca Cortés Solari, founded Filantropía Cortés Solari (FCS), a nonprofit institution whose objective is to promote Comprehensive and Sustainable Development in Chile and the region.

Among FCS's founding principles was to initiate the development of institutions that would guarantee and facilitate the implementation of the work developed by the Caserta and MERI Foundations, in the areas of education and science respectively, ensuring that their actions have high degrees of cultural and territorial relevance.

This meant, on the one hand, establishing the values that have characterized the work of the foundations belonging to FCS for over 17 years: a love for Chile, its culture, ecosystem and citizens, a respect for diversity, and the values of perseverance and resilience. But it also meant establishing certain principles fundamental to the work of a philanthropic institution.

Specifically, we subscribe to the definition given by the Center for Philanthropy Studies of Basel University, Switzerland, which defines philanthropy as those actions that emanate from private individuals, but which benefit the public. In this context, our actions require every project to be at the service of the so-called Virtuous Triangle, that is to say, the public sector, the private sector, and civil society.

On the other hand, the consolidation of the philanthropic model was accompanied by the creation of the Elemental Reserves. In the beginning, these territories were intended as cultural, educational, and scientific parks, capable of hosting the programs offered by the Caserta and MERI Foundations, respectively.

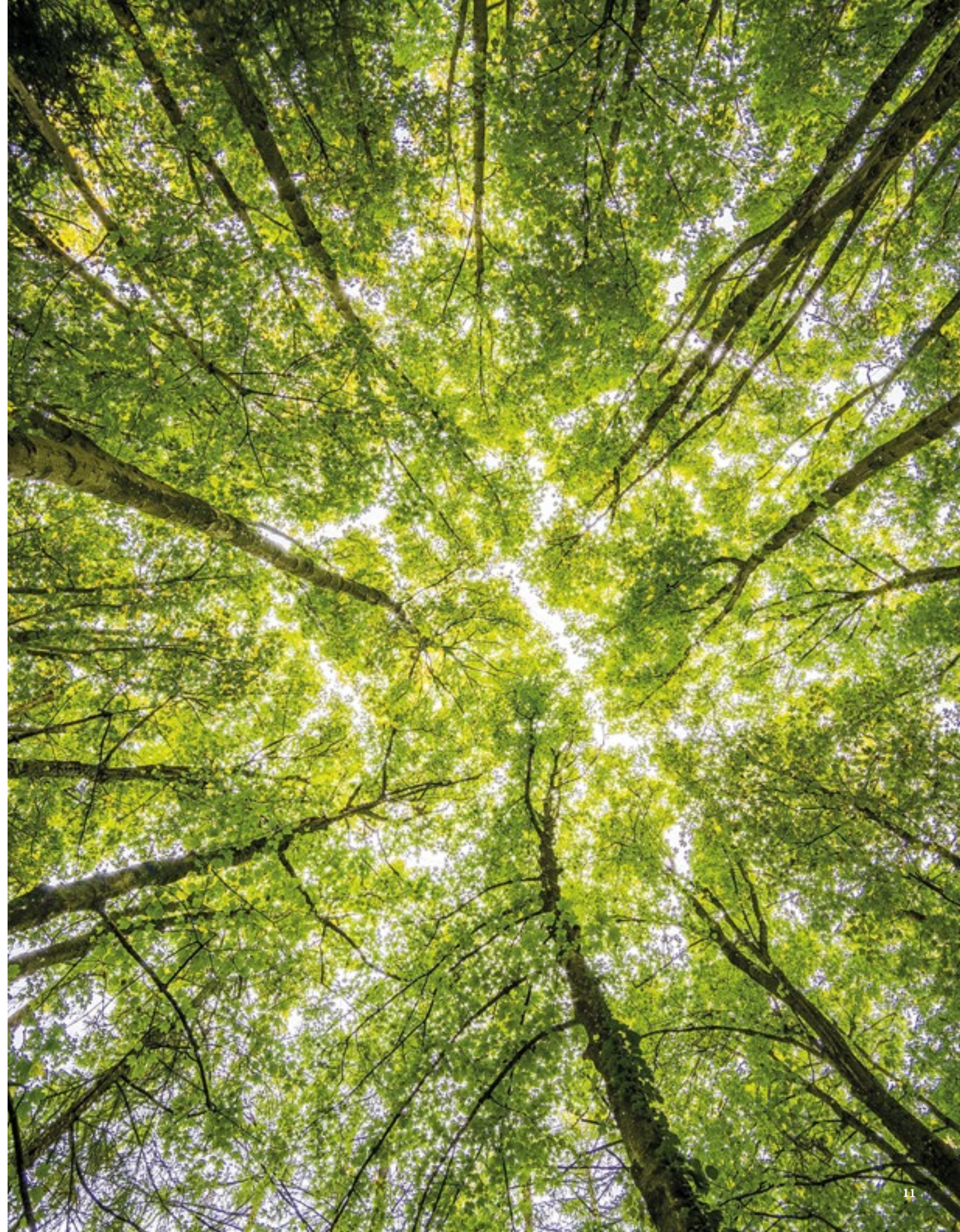
Nevertheless, both the scientific research associated with the objects of conservation in the Elemental Reserves, and the evidence associated with the educational and cultural programs developed at the service of local communities, revealed it was necessary to think of these territories as spaces for effective conservation, considering their unique geographical characteristics, which could benefit from a common holistic approach.

This is how the Puribeter, Likandes, and Melimoyu Elemental Reserves were born, and from where we seek to consolidate scientific knowledge concerning the threats to those ecosystems, while also promoting a replicable model of Effective Conservation in order to achieve higher degrees of sustainability.

We know there is still a long road ahead of us in terms of institutional strengthening, but the truth is that philanthropy is expected to play a fundamental role in the country's development. This requires us to meet the highest quality standards while, at the same time, being able to show the impact of our actions, and always be at the service of the public interest in order to build trust with the local communities.

I would like to thank our Executive President, Francisca Cortés Solari, for the vision, passion, and tenacity she continues to put into this project, as well as for the trust she has placed in the FCS teams to dream bigger every day.

Finally, I would like to thank the teams of Filantropía Cortés Solari, from our Global Areas to the Foundations and Elemental Reserves, for the professionalism and conviction they have poured into every task, as well as for their commitment to this cause that unites us all: Chile.





Araucaria forest



FILANTROPÍA
CORTÉS
SOLARI





Philanthropy at the service of Comprehensive and Sustainable Development

Filantropía Cortés Solari (FCS), is a nonprofit institution which seeks to promote **Comprehensive and Sustainable Development in Chile** through science, education, culture, and conservation, in accordance with the United Nations' (UN) Sustainable Development Goals (SDGs¹).

FCS understands the need to promote sustainable development, from a multi-dimension and cutting-edge perspective, which entails the creation and promotion of social, cultural, scientific, and environmental values both in our country and worldwide.

For this purpose, FCS owns three foundations, Tata Mallku, Caserta, and MERI, which promote culture, education, and science; as well as three territories for Effective Conservation, located in San Pedro de Atacama, San José de Maipo, and Patagonia Norte, which we call our **Elemental Reserves**.

¹ The SDGs were created by the UN in order to give continuity to the global development agenda crystallized in the organization's Millennium Development Goals (MDGs).

Blue whale

Working Towards a Comprehensive and Sustainable Development



The purpose of the Sustainable Development Goals (SDGs) is to prevent the actions of the present from compromising the resources of future generations, while at the same time considering the analysis of environmental, social, and economic factors.

The challenges presented by the SDGs require actions that engage other actors, not only the public sector, especially in so-called developing countries, where public resources may be insufficient to reach these goals (OECD, 2018).

Thus, the existing relationship between the SDGs and philanthropy poses a question regarding how the latter can contribute to this great global challenge by the year 2030. FCS seeks to be a part of this initiative through its network of foundations and Elemental Reserves.

In this way, both the conservation actions in the territories and the programs developed by the foundations, use the SDGs as reference points, making them one of the pillars in the design of the programs implemented during this period.



Espino (*acacia caven*)



Sea urchin and starfish. Eduardo Sorensen

FCS Values

At FCS, we seek to promote a series of values and principles such as integrity, solidarity, perseverance, trust, transparency, respect and love for Chile.

We encourage the reflection of these values in the actions of our foundations and Elemental Reserves, which seek to revive and promote our cultural heritage, to conserve and show the diversity of our country's ecosystems, also to encourage and promote holistic education in keeping with the future challenges Chile will have to face.

An implemented philanthropic model

› Our principles

We understand philanthropy as the combination of actions from private individuals which benefit the public. In this context, we follow three main principles:

PHILANTHROPY PLACES A CENTRAL IMPORTANCE
ON HUMANS AND THEIR ACTIONS

PHILANTHROPY EXPRESSES A COMBINATION OF
VALUES ASSOCIATED WITH THE WELLBEING OF ALL
HUMANKIND, BASED ON ETHICAL VALUES

PHILANTHROPY HAS NO POLITICAL, RELIGIOUS,
OR DOGMATIC AFFILIATIONS



› Institutional

Philanthropy requires a robust institutional

To this end, in 2018, FCS established our Global Areas, whose purpose is to guarantee and enforce compliance with the mission statement and work plan of each Foundation and Elemental Reserve, assisting and supporting their work.



› The Virtuous Triangle

We understand that, for a public policy to succeed in its **diagnosis, design, implementation, and impact**, cooperation from all sectors of society is required. In this sense, we seek to promote alliances from inside the so-called **Virtuous Triangle** (state - private sector - civil society), in the fields of action that are part of our institutional mandate (science, education, culture, and conservation), with the purpose of:

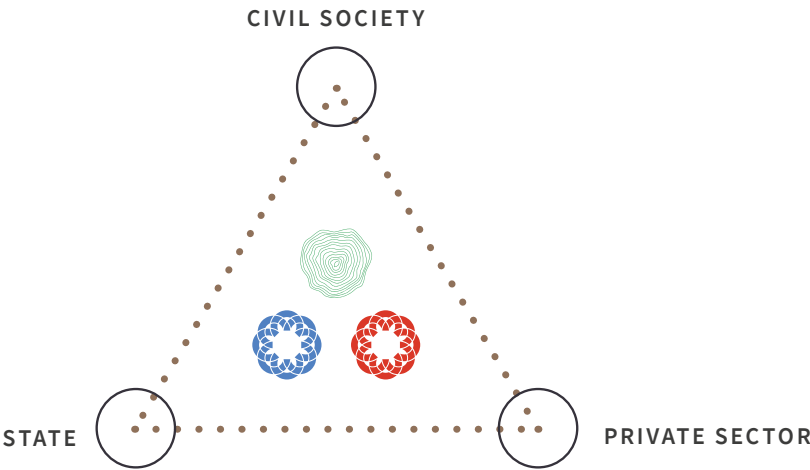
PROMOTING COMPREHENSIVE AND
SUSTAINABLE DEVELOPMENT IN CHILE

INCREASING THE IMPACT AND EFFICACY OF
PROGRAMS AND PROJECTS RUN BY OUR
FOUNDATIONS AND RESERVES

REPLICATING SUCCESSFUL PROGRAMS
IN ORDER TO INCREASE THE NUMBER OF
BENEFICIARIES AND THEIR COVERAGE



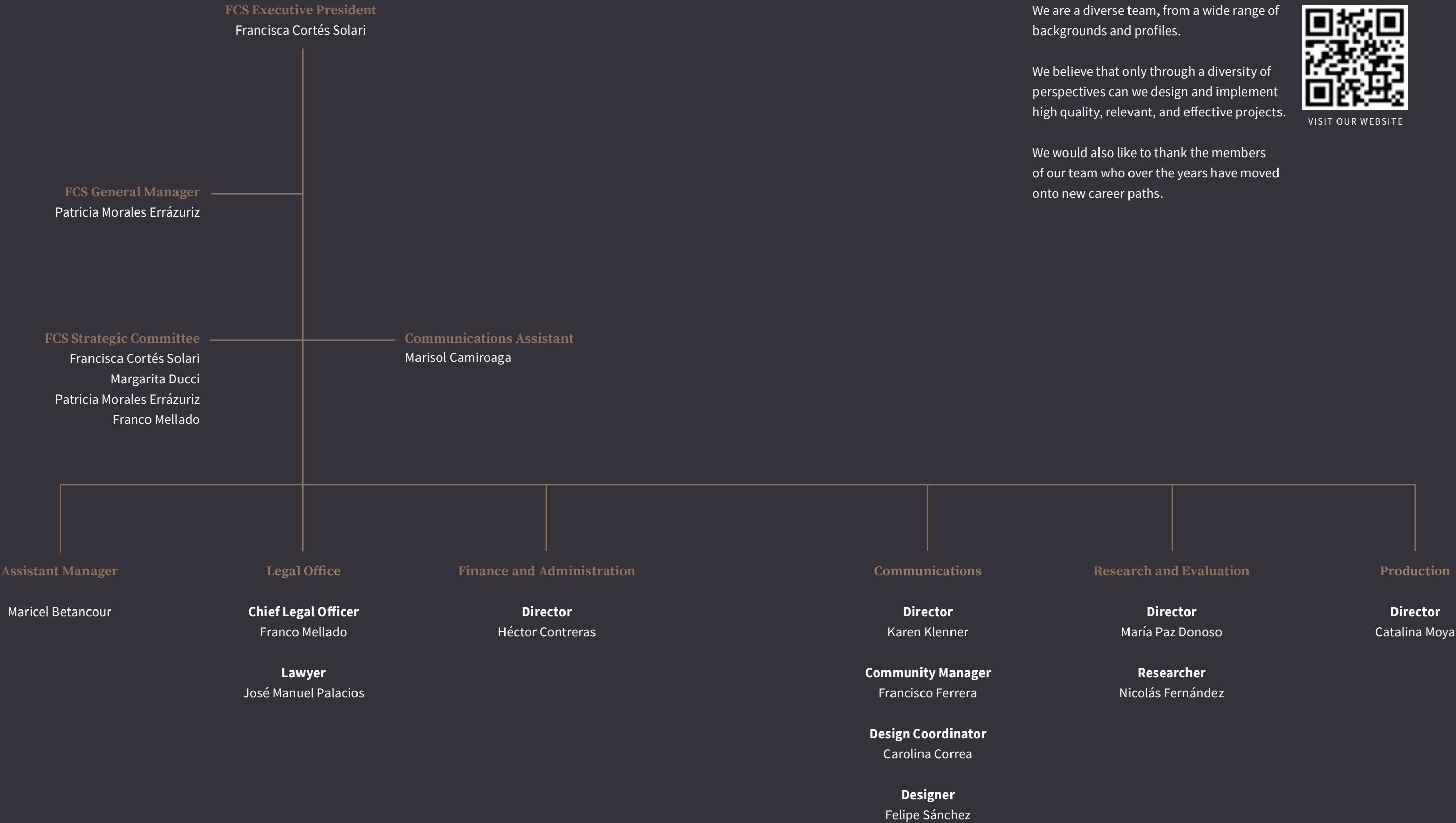
Virtuous Triangle



Los Flamencos National Reserve
Unsplash / Paula Porto

About Us

Global teams



We are a diverse team, from a wide range of backgrounds and profiles.

We believe that only through a diversity of perspectives can we design and implement high quality, relevant, and effective projects.

We would also like to thank the members of our team who over the years have moved onto new career paths.



VISIT OUR WEBSITE

Programs and beneficiaries 2018 - 2019



2018

3
Programs
1.052
Beneficiaries

12
Programs
31.378
Beneficiaries

3
Programs
147
Beneficiaries

LEARNING WITH HORSES: 1 programe / 232 beneficiaries

2019

3
Programs
1.289
Beneficiaries

27
Programs
74.050
Beneficiaries

21
Programs
3.349
Beneficiaries



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PROGRAMS
HERE



Likandes Elemental Reserve / Carlos Echavarría

Participation in international events

Filantropía Cortés Solari’s Executive President participated in the Summit of Local Governments on Climate Change Rapa Nui 2018

From October 25th - 27th, the first Summit of Local Governments on Climate Change Rapa Nui 2018 was held, organized by the Municipality and ADAPT Chile, with the cooperation of the Ministry of the Environment and CONADI, for the purpose of reaching an agreement between the municipal authorities on how to face the complex environmental scenario affecting the planet.

As part of a series of talks and debates by different national and international speakers scheduled to appear in this event, Francisca Cortés, Executive President of Filantropía Cortés Solari, gave a talk on “Climate Change, a Survival Model in the Present,” referring to the experience in environmental, comprehensive, and effective conservation education developed through the work of the MERI and Caserta Foundations. Her presentation was framed in the context of the day’s theme, “Oceans and Climate Change: A Global Challenge,” where she explained the FCS conservation model, which is supported by three pillars: Scientific Development, Education, and Culture.

Additionally, Francisca reaffirmed her commitment to conservation, calling for the “strengthening of the Virtuous Triangle of cooperation between the state, the private sector, and civil society in order to guarantee quality education, to advance science to help with conservation, and to emphasize our cultural heritage.”

The first Summit held in Rapa Nui gathered almost 400 guests from across the country, among whom were representatives from the Ministry of the Environment, Regional Development, CONADI, senators, 29 municipalities, regional advisers, and members of national and international environmental organizations.

Francisca Cortés Solari talked about paradigm shift in the climate crisis at the Influential Women seminar

Along with renowned leaders from Chile and the world, Francisca Cortés Solari was part of the group of speakers at the Third International Conference of Influential Women which was held on Tuesday, March 12th, 2019 in Santiago de Chile.

At this event, Francisca Cortés Solari spoke about Comprehensive and Sustainable Development and its relation to the environment, and also presented the philanthropic model used by the foundations she chairs. Additionally, she spoke about the new Effective Conservation model that has been implemented in the Elemental Reserves which are also part of Filantropía Cortés Solari.

Referring to the pressing need to achieve effective conservation, Francisca said that “there is no time, we must act to stop climate change for the sake of future and present generations.”

Apart from the executive president of FCS, the event also featured presentations by renowned speakers such as Carol Hullin, who spoke about Artificial Intelligence and Telemedicine, Raquel Fratta on Education and Development, and Katharina Jenny on Women and Inclusive Growth, among others.

Media appearances

August 21st, 2018 LA SEGUNDA NEWSPAPER

Interview with Francisca Cortés Solari: “I like being known for the values I consider essential, like promoting sustainability, perseverance, and a love for Chile.”

November 7th, 2018 CARAS MAGAZINE

Opinion column: “Women at the Forefront of Conservation,” by Francisca Cortés Solari.

“The presence of women in decision making is necessary. Both genders must coexist in balance and in every area: work, emotions, and family. It is one of the greatest added values of female leadership.”

September 5th, 2019 PÁGINA V MAGAZINE

“We need each other as informed citizens, aware and active when responding to the effects of climate change.” Interview with Francisca Cortés Solari entitled “Environmental Philanthropy.”

October 18th, 2018 EL MOSTRADOR NEWSPAPER

“As a private institution, we innovated by bringing responsible conservation to the territory.” An interview with Francisca Cortés Solari on the work she is doing along with a team of scientists in the Melimoyu Elemental Reserve: “It is a pristine place. The gate to the Corcovado Fjords, where you find the biggest freshwater reserve in the country and maybe the world.”

November 14th, 2018 CARAS MAGAZINE

“We want schoolchildren to be aware of the rich biodiversity of our oceans and its cetaceans. We also want to raise awareness of the challenges we are facing regarding ecological contamination.”

Interview with Francisca Cortés Solari, entitled “MERI Foundation: The Child and the Whale.”

November 28th, 2019 FUTURO RADIO

“Today we need to understand conservation as a multi-sectorial phenomenon, and in order for all actors to be able to discuss this, it is important to put science at the center of debate, and that is the role of the IPCC Science Pavilion.” Interview with Patricia Morales, General Manager of Filantropía Cortés Solari, in the context of COP25.

August 27th, 2019 LA SEGUNDA NEWSPAPER

Opinion column: “Philanthropy: Actions for Public Benefit,” by Francisca Cortés Solari. “This conceptual framework not only differentiates between philanthropy and social responsibility, but it also invites those who perform these actions to build an institutionality that can give guarantees to the community regarding quality, professionalism, efficiency, and the impact of these actions.”

December 3rd, 2019 EL MERCURIO NEWSPAPER

Article “Science Pavilion has a very Chilean Feel,” on the Science Pavilion at COP25 jointly organized by IPCC, MERI Foundation, and WMO.

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INTERVIEWS
HERE





Melimoyu Elemental Reserve / Ricardo Concha



**RESERVA
ELEMENTAL**





What is an Elemental Reserve?

In the beginning, the FCS Elemental Reserves were imagined as cultural, educational, and scientific parks, capable of hosting the programs offered by the Tata Mallku, Caserta, and MERI Foundations, respectively.

Nevertheless, both the scientific research on the conservation targets in the Elemental Reserves, and the evidence associated with the educational and cultural programs developed at the service of local communities, revealed it was necessary to think of these territories as spaces for effective conservation, considering their unique geographical characteristics, which could benefit from a common holistic approach.

This is how the Elemental Reserves of Puribeter, Likandes, and Melimoyu came to be.

An Elemental Reserve can be defined as a *territory for the effective conservation of Chile's natural and cultural heritage*. Together, they comprise a network of parks with low-impact but sufficient infrastructure to guarantee the development of scientific research, environmental education, and cultural activities, among others, in order to promote preservation and awareness of these ecosystems and the threats they face.



Puribeter Elemental Reserve / Sebastián Tirado



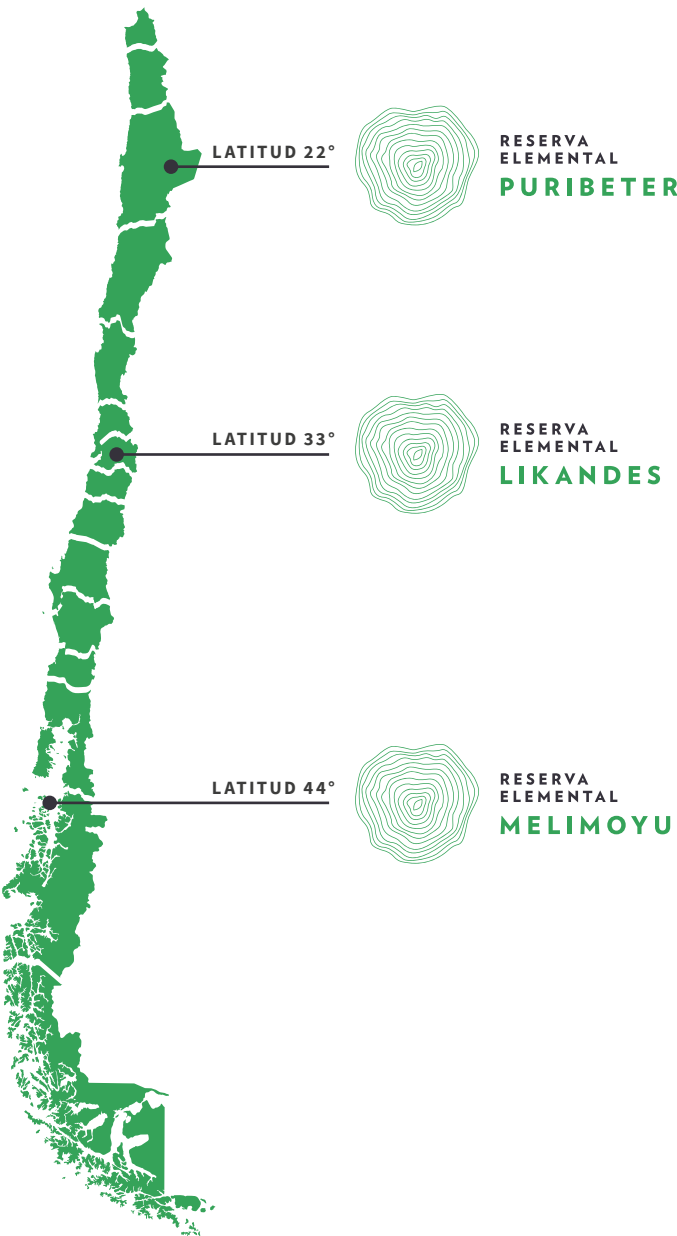
Likandes Elemental Reserve / Carlos Echavarría



Melimoyu Elemental Reserve / Ricardo Concha

Where are our Reserves?

The three ecological reserves are located throughout Chile, at the 22nd, 33rd, and 44th parallels south:



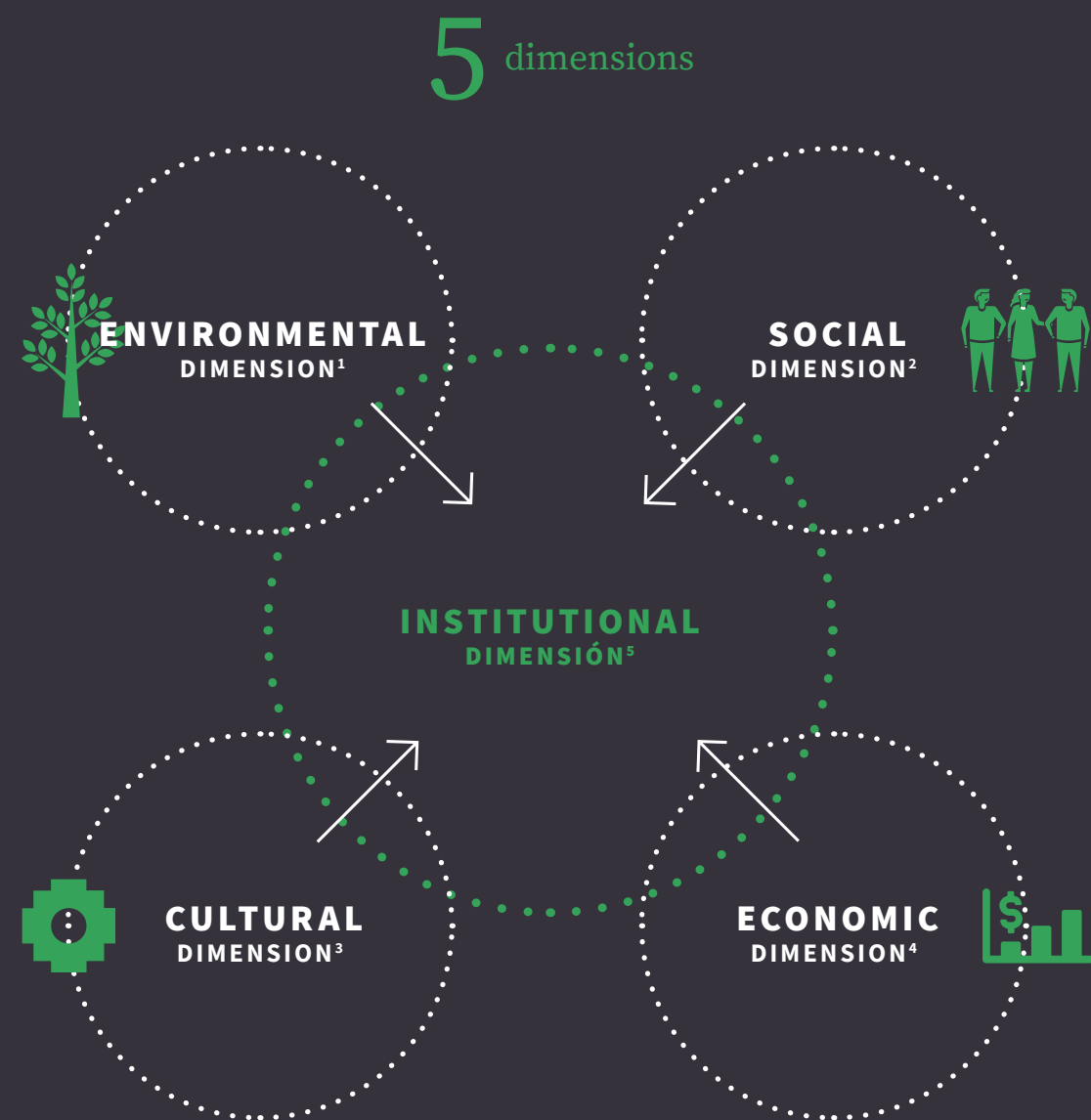
Puribeter Elemental Reserve, located in the town of San Pedro de Atacama, covers 47 hectares, 57% of which are dedicated to conservation, while the rest are used for traditional agriculture and livestock facilities.

Likandes Elemental Reserve, which covers more than 180 hectares, is located in the Cajon del Maipo valley, on the road to Lagunillas. It contains a network of streams and ravines which flow into the San José estuary, as well as significant areas of sclerophyll forests belonging to Chile's central foothills habitat.

Melimoyu Elemental Reserve, located in the Gulf of Corcovado, has an approximate surface area of 16,000 hectares of native forest and 7 kilometers of coastline, and is a very important bastion of environmental conservation. Positioned between the northern fjords in the Aysén Region, it hosts an ample variety of species, including native and endemic flora and fauna, such as Myrtle, Guaitecas Cypress, Darwin's Frog, Chucao, Kingfisher, among many others. The Melimoyu reserve is also considered the gate for blue whales who come to the Gulf of Corcovado to feed on krill and socialize with other marine species.

Effective Conservation: towards a multidimensional model

Conservation requires a multidimensional approach that goes beyond the strictly ecological dimension. From the Elemental Reserves, we understand that Effective Conservation requires work in five dimensions simultaneously: the environmental dimension, social dimension, cultural dimension, economic dimension, and institutional dimension.



¹ Environmental Dimension

Ecosystems require continuous scientific monitoring. This is why, from the Elemental Reserves, our aim is to guarantee an appropriate scientific study of the species that inhabit the territory, specifically those threatened by anthropogenic factors, with the purpose of understanding, analyzing, and monitoring the territory in order to propose solutions to end the observed threats.

The MERI Foundation, in alliance with research centers and national and international institutions, is the organization in charge of developing the scientific research and environmental education programs in each of the Elemental Reserve locations.

³ Cultural Dimension

Conservation plans must consider the principle of interculturality. In that sense, the purpose of this dimension is to guarantee a permanent dialogue between the cultures that inhabit the territory, so that the conservation programs have a high degree of local relevance.

⁴ Economic Dimension

One of the main challenges of conservation, be it public or private, is financial sustainability. In that sense, the purpose of this dimension is to provide mechanisms that allow for territories under Effective Conservation to maintain that status, along with the necessary financial resources.

² Social Dimension

Conservation cannot be understood without the community. The purpose of this dimension is to guarantee an appropriate link between what is being conserved and the community, which is, by definition, in charge of conserving the natural and cultural heritage of its territory.

The Caserta Foundation, in collaboration with each Reserve, is the institution in charge of developing programs for holistic education, mediation, and sustainable leadership in each territory. Together, they develop holistic education and open-air education programs to ensure that the participants acquire the knowledge, behaviors, and skills required to solve environmental problems.

⁵ Institutional Dimension

Private conservation requires a solid institutionality which can stand the test of time. The purpose of this dimension is to ensure that the territories selected for Effective Conservation maintain their status through generations.

The Scientific Dimension in Elemental Reserves

Chile is a very unusual shape: over 4,500 kilometers in length and an average of just 180 kilometers in width. The peculiarity of the Chilean territory means it holds a highly privileged position for the study of different ecosystems within a single country, with multiple natural laboratories that allow for scientific research in various areas of knowledge.

Filantropía Cortés Solari’s Elemental Reserves are considered **natural laboratories**, which, since 2013, have generated positive externalities in their environments. Among their initiatives are the development of knowledge through local research of global interest and collaboration with various universities and research centers, the development of human capital (undergraduate and graduate students), and the development of educational experiences such as environmental education with an experiential, outdoor learning methodology, among others.

During the Elemental Reserves’ short history, research projects have been created and executed through interdisciplinary collaboration, with the purpose of understanding the natural and human processes in order to mitigate the effects of anthropogenic stress in high-interest areas of conservation, and which delve into the areas of oceanography, marine biology, limnology, aquatic and terrestrial ecology, ecotoxicology, bioacoustics, ecophysiology of extremophile plants, geology, among others.

The reserves are located in territories which are home to part of the 25% endemic species in Chile and, at the same time, host a series of species and ecological processes in highly representative ecosystems.

In the context of our global climate crisis, the Elemental Reserves are taking on a new relevance as natural laboratories. As they are located at different latitudes, they present the opportunity to investigate stressors and environmental problems in different climate scenarios, providing evidence for the adaptation and/or mitigation of the effect of this climate process.

• A natural laboratory is “...an environmental singularity which attracts worldwide scientific attention. And when they occur in developing countries like ours, they provide comparative advantages that are not replicable in other places or contexts.” ²
(Aguilera & Larraín, 2018, 144 pp.)

—
² Aguilera J.M. & F. Larraín. 2018. Laboratorios Naturales Para Chile: Ciencia e Innovación con Ventaja. Ediciones UC. 144 pp.





RESERVA
ELEMENTAL



RESERVA
ELEMENTAL
PURIBETER



RESERVA
ELEMENTAL
LIKANDES



RESERVA
ELEMENTAL
MELIMOYU

Administrator

Paula Herrera

Environmental Manager

Andrea Chocobar

Animal Area

Evander Paucara / Coordinator
Maicon Villalba

Operations

Irineo Bautista / Division Manager
Juan Carmelo Ramírez / Division
Assistant Manager
Nelzon Bautista
Milton Mollo
Jordan Muñoz

Cleaning

Emiliana Mamani
Trijidia Bautista
Teresa Bautista

Administrator

Miguel Irarrazabal

Projects

Gabriela Guzmán / Coordinator
María José Tapia
Gabriela Mancilla

Production and Services

Carolina Claro

Cleaning and Kitchen Supervisor

Gertrudis Flores

Operations

Guillermo Velásquez
Alejandro Córdova

Biodiversity

Jaime Varas
Javier Fuentes
Nicolás Fuentes
Iván Orellana
Mauricio Bustamante

Administrator

Esteban Tapia

Operations

Carlos Mancilla
Alex Machuca

Administration

Bárbara Velásquez

Cleaning and Kitchen Supervisors

Isabel Cabezas
Cecilia Delgado

Park Rangers

Belarmino Bórquez
José Alvarado

We would also like to thank the members of our Elemental Reserve teams who over the years have moved onto new career paths.



RESERVA
ELEMENTAL
PURIBETER

Puribeter Elemental Reserve / Sebastián Tirado

Lines of work



Book “Ancestral Trades, Andean Stories from the Atacama Desert”

Through different tradespeople’s accounts, this project seeks to emphasize and point out the value of the ancestral wisdom of 13 local trades, so that these can stand the test of time and help the voices of Andean wisdom live on.

Midwife, weaver, bonesetter, shepherdess, spinner, rope manufacturer, potter, farmer are just some of the stories included in this project, which will be distributed among several schools in the Antofagasta Region.

The material, which contains photographs and illustrations, as well as didactic questions, seeks to give a platform to the workers, who are mostly Likanantai people from Atacama and the Quechua culture, and who currently work in the Puribeter Elemental Reserve.

It comes in a 13-book pack format which will be distributed among the schools of the area, the regional authorities, and other cultural organizations and bodies.



School field trips to Trails of Learning

Programs aimed at schoolchildren of the area. By walking the different trails of the Puribeter Elemental Reserve, the students get to know and learn about Andean traditions, guided by a Traditional Tradesperson.

The most popular trails are “Mud and Agriculture,” “Milling and Metallurgy,” and “Trail of Water.”



Learning with Horses Program

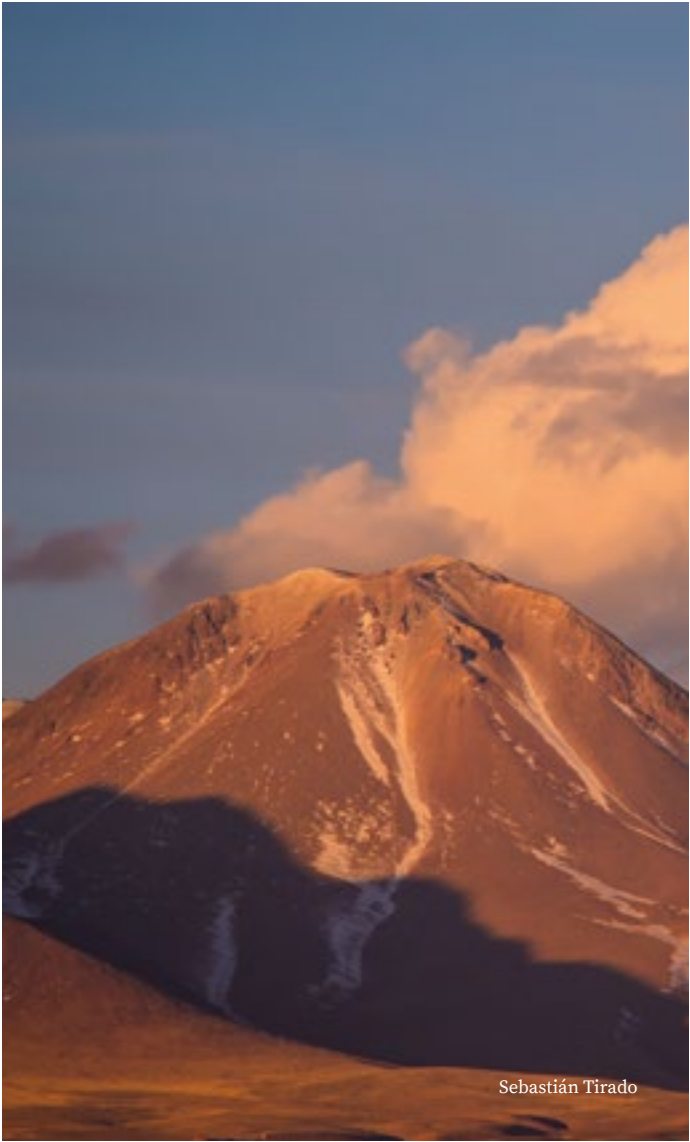
Between the years 2018 and 2019, the Puribeter Elemental Reserve developed the Learning with Horses Program. Over 250 people participated in these programs, and had important individual and collective experiences.

The purpose of this program is to work on relevant organizational aspects, such as teamwork and effective communication, with different types of organizations.





Puribeter Elemental Reserve
Sebastián Tirado



Sebastián Tirado



Plantations at the Puribeter Elemental Reserve
Andrea Vera



Chincol
Sebastián Tirado



Chañar bark
Andrea Vera



Chañar forest
Andrea Vera



RESERVA
ELEMENTAL
LIKANDES



Lines of work in Likandes Elemental Reserve

2018



Sampling of San José Estuary



Sampling of species



Waste Management

Biodiversity

An experience was designed and executed in order to emphasize the value of the living systems present in water.

An educational activity based on birds was created in order to complement the educational offering of the Caserta Foundation from a territorial perspective.

We initiated the “Sampling of the San José Estuary” program, in which samples of different species were taken, and the habitat of the biological communities was described. The necessary activities for the characterization of the San José Estuary were performed in collaboration with students of Limnology from the UNAB Biology Department.

A system of Species Recording and Sightings was designed: standardization and collection of information using park sources to improve the baseline species in the reserve.

Waste Management Implementation

The Likandes Elemental Reserve has a Zero Waste goal, for which we have worked at an organizational level to incorporate the notion of material evaluation, ranging from selection, use, disposal, to reutilization or reintegration.

As the evaluation of waste production in the Reserve showed that to the majority is organic waste, we developed separation systems, signage, transport, deposition in local systems, and composting inside the reserve to reduce the amount of waste.

The measures taken during the year accomplished the following:

- Only 30% of waste ended up in landfills.
- An alliance was established with a local recycling company, CEGAR in San José de Maipo, for plastic waste and cardboard.
- Composting increased by 75% with the inauguration of the new composting facility.
- 57% less waste ended up in landfills as compared to March of the same year.

Neighborhood Nature Program

This project was created in collaboration with the Caserta Foundation and financed by the Ministry of Social Development through the Chile for Everyone Fund in 2017.

The program worked in natural spaces with women from ten neighborhoods from the districts of El Bosque and Lo Espejo, with the purpose of deepening the participants’ connection with nature. Among the program activities were field trips to the Likandes Elemental Reserve, the creation of community orchards, the collection of medicinal plants, and planting trees. For this purpose, the program was co-designed with the women from the respective territories.



Recycling organic waste



Neighborhood Nature Program



Neighborhood Nature Program

2019



Long-Tailed Meadowlark



Long-Tailed Meadowlark



Espino

Biodiversity

The “Citizen Volunteer” program was a year-round activity. It consisted of walking the Likandes trails with groups of volunteers who recorded the species that were directly and indirectly observed using citizen science methodologies, thus giving each participant an essential role in the recording of the species.

The “Camera Trap” initiative was started, which consisted in the installation of camera traps in different parts of the reserve in order to capture the movement and preferred habitat of the Likandes fauna.

The “**Flowering**” activity consisted of the observation and recording of the presence of different species of flowers in Likandes.

Finally, the “**Guayacan and Chagual**” project consisted of mapping the species present in the reserve.

Cordillera Science Club

Along with the San José de Maipo Municipal Corporation and the Geopark Project, we worked on consolidating the Cordillera Science Club project. This was a program for fifth to eighth grade students from six schools in the district who were given support to develop a scientific project that started with finding a research question based on an investigation and exploration activity at Likandes, and finished with a presentation in the science fair at Plaza San José and a closing activity at the Likandes Elemental Reserve, where each club presented their work.



Flagship projects

TerritoriAR: technological application of Augmented Reality for emphasizing the value of biodiversity

In 2019, the Caserta Foundation and the Elemental Reserve teams developed the TerritoriAR Project, an augmented reality app that seeks to emphasize the value of the biodiversity present in the three territories where the reserves are located: Puribeter, in San Pedro de Atacama; Likandes, in Cajon del Maipo; and Melimoyu, in Aysén.

This initiative, funded by the CONICYT Explore Program, specifically the 22nd version of the Fund for the Promotion of Scientific and Technological Development 2018-2019, seeks to contribute to the link between nature and the visitors in order to raise environmental awareness.

The app works with augmented reality by scanning the QR codes placed throughout the reserves, accessing information about the ecosystems in the Atacama Desert, Cajon del Maipo, and the Aysén Region. In order to bring the animations of each reserve to life, the Caserta Foundation worked with Chilean illustrators on this project.

The goal is for this app to be used in educational programs developed by the FCS foundations network through different activities like “treasure hunt,” “orientathlon,” and “lab,” among others.



DOWNLOAD THE APP, SCAN THE CODES, AND MARVEL AT OUR BIODIVERSITY



Condor release platform

The arrival of three condors, a female and two males, led to the project that sought to finalize the birds’ rehabilitation in order to prepare them to return to nature, turning the Likandes Elemental Reservoir into a condor release platform.

The three condors, Wilka, Eluney, and Maipo, arrived in Likandes in October 2019, and were released two months later. Their arrival and subsequent release was part of a project developed by Aves Chile UNORCH, the Center for Bird of Prey Rehabilitation, and the Likandes Elemental Reserve, in coordination with the MERI Foundation. The purpose of this project was to contribute to the conservation of the condor and its ecosystem in the north, center, and south of Chile by doing scientific research, raising awareness, and emphasizing its nature as a key bio-cultural element.

Since hunting, poisoning, waste management, urban expansion, and feral dogs are some of the threats this species faces –all of which are derived from human interaction– workshops have been designed and executed in municipal schools and community organizations in the Cajon del Maipo area, with the purpose of raising awareness and educating the communities on the behaviors and habitat of these birds, their physical and biological characteristics, threats, and beneficial practices, and giving them the book “**A Guide to the Condor and Other Native Birds**” which reinforces these contents.



Cajón del Maipo Geopark Application

As part of a two-year process to make Cajon del Maipo a UNESCO Geopark, Filantropía Cortés Solari, through the Likandes Elemental Reserve team, collaborated in the publishing of the book “The Geodiversity, Geological Heritage and Geosites of Cajon del Maipo,” led by Cajon del Maipo’s Foundation for Sustainable Development, FUNDESO.

The Geopark category considers a geographical area with clearly established limits which is recognized for its great geological heritage, and which is used for educational, conservation, and local economic development initiatives, always with a sustainability approach.

The book is a summary of places that have been recognized for their geological value from a scientific, educational, territorial, and landscape aspect, and it was presented to the community at a ceremony with local leaders, and education and tourism authorities. This event was held on August 29th, 2019 with the presence of FCS Executive President, Francisca Cortés Solari; the Mayor of San José de Maipo, Luis Pezoa; the President of the Geological Society of Chile, Álvaro Puig; and FUNDESO director, Camilo Vergara.



FIND THE GEOPARK BOOK HERE



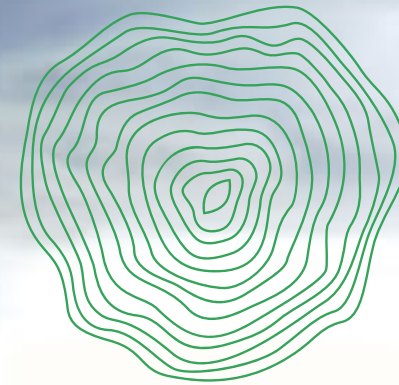
Luis Pezoa, Francisca Cortés Solari, Álvaro Puig and Camilo Vergara



Geological Formations in Cajón del Maipo



Book Launch “The Geodiversity, Geological Heritage and Geosites of Cajon del Maipo”, at the Likandes Elemental Reserve



RESERVA
ELEMENTAL
MELIMOYU

Lines of work



Explorer Program



Explorer Program



Explorer Program

Explorer Program

Every year, the Melimoyu Elemental Reserve welcomes the winners of the MERI Foundation “School Scientist” contest. These students are immersed in an environmental education experience in the natural landscapes of northern Patagonia, discovering the flora and fauna of the Reserve along with scientists from the MERI Foundation.

Melimoyu, a natural laboratory at the service of science and conservation

Throughout the year, the Melimoyu Elemental Reserve welcomes national and international scientists who investigate three conservation targets in the Melimoyu laboratories:

- **Cetaceans**
- **Freshwater systems**
- **Native forests**

Every year, cetacean experts, specifically whale experts, visit the Melimoyu Bay to go on expeditions which allow them to obtain information on the movements of these species.

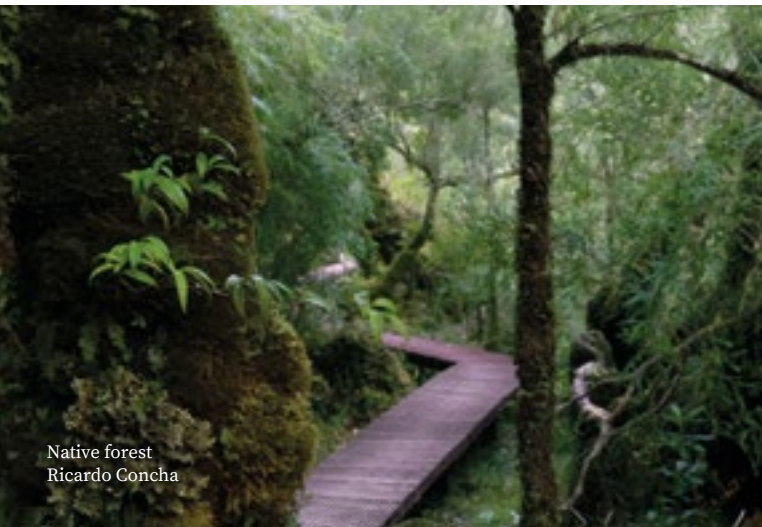
Additionally, freshwater system scientists investigate the state of the rivers and marine ecosystems.



whale tail



Freshwater system
Ricardo Concha



Native forest
Ricardo Concha



Arrayanes
Melimoyu Elemental Reserve
Ricardo Concha



Marchant river
Melimoyu Elemental Reserve
Ricardo Concha



Melimoyu Elemental Reserve / Ricardo Concha



Melimoyu Elemental Reserve / Ricardo Concha



Darwin's frog / Melimoyu Elemental Reserve / Ricardo Concha



Melimoyu Elemental Reserve / Ricardo Concha



FUNDACIÓN
TATA MALLKU





Children in a chañar forest / Carlos Echavarría

About us

Objective

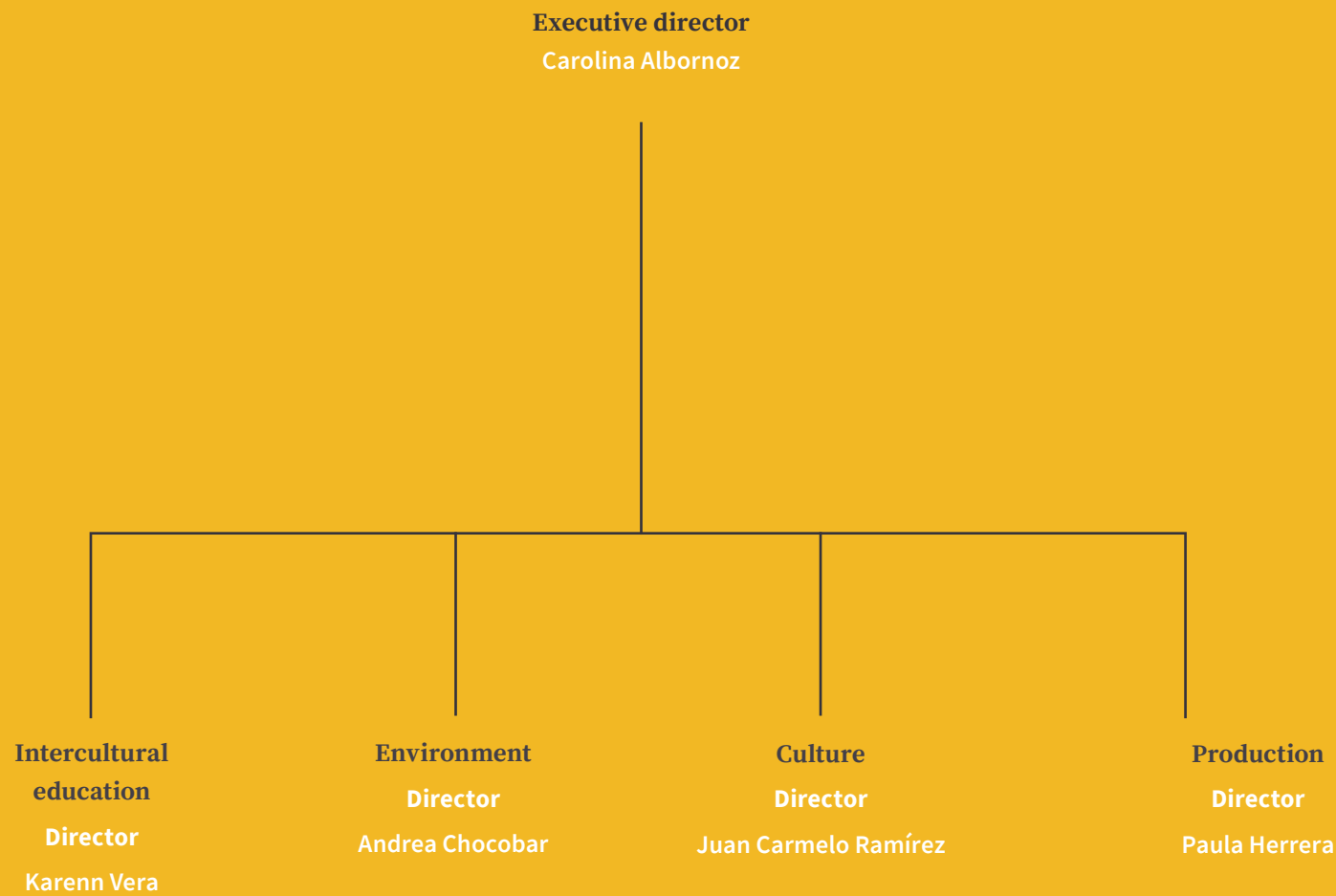
MISIÓN

To encourage and promote interculturality through actions that reflect the cultural and natural heritage of the Indigenous Peoples of Chile.

VISION

To be an example of the interculturality model which seeks to reflect the cultural and natural heritage of the Indigenous Peoples, for Chile and the world.

About us
Tata Mallku Foundation



We would also like to thank the members of our Foundation team who over the years have moved onto new career paths.



Llama

Alliances



Lines of work

Between 2018 and 2019, the Tata Mallku Foundation developed various programs centered on interculturality and on promoting the value and conservation of the Andean cultural and natural heritage. The programs were aimed at the general community, students, and public and private schools based on three axes that are central to the foundation:

› **Intercultural education area**

Programs focused on providing students and the education community with learning experiences designed from an inter-cultural perspective.

› **Cultural heritage area**

Programs focused on the encouragement and promotion of the values, knowledge, and practices that are part of the cultural heritage of the Indigenous Peoples.

› **Sustainability area**

Programs focused on driving efforts for the conservation of the cultural heritage of the Indigenous Peoples with respect for their traditions.

Tata Mallku Foundation intercultural education area

In the current multicultural context, the Tata Mallku Foundation recognized the importance of developing skills and abilities to help improve communication, relationships, and coexistence between people from different cultures. Building intercultural relationships requires effective communication and acknowledging differences as a valuable step for development, which will allow people to relate with each other satisfactorily even when they do not share the same beliefs. Developing programs with a focus on interculturality promotes the acknowledgement of differences as a positive resource for the participation of all citizens and, therefore, for the development of society.

The foundation’s activities mostly include programs whose direct beneficiaries are students at different educational levels, and whose objective is the development of skills in order to improve intercultural communication skills while, at the same time, reducing expressions of discrimination and inclusion in order to achieve greater social cohesion.



Traditional loom

2018 Programs

Tale and Fable

The Tale and Fable program is an educational half-day field trip aimed at Pre-School students. Through a fable about a shepherd and his llama, the students are encouraged to become protagonists of the tradition of “floreamiento” (or llama decoration), as well as to become explorers in a mission, searching the Puribeter Elemental Reserve for the traditional elements the shepherd has misplaced while herding.



Llamas

Intercultural and Environmental Learning Programs

The Intercultural and Environmental Learning Programs consist of an educational experience that extends through the morning and is intended for groups of 60 to 100 primary and high-school students accompanied by their teachers and educators.

It consists of approaching the traditional wisdom of the Andean peoples and the local ecosystems of the Puribeter Elemental Reserve. Students are divided into groups which are invited to participate in different intercultural learning experiences regarding the trades and traditions of the Andean peoples, called Ayllus, guided by a Traditional Tradesperson. At the same time, other groups participate in tours of environmental interpretation trails, guided by Eco-Tradespeople who mediate the learning and interpretation of the reserve’s natural environment.

The thematic axis of the program is based on the four elements of the ancestral world: water, air, earth, and fire, and their roles in the environment and human life. Students of different ages participate in different learning experiences specifically designed for their age groups.



Intercultural and Environmental Education Programs



Children's Environmental Art / Interpretation Session



Barro y Agricultura

Mud and Agriculture

An activity in which the Traditional Tradespeople invite 3rd to 5th grade students to participate in the “Mud and Adobe” Ayllu and the “Agriculture” Ayllu. In the former, they learn about working with adobe, and the cultural history of this material in the Andes. In the latter, they visit the greenhouses while learning about seeds and agricultural processes.



Metallurgy

Milling and Metallurgy

6th to 8th grade students are invited to participate in the “Milling” and “Metallurgy” Ayllus, where Tradespeople teach them about seed milling as an ancestral tradition, and the metallurgy of the Andean peoples.



Trail of water

Trail of Water

Trail of Water is a half-day field trip aimed at high-school students. The experience is focused on complementing and integrating ancestral knowledge with a scientific environmental approach, which promotes the relevance of the cultural and natural diversity of the highlands.

The program involves a walk through the environmental interpretation trails of the Puribeter Elemental Reserve during a morning of work. The trails are guided by the Eco-Tradespeople, who mediate the learning tours, emphasizing sensory contact and a deep sense of appreciation for ancestral knowledge.

2019 Programs

For Students: Traditional Trails

The Traditional Trails program is an intercultural learning experience based on the guidelines of the Bilingual Intercultural Educational Program by the Ministry of Education (PEIB). It is aimed at primary and high school level students from multi-grade or conventional classes, from urban or rural schools.

The program starts with an interview and a workshop with their usual educator or teacher, with the purpose of selecting an appropriate trail for the requirements of both teachers and students, and for the general requirements of the Bilingual Intercultural Educational Program (PEIB).

Afterwards, the Tata Mallku team makes a suggestion to the educational community of one or more Ayllus (traditional learning stations) that complement the trail, where it is possible to experience different native traditions that seek to recover and promote the identity of the Likan Antai people among the students.

The Ayllus have been designed according to the traditional-cultural Andean calendar, which is based on agricultural cycles and different seasonal activities. Each Ayllu is led by a Ckantal, which is Kunza for “guide of wisdom” or “bearer of ancestral wisdom.”

For the Community: Intercultural Health Program

The objective of this activity is to create support for and promote intercultural health with the purpose of contributing to the acknowledgement of the ancestral medicine of indigenous peoples as a viable alternative in the current healthcare system.



Traditional Trails



Traditional Trails



Intercultural Health Program



For this purpose, we offer exchange programs with groups of traditional healers (PESPI), who are given the opportunity to share their knowledge: diagnosing, advising, and healing illnesses or chronic ailments with the use of traditional and natural elements.

For Organizations: Trust, Transparency, and Leadership Workshop

This activity seeks to help develop self-awareness in people, work teams, and organizations. The objective of this experience is to strengthen and identify each participant's abilities, to reinforce self-trust and trust in the members of each team or organization.

Also, its objective is to develop people's leadership skills in order to help with decision making, collaborative learning, and constructive and transparent dialogues inside the organizations.



Llama / Carlos Echavarría

Milestones



Puna Giants, Antofagasta



Puna Giants, Antofagasta



Puna Giants, Antofagasta

Puna Giants in Antofagasta Puerto Ideas Festival

The tradition of “floreamiento”, or the ceremonial decoration of llamas, came to Puerto de Ideas Antofagasta, along with 24 artists including musicians, dancers, and the Puna Giant Puppet Company, in alliance with the Puribeter Elemental Reserve and Tata Mallku Foundation.

For two days, April 14th and 15th, 2018, they walked the streets of Antofagasta, filling them with joy, energy, color, and Andean tradition as part of the Walk for Science initiative, and closed with a storytelling event.

This initiative met the Tata Mallku Foundation’s objectives of valuing and promoting the traditions and heritage of San Pedro de Atacama through cultural activities done in collaboration with local organizations.

The Tata Mallku Foundation Receives Environmental Protection Fund to Launch Project: “Highlighting the Importance of Biodiversity in San Pedro de Atacama”

On June 11th, 2019, the Tata Mallku Foundation and the Puribeter Elemental Reserve presented the project “Highlighting the importance of biodiversity in San Pedro de Atacama,” funded by the 22nd version of the Environmental Protection Fund (FPA) of the Ministry of the Environment.

The project consisted of creating a group of young environmental leaders in the area who would highlight the importance of the local biodiversity. For this purpose, students from the Likan Antai Agricultural School in San Pedro de Atacama were given the tools that would allow them to recognize the biodiversity that surrounds them.

Tata Mallku and ALMA Observatory organize astronomy event in Puribeter

In June, 2018, in the context of the Astro Faire —the first education, science, and astronomy fair in San Pedro de Atacama—, an astronomy event took place in the Puribeter Elemental Reserve with the purpose of highlighting the importance of the study of stars and the phenomena that occur in the sky, right when the country was preparing for the eclipse of July 2019.

The event, organized by the Tata Mallku Foundation and the ALMA Observatory, featured presentations on archaeoastronomy, a presentation of the images captured by the telescopes, astro-tourism routes for visitors and, finally, a discussion about how the sky is seen from different perspectives.



“Highlighting the Importance of Biodiversity in San Pedro de Atacama” project



“Highlighting the Importance of Biodiversity in San Pedro de Atacama” project



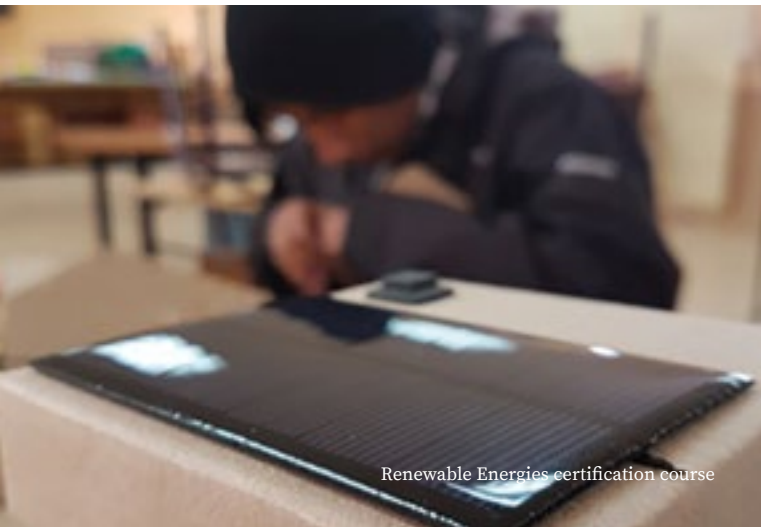
Star Gazing



Star Gazing

In this occasion, Francisca Cortés Solari stated that “it is an honor to welcome the team of North American scientists in charge of putting astronomy at the service of the community through education and awareness programs. At Tata Mallky and Puribeter, in San Pedro de Atacama, we believe in the need to form alliances to promote conservation, scientific development, education, and respect for aboriginal cultures, in the same territory.”

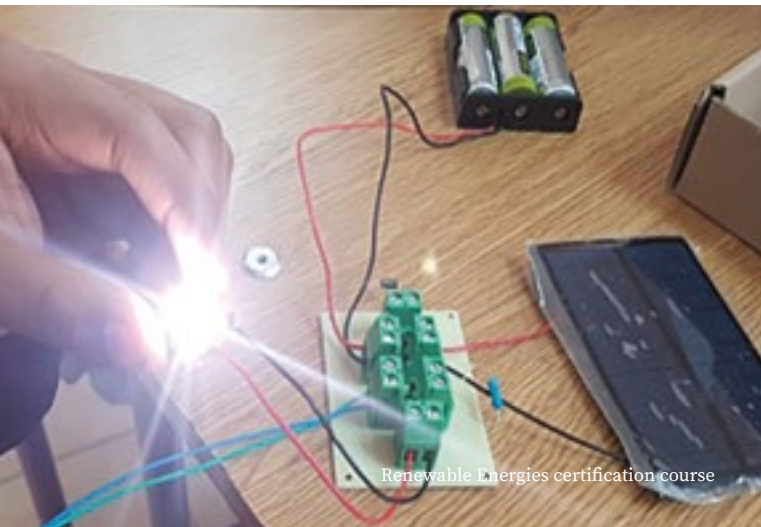
In that sense, the goal of this initiative was to crystallize the idea of promoting the Effective Conservation we espouse in our different Foundations and Elemental Reserves throughout Chile, in San Pedro de Atacama, the Metropolitan Region, Chiloé, or the Patagonia.



Renewable Energies certification course

Tata Mallku Foundation collaborates in the development of a Renewable Energies certification course

The Certification Course on Renewable Energies and Photovoltaic Energy took place between April 5th, 2018, and November 26th, 2019, a joint initiative by the San Pedro de Atacama Municipality, the Political Ecology Institute, the Energía Atacama Company and the Tata Mallky Foundation, with the purpose of training the students from the Likan Antai Agricultural School in the use of these energies, especially solar energy.



Renewable Energies certification course

“Lari Yaalir, the Song of the Young”

On December 20th, 2019 —two years after the release of the first album, “Likán Antai, the Song of Our Grandparents,”— a concert was organized in the Puribeter Elemental Reserve in order to present the musical production “Lari Yaalir, the Song of the Young.”

This project was developed for the purpose of emphasizing the rich cultural heritage of the young men and women of this community, and every participant had the chance to express their concerns about climate change, growing water scarcity, and the urgent need to save the planet. This is why they created this meaningful musical legacy.

The recording sessions took place after three days of discussion and creation at the Puribeter Elemental Reserve, sponsored by the Tata Mallku Foundation, under the direction of musician Felipe Echavarría, and with the voices of 18 young men and women from the community.



Album Cover



Students Recording Music



Students Recording Music

LISTEN TO THE ALBUM HERE





“Beehive” Activity at the Likandes Elemental Reserve



FUNDACIÓN
CASERTA





“Adventure” Activity at the Likandes Elemental Reserve

About us

Objective

- To promote a multidimensional perspective of humanity in education
- To consolidate and promote a holistic educational model in formal and informal settings
- To train educators to transform the traditional model
- To inspire continuous creation processes in different educational spaces

The Caserta Foundation is a private nonprofit institution with 17 years of experience in Holistic Education. From the beginning, this foundation, run by its founder, Francisca Cortés Solari, has been characterized by the design and implementation of holistic education programs, creating social value to serve Chile.

Its mission is to “promote holistic education for the development of individuals and of society, offering learning experiences related to nature and culture, which create opportunities for growth, discovery, and transformation.” Additionally, the foundation’s vision is “to be an example for the construction of holistic education which centers on a multidimensional perspective of humanity for the development of happy and accomplished individuals and societies.”

The Caserta Foundation works in three areas:

- **Holistic Education and Training**
- **Extension**
- **Sustainable Leadership**

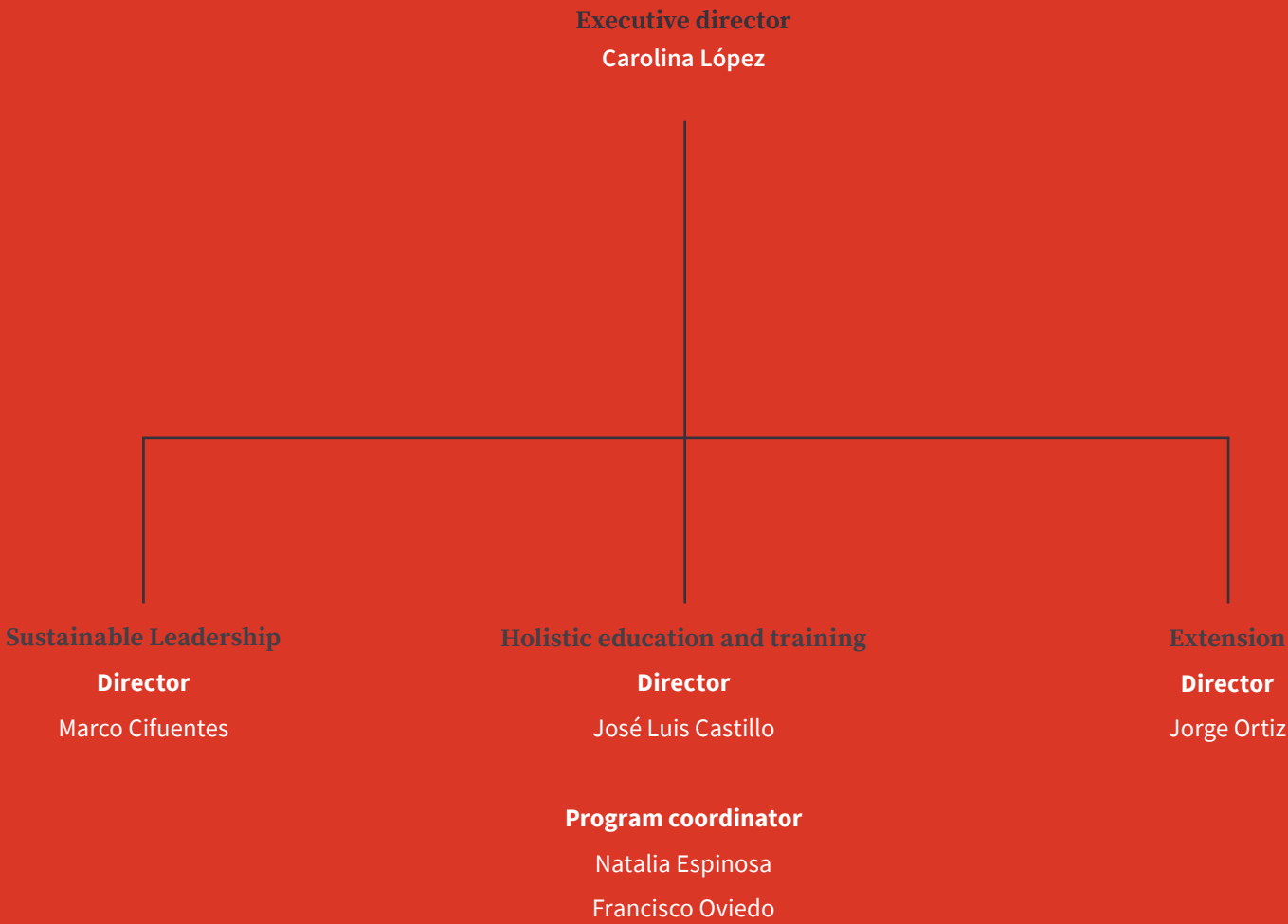
The area of **Holistic Education** for students seeks to consolidate and promote a holistic educational model in formal settings through the design, development, and implementation of a series of educational programs created under an experiential learning methodology, intended for all school levels. Every program is designed to fit the different levels, taking into consideration the developmental stages of chil-

dren and teenagers. These programs seek to develop skills and personal-collective values that are relevant to the topics and needs that characterize the participants, their contexts, and communities.

In terms of **Training**, we design, develop, and implement programs for the continuous training of teachers, school officials, and people in the field of education in order to promote the development of collaborative leadership with a focus on the quality of education in formal and informal settings and communities. For this purpose, the team has developed Educational Mentorship Training Programs and Educational Coaching Training Programs using the Caserta methodology and the Human Development Map.

In **Extension**, our aim is to consolidate and raise awareness of the holistic education model in informal education settings, be it artistic, cultural, scientific, and/or patrimonial contexts, across a range of platforms and territories.

Finally, in **Sustainable Leadership**, we seek to train agents of change from the perspective of a holistic education model. For this purpose, we work with social organizations, national and international governmental and non-governmental organizations, to create and implement new projects and actions aimed at building young leadership, in accordance with the SDGs and with the purpose of forming a society that is aware of its rights and responsibilities on the road to a sustainable global community.



We would also like to thank the members of our Foundation team who over the years have moved onto new career paths.



VISIT OUR WEBSITE



“Adventure” Activity at the Likandes Elemental Reserve/ Gerardo Manns

Alliances

Holistic education and training

Sustainable Leadership

Extension

Comprehensive Human Development Map ©

The Caserta Foundation, as an institution focused on promoting the learning processes of children, teenagers, and adults in Chile, has crystalized its efforts to promote holistic education into a framework that acts as a central column to all its activities: The Human Development Map (HDM) that has become the institution-s flagship tool, working as a conceptual and philosophical basis for program and task design in the FCS foundations and reserves.

The HDM is a creation that incorporates some key principles and ideas underlying the progressive approaches to education. Among the basic principles espoused by the institution is the holistic understanding of the human being, which is comprised of four areas: physical, emotional, mental, and spiritual.

Additionally, this HDM suggests that there are stages of personal growth and human development, understood as seven learning levels, which are both a stage and a challenge for those who decide to go through the process of growing as a person.

LEARNING LEVELS

Legacy for humanity

Shift in consciousness

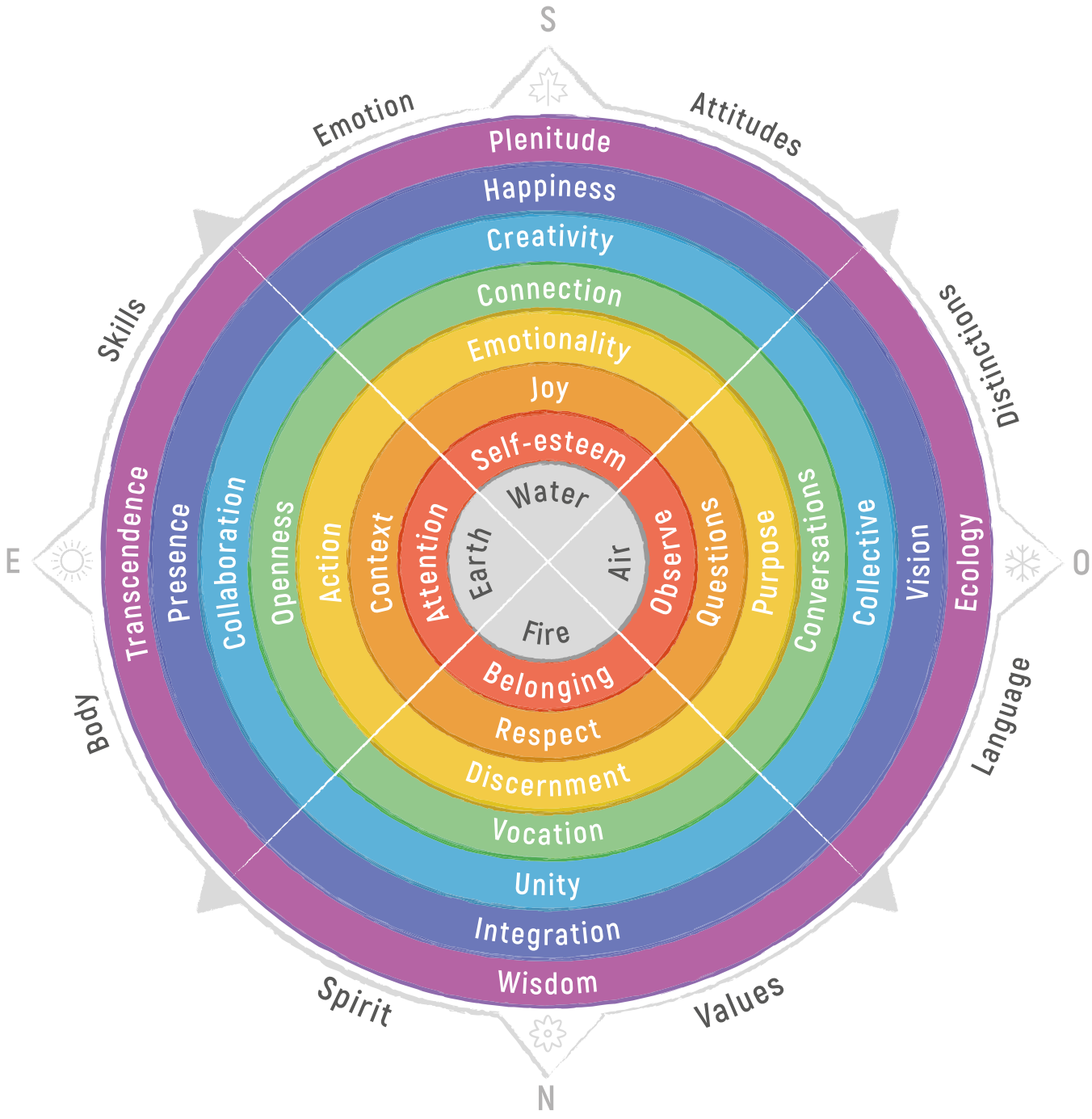
Building an "us"

Collaborative connections

Passion for life

Opening of worlds

Self-confidence





“Bow and Arrow” Activity at Likandes Elemental Reserve

Lines of work

Holistic Education and Training

Target audience: Pre-school, primary school, high school

Our work in holistic education is designed, developed, and implemented by offering educational programs specific to each learning and development level for children and teenagers in Formal Education. The Caserta programs, based on the Holistic Human Development Map, seek to encourage fundamental skills in people in order to learn, understand, relate to and navigate through the world.

Between 2018 and 2019, a total of 4,858 students and 349 teachers, from 20 educational establishments and 8 different districts, participated in the Caserta Foundation’s educational programs.



Routes program

Routes

The Routes Program is a one-day educational field trip whose objective is to create a learning experience for students from pre-school to 4th grade in a context of inclusive coexistence based on respect.

It is a learning proposal which allows students to experience educational circuits in a natural environment, in which they have personal and collective experiences that encourage the development of relational skills.

Three types of routes were taken between 2018 and 2019: Route of the Guardians, Route of Life, and Route of Exploration, for kindergarten, second grade, and fourth grade students, respectively. A total of 1,750 students participated in the program during this period.



Routes program

Trails: 5th – 6th – 7th and 8th grade levels

Trails are educational programs aimed at 5th to 8th grade students for the purpose of creating a space that is open to questions and empowering for the individual and collective creative process. Between 2018 and 2019, a total of 1,101 students participated in two types of Trails: Trail of Knowledge and Trail of Creation.



Tracks program

Tracks: 9th – 10th – 11th and 12th grade levels

The Tracks Program is a one-day educational experience in nature, which gives the students the opportunity to learn and to undergo individual and collective experiences, inviting them to co-discover the development of relational and leadership skills, and to reflect on their life projects. This program is aimed at high school students.

Between 2018 and 2019, a total of 696 students participated in two types of Tracks, according to their educational stage: Tracks of the Tribe and Tracks of Life.



“Adventure” program

Journey: 7th and 8th grade levels

Journey is an educational program designed and implemented by the Caserta Foundation for 7th and 8th grade students since 2012. It is a camping-style field trip, which takes place in the Likandes Elemental Reserve and has a duration of three nights and two days. The objective of this program, in which the students participate along with their form teacher, is to work on the creation of healthy relationships based on connections and respect.

The camping trip seeks to create an experience that constitutes a personal growth milestone in their lives, creating a learning process built on a trip narrative, or a learning journey for the students. The design and implementation of this activity are based on the Caserta Foundation’s Human Development Map and in an experiential learning methodology focused on developing of relevant skills for comprehensive personal growth.

Between 2018 and 2019, a total of eight Journeys were taken, in which a total of 1,063 students and 63 teachers participated.



“Adventure” program



“Adventure” program



Leading My Future: High School level

The Leading My Future Program was developed by the Caserta Foundation, and it is aimed at students who have shown leadership skills and an interest in and commitment to their school and/or neighborhood environment in order to help them lead actions that have impact in their communities.

The objective is to strengthen the students’ leadership skills to help them fulfill their civic role through dialogue, reflection, action, and critical and appreciative thinking about what they and their communities are capable of.

The program takes place four times a year. Between 2018 and 2019, 64 students participated in this project.



Connections: Families and educational communities

The Connections Program is aimed at children and teenagers and allows them, along with their parents, grandparents, or other important figures, to share a comprehensive learning experience in nature. The objective of the program is to promote learning for the students, strengthening their family relationships in contact with nature.

Between 2018 and 2019, 1,178 people participated in this kind of experience at the Likandes Elemental Reserve.



Holistic Education and Training

Target audience: teachers, school officials, and education workers

Based on the Human Development Map, the Caserta Foundation develops training programs that seek to encourage leaders in the field of education who are capable of promoting change in school communities and their environments, centering holistic human development and all its potential.

Among the events the foundation held in 2018 and 2019 as organizer and co-organizer, different programs were developed: School for Volunteer Educator, School for Mentors with Coaching Skills, Educational Coaches Program, and Explore Araucanía Program.

During this period (2018-2019), a total of 152 people participated in training activities.





School for Volunteer Educators

1. School for Volunteer Educators

The School for Volunteer Educators is a training process for higher education students who show interest in and sensitivity towards work with vulnerable children and teenagers. In many cases, participants in this process will go on to help implement the foundation's programs in the future. This program was developed in collaboration with the Metropolitan University of Educational Sciences (UMCE).

Between 2018 and 2019, the School for Volunteer Educators received a total of 65 people from different higher-education institutions in the country.



Mentors with Coaching Skills Program

2. Mentors with Coaching Skills Program

This training program is aimed at education workers and seeks to encourage leaders in the field to promote change in their school communities, centering holistic human development and its potential. The objective is to increase leadership, action, and educational effectiveness in professional mentorships.

The program includes face-to-face workshops, periodical meetings with study groups, and individual coaching sessions. This is also complemented with online handbooks.

The program is accredited by the International Coach Federation (ICF) as Continuing Coaching Education and as an Educational Leadership program.

Between 2018 and 2019, 46 education workers participated in the School for Mentors with Coaching Skills.



Mentors with Coaching Skills Program

3. Education Coaches Program

This training program is aimed at education workers who, after receiving their certification from the Mentors with Coaching Skills Program, wish to continue their training.

The purpose is to develop key educational coaching skills, defined by the International Coach Federation (ICF) from Caserta's holistic education perspective. The implementation practices of this program are supervised and evaluated according to the ICF's quality standards.

This program is accredited by the International Coach Federation (ICF) as Continuing Coaching Education and as an Educational Leadership program.

Between 2018 and 2019, 16 education workers participated in this project.



Education Coaches Program

4. Explore Araucanía Program

The CONICYT Explore Araucanía Regional Associative Program (PAR) is run by the Pontifical Catholic University of Chile through the UC Center for Local Development, Villarrica Campus, which is comprised of a multi-disciplinary team of social science, science, and education professionals. The Caserta Foundation collaborates in terms of curricular design, educational management, and implementation.

The purpose is to strengthen and diversify the connection between Science and Technology institutions and the general population, using the natural and intercultural richness of the territory in order to further the comprehensive development of the region and the country.

In 2019, there were a total of 57 beneficiaries.



Explore Araucanía Program



Explore Araucanía Program

Extension



Ai WeiWei

Ai Weiwei exhibition – Inoculation

Between May and September of 2018, and in the context of the alliance between the Caserta and CorpArtes Foundations, an educational program was designed and implemented for audience mediation during the “Inoculation” exhibition by renowned international artist Ai Weiwei. In this exhibition, the Caserta Foundation contributed as an external service provider to the training, lab supervision, and mentorship of teams in the area of interactive methodology for the mediation of active audiences for the second consecutive year. Caserta also contributed to the development of the Content Manual for audience mediation during the exhibition, and to the design of didactic activities and tours for every age group and for the different audiences that attended the exhibition in 2018.

During the course of the exhibition, a total of 27,231 people were able to experience the various educational tours.



Anish Kapoor

Anish Kapoor exhibition – Surge

Between May and September of 2019, in the context of the alliance between the Caserta and CorpArtes Foundations, an educational program was designed, developed, and implemented for audience mediation during the “Surge” exhibition by renowned international artist Anish Kapoor. In this exhibition, the Caserta Foundation contributed as an external service provider to the training, lab supervision, and mentorship of teams in the area of interactive methodology for the mediation of active audiences for the third consecutive year. Caserta also contributed to the development of the Content Manual for audience mediation during the exhibition, and to the design of didactic activities and tours for every age group and for the different audiences that attended the exhibition in 2019.



Anish Kapoor exhibition

The purpose of this new and final collaboration with the CorpArtes Foundation was to create a mediation experience between the observers and the art in order to promote reflection about cultural interpretations, as well as to consolidate a trans-disciplinary team of professional mediators who promote new professionalizing standards of mediation for informal education.

During its run, a total of 27,231 people attended the exhibition.

Sheila Hicks exhibition – Reunion

In the context of the partnership between the Caserta Foundation and the Pre-Columbian Museum, the Caserta Foundation was responsible for the design and implementation of the cultural mediation program for this exhibition. Additionally, a training, design, and supervision program was implemented by the museum’s education team. The purpose was to accompany and mentor different agents of the mediation process from cultural institutions.

During the course of the exhibition, 34,067 children and teenagers completed the tour under the cultural mediation methodology developed by the Caserta Foundation.

Learning Innovation School

The training program “Learning Innovation School” (EIA) is part of the 2019 collaboration between the Ministry of Culture and Arts, the Caserta Foundation, and the MERI Foundation. This partnership seeks to make joint and permanent efforts in order to create activities for the children and teenagers who participate in CECREA, especially in Castro, relating to education, arts, science, technology, and environmental sustainability. In its first version, the EIA program trained 24 local facilitators through activities that combine the methodologies of both institutions, creating a unique and specific proposal that fits Chiloe’s needs and identity.



Sheila Hicks



Sheila Hicks exhibition – Reunion



Learning Innovation School

Sustainable Leadership

Concausa International

The Concausa International program is an initiative created by América Solidaria in alliance with UNICEF and CEPAL, and with the collaboration of the Caserta Foundation.

The objective of this program is to mobilize, connect, and empower the youth of the Americas in order to understand and promote social innovation proposals being developed in their communities, helping this generation to overcome the poverty of the region and to lay the foundation for sustainable development.

This initiative contributes to the promotion of youth leadership, and to meeting the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda, defined by the Member States of the United Nations, and which are a series of objectives that seek to eradicate poverty, protect the planet, and ensure prosperity for everyone.

The 2018 Concausa International Conference, where the awarded projects were presented by the young teams, took place in Chile during the month of November. The Caserta Foundation actively participated in the design and implementation of the activity, while also running the program camp, which took place at the Likandes Elemental Reserve. 51 young men and women and 17 counselors from 17 American countries attended the event.

Additionally, the Caserta Foundation collaborated in the development of local Concausa version, helping to design and implement the program in Mexico and Uruguay.



Carlos Echavarría



Revoluciona Concausa

Revoluciona Concausa is a program that promotes the SDGs in the regional capitals of the country, gathering school leaders and local authorities. It was adapted for Chile from an international initiative by the same name, which consists of a series of national events designed to make young people reflect upon and confront the problems they face. The Caserta Foundation is an education collaborator in this program, and INJUV is a territorial partner.

Through different learning modules in a two-day workshop, young men and women identify the main social challenges in their communities, and come up with ideas and project proposals on how to address them, which are then presented in front of local authorities and representatives from regional youth programs with whom they can form local work networks.

During 2019, 1,110 young men and women participated in the Revoluciona Concausa workshop, which also included 104 teachers.





Moviliza Peñalolén



Moviliza Peñalolén



Moviliza Peñalolén

Moviliza Peñalolén

A space for youth organizations, in the context of the Alliance between the Municipality of Peñalolén and the Caserta Foundation, designed to help develop leadership skills through educational cycles which allow young people to acquire knowledge and improve the skills that make them “Mobilizers of ideas and actions,” and which may have a positive impact in their district and/or territory.

The objective is to mobilize Peñalolén’s youth towards collaborations, partnerships, and the generation of actions that impact their communities in a positive manner, considering the district objectives and the 2030 agenda.

A total of 87 children and teenagers participated in 2019, as well as 12 teachers.

Colina I Artisanal Carpentry Workshop

The Colina I Artisanal Carpentry Workshop is a project that seeks to provide support through the holistic education process for the reintegration of prisoners who are serving sentences in the Colina I Correctional Facility.

The project was launched in 2019 and it is expected to end in 2020. In its first year, there are 12 participants of different ages and backgrounds.

This program aligns with the needs of the Colina I Education and Work Center (CET) and offers three lines of work.

- Providing technical tools of the trade through a carpentry workshop taught by expert instructors, which is complemented with psychosocial support from health professionals.
- The psychosocial support offered during the workshop seeks to strengthen the participants’ individual skills, working on their work identity and self-sufficiency.
- The study and evaluation of the interventions, taking into account the progress made by the participants, will generate a report outlining the process and results of this initiative.



Colina I Artisanal Carpentry Workshop



Colina I Artisanal Carpentry Workshop



Colina I Artisanal Carpentry Workshop

Media appearances



August 25th, 2018
LA SEGUNDA NEWSPAPER
“Changes in the school system,”
column by María Paz Donoso, director
of Research and Studies, Caserta
Foundation.

“Public and charter schools are moving
towards greater inclusion, with more hete-
rogeneous classes. This creates important
challenges for the school community.”



November 21st, 2018
EMOL TV
Interview about Holistic Education on
EmolTV.
María Paz Donoso, director of Research
and Studies, Caserta Foundation,
spoke about the institutional programs
directed towards students from pre-
school to high school and which, among
other objectives, seek to contribute to a
better school environment.



November 23rd, 2018
PUBLIMETRO NEWSPAPER
The first Journey of the year for
Santiago College.
On March 20th, 21st, and 22nd, 2018,
the first Journey of the year took place
in the Likandes Elemental Reserve
for Santiago College students. This
Journey was different from any other,
since students and teachers worked
together to improve the park by
reforesting and picking fruit.



November 28th, 2018
EL MOSTRADOR NEWSPAPER
Chile welcomes Latin American youth
for the Concausa conference
Chile is hosting the Latin American
Concausa Youth Conference, organized
by Cepal, UNICEF, and América
Solidaria, with the collaboration of the
Caserta Foundation. The participants
promote social innovation projects in
their communities with the purpose of
meeting the Sustainable Development
Goals (SDGs).



November 30th, 2018
LA SEGUNDA NEWSPAPER
Opinion Column by María Paz Donoso,
director of Research and Studies,
Caserta Foundation. “PSU: inequality
persists.”
“The PSU contents are based on
the school curriculum; however,
Mineduc data show that a school with
a lower socioeconomic status has less
curriculum coverage, which limits
preparation for the test. So, students
who have made the same level of
effort, but who come from different
backgrounds, will face PSU under
disparate conditions.”



December 31st, 2018
LA TERCERA NEWSPAPER
Letter to the Editor by Ignacio
Fernández, researcher from the
Research and Studies area, Caserta
Foundation.
“While we acknowledge that PSU is
not the cause of systemic inequalities,
we believe it is necessary to review the
mechanisms and requirements for ac-
cessing higher education, moving from
the current content-based approach to
a competence-based approach, which,
in turn, minimizes the effect of socioe-
conomic status on access.”



January 2nd, 2019
COOPERATIVA RADIO

Column by María Paz Donoso, director of Research and Studies, Caserta Foundation. “New selection mechanisms are necessary for higher education.”

“Mineduc data show that schools from a lower socioeconomic context tend to have less curriculum coverage, which directly affects the students’ level of preparation for this test.”



February 12th
RADIO AGRICULTURA

Interview with María Paz Donoso, Director of Research and Studies, Caserta Foundation: Every child experiences their environment differently.

When we talk about improving quality, we have to talk about improving SIMCE, we have to work on integration, and we have to work on the personal and social indicators. So, there are many different ways of analyzing education.



July 30th, 2019
BIO TV

Interview with Nicolás Fernández, psychologist from the Research and Studies area, Caserta Foundation.

“We must pay attention to the different questions that may arise in order to create an effective vacation plan for our children: What are we reinforcing? Why is it good for them to be bored?”



August 5th, 2019
UNIVERSIDAD DE CONCEPCIÓN TV

Young people from the Biobío Region gather at “Revoluciona Concausa” Conference.

The “Revoluciona Concausa” conference was held as an instance that seeks to promote leadership and entrepreneurship among young people so that they can create social change with a focus on subjects like poverty, environment, and gender, among others.

The initiative was presented in the area for the first time and it was organized by INJUV, América Solidaria, UNICEF, and the Caserta Foundation.



November 24th, 2019
REVISTA QUÉ PASA MAGAZINE

The miraculous return of the condor to Santiago.

After two and a half years of rehabilitation, three specimens will be released from the Condor Liberation Center, a new rehabilitation space for these birds, one of the many initiatives that allow for the return of this species to the central area of the country.



MORE NEWS HERE



FUNDACIÓN
MERI

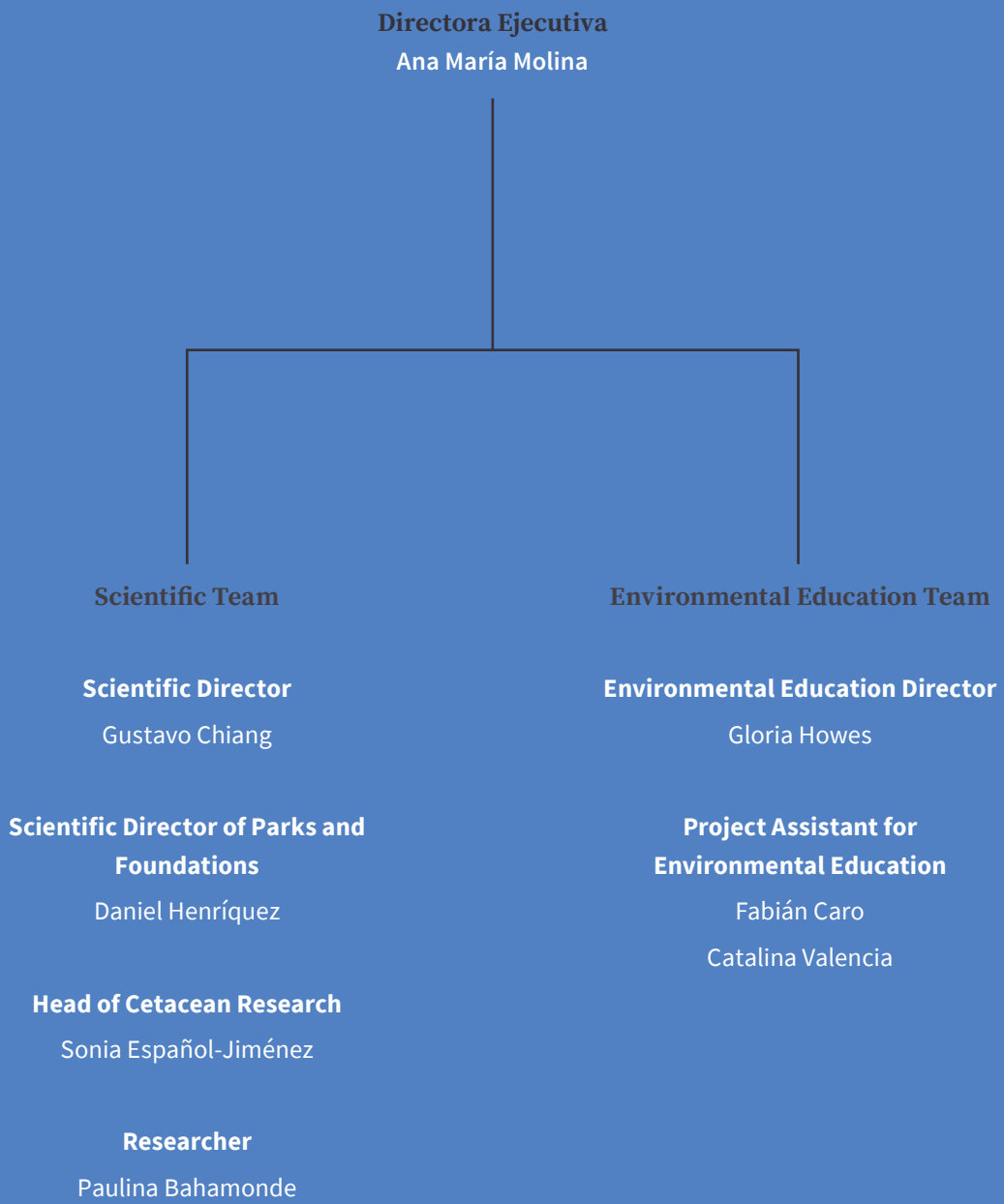


About us
Objective

The MERI Foundation is nonprofit private institution, founded in 2012, whose mission is:

To develop scientific research and environmental education with communities for the conservation of Chile’s strategic ecosystems.

In 2018, the MERI Foundation improved its organizational structure by separating the functions of the Executive Director and the Scientific Director, and by structuring the areas of the foundation in a more balanced manner, in Science and Environmental Education. New professionals were hired, including the biochemist Ana María Molina, Master of Science and Doctor of Engineering Science from Pontifical Catholic University of Chile, who has 13 years of experience in the management of scientific and academic teams in research and scientific education, intellectual property, popularization of science, and environment and community engagement.



VISIT OUR WEBSITE



Humpback whale

Alliances



Agreements

The MERI Foundation and the Ministry of Science, Technology, Knowledge and Innovation sign collaboration agreement.

With the collaboration of the Chilean Government in the context of organization of the IPCC Science Pavilion for COP25, the Ministry of Science, Technology, Knowledge and Innovation and the MERI Foundation signed a collaboration agreement in 2019, which seeks to develop joint initiatives for the popularization of science, research, and applied sciences.

In particular, both institutions ratify their interest in working together towards promoting scientific culture and the role of science in the sustainable development of the country, developing educational activities and organizing national and international seminars and conferences in order to raise awareness of and exchange scientific knowledge throughout society.





Lines of work and programs

Responding to their mission to strengthen the development of research and environmental education for conservation, between 2018 and 2019, the MERI Foundation developed projects, activities, and programs directed towards the scientific community, education workers, and the general public, in three areas of work: science, environmental education, and community engagement.

The **science** area seeks to promote scientific research in three broad spheres:

- Water, oceans, and cetaceans
- Terrestrial systems
- Ecological Restoration

The **environmental education** area designs and implements educational programs with a comprehensive approach, applying the methodology designed by the Caserta Foundation in cooperation with this institution.

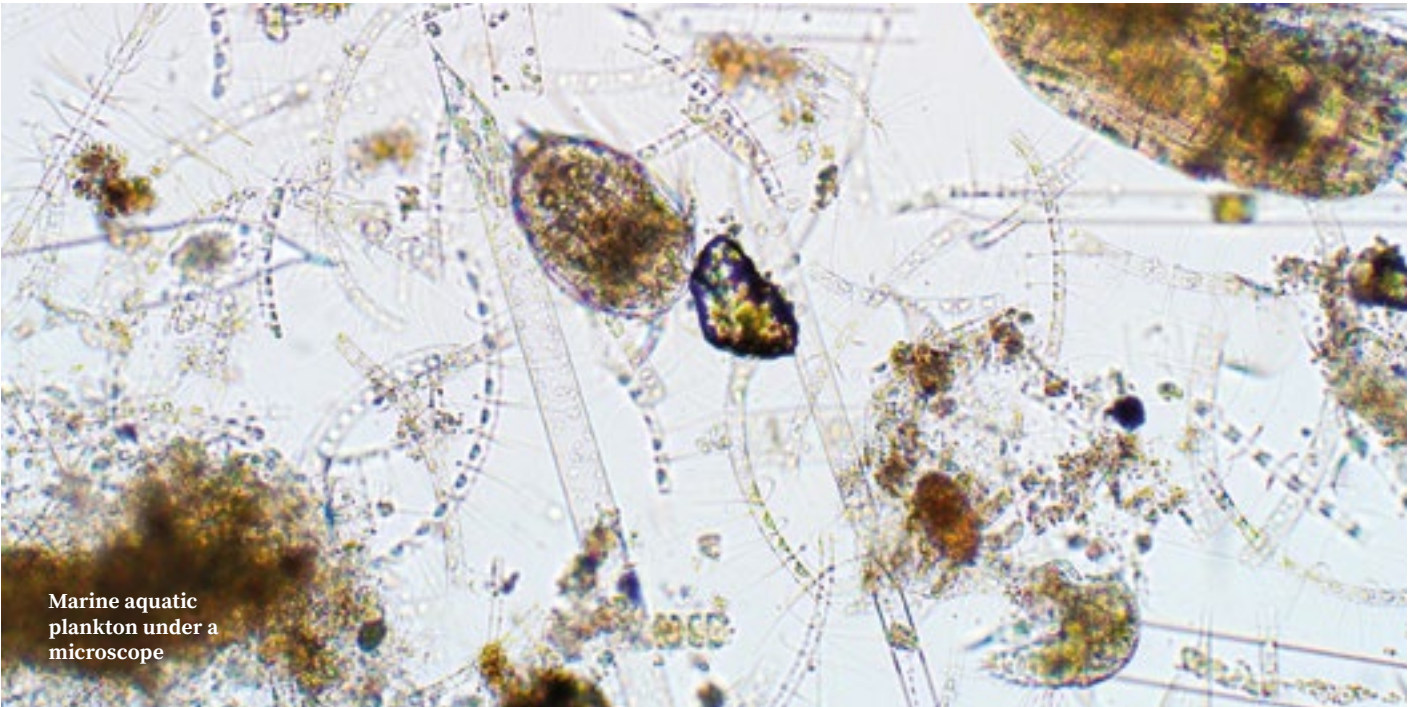
Through the **community engagement** area, the foundation raises awareness of and shares the threats facing different ecosystems with the communities and invites them to be part of the solution.

Science

Between 2018 and 2019, the MERI Foundation team wrote a number of scientific publications on the priority issues for the institution. Also, and as part of the role science plays in society according to the MERI guidelines, different events were organized in the form of seminars and conferences with the purpose of presenting the results of the research.



READ
RESEARCH
PAPERS HERE



Marine aquatic
plankton under a
microscope

Papers 2018



Chiang, G. Más que la suma de sus partes: Biomagnificación y efectos de contaminantes en zonas costeras de la Antártica y la Patagonia (2018), en: Boletín Antártico Chileno, Especial Teleconexiones. Páginas 44-45

Español-Jiménez, S. and van der Schaar, M. First record of humpback whale songs in Southern Chile: Analysis of seasonal and diel variation

Celis J.E., Gonzales-Acuña D., Espejo W., Barra R., Chiang G. 2018. Studying Heavy Metals on Antarctica by Using Non Invasive Biotic Samples of Penguins. Environmental Analysis & Ecology Studies 1(5): 1-2

Espejo W., Galban-Malagon C., Chiang G. 2018. Risks from technology-critical metals after extraction. Narure 557: 492. doi: 10.1038/d41586-018-05234-6

Espejo W., Kitamura D., Kidd K.A., Celis J.E., Kashiwada S., Galbán-Malagón C., Barra R., Chiang G. (2018). Biomagnification of Tantalum through Diverse Aquatic Food Webs. Environmental Science and Technology Letters. DOI 10.1021/acs.estlett.8b00051

Segre P.S., Bocconcelli A., Hickmott L.S., Howes G., Warren J.D., Chiang G. (2018). Offshore hummingbird sightings in Chilean Patagonia. The Wilson Journal of Ornithology 130(3):796-799. <http://www.bioone.org/doi/10.1676/17-066.1>

Espejo W., Padilha J., Kidd K.A., Dorneles P., Barra R., Malm O., Chiang G., Celis J. (2018). Trophic transfer of cadmium in marine food webs from western Chilean Patagonia and Antarctica. Marine Pollution Bulletin 137:246-251. <https://doi.org/10.1016/j.marpolbul.2018.10.022>

Chiang, G. Bagre o bagrecito (*Bullockia maldonadoi*) (2018), in: Fauna Chilena Amenazada: 34 especies para conservar, Tomo III. Photosintesis editores

Chiang, G. Puye grande (*Galaxias platei*) (2018), in: Fauna Chilena Amenazada: especies para conservar, Tomo III. Photosintesis editores

Chiang, G. Vieja o mulata (*Graus nigra*) (2018), in: Fauna Chilena Amenazada: 34 especies para conservar, Tomo III. Photosintesis editores



Papers 2019



Orrego R., Hewitt M., McMaster M.E., Chiang G., Quiroz M., Munkittrick K.R., Gavilán J.F. & R. Barra. (2019). Assessing wild fish exposure to bioactive substances from pulp and paper mill effluents in the BioBio River Basin, Central Chile. *Ecotoxicology and Environmental Safety*. 171: 256-263. doi.org/10.1016/j.ecoenv.2018.12.092

Español-Jiménez, S., Bahamonde, P. A., Chiang, G., and Häussermann, V. 2019. Discovering sounds in Patagonia, characterizing sei whale (*Balaenoptera borealis*) downsweeps in the south-eastern Pacific Ocean. *Ocean Science*. 15, 75–82, <https://doi.org/10.5194/os-2018-64>

Espejo W., Padilha J.A., Gonçalves R.A., Dorneles P.R., Barra R., Oliveira D., Malm O., Chiang G., Celis J.E. 2019. Accumulation and potential sources of lead in marine organisms from coastal ecosystems of the Chilean Patagonia and Antarctic Peninsula area. *Marine Pollution Bulletin*. 140:60-64. doi: 10.1016/j.marpolbul.2019.01.026

Bahamonde P., Berrocal C., Barra R., McMaster M.E., Munkittrick K.R. & Chiang G. (2019) Mucus phosphoproteins as an indirect measure of endocrine disruption in native small-bodied freshwater fish, exposed to wastewater treatment plant and pulp and paper mill effluents. *Gayana*. 83(1), 10-20 <https://ojs.gayana.cl/index.php/gn/article/view/8/31>

Vergara E., Hernández V., Barra R., Munkittrick, K.R., Galban-Malagon C. & G. Chiang. (2019). Presence of Organochlorine pollutants in fat and scats of pinnipeds from the Antarctic Peninsula and South Shetland Islands, and their relationship to trophic position. *Science of the Total Environment*. 685, 1276-1283 <https://doi.org/10.1016/j.scitotenv.2019.06.122>

Espejo W., Padilha J., Kidd K.A., Dorneles P., Barra R., Malm O., Chiang G., Celis J.E. (Submitted). Is there biomagnification of trace metals in food webs of cold ecosystems? Levels and trophic transfer of copper, selenium and zinc in marine species of the Chilean Patagonia and the Antarctic Peninsula area. Short communication, *Biological Trace Element Research*



Science conferences 2018

1

INTERNATIONAL SYMPOSIUM ON INVASIVE SALMONIDS

Puerto Montt, Chile, April 2018

- › Presentation of scientific research
- › Acoustics course
- › Ecotoxicology in Aquatic Environments course

Researchers: P. Bahamonde, S. Español-Jiménez, G. Chiang

2

XXXVIII OCEAN SCIENCES CONFERENCE

Valdivia, Chile, May 2018

- › Presentation of 5 scientific investigations

Researchers: S. Español-Jiménez, G. Chiang, P. Bahamonde, W. Espejo, C. Canterigiani

3

8TH INT. WORKSHOP ON DETECTION, CLASSIFICATION, LOCALIZATION, AND POPULATION DENSITY ESTIMATION OF MARINE MAMMALS USING PASSIVE ACOUSTICS

Paris, France, June 2018

- › Presentation of scientific research

Researchers: S. Español-Jiménez

4

SOLAMAC

Peru, November 2018

- › Presentation of 2 scientific investigations
- › Acoustics course

Researchers: S. Español-Jiménez

Science conferences 2019

1

X CHILEAN CONFERENCE ON ENVIRONMENTAL CHEMISTRY AND PHYSICS

Chile, April 24th - 26th 2019

Researchers: D. Henríquez

2

SECOND SYMPOSIUM ON INVASIVE SALMONIDS, USHUAIA-PUERTO WILLIAMS

Argentina, March 25th, 2019

Researchers: G. Chiang, W. Espejo

3

SETAC EUROPE 29TH ANNUAL MEETING. HELSINKI-FINLAND

Finland, May 27th, 2019

Researchers: G. Chiang, W. Espejo

4

XXXIX OCEAN SCIENCES CONFERENCE

Arturo Prat University, Iquique
Chile, May 27th - 30th 2019

Researchers: A. García, E. Vergara, C. Cantergiani, M. Estay

5

SETAC LATIN AMERICA 13TH BIENNIAL MEETING

Cartagena de Indias, Colombia
October 15th, 2019

Researchers: W. Espejo, E. Vergara, G. Chiang, P. Bahamonde, A. García

6

SETAC NORTH AMERICA 40TH ANNUAL MEETING

Toronto, Canada, November 3rd, 2019

Researchers: W. Espejo, G. Chiang, P. Bahamonde, A. García

7

“WHAT ARE WHALES TELLING US?” II CONFERENCE ON BIODIVERISTY CONSERVATION

Chile, August 28th, 2019

Researchers: S. Español-Jiménez

8

“FIVE YEARS STUDYING BLUE WHALES IN SOUTHERN CHILE”. WORLD MARINE MAMMAL CONFERENCE

Spain, December 7th, 2019


Researchers: C. Cantergiani, S. Español-Jiménez

Expeditions 2019

FORESTS AND BIODIVERSITY

Flora and forest dynamics in Melimoyu Elemental Reserve

 01/26/19 to 02/03/19

 Melimoyu Elemental Reserve

Researchers: D. Henríquez

BLUE WHALE EXPEDITION

Trophic ecology and behavior of blue whales and other cetaceans in the Gulf of Corcovado, Chile

 02/10/19 to 02/26/19


 Gulf of Corcovado

Researchers: G. Chiang, S. Español-Jiménez

MELIMOYU ELEMENTAL RESERVE

Regular Fondecyt 1161504, Bioavailability and biomagnification of mercury

 04/08/19 to 04/22/19


 Melimoyu Elemental Reserve

Researchers: G. Chiang

DOLPHINS PROJECT

Research to identify residence patterns and characterization of species associations: Chilean dolphin, bottlenose dolphin, and Peale’s dolphin in the Melimoyu Bay

 04/09/19 to 04/22/19


 Melimoyu Elemental Reserve

Researchers: G. Chiang

MELIMOYU BAY

Study on the behavior and habitat use of Chilean dolphin in Melimoyu Bay

 10/06/19 to 10/27/19


 Melimoyu Elemental Reserve

Researchers: S. Español-Jiménez

7 REM EXPEDITION

Initiation Fondecyt 11180914, Bioaccumulation of mercury and endocrine disruption in fish

 10/06/19 to 10/27/19


 Melimoyu Elemental Reserve

Researchers: P. Bahamonde

BIODIVERSITY IN PURIBETER RESERVE

Study of plants in extreme environments

 10/15/19 to 10/30/19

 Puribeter Elemental Reserve

Researchers: D. Henríquez

NAVARINO EXPEDITION

Initiation Fondecyt 11180914, Bioaccumulation of mercury and endocrine disruption in fish

 12/05/19 to 12/11/19

 Magallanes

Researchers: G. Chiang, P. Bahamonde, S. Español-Jiménez



Environmental Education

In accordance with the environmental challenges at a global level, the MERI Foundation has proposed the MERI Environmental Education Plan (PEAM), whose objective is to emphasize the importance of biodiversity and natural resources in the Patagonia Norte coast. With this series of programs, we seek to promote the conservation of the local ecosystems and to create a sense of ecosystemic belonging in the population through holistic education.

Between 2018 and 2019, the environmental education programs were directed towards educational communities in the form of rural multi-grade schools in the Aysén and Los Lagos Regions, as well as educational activities and training sessions specifically designed for key actors and the community. During this period, a total of 730 students and 3,400 adults participated in these activities.



Wetlands at the Melimoyu Elemental Reserve / Carlos Echavarría

Explorers Camp

The Explorers program is an educational camping trip to the Melimoyu Elemental Reserve, aimed at 5th to 8th grade students. Between 2018 and 2019, the focus was on children from establishments from the Aysén and Los Lagos Regions.

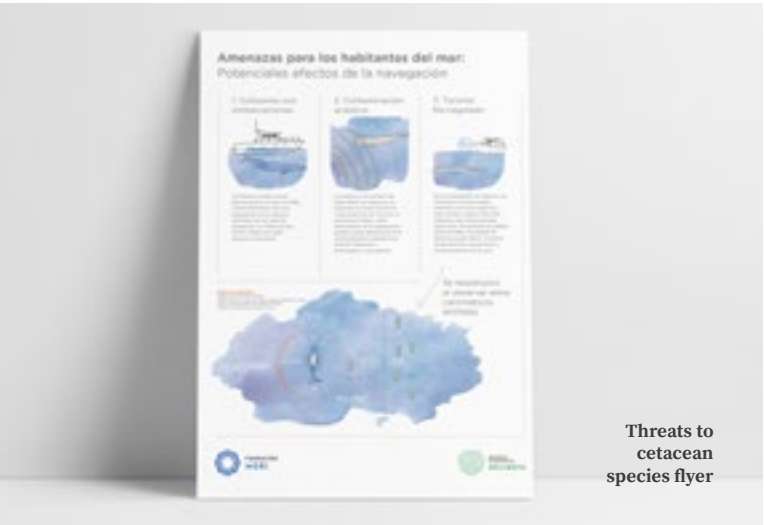
In order to attend the camp, the students had to prepare and enter a project to the School Science Contest run by the MERI Foundation. As a result of this initiative, five projects were awarded in 2018 to a total of 27 students from five establishments in the Cisnes and Quellón districts; while, in 2019, six establishments were selected, with a total of 26 participants. Additionally, the Melimoyu Rural School was in attendance both years. The institution is invited every year to give a presentation of the place's history and culture.

During their stay, the students walked on the nature trails of preserved flora and fauna, learned about balance in the ecosystem, became aware of the threats they face and the importance of conservation, participated in group dynamics, searched the river for macro-invertebrates to analyze with their scientific equipment, learned about the culture of the Chono people and the geography of the area, spent time with young people from the area, learned about other students' scientific projects and how they could integrate them in order to impact their own communities in a positive way.

Each activity was supervised by a multidisciplinary team of monitors tasked with promoting learning spaces, facilitating conversations, reinforcing contents learned in camp, as well as overseeing the safe execution of the activities.

The students were always accompanied by their form teachers, who had the task of supporting and integrating the knowledge acquired in the program and connecting it to their own school curriculum.

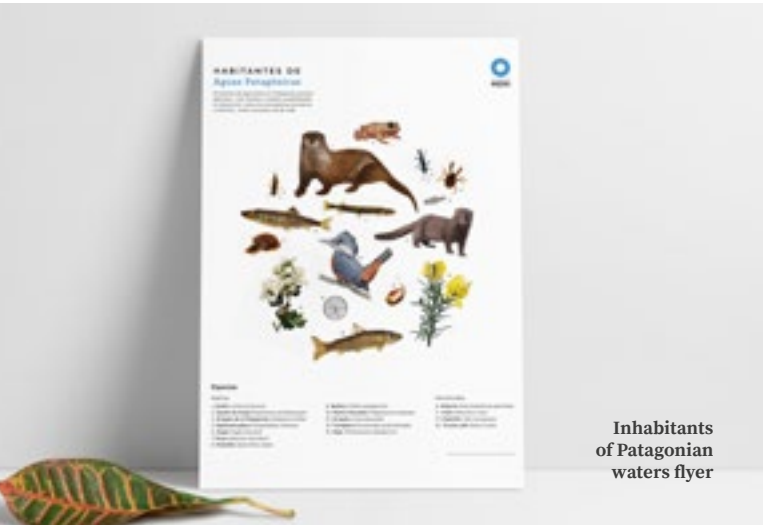




Threats to cetacean species flyer



Cetaceans of northern patagonia program



Inhabitants of Patagonian waters flyer

Cetaceans of Northern Patagonia program

Cetaceans of Northern Patagonia is a six-day educational program that takes places inside the educational establishments, and whose objective is to create interest in the marine ecosystem through a basic understanding of cetacean biology.

The program is divided into two cycles. The first seeks to draw attention to environmental subjects and cetaceans. The second reinforces each person’s sense of responsibility through sound practices and actions related to local threats.

In 2018, this program was directed towards 1st to 6th grade students from multi-grade schools in the Aysén and Los Lagos Regions. A total of 26 students and 3 teachers attended the workshops.

Patagonian Waters program

Patagonian Waters seeks to generate interest in the freshwater system through a basic understanding of its functional dynamics. In 2018, the design of the environmental education program was funded by CONICYT’s Explore Fund.

The workshops offered between 2018 and 2019 were directed towards the primary school community, and offered activities that included building a freshwater system, discovering the Patagonian fauna, and analyzing phenomena like species introduction and climate change. The objective was to provide information to facilitate a basic understanding of the freshwater system, to recognize its ecological

value, to discover the diversity of species that inhabit it, and to draw attention to the threats it faces.

85 students and 6 teachers joined the program in 2018 from the districts of Quellón, Cisnes, and Las Guaitecas, while 21 students and 3 teachers participated in 2019.

Educational handbook “Patagonian waters, from the mountains to the sea”

As a result of the Patagonian Waters program, the educational content was collected in a book to complement the program, while also seeking to teach different audiences about the freshwater system in Patagonia.

For this purpose, a multidisciplinary team was tasked with compiling a book whose contents include the origin of water, its cycle and properties; a tour of the freshwater system, its definitions and elements; a description of its inhabitants and their role, and it ends by raising awareness of the threats the system is facing and of the recommended practices for its care and conservation.

Since the book is intended for all audiences, it has been distributed in workshops, conferences, the Science Pavilion at COP25, and is also available to read and download for free on the MERI Foundation website.

EDUCATIONAL GUIDE,
DOWNLOAD HERE



Didactic map



Educational handbook “Patagonian waters, from the mountains to the sea”



Community Engagement

Sharing and bringing knowledge closer to the community is fundamental to the work of the MERI Foundation. This task is carried out through participation in conferences, discussion groups, and other public activities which allow us to put information and knowledge at the service of society, while also exchanging knowledge with the communities.

In the field of science, the foundation presents and exchanges its advances in research with the scientific and academic communities. Between 2018 and 2019, the foundation gave 33 presentations at national and international conferences.

In environmental education, a series of events are organized throughout the year with the purpose of raising awareness and educating different audiences (students of different ages, the general public, public servants, and employees of different organizations) about marine ecosystems, freshwater systems and the threats they face, and how to contribute to their protection and conservation.

A third form of community engagement is the development of initiatives in which, through science, education, and art, the knowledge acquired through seven years is put at the disposal of the community. These projects involve different institutions, including the Caserta Foundation.



New Chiloe stilt office for the Gulf of Corcovado

On February 26th, 2019, in the presence of the MERI team, local authorities, and representatives from academic organizations, the Navy, and the science world, among others, the MERI Foundation’s new stilt office was inaugurated on the Castro boardwalk in Chiloe.

On that day, one of the traditional stilt houses in Chiloe became the operations center of the institution that brings knowledge closer to the local community in the Los Lagos Region, and which promotes the historic scientific and educational work done in the Melimoyu Elemental Reserve.

The new office allows the foundation to strengthen its relationship with the community, taking campaigns like “Whale Ahoy” to the MERI house.

In March of 2019, the MERI Foundation stilt office was part of the “Open Castro” activity, an architecture festival whose purpose was to rescue and emphasize the value of the buildings in Castro, allowing locals and tourists to see the foundation offices, as well as its mission, projects, and events.



“Whales, voices of the sea” exhibition

La Moneda Cultural Center (CCPLM) was inaugurated on August 8th, 2018, one of the most important community projects of the MERI Foundation, which combines science, art, education, and museography. The exhibit “Whales, voices of the sea” was a co-production with the CCPLM which extended until November of this years, and which was visited by more than 100,000 people.

The exhibition of over 200 pieces allowed MERI to capture the knowledge acquired through five scientific expeditions to study the cetaceans in Patagonia Norte, especially the blue whale, in their ecosystem, and their symbolism as an iconic species for marine biodiversity.

Apart from visiting the exhibition, the attendees enjoyed guided tours with professionals of the Cultural Center and the Caserta Foundation with the purpose of experiencing the exhibit in a different way. Additionally, there were weekly discussion groups in which representatives of different social groups had a chance to discuss subjects related to the environment, conservation and, of course, the oceans.



“Cetacean, echoes of the sea” traveling exhibition

After the success enjoyed in 2018 by the “Whales, voices of the sea” exhibition, a traveling exhibition was arranged to tour the country in 2019, and which summarized part of the content in easy-to-open modules. This was the motivation behind “Cetacean, echoes of the sea”, which—in alliance with the Ministry of the Cultures, Arts, and Heritage, and through the Creation Centers—opened in the Castro district, in the Cecrea facilities.

Thanks to the joint efforts of the MERI and Caserta Foundations, the exhibition had a professional team of mediators who also worked in “Whales, voices of the sea,” and who help the attendees interact with the exhibit in order to create a meaningful experience for the audience.

The exhibition was inaugurated on July 20th, 2019, and stayed there for three months, at which point it was moved to the Museum of Natural History in Valparaiso in the context of the Puerto de Ideas Festival, opening its doors to the community in November. Until December 2019, the exhibition had had over 10,000 visitors in Valparaiso, in addition to the 2,000 from Castro.



Zifio project

On March 20th, 2019, the MERI Foundation was informed of the beaching of a Layard's beaked whale, weighing approximately 1,500 kilograms and measuring six meters in length, at Caleta Tortel. The death of the animal, a type of cetacean that usually inhabits deep waters and about which little information is available, motivated the foundation to visit the Aysén Region and, after obtaining the proper permits from Sernapesca and the local authorities, to move the body to Santiago in order to conduct a thorough investigation with the collaboration of different institutions, and with the highest scientific standards.

For this purpose, the head of the foundation's Cetacean Research area, Dr. Sonia Español-Jiménez, led the project to move the animal from its beaching place, transport it to Santiago on land and, together with the entire MERI team, to call the team who would participate in the necropsy of the animal, which took place in the Veterinary School facilities at Andrés Bello University (UNAB) in Colina.

After the necropsy, the cetacean's remains underwent a long process of natural decomposition and were transported back to the Aysén Region, to the Regional Museum where, with authorization from the authorities, the bones will serve scientific and educational purposes.

Audiovisual record: “Zifio, the Last Journey”

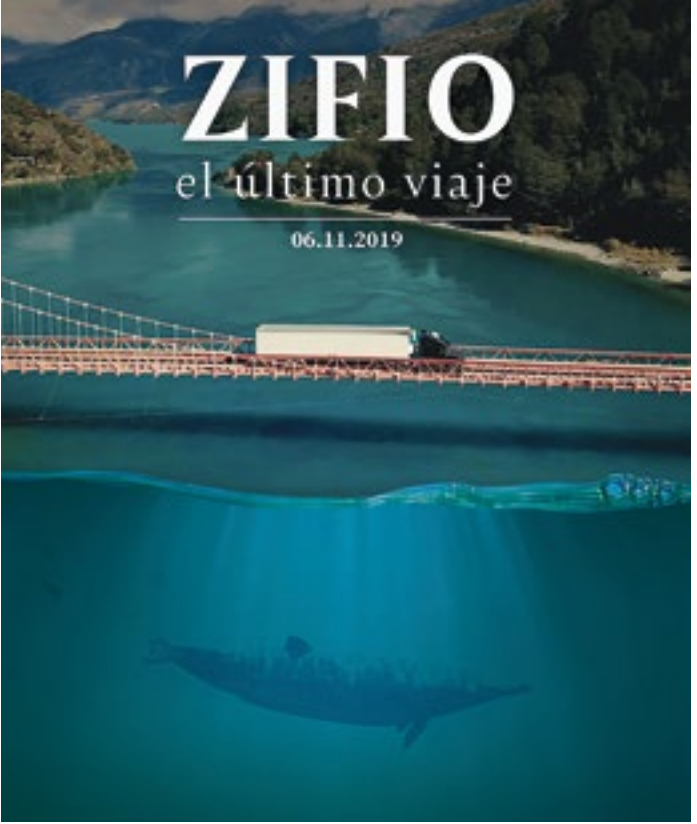
The entire research experience with the whale's body was captured by the MERI Foundation in an audiovisual record which goes through the rescue process in an educational and informative way, from the moving of the body from Tortel to Santiago, to the return of the bones to the Aysén Regional Museum. The story, told by its protagonists, is the foundation's most utilized tool to raise awareness about the valuable study of marine ecosystems and the urgent need to protect them.

In November of 2019, a preview of the production was offered in Caleta Tortel for the community that witnessed the beaching and who participated in the rescue of the body. Later, it was officially released in the regional capital, Coyhaique, where it started its tour through different cities in order to be presented to a variety of audiences. After each presentation, MERI holds a discussion group to complement the information from the documentary and to start a dialogue about conservation in Chile and the world.

“Zifio, the Last Journey” has been screened In Tortel, Coyhaique, Castro, Valparaiso, Curanipe, and Santiago, as well as in the IPCC-WHO-MERI Science Pavilion at COP25 in Madrid.



WATCH
THE ZIFIO
TRAILER
HERE



MERI Foundation collaborates with Chilean Government and IPCC in the organization of the Science Pavilion at COP25

The MERI Foundation offered its services to the Chilean Government through the Ministry of Science, Technology, Innovation, and Knowledge, and the UN Intergovernmental Panel on Climate Change (IPCC) in order to collaborate in the organization of the COP25 Scientific Pavilion which, with the collaboration of the World Meteorological Organization (WMO), took place from December 2nd to December 13th, 2019, in Madrid.

The MERI Foundation, in coordination with the Ministry of Science, the IPCC, and the WMO, was in charge of the design and implementation of the pavilion, as well as the co-organization, along with the IPCC, of the programs for each of the 11 days of the conference, with featured presentations by 46 speakers and 14 discussion panels.

Inside the pavilion, meetings were held with Chilean and international representatives from the public and private sector, from non-governmental organizations, and from the world of academia and science, as well as interesting discussion panels which combined scientific work with a social, business, or ancestral perspective. These discussions allowed for an exchange of multi-sectorial knowledge with the purpose of enriching the actions against the climate emergency.

Additionally, the Science Pavilion was the space where the MERI Foundation shared the educational work it has been doing for over six years and which is recorded in its books, such as the Educational Handbook of Cetaceans and the Patagonian Water Handbook, to name a few.

As a way of sharing the experience in Madrid, for the two weeks of the COP25, the digital platforms of the MERI Foundation, the Caserta Foundation, and Filantropía Cortés Solari became a way to bring the content and discussions held in Spain to Chile, through 370 posts on the web and social media, and important coverage in national media.

COP25 PHOTO GALLERY



Signed Agreements



WWF Alliance

Between 2018 and 2019, and always in search of expanding the MERI Foundation’s research skills and opportunities, many important partnerships were forged.

WWF Alliance

On June 13th, 2019, the MERI Foundation signed a collaboration contract with World Wildlife Fund Chile (WWF) with the purpose of consolidating the long-standing work done by these two organizations in the area of marine conservation. This agreement cements the two organizations’ collaboration efforts for the exchange of knowledge and the conduction of joint research, as well as the start of promotion campaigns aimed at conservation and education.



Agreement with American Universities Incorporated

Agreement with American Universities Incorporated

Filantropía Cortés Solari, through the MERI Foundation, signed an agreement with Associated Universities Incorporated (AUI) with the purpose of promoting scientific investigation and environmental education directed towards Chilean students.

AUI is an American nonprofit corporation based in Washington, which was founded in 1946 by nine American universities with the purpose of managing large-scale scientific facilities. For the first time ever, they have signed an alliance with a private foundation for conservation, which has led to joint actions in the three FCS Elemental Reserves: Puribeter, Likandes, and Melimoyu.



Agreement with American Universities Incorporated

MERI Foundation and Castro Maritime Authority sign agreement on the regulation of maritime traffic

Using scientific information provided by the MERI Foundation, Castro Maritime Authority, the main authority in the area at the local level, drew up the resolution G.M. CAS. ORD. N° 12.600/339 VRS, which deals with the risk of collision between ships and whales, the problems these events can cause for species conservation, and the necessary measures to avoid them while also considering human safety at sea.

After signing the act, the Castro Maritime Authority sent the resolution to the Port Captainty in order to share these measures with shipping companies and other companies with maritime activities in the area. It was also published in the Directemar website.

This process is expected to continue in 2020 with the signing of a national agreement with the General Directorate of Maritime Territory and Merchant Marine (Directemar), a high-level organization of the Chilean Navy whose mission is to enforce the laws and existing international agreements in order to ensure safe navigation, protect human lives at sea, preserve the aquatic environment, marine resources, and inspect the activities that occur in the maritime area of its jurisdiction.



Awards

Recyclápolis “Sustainable Culture 2018” Award

At a ceremony held on October 4th, 2019, the MERI Foundation received the “Sustainable Culture” Award in the Water category, given by the Recyclápolis Foundation in the context of their National Environment Awards, whose objective is to recognize the strategic guidelines of the Chilean entities committed to sustainability and the protection of the environment.

On behalf of MERI, its Executive President, Francisca Cortés Solari, accepted the award for the work done by the foundation through the program “Educational Navigation Route: Cetaceans of the Patagonia Norte,” whose purpose is: “To emphasize the value of the Conservation Targets at the Melimoyu Nature Reserve through the acknowledgement of a sense of ecosystemic belonging.”

In the 2018 version of the award, which is sponsored by the Pontifical Catholic University of Chile, the Municipality of Santiago, ASECH, and the Confederation of Industry and Trade, and which has the support of the Ministry of the Environment and Economy, 180 projects competed in different categories, 23 of which were selected.



Ecoscience Award

Francisca Cortés Solari, Executive President of Filantropía Cortés Solari and the MERI Foundation, was recognized for the work this institution does in terms of the conservation of the Patagonia, as well as the important role it plays in environmental education.

The award was presented by the Ecoscience Foundation and the digital newspaper El Mostrador in October of 2018, and Francisca Cortés was chosen over four other candidates, all of whom serve science from their respective fields.



Media appearances



February 23rd, 2018
LUN NEWSPAPER

Article “Technology used in the 2018 Blue Whale Expedition”

“In the 2018 blue whale expedition, the technology used by the MERI Foundation scientists, in charge of monitoring the wales and of recording the submarine sounds they emit, was key to presenting scientific evidence about these marine giants.”



March 12th, 2018
QUÉ PASA MAGAZINE

Article “The Blue Journey”

“The MERI Foundation sailed the waters of the Gulf of Corcovado, south of Chiloe, tracking the blue whales who gather to feed at a specific part of the planet.”



August 7th, 2018
DUNA.CL

Digital article “An opportunity to learn more about whales and the Chilean marine ecosystem.”

“Whales, voices of the sea,” an exhibit whose purpose is to raise awareness of the importance of the ocean in the historic and cultural development of Chile. It also seeks to inform the public about the impact of pollution on the different species that comprise the marine ecosystem.”



August 8th, 2018
EMOL.COM

Article “Voices of the sea: The sounds of the whales in the southern Chilean archipelagos.”

“An acoustic investigation, carried out by the MERI Foundation scientific team, was able to record the sounds of the large cetaceans in the marine ecoregions near Chiloe.”



September 11th, 2018
EL MERCURIO NEWSPAPER

Interview with Gloria Howes in Revista Domingo magazine.

“Gloria received the Female Leadership in Sustainability Award by the Ministry of the Environment for her work in Environmental Education. ‘I did not expect it, but it made me happy because I felt like they were rewarding work that is very easy to miss.’”



November 26th, 2018
24 HORAS NEWS

Article “Exclusive: ‘Poison’ detected in Antarctica.”

Gustavo Chiang, Scientific Director at the MERI Foundation, talks about the study that revealed that animals in Antarctica are slowly being ‘poisoned’ by industrial contaminants.



May 23rd, 2018 NATURE JOURNAL

MERI Foundation researchers published in renowned journal Nature.

“The global market for rare metals in the Earth’s crust is growing due to their crucial role in new technologies. Most of these elements are extracted in African and South American countries where environmental protection is often lacking. We want a thorough investigation of the environmental concentration of these metals, their biogeochemical cycles, and the possible risks to human and animal health.”



January 26th, 2019 LUN NEWSPAPER

The songs that humpback whales remember when they survive the hunters

According to a study by the University of Iceland, these whales are capable of identifying 15 phrases and songs, which are added to the catalogue they perform during their feeding periods in cold water. This is what we talked about with Sonia Español Jiménez, head of the Cetacean Research area at the MERI Foundation.



February 1st, 2019
EL MOSTRADOR NEWSPAPER

Article “New scientific findings allow us to understand whale behavior.”

“Tinder for whales? Humpback whales are using Patagonia as a mating area before reproducing and not just as a feeding ground, as we previously thought. It is possible that the males use this area to introduce themselves to possible mates in order to be chosen once they are back in warmer waters.”



November 10th, 2019
LADERA SUR MAGAZINE

Article “‘Cetacean, echoes of the sea’ exhibition in Castro, Chiloe”

“From a public-private partnership between the Ministry of Culture, Arts, and Heritage and the MERI Foundation, ‘Cetacean, echoes of the sea’ is born. An interactive exhibition which invites the audience to learn about, experience, and become aware of marine ecosystems, specifically those of cetaceans and the problems they face.”



November 11th, 2019
LUN NEWSPAPER

Article “Documentary reveals unknown marine animal.”

“In March of 2019, a mysterious cetacean specimen was beached in the south. It was almost 6 meters long and weighed 1.5 tons. The MERI Foundation made the difficult decision to keep its body for research.”



February 1st, 2019
RADIO COOPERATIVA

“Rare species of whale beached on the shore of Caleta Tortel. At nine in the morning, the people of Caleta Tortel, in the Aysén Region, alerted the head of the South Pacific Oceanography Research Center Laboratory of the presence of what they thought was a Chilean dolphin stranded on some rocks near the town.”



May 24th, 2019
EMOL.COM

Article “Technology under the sea: What devices are used to study our country’s ocean?”

“The history of humanity has always been connected to the ocean, even though most of the sea is unfamiliar to us due to its nature. However, modern technology has expanded our senses.”



June 7th, 2019
LA ESTRELLA CHILOE NEWSPAPER

Article “Foundation launches environmental education program.”

“MERI Facilitators visit schools in Patagonia Norte as part of the environmental initiative Patagonian Waters.”



November 9th, 2019 EL MOSTRADOR NEWSPAPER

Article “Zifio, the Last Journey: documentary describes the role of science in cetacean research in Chile.”


“With this documentary, we want to tell a story that reflects the efforts of Filantropía Cortés Solari, through the MERI Foundation, to contribute to the study of cetaceans in Chile, their protection and conservation, emphasizing the importance of creating environmental alliances,” said Doctor in Marine Biology and MERI Foundation scientist, Sonia Español-Jiménez, who led the rescue and study of the specimen.



November 29th, 2019 EL MERCURIO VALPARAÍSO NEWSPAPER

Article “Museum of Natural History in Valparaiso has its own whale.”

“The ‘Cetacean, echoes of the sea’ exhibit opens with the awareness issue about pollution and how humans are the biggest predators. Then it gives information on cetaceans, what extinction means for the species, and how they are affected by climate change,” explains Ana María Molina, Executive Director of the MERI Foundation.

A large, jagged iceberg floats in the ocean. The iceberg is a mix of white and deep blue, with visible cracks and textures. The water is a dark, choppy blue. In the background, a dark, forested coastline is visible under a sky with heavy, grey clouds.

“This is a call for a shift
in consciousness, to work
together for a higher
purpose which will
guarantee the sustainability
of future generations.”

Francisca Cortés Solari