YENDEGAIA
NATIONAL PARK

Chile: A territory so small,
on the map it comes to seem like a beach between
the mountains and the sea . . . In the South, the tragic caprice of
the southern archipelagos makes great rips in the velvet sea,
sharp shards, with clear and well-defined natural areas,
like the character of the people.

—Gabriela Mistral

YENDEGAIA
NATIONAL PARK

THE CONSERVATION LAND TRUST

Essays

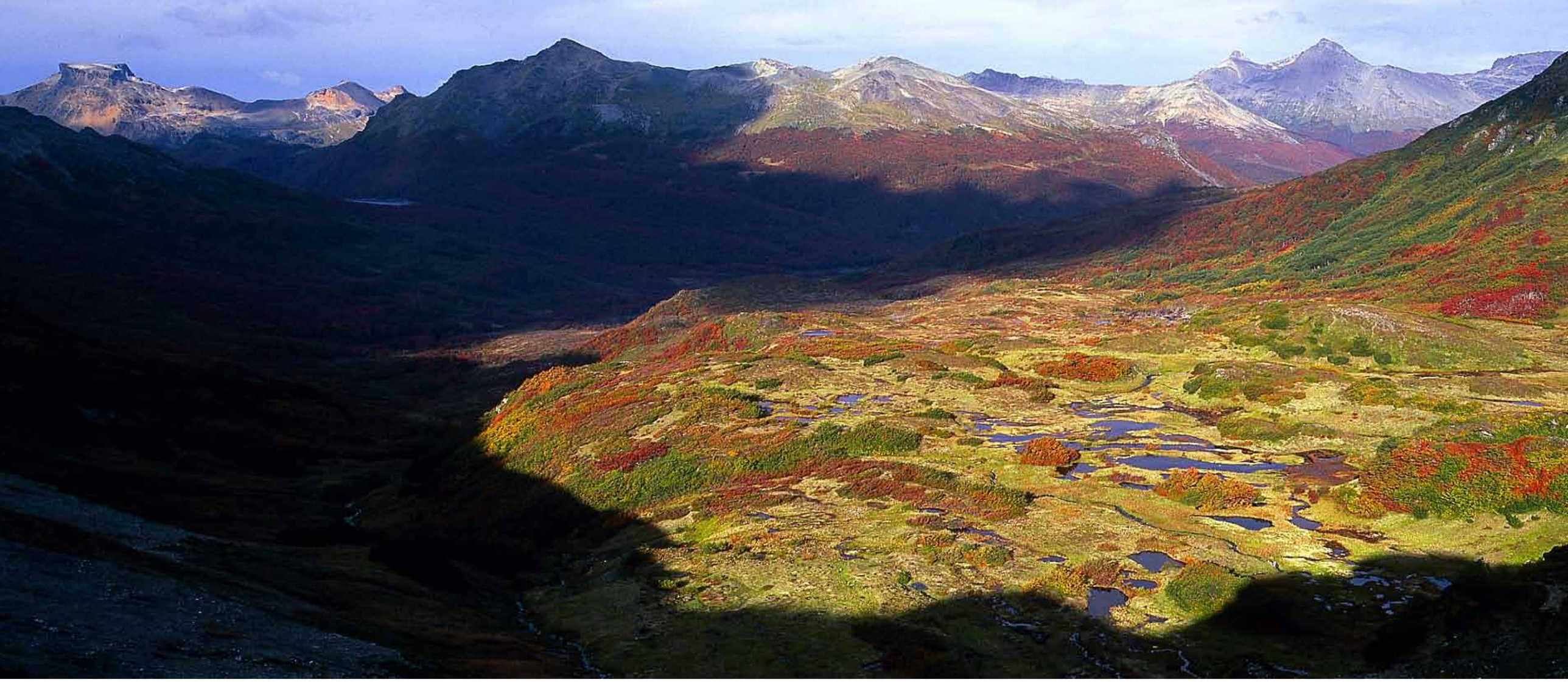
SEBASTIÁN PIÑERA ECHENIQUE
DOUGLAS TOMPKINS
NICOLO GLIGO V.
HERNÁN MLADINIC ALONSO
SANTIAGO VALDÉS GUTIÉRREZ
ADRIANA HOFFMANN JACOBY
ANTONIO VIZCAÍNO

Photography

ANTONIO VIZCAÍNO

DEDICATION

For Alan Watson Featherstone, Adriana Hoffman, and Graciela Ramaciotti—
who first articulated a vision for Yendegaia's permanent protection as a wild sanctuary.



Beauty is that exquisite enigma deciphered neither by psychology nor rhetoric.

—Jorge Luis Borges

The western coast of Tierra del Fuego crumbles into a multitude of islands,
among which meander mysterious channels, reaching to the end of the world . . .

—Francisco Coloane

Green is the prime color of the world, and that from which its loveliness arises.

—Pedro Calderón de la Barca

As long as you're on the side of parks, you're on the side of angels.

—Robert Moses

My Patagonia is a landscape of infinite water, torn apart by a torrent of love, navigating a single river swollen by miracles.

—Mario Miranda Soussi

The smaller we come to feel ourselves compared to the mountain,
the nearer we come to participating in its greatness.

—Arne Naess

FOREWORD

Sebastián Piñera Echenique

Chile is universally recognized as a country of great beauty and diverse landscapes. Its "crazy geography," as described by author Benjamin Subercaseaux in one of his books, stretches from the driest desert in the world to some of the largest continental ice fields on the planet, with a long Pacific coastline running parallel to the majestic Andes mountain range, separated only by a few kilometers. Chile's outstanding natural scenery is a major national asset; more than 4 million foreign visitors arrive each year, a great many of whom visit one of our national parks or reserves during their stay.

To date, Chile has 102 units in the National System of State-Protected Wildlife Areas, which includes national parks, national reserves, and natural monuments. The system covers approximately 35 million acres (14 million hectares), roughly 20 percent of Chile's continental surface. This figure is the result of public conservation policies initiated many decades ago with the creation of the Malleco Forest Reserve, in 1907. Chile's first national park, Vicente Pérez Rosales, was designated in 1926. Later, in the 1960s, larger units of public land, such as the Bernardo O'Higgins National Park, were established. All of the following governments, to a greater or lesser degree depending on their specific objectives, have continued a policy of land conservation. Thanks to this, Chile today ranks well above its Latin American peers and fellow member countries, on average, in the Organization for Economic Co-operation and Development (OECD) in terms of area conserved.

However, this ongoing effort to preserve larger representative examples of all of Chile's ecosystem types for future generations has not only come from the State. Over the last two decades, the participation of private parties in land conservation projects has increased considerably, adding almost 3.2 million acres (1.3 million hectares) to existing protected areas. Examples such as Pumalín, Tantauco, Futangue, and Huilo Huilo parks, to name just a few, speak of a society that has become increasingly concerned with protecting healthy ecosystems and point to a social-entrepreneurial interest that has gained more and more enthusiasts, making Chile the region's foremost leader in private conservation innovation.

Several NGOs (nongovernmental organizations) have also entered the scene in recent years, advocating for the conservation of various habitats in the north and south of Chile, partially channeling the citizens' voice for greater protection of imperiled ecosystems. This activism often leads to substantial changes in public policy. Every day, more examples emerge of an increasingly empowered citizenry demanding greater assertiveness from government authorities to protect the environment and regulate commercial exploitation of natural resources. This super-vigilance on the part of citizens has forced us to improve our environmental legislation and reveals important changes in our way of thinking since our parents' generation.

All of this speaks of a new Chile. Whereas Chile's early road to development was through the industrial exploitation and often careless use of nature's bounty, the nation now treats natural resources with much more respect, fostering their protection and sustainable use. Not only has this created new opportunities for developing more sustainable activities such as nature-based tourism, but it has also enabled communities with few traditional productive capacities to grow and develop. Puerto Natales, near Torres del Paine National Park, and San Pedro de Atacama, which serves visitors to Los Flamencos National Reserve, are clear

examples of this transformation into park gateway communities, where tangible economic benefits are apparent.

All of this compels us to reflect on the role played by our country's protected areas, no longer as mere islands for conserving native flora and fauna, but also as catalysts for culturally appropriate economic development of our communities and territories. In this respect, Chile has slowly been moving away from the mistaken notion that national parks and reserves are comprised of productive land lost to potential development, and Chileans are embracing the idea that parks and reserves present opportunities to improve our quality of life. The State plays a fundamental role in promoting sensible public policies to conserve marine, coastal, and terrestrial ecosystems. The State can lead by both preserving ecosystems for future generations and by generating new programs that drive local development through environmentally respectful activities.

Consequently, the creation of Yendegaia National Park has been for me, as President of Chile, a highly significant event during my term in office. Not only because it involved the joint effort between the State of Chile, which contributed 276,343 acres (111,832 hectares), and civil society through Fundación Yendegaia, which donated 95,827 acres (38,780 hectares), but also because of the key role this park will have on the development of the most southern area of continental Chile. Neglected by several previous governments because of its remoteness and difficult access, this area is being incorporated into the national scene through other initiatives that are complementary to the declaration of the national park, namely the extension of Route 7 to Caleta 2 de Mayo, also known as the "Highway to the End of the World." This road, currently under construction by members of the Military Work Corps, will allow us in the near future to have land access to one of the most beautiful landscapes in the world. There is no doubt that this will create a new tourism attraction on the main island of Tierra del Fuego and slowly help to soften visitor pressure on Torres del Paine National Park, the main tourism engine of the Magallanes Region.

Yendegaia, which means "deep bay" in the indigenous Yagán language, is indeed a special place, as we were able to see in person when we signed the act creating the park in January, 2014. Confined between fjords, channels, and southern mountains, the new park covers the natural extension of the Darwin Range from the Alberto De Agostini National Park to the west, up to the border with neighboring Argentina in the east. To the north, the park boundary extends to the main valleys descending into Fagnano Lake and the Azopardo River; to the south, the park stretches to the Beagle Channel, the main navigation route to Puerto Williams. This special geographic location, with its rugged topography and incredible scenery, is highly unusual in that its relatively small area contains a variety of high-altitude, lake, coastal, steppe, and glacial natural communities, which combined offer the most remarkable landscape imaginable and are testimony to the great natural beauty of this part of the country.

The park's coastal fjords serve as the natural habitat for a variety of sea birds, especially the Dominican seagull and the giant petrel. The meandering basin of the Lapataia River reflects the geologic origin of the park's main valley and is home to species such as the Tierra del Fuego *culpeo* fox, guanaco, yellow-nosed field mouse, and southern river otter. Many snowfields and hanging glaciers plunging seaward from the Darwin Range have shaped its mountains and valleys, producing the right growing conditions for the region's distinctive association of trees. The endless forests of *ñires*, *Magellanic coihues*, *lengas*, *notros*, *canelos*, and miniature *nalcas*—some of the last remaining pristine reserves of subantarctic Magellanic forests—are known for their slow growth due to the area's harsh climate.

Information collected during the feasibility study for Yendegaia National Park suggested that the new park will help protect three very special species threatened with extinction: two are classified as endangered, the southern river otter and the ruddy-headed goose; a third, the Tierra del Fuego culpeo fox, is classified as vulnerable. Data also show the existence of a great number and variety of birds. Approximately 50 species have been identified, many of them typical of southern latitudes, thus making the area a desirable destination for bird-watching. The new park will also help conserve five vegetation types, along with their related ecosystems, significantly increasing their representation in Chile's system of protected areas. One example is the "Andean antiboreal grassland"—with Yendegaia National Park's designation, the extent of this natural community's representation in protected areas grows from the current 14 percent to 46 percent.

All of this shows that Chile is making a genuine effort to conserve the Yendegaia area in the same condition as when the Yagán people roamed these lands and waterways in search of food and shelter more than a century ago. Interestingly enough, it was their descendants, in recognition and appreciation of the biodiversity of this area, who ratified the new national park a few months ago. This consultation with the indigenous community demonstrates once again that the creation of Yendegaia National Park is inclusive and compatible with the ancestral traditions of local people.

Projects such as these make our nation great and confirm that we are on the right path. During our government, we enthusiastically executed numerous other initiatives to protect Chile's biodiversity: Motu Motiro Hiva Marine Park located in the province of Easter Island, with a surface of more than 37 million acres (15 million hectares), is now one of the largest protected areas in the world. We also created several other Coastal and Marine Protected Areas (AMCPs) around the country, such as the Juan Fernández Archipelago AMCP and Pitipalena-Añihue AMCP; these initiatives reflect our desire to replicate Chile's successful land conservation work for our coastlines, fjords, and channels. These protected area projects also integrate nature conservation with developing sustainable production for local communities and include them in the projects' administration. Likewise, the recent creation of the Alerce Costero National Park in the Los Ríos Region, the expansion of the Pampa del Tamarugal National Reserve in the Tarapacá Region, and the creation of the Paposo Norte Natural Monument in the Antofagasta Region convey our government's commitment to the ongoing improvement of Chile's protected areas system.

It's not for nothing that other countries refer to Chile as the "Land of Parks"; it's a name we should be proud of. Acknowledging this status and taking advantage of it should be part of our strategy for future development, while diversifying and decentralizing our current growth model. This is even truer considering that we are a young, developing nation that is increasingly seen as a global leader in parklands conservation, whose policies and ideas are emulated by several countries.

The creation of Yendegaia National Park is a decisive step in this direction. An impressive number of work teams from several ministries participated, demonstrating unprecedented cooperation in the park's gestation, survey, demarcation, indigenous consultation, and enactment. I want to note, with special thanks, the valuable contributions of Douglas Tompkins, María Ignacia Benítez, Rodrigo Pérez, Luis Mayol, and Santiago Valdés. I hope that this example of collaboration and public-private partnership will be followed by future governments, so that new conservation areas may be enjoyed by the present and future generations of Chileans.

This is how we treat the wonders of nature: not as an inheritance from our parents, which we are free to dispose of, but rather as a loan from our children, to whom we must return this marvelous natural treasure, protected and in better condition.

INTRODUCTION

Douglas Tompkins

Since I began traveling to Chile some fifty years ago for mountaineering expeditions and ski racing, and during nearly a quarter century of living here, I've seen rapid change in Chile's civil institutions and infrastructure. Today Chile has a strong judicial system, excellent labor laws, socialized medicine, better forestry regulations than many countries, and citizens willing to elect both women and men to serve as president. Chile has very little corruption and balanced budgets; in comparison with the United States, Chile spends only a small fraction of its GDP (gross domestic product) on its military, leaving resources for other social investments. While no country is perfect and there is much advancement still to be made, there is good reason for Chileans to feel proud when their homeland is touted as a model of a maturing democracy.

It is somewhat surprising, however, that Chile's leadership in protecting parklands is not a similarly celebrated point of national pride. Too few of her citizens would name Chile's national parks as a top national asset, worthy of vigorous societal support, including adequate funding. But Chile's parks and other protected areas are in fact a major economic engine for tourism, a key tool for militating against climate chaos, and a reservoir of scenic beauty and wildness perhaps unmatched anywhere on Earth. The newly designated Yendegaia National Park takes its rightful place in this expanding system of natural jewels.

National parks, the gold standard for land conservation, are not created every day, so Yendegaia's birth is a special occasion and cause for celebration. The formation of new national parks is a positive step for any country, anywhere on the planet. The values they offer—for wildlife habitat, ecosystem protection, outdoor recreation, scientific research, economic development, and helping alleviate climate change, are priceless. A great system of national parks reflects a great nation, and it also provides some benefits to society that may not be "priced" in the marketplace. One of these is the development of a broad-based, cultural commitment to conservation. National parks further the adoption of a conservation ethic, principally for the nation itself, but also as an example for other nations around the globe. A second is what economists call "existence value."

Unlike a shopkeeper in a park gateway community such as Puerto Natales whose livelihood depends directly on tourism, many individuals in a society receive no direct income from parks. But that doesn't mean national parks are not valuable to every citizen. Many Chileans will never visit Easter Island or La Moneda Palace or see the granite spires of Torres del Paine—but these places help define the national character and are a source of collective pride. Whether or not any one individual physically goes to national parks, all citizens benefit from knowing that they simply exist. This generation of people and their descendants receive the intangible benefit of knowing their country's natural wonders are secured.

This is part of a citizen's birthright—to experience the landscapes, coastline, and wildlife of Chile, and to find them in a condition of good health. The other half of this social contract, though, is the responsibility to care for the national *patrimony*, the collective assets of the nation, including its beauty and biodiversity. Every Chilean is partially responsible for their protection. No society will persist for long if the natural ecosystems that support human life and economic activity are destroyed. To be a true patriot means to be a lover and defender of the *patria*, the fatherland. It is clear to most people that to be a good patriot, then, and care for the patria, has nothing to do with one's passport and everything to do with one's behavior.

In the birth of Yendegaia National Park, we can see another example of this important cultural commitment to sustaining Chile's patrimony. Protecting the patria and being a genuine patriot are just what national parks are all about. Furthermore, they are symbols of true social equity, for national parks belong to all the people with no reference to socio-economic status. The parks are *open to everyone*, a bona fide level playing field. Nations that establish national parks are, through them, putting the best face forward for that society, helping the citizenry know and love the country better, in addition to welcoming foreign guests. National parks are a rare institution that is totally positive, with no downsides—which is why the national park idea has caught the imagination of political leaders and their constituents around the world.

Since the national park movement began in the 1870s (Yellowstone National Park in the United States is generally cited as the world's first), some 120 countries representing every continent except Antarctica have created national parks. Thousands of the Earth's most spectacular places are safeguarded in this way, and more are being designated every year, Yendegaia being a new and particularly outstanding example.

This victory for nature and future generations is particularly gratifying because we—my wife Kristine Tompkins, our very dedicated team of Chilean conservation colleagues, and I—had a prominent hand in Yendegaia's creation. It is appropriate to note also the three "intellectual authors" of this park, who first brought Yendegaia to the attention of our foundation. Every park formation story includes conservation activists who give their energy, and sometimes their personal wealth, to see a particular place protected. The story behind Yendegaia's conservation will be told in more detail in the pages to come, but Alan Watson Featherstone of Scotland, the late Graciela Ramaciotti of Argentina, and Adriana Hoffmann of Chile really must be singled out with especial appreciation for it was the three of them that had the initial vision for a large protected area to be created from what was then the Estancia Yendegaia on the grand island of Tierra del Fuego.

Ultimately, park making is a collaborative activity and national parks are the work of nations, thus the name, *national park*. The successful outcome here resulted from a wonderful partnership between the public and private sector, and the results are stunning, as the photographs in this book will amply testify.

All of us who worked on the private side of this effort extend our thanks to the Chilean state, and specifically to former president Sebastián Piñera. Without his enthusiasm and decisive leadership, Yendegaia National Park would not have seen the light of day. We are grateful for his graceful guiding of the project through the labyrinths of government. These things do not happen by themselves. The labors expended to complete the bureaucratic obstacle course that is typical for any national park proposal will soon be forgotten, but history will likely record Yendegaia National Park as the crowning achievement and most-lasting legacy of the Piñera presidency.

In this, President Piñera continues a long tradition—for every full-term president since the genesis of Chile's national park system in 1926 has created at least one new national park. These actions to protect the national patrimony have come from governments across the political spectrum—a true testament to the fact that parklands protection is not a program of the "left" or "right" but a universal Chilean value. Yendegaia becomes the 37th *national* park.

While Chile's system of protected areas already ranks with the very best in the world, there is still more to be done in the future to represent Chile's incredible geographic and biological diversity. For non-Chilean readers, recall that this country contains the greatest north–south latitudinal range of any on Earth—more than 2,670 miles (4,300 kilometers)—a good deal greater than Argentina or Russia. With the Pacific Ocean on the west and the Andes to the east, Chile's ecosystems stretch from the mighty Atacama Desert in the north down through the temperate zone and ancient forests of the south-central part of the country to Patagonia and the subantarctic region. Thus a wide range of ecosystems is present and needs to be represented in the nation's protected areas system.

As President Piñera notes in his foreword, the Chilean public increasingly has begun to demand from their government better regulation of natural resource extraction and more conservation. This is a welcome development and it will be clear for all to see if the leadership in both the political and the civil spheres recognizes the gigantic treasure that the national park system represents. Will future presidents seize the opportunity for other government lands under different status designations to be upgraded into national parks, expanding tourism opportunities and fulfilling international commitments regarding climate and biodiversity protection? There is tremendous potential here for Chile to lead the world in making parks—for the wild creatures who live in them, for citizens and visitors alike to enjoy, and for the future.

In addition to President Piñera, the contributors to this book provide a good introduction to a truly marvelous landscape. Hernán Mladinic, a board member of Fundación Yendegaia, details the winding history of the project from idea to land purchase to eventual donation for the new park. Santiago Valdés, President Piñera's designated representative working inside the Chilean government to present the project to the various ministries and government agencies involved, outlines the legal, political, and other institutional challenges involved with shepherding the project through to completion. Longtime friend and fellow conservationist Nicolo Gligo, who was brought up on a sheep ranch in Tierra del Fuego, provides a brief cultural and landscape history of the region from the perspective of a native "Fuegino." Adriana Hoffmann, Chile's preeminent botanist and a tireless advocate for Yendegaia's conservation, presents an overview of the land's biophysical features and wildlife.

Special thanks and congratulations go as well to Antonio Vizcaíno, whose exceptional photography fills these pages. To take the reader on a visual journey through the new park, Antonio made many visits to Yendegaia, working in between the area's infamous storms to capture the land's beauty and light as the weather allowed.

For the person in London or Hong Kong or Sydney who picks up this book introducing Yendegaia to the world, a new national park in Tierra del Fuego may seem like the end of the world. (And it is!). Despite its remoteness—indeed, because of it—Yendegaia now stands for the entire world to see as a touchstone of wildness and beauty. The collaborative nature of its creation is a good model for other nations to emulate. And, ultimately, Yendegaia helps us understand that whatever our nationality, we all are, ultimately, citizens of the Earth, our one true and only home.

YENDEGAIA, THE RETURN TO NATURE

Nicolo Gligo V.

No one noticed Yendegaia in the year 1520 when Ferdinand Magellan baptized the eastern banks of the Strait of Magellan as "Tierra del Fuego." Nevertheless, there it was: a unique territory, ruggedly beautiful, a shining example of this huge southern island's wild character.

Nothing had disturbed, in over ten thousand years, the life led by the indigenous Selk'nam people who mostly used the north and center of the island. With bows and arrows they hunted guanacos, their primary sustenance. Further south, where forests spread out, the Selk'nam also roamed, beneath foliage of Magellanic *coihues* changing to hues of yellow, orange, and red in autumn, past peat bogs forming primitive coal deposits, amid the regular tok-tok of woodpeckers' echoes. Their territories bordered the Azopardo River and the 100-kilometer-long (62-mile-long) mirror of water, Fagnano Lake. Only at the eastern end of the lake were they able to continue further south.

Before this, Yendegaia had been without human life. Millions of years were needed to form South America's natural communities, and it was not until the last ice age and the following retreat of glaciers that the principal ecosystems were created. As the ice retreated, valleys, rivers, and canyons were formed. On the plains, a steppe natural community anchored by *coiron* grass came to predominate; the forested regions developed a distinctive association of *lengas*, *ñires*, and Magellanic *coihue* trees, alongside, *canelos*, *calafates*, and other vegetation. Birds filled the air with their song and *culpeo* foxes marked their territory.

The southernmost part of the island hardly knew the existence of man until the Yagán people arrived by sea some four thousand years after the Selk'nam people had settled in the north. The landscape did not suffer from any profound intervention and aggression, as is usually caused by humans. Right up to the arrival of the first European settlers, the native people lived in harmony with nature and did not produce any major ecological problems.

The fate of Yendegaia, as part of the big island, was always linked to the larger history of Tierra del Fuego. In 1830, Robert FitzRoy, a British ship captain, came into contact with native people on the Beagle Channel and, after a conflict, decided to keep four Fuegians onboard his ship for the voyage home. The story of Jemmy Button, one of the Yagán taken to England and educated according to western standards, demonstrated the telluric force of these latitudes. All of FitzRoy's efforts to acculturate him and his group were diluted on their return to Tierra del Fuego, as the three surviving Fuegians were reabsorbed by the culture and environment of their native land.

What FitzRoy, his shipmate Charles Darwin, and other early explorers accomplished was only a peripheral survey effort along the island's shores. Not until more recently, a half century later, was the island of Tierra del Fuego occupied by settlers from abroad. It was the discovery of gold, in 1882, which attracted many pioneers to far-flung corners of the island. In 1880, Jorge Porte reached the beautiful Porvenir Bay, and by 1882 the gold rush had started in Cordón Baquedano, a massive moraine towering over the bay.

Gold mining and prospecting lasted almost twenty years. The town of Porvenir boomed with flourishing trade, inns, cabarets, and brothels. Countless epic stories

were written about the hardships of gold diggers—enduring cold, snow, and, most of all, wind. And all of it—the arrival of the town, partnerships with friends and acts of solidarity, quarrels and crimes, the brotherhood of pioneers surviving in a harsh land—dried up on the moors, stagnated in the nooks and crannies of Cordón Baquedano, and vanished into thin air once the gold started to run out.

Meanwhile, the Sociedad Ganadera Gente Grande, a livestock company, began to colonize grazing land. Hundreds of thousands of sheep quickly populated habitat previously occupied by guanacos and aborigines. Fences and more fences were put up and huge areas were granted in concession for livestock husbandry. The natives observed how their *haruwen* (territory designated by their gods) was invaded and depleted, the guanacos displaced then exterminated. Of the estimated original 3,000 native people, only 170 remained by 1908. Brutal campaigns to hunt them down, one of the darkest chapters of Chilean history, were compounded by measles, pneumonia, and tuberculosis.

But the colonization of Tierra del Fuego was not only shaped by gold, sheep, and infectious disease. Farther south, in the fjords and channels, another kind of slaughter took place—of sea lions and otters. Men in precarious vessels guided by the stars and the smell of kelp and the birds' behavior sailed out of Punta Arenas in search of sea lions and otters. They returned with hundreds, even thousands, of skins. The bay of Yendegaia, with its deep quiet waters, often served as an arena for the bloody forays. How many stories are anchored forever in this bay!

Occupation of the Grand Island of Tierra del Fuego continued. Three private ranches, the Caleta Josefina, San Sebastián, and Cameron *estancias*, merged to form the Sociedad Explotadora de Tierra del Fuego. The natives were exterminated and a remaining few were pushed southward, toward the mountains, toward the glaciers. This was the fate of the displaced, the expelled; not only the natives but also those without land, without work. As the song goes, *Corazón de escarcha,….lo echó una mañana, furioso el patrón…Por el ventisquero, por Tierra del Fuego,…a buscar el oro…* ("Heart of frost,…thrown out one morning by the boss enraged…off to the glacier, to Tierra del Fuego,…in search of gold…"). And glaciers in that part of the world are in the Darwin Range, in Yendegaia.

So Yendegaia did not remain pristine. Two Croatians, the Serka brothers, obtained government permission to exploit the area. They sensed the fertility of its soils, its capacity to raise sheep and cattle. Little by little they created a model estancia, well equipped with its own energy source and proper paddocks and corrals. Supplies were shipped in on cutters or schooners from Punta Arenas. On many occasions the Chilean Navy, while on patrol duty and reconditioning lighthouses, returned to port with the estancia's products, wool and live animals. For many years, the estancia provided work and established sovereignty; its owners were rewarded with capital injections, expanding the livestock business to other estancias around the continent.

Oil was discovered in 1945, and public attention shifted to the north of the island. Oil brought roads, towns, and ports. Meanwhile, the city of Porvenir (located halfway down the island's western coast) and the entire south were left by the wayside. Carlos Serka, son of one of the Yendegaia settlers and governor of Tierra del Fuego during the second half of the 1960s, tried to revitalize fishing activities. But Estancia Yendegaia, affected by the economic crisis triggered by low wool and meat prices, began to languish. It seemed that it was destined to return to its natural state.

And so it waited until the turn of the twenty-first century, when a new destiny awaited this territory: to form part of a new national park. The incorporation of the former Estancia Yendegaia into a protected area generated some criticism, as the creation of any national park usually does. It was said that the land's protected status meant it was being withdrawn from the contribution it should be making to the regional economy and to development in general.

But nothing is further from the truth. These claims reflect a reductionist view, assigning Yendegaia a vocational obligation to breed livestock and grow trees for logging. If this were true, these nearly 96,400 acres (39,000 hectares) would generate annually some 20,000 kilograms (44,000 pounds) of dirty wool, some 1,500 sheep and 300 cattle, as well as some lumber. Judging by similar areas used for resource extraction in Tierra del Fuego, this production would gradually decline due to the progressive deterioration of soil fertility due to the sheep's grazing behavior. This exploitation would provide six or seven permanent jobs.

The formation of a national park opens up a huge opportunity for tourism. Once the problem of access is solved in the near future, the park will be ready to become a tourism destination. The number of park rangers alone will equal the number of workers for an agricultural operation. Lodging concessions will generate much more economic activity than would livestock production. It is not bold to think that, within a decade of meeting the access challenge, the number of visitors will have reached 10,000.

In addition to this economic contribution, conserving this land as a national park and preserving its native ecological diversity contributes something that cannot be measured by the economy but that obviously adds to the country's development. Plant and animal species—in situ genetic banks—and natural ecosystems have immeasurable existential value. All of these resources, hardly taken into account because they are not quantified by the market, may also encourage scientific research. Therefore, Yendegaia can be considered a territory preserved not only for its beauty, observation, and enjoyment but also for science.

Explorers will wonder how the Yendegaia area can encapsulate so many different landscapes. Although for many decades its forests supplied firewood and lumber to build fences, they continue to thrive and to support diverse wildlife. For many years, they have also served as a refuge for free-roaming cattle and wild horses. These feral animals can be seen taking shelter under the trees. In areas of transition toward the steppe lands, ancient *lenga* trees cover the landscape with vibrant colors, especially in autumn. Water from Yendegaia's glaciers, alive and restless, gushes continuously from their melting ice and snow, creating indescribable landscapes, especially on nights with a full moon.

The removal of sheep and cattle from Yendegaia after the land's purchase for conservation in 1998 has allowed the flora to recover and for life to resurge to the level it did at the beginning of the twentieth century. If one of the Yagán were to resuscitate, he would see how the *parik* (steppe) is starting to resemble the one he knew and how the *bérk* (forest) appears primeval and healthy. The revived Yagán would find everything in its place—condors crisscrossing the sky near the cliffs, eagles and turkey buzzards stalking their prey, owls observing silently through enormous eyes. The most commonly found bird, the *caiquén*, continues grazing on the lowlands, accompanied by buff-necked ibises (*bandurrias*), while southern lapwings (*teros*) remain vigilant and ready to release their strident cries of alert.

Along the coast, near the *kashpi* (sea), he would see cormorants, oystercatchers, penguins, albatross, and hawks. He could even find a colony of sea lions, so fiercely hunted in other times. Perhaps the ghost of Pascualini, a legendary hunter in his own time, who wrote, *Navegante de confines-seguirás por sobre el tiempo- sin rozar los arrecifes* ("Sailor of the confines, you will continue over time, not reaching the reefs"), could show him the direction in which his vessel *Domitila* was sailing to locate one of the colonies.

The Yagán need not travel far inland to come upon the calafate, savor its bittersweet fruit, and see his blue-stained mouth as he looked into the mirror of a lake. Or perhaps admire the wonderful colors of wild orchids.

He would understand that the era of his people had ended. Other people would come to live on his territory. But these other people would understand the message of his ancestors, a plan designed by his gods that—over centuries and millions of years—the forces of cold, ice, frost, rain, and wind had created a harmonious and everlasting landscape full of life and beauty. He would understand at last that this place, where his ancestors and he had been buried, would rest peacefully in nature.

A PARK IS BORN

Hernán Mladinic Alonso

In 1959, Torres del Paine National Park in the Magallanes Region was created during the administration of President Jorge Alessandri Rodríguez. Alessandri almost certainly was inspired by the spectacular beauty of the landscape—the breathtaking massifs that never cease to amaze every visitor to the park. In some corner of his mind, in the overloaded agenda of a president of a country that was very different from the one today—more impoverished and parochial and with hundreds of pressing priorities that could have delayed such a decision—these majestic, granite towers must have triggered in him the need to act. He seized the chance to preserve this landscape forever, leaving a magnificent legacy for future generations, the full scale of which he probably did not envision at the time. Today, fifty-five years after its creation, Torres del Paine National Park is considered one of the wonders of the world and Chile's tourist destination par excellence. The park has not only changed the face and economy of neighboring town Puerto Natales but is undoubtedly a pillar of development for the entire Magallanes Region.

Nevertheless, for many Chileans the creation of national parks may seem, at first glance, a strange exercise, alien to our culture and more typical of foreign customs and experiences. The truth is that designating national parks is a near-century-long tradition in Chile, which has included governments across the political spectrum. Our first national park, Vicente Pérez Rosales in the Los Lagos Region, was created in 1926 under President Emiliano Figueroa Larraín. Since then, almost every Chilean president has expanded the national park system.

Most Chileans, however, know little about the history of our parks—their origin, the people who identified the opportunity or proposed the idea, those who explored them for the first time or reported their attributes for conservation, or the dozens of anonymous people who contributed to their enactment. Perhaps this lack of information is indicative of why this long-standing tradition does not have the recognition it deserves in Chilean society.

The story behind the creation of Yendegaia National Park is both similar and distinctive from the birth stories of other previously protected areas in Chilean history. In this case, the initial idea came from Alan Watson Featherstone, a Scottish activist and forest advocate, after he visited the southern section of Tierra del Fuego in late 1996. Featherstone, Executive Director of Trees for Life, an award-winning organization known for its work to restore the Caledonian Forest, had a project in mind that would protect subantarctic forests by creating, in a first stage, a private park with public access. In December of 1996, he contacted a real estate agent in Punta Arenas specializing in farms who provided him with information on Estancia Yendegaia, a 95,827-acre (38,780-hectare) semi-abandoned property mainly dedicated to forestry and sheep farming. By the following month, he had started conversations with the Serkas, a family of Croatian origin that for three generations had owned the estancia initiated by Jerónimo Serka at the turn of the twentieth century. Miguel Serka, the heir and owner at the time, expressed his affinity with the objectives of the project, as he preferred to see the land protected rather than see it end up in the hands of mining or forestry companies.

In March of 1997, Featherstone, along with Graciela Ramaciotti (who passed away in December of 2010)—an Argentinean conservationist then living in Ushuaia and founder and former president of the NGO Finis Terrae—first

approached the Conservation Land Trust, a nonprofit foundation established by Douglas and Kristine Tompkins. Featherstone and Ramaciotti presented an overview of the project and the possibility of purchasing the Yendegaia tract. In April of 1998, they invited Kristine and Douglas Tompkins and other wildlife advocates on a multiday expedition to explore the place. All were impressed with the excellent opportunity it offered for conservation. Particularly exciting was Yendegaia's potential to establish an ecological corridor between Chile's Alberto De Agostini National Park and Tierra del Fuego National Park in Argentina, with the future hope of forming a transborder protected area, or peace park, similar to ones established in other parts of the world.

After a few months of deliberation, Douglas Tompkins, through the Conservation Land Trust, spearheaded the purchase of the property. Two of his friends were major contributors to the effort—Peter Buckley, an environmental philanthropist and former business partner of Tompkins, and Ernst Beyeler, a Swiss philanthropist and renowned art dealer, who died in 2010. Metaphorically speaking, we could say that this visionary and innovative patron of land acquisition helped hang priceless works of art for all eternity throughout the wild forests of Tierra del Fuego.

Once the funds were assembled, the property was purchased on December 10, 1998, by the "Amigos de Yendegaia" Functional Community Organization, created in August of that year by a group of Magellanic nature lovers, for this purpose. Ownership of the land was later transferred to Fundación Yendegaia, a nonprofit organization constituted in Punta Arenas in October of 2000, when the partners of "Amigos de Yendegaia" foresaw the need to have a more structured institution with a legal framework that would ensure the property's administration, conservation, and financial stewardship in the long term. The objective of Fundación Yendegaia is to protect the native forests and natural landscapes of the Magallanes Region. From its inception until 2007, the Fundación was presided over by Adriana Hoffmann, the renowned Chilean botanist who gave the organization its prestige and national recognition. She worked tirelessly for the area to receive nature sanctuary status and thus have official protection; however, despite her advocacy, the authorities at the time were not unanimous in their support. After a period of financial and administrative difficulties, Fundación Yendegaia added several Chilean conservationists deeply knowledgeable about private parklands to the board, and continued to oversee the Yendegaia tract's stewardship.

A few years later, in March of 2009, during a visit to the Magallanes Region, Douglas Tompkins met with the governor and regional authorities to propose the idea of Yendegaia's donation to the State in pursuit of creating a new national park and the possibility of a future transborder park between Chile and Argentina. The idea reached congressmen and a few ministers, spreading quickly and receiving wide coverage. However, it was not until March of 2011 that it was taken up again when Kristine and Douglas Tompkins presented then Chilean president Sebastián Piñera with a comprehensive proposal for creating several new national parks, expanding others, and reclassifying specific reserves to national parks status, through the joint contribution of public and private land. President Piñera, who as a businessman had previously established Tantauco Park, a private conservation initiative on the island of Chiloé, knew well the difficulties and opportunities presented by large conservation projects. From the start, the president was determined and resolute, with a genuine interest and sensitivity toward the project.

In 2011–2012, an ad hoc government commission was appointed to fully analyze the proposal. Representatives from several ministries and agencies worked side by side with the technical teams of Fundación Yendegaia to understand the scientific, environmental, territorial, cultural, and economic/touristic aspects of the areas under consideration. By 2013, after a period of deliberation which included extensive analyses and onsite visits, an agreement was finalized to create Yendegaia National Park, mainly for its ecological attributes and tourism potential. (Other parts of the larger park creation proposal were not rejected but were set aside for future governments to consider.) The decision was made: The former Estancia Yendegaia tract comprising 95,827 acres (38,780 hectares) would be donated to the State under the condition that the property would be annexed to the adjacent 276,343 acres (111,832 hectares) of government land, thus creating a park of 372,170 acres (150,612 hectares).

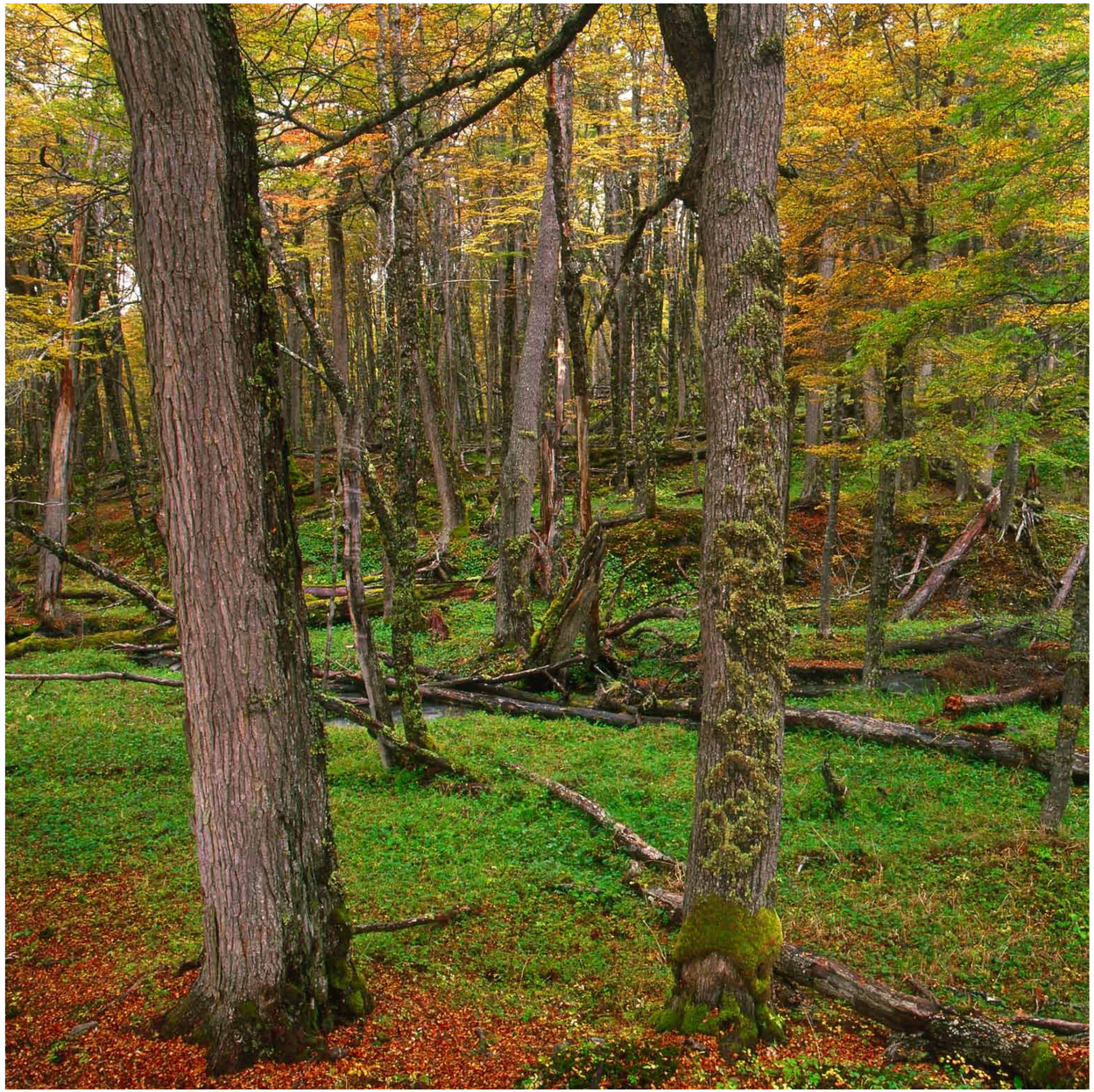
Park creation, however, does not occur just because of pure chance, happy coincidences, or sheer willpower, although these factors are sometimes present and often necessary; it also requires significant teamwork and effort. This involved gathering background information to prepare the land donation proposal; holding dozens of meetings and making onsite visits; drafting maps and technical reports; reviewing demarcations and contour lines; updating land titles and registrations; reviewing expropriations; and consulting with the indigenous communities involved. Every meeting with the work teams was another step toward clearing up doubts and building trust and a spirit of collaboration, indispensable ingredients for moving forward to complete every necessary step. And then, once everything was ready, approval was required from several state agencies such as the Ministerial Council on Sustainability, Borders and Frontiers Department of the Chancellery, and the Ministry of Finance as well as the final review of the Office of the Comptroller General, an agency that oversees the legality of public acts.

Hence, we may not always know the complete story and full details behind the creation of every national park, but we know for certain that park-making is a complex task including technical, scientific, legal, administrative, and logistical aspects and, most of all, patience—lots of patience. But despite these complexities, it is above all and essentially a political act as it embodies the decision and vision of the head of state—his or her long-term outlook and dreams for the future, that go beyond the day-to-day limitations of government to leave a legacy that is transcendental, a true gift for all citizens of future generations. Indeed, not only is designating protected areas a technical issue, it is also one of conviction and leadership. Vision and courage as well as knowledge and comprehension of conservation history are required, given that the creation of parks has almost always been opposed in their initial stages and if we were to avoid such challenges, there simply wouldn't be any national parks. In the end, however, we have seen how communities located near national parks have prospered, making them the parks' most fervent allies and protectors today.

Ultimately, creating a national park is an ethical act, for it centers on intrinsic values such as beauty, diversity of life, and the opportunity to capture, in just a fistful of soil, a piece of paradise, a part of eternity, where all visitors are welcome without discrimination. It was U.S. president Theodore Roosevelt, a pioneering conservationist, who said, "Conservation is a great moral issue, for it involves the patriotic duty of insuring the safety and continuance of the nation." Thus, by visiting national parks our collective spirit and identity are renewed; we better understand ourselves as members of a community and a place. Parks inspire new generations to preserve their environment and build a better nation.

The creation of parks is also a patriotic act, which, when made in conjunction with donations from private parties, constitutes a kind of repatriation of land from the private to the public realms, a way of extending public property for the benefit and pleasure of all citizens. It increases and strengthens the natural heritage of the Chilean state, which is the ultimate guarantor of these assets for all future generations of Chileans, in a world pressured by overdevelopment and one in which large, intact wildlife habitats are increasingly rare and threatened.

Yendegaia National Park, the final result of this public-private collaboration, undoubtedly leaves the country with an expanded conservation legacy and an incentive to continue growing and professionally administering Chile's system of world-renowned protected areas.



A PUBLIC-PRIVATE PARTNERSHIP FOR PARKLANDS

Santiago Valdés Gutiérrez

The creation of a new national park is not something that happens every day. An event of this kind is excellent news for all those involved: the individuals and nongovernmental organizations that promoted the idea, local communities which benefit from the initiative, regional and national authorities charged with protecting imperiled ecosystems, and certainly the people of the country who gain a new recreational area in the midst of scenic splendor, to be safeguarded for future generations.

The creation of Yendegaia National Park is a story we can all be proud of, not only because it resulted from the cooperation between the Chilean government and Fundación Yendegaia to preserve a unique area in our country's far south, but also because it reflects the growing trend of the active participation of civil society in promoting and perfecting public conservation policies. Moreover, the creation of this new park is notable due to the commitment and drive shown by then President Sebastián Piñera Echenique. Prior to his term in office, Piñera, an avid conservationist, created Tantauco Park, an expansive and ecologically rich, private nature reserve on Chiloé Island. Demonstrating his ongoing interest in conservation, he did not hesitate to embrace this Tierra del Fuego initiative while serving as president.

In order to understand the process by which Yendegaia became a new national park, it is useful first to understand the role played by the State in biodiversity conservation and ecosystem protection. In fact, the government of Chile is constitutionally entrusted to "enforce nature conservation in the country." This translates into three key objectives embodied in the prevailing legislation, namely, to sustain biological diversity, conserve environmental heritage, and ensure the sustainable use of resources over time. In pursuit of these goals, the State created the National System of State-Protected Wildlife Areas (its Spanish acronym is SNASPE), comprised of natural monuments, national reserves, and national parks across Chile. Likewise, as part of this initiative and with a view to defining a long-term road map consistent over time, the State also established a National Biodiversity Strategy, which includes the goal of representing in protected areas at least 10 percent of all of the country's native ecosystems.

More than a hundred units of the protected areas system have been designated to date, from Arica to Punta Arenas, all of them administrated by the National Forest Service (CONAF) and covering an estimated 36 million acres (14.6 million hectares), equivalent to 19.3 percent of the surface of continental Chile. This percentage of protection, well above the average 11 percent standard of OECD countries, reveals the value assigned by Chile to protecting its biodiversity. This commitment is especially important because of the many unique and endemic species and ecosystems in Chile. It is no wonder, then, that Chile is renowned for its ecological diversity and scenic beauty, which deserve special and dedicated protection.

One of these highly distinctive but also fragile ecosystems is the eastern section of the Darwin Range, between Almirantazgo Sound and the Beagle Channel. Although a good part of this area had already received protection in 1965 when Alberto De Agostini National Park was established (and later expanded in the

1970s), curiously enough its only accessible area had been left unprotected. Comprised of rivers, steppe, peat lands, and hanging glaciers dropping off to the area known as Yendegaia Bay, this is probably the most vulnerable section with the highest ecosystem value of the entire area.

This is where private initiative entered the scene, without which the new park's birth would not have occurred. Indeed, the park's creation was based on many years of stewardship work carried out by Fundación Yendegaia, which in 1998 acquired the ranch of the same name for conservation purposes. A few years later, not far away, another private land protection project had succeeded when the Karukinka nature preserve was established on lands formerly held by the Trillium forestry project. That defeated development scheme, which had threatened to destroy most of the millennial beech forests in the Condor River and Puerto Arturo area, was vigorously opposed by Chilean and international forest activists.

These two events, unforeseen but triggered by circumstances, heralded a new era for the Magallanes Region and especially for the island of Tierra del Fuego, as private nonprofit institutions, financed from abroad, invested in the conservation of vast tracts of land in the southern reaches of the world. This outside investment, which for many of our citizens may be difficult to comprehend, led to suspicion among some local people. Conspiracy theories abounded and were supported by regional as well as national authorities. The idea of environmental philanthropy, exercised for decades in other developed economies, is not well known in Chilean society. For outside individuals and organizations to spend considerable effort and money to conserve lands perceived as distant and unproductive was unthinkable to many people. According to local belief, there had to be a "catch."

This skepticism, along with a series of odd conjectures about the motivations of conservation organizations, finally waned in August of 2013 when Fundación Yendegaia, through the person of Douglas Tompkins, approached the Chilean government with a proposal to join forces to create a new national park. The proposition was that the Fundación would donate its approximately 94,000 acres (38,500 hectares) while the government contributed the adjacent 276,000 acres (111,500 hectares) of state-owned land. This idea was certainly very appealing, as well as proof of an increasingly empowered citizen movement committed to environmental protection; these factors immediately motivated and involved President Piñera and his cabinet.

In order to make an in-depth analysis of the park proposal, I was entrusted with creating an interdisciplinary task force of professionals from different government ministries and agencies, which worked hard over the following months compiling the necessary background information. The team focused on analyzing the proposition from a global point of view, specifically studying its technical and political viability and formulating possible alternatives for any necessary improvements. The analysis was based on six general criteria, dividing each one into individual characteristics of the proposed new national park. More than 25 topics were analyzed in depth, which included the territorial context of the proposal; its ecological importance at local and national levels; tourism potential; economic-development potential under different scenarios; administration costs as part of Chile's protected areas system; and implications of the eventual declaration of a national park on the neighboring local community.

Each one of these criteria was considered in detail by specialized teams from CONAF; the undersecretary for tourism; and the Ministries for Economy, Public Works, Environment, National Assets, and Social Development. This endeavor also required the help and commitment of some 23 professionals including biologists, architects, civil engineers, business administrators, forest engineers, geographers, journalists, and lawyers. This collaborative work, a completely new experience for a State used to working in units that are operationally independent, led to a record-time review of the main difficulties that the new national park would face, hence anticipating them and proposing creative solutions for quick implementation. The technical teams sought to implement solutions that would safeguard the conservation interests proposed by Fundación Yendegaia while making the proposal compatible with certain strategic interests of the State—such as insuring public access and transport connectivity in the area, maintaining national sovereignty, and supporting appropriate development of communities affected by the new park.

In parallel to the work carried out by the inter-ministerial teams, a roundtable was jointly created with Fundación Yendegaia that met weekly to follow up on the information collected and address the problems arising day to day. Some of these issues included how to sequence the national park designation with the private land donation, and whether to leave the road connecting the Azopardo River and Caleta 2 de Mayo on the Beagle Channel inside or outside of the protected area (ultimately it remained out of the park). During these sessions, the staffers representing President Piñera's administration and Fundación Yendegaia worked collaboratively to adjust the proposed boundaries to the north and south as well as extend the area reserved for future developments in the Caleta 2 de Mayo sector, thus addressing the concerns raised by different ministries involved in the study. This work in turn built trust between the parties and created new allies in drafting an adapted proposal for the park.

This last point is not a minor detail as it became obvious that successful implementation of an initiative of this scope was linked to the capacity for deeply understanding the needs of each party involved, seeking flexibility in both public and private interests to build consensus on key issues without losing focus of the main objective. This work arrangement proved to be highly efficient as the Ministers' Committee on Sustainability, a formal entity responsible for recommending the creation of the new national park to the president, presented a strong proposal capable of answering the questions of even the most demanding counterparties within the government and local communities.

Finally, fifteen years after a group of idealists began this almost-heroic conservation effort, it became a reality during the January of 2014 visit by President Piñera who signed the decree creating Yendegaia National Park. Thus, public and private interests aligned to preserve an additional 370,000 acres (150,000 hectares), protecting one of the most spectacular and wild places on the South American continent. Yendegaia became unit number 101 of the National System of State-Protected Wildlife Areas, or national park number 37, which our children and grandchildren can proudly visit today, and the generations to come will experience long into the future.

CONSERVATION AT THE END OF THE WORLD

Adriana Hoffmann Jacoby

Yendegaia Bay is located on the northern shore of the Beagle Channel in the far east of the Darwin Mountain Range, only three kilometers away from the international border with Argentina. It is a wide bay entering the island of Tierra del Fuego in a northwesterly direction. Administratively, this area and the entire Yendegaia tract belong to the province of the Chilean Antarctic, within the Magallanes and Chilean Antarctic Region.

The northern section of Yendegaia is an Andean subrange watershed where the Marcou and Deseado peaks rise to 3,000–3,300 feet (900–1,000 meters) above sea level. To the west it extends parallel to the northern shore of Almirantazgo Sound, separating the headwaters of the Rasmussen and Las Turbas Rivers.

To the south of this first mountain range lie the deep, rift valley lakes known as Deseado and Despreciado (Arata) and the Paciencia Valley. This trough is followed by another transversal mountain range that separates the headwaters of Las Turbas River from those of Fagnano Lake and its source, the Azopardo River, which meets the sea at Caleta Maria, a small settlement. This is the area where President Sebastián Piñera and Douglas Tompkins, representing Fundación Yendegaia, signed the act that created the new Yendegaia National Park on January 5, 2014.

A half century before, in 1956, the famous Salesian explorer Alberto De Agostini crossed the area from Almirantazgo Sound to La Pataia Valley. He wrote a compelling description of the untouched Fuegian cold jungle:

> The forest we passed through is one of the most entangled and darkest I had ever seen, and truth be told it invoked an undefined sense of fear in one's soul . . . the near absence of light that penetrated in solitary places gave such a dismal and sinister feeling to the landscape that we were under the illusion of having penetrated mysterious forests of which legends are made, populated with elves and witches.

Today, these forests are no longer as dense because of human intervention via cattle farming and forestry. Fires and indiscriminate logging have inflicted wounds on the earth and the southern light rebounds, in some places, off naked soil. The original raison d'être of Fundación Yendegaia was to conserve natural habitats and restore the degraded landscapes on the former Estancia Yendegaia property. With this and adjacent government land now joined to create Yendegaia National Park, the tremendous ecological and scientific value of the area will be secured. Moreover, Yendegaia will receive the necessary funds to continue with its conservation and recovery trajectory, and it will become an important center for ecotourism and environmental education for the entire society.

BIODIVERSITY IN THE NEW PARK

VEGETATION

The soils and climate are the main abiotic factors that directly influence the types of vegetation on Tierra del Fuego. Thus, and in response to the different combinations of these factors, we can define several main types of vegetation:

Patagonian steppe. Found in the northern section of Yendegaia, this biome is composed mainly of large extensions of pasture with perennial grass (basically *Festuca* spp., *Agrostis*, *Trisetum*, *Agrophyron*) and other very diverse nongrass species. This vegetation type also includes large areas of lowlands with very salty soils where species such as *Puccinellia*, *Chenopodium*, *Arjona*, and others can be found, which tolerate highly saline conditions.

DECIDUOUS AND EVERGREEN FORESTS. In the mountainous uplands, where the flora does not vary significantly, the hues of green are interrupted now and again with enormous patches of steppe. Phytogeographers have decided to include these forests, known as "subantarctic forests," in a new phytogeographical region that represents the last frontier of pristine subantarctic forests, a relict natural community from the ancient Gondwana continent that is not replicated anywhere else on the entire planet. In fact, protecting Yendegaia was originally intended to be the first step of the Gondwana Project, an immense and wonderfully utopian idea to establish an Intercontinental Sanctuary of Native Forests south of the 40ºS parallel and to overlap with the Southern Ocean Whale Sanctuary. (The whale sanctuary is a 19,300,000-square-mile [50,000,000-square-kilometer] area around the Antarctic continent, approved by the International Whaling Commission in 1994 to protect whale feeding grounds and which bans all kinds of commercial whaling.)

The subantarctic forest of Tierra del Fuego conserves a large portion of the continental physiognomy but has only six tree species: the *ñire* (*Nothofagus antarctica*), *canelo* (*Drimys winteri*), *leña dura* (*Maytenus magellanica*), *notro* or *ciruelillo* (*Embothrium coccineum*), *lenga* (*Nothofagus pumilio*), and Magellanic *coihue* (*Nothofagus betuloides*). These two latter species predominate in forests of the park's wetlands and along the coastline of the Beagle Channel. Lenga forests are most abundant in the protected area and grow up to 2,000 feet (600 meters) above sea level on the slopes of the mountains, which is the maximum height at which vegetation grows on the island of Tierra del Fuego.

Some forests in Tierra del Fuego have been badly damaged by beavers. A nonnative rodent from Canada that was introduced by the fur industry in the 1940s, the beaver has caused major devastation. Beaver dams and their consequent water impoundments lead to oversaturation of the soils, causing the demise of many original tree species, especially the lenga. Beavers currently are a plague because they do not have natural predators. Government authorities continuously carry out campaigns to eradicate them. Similarly, the introduction of exotic trout in the region was extremely detrimental for native fish that were preyed upon by these nonnative species.

MAGELLANIC TUNDRA. Starting at 1,600 feet (500 meters) above sea level, the shape of the trees changes and takes on a form resembling a shrub. These stunted trees are an adaptation to the strong winds that sweep across the mountains. The lenga, also found in this area, is a tree species that is well adapted to the rigorous conditions imposed by the region's cold climate; it has adopted a creeping form when found at its maximum elevation, while in lower areas it can reach 100 feet (30 meters) in height. Older trees have diameters of approximately 60 inches (150 centimeters). Since the lenga loses its leaves, it is a deciduous tree; by fall the foliage has turned to myriad shades of greens, yellows, and reds, and the forests display their characteristic warmth. Every season of the year offers a different visual experience to visitors, who take pleasure in admiring the shifting colors, a sublime gift from nature.

The Magellanic coihue (*Nothofagus betuloides*), on the other hand, does not lose its leaves in winter, remaining green year round. It also grows to a considerable height, up to 115 feet (35 meters), and replaces the coihue (*Nothofagus dombeyi*) in the subantarctic forest starting at approximately 48ºS latitude. It grows in groups, forming small communities within lenga forests up to an altitude of 655 feet (200 meters) and stands out for being more robust than other surrounding trees. This species is more commonly found in the eastern portion of the park where it grows in communities with the canelo tree in the rainiest sections of the archipelago.

Both the lenga and coihue can be attacked by parasites, the *Myzodendron punctulatum* Banks (leafless sub-shrub) and the *Cyttaria darwinii*, known as Indian bread (*pan de indio*, in Spanish) because it was one of the staples that the natives included in their diet. This round, yellowish-white fungi appears in the fall and winter and is roughly 1.5 inches (3.8 centimeters) in diameter. When attached to the tree, this parasite causes a deformity of the branch or trunk, known as a knot.

Stands of ñire trees are frequently found in wetland and flooded areas. This species also appears in mixed stands with lengas. When exposed to wind and growing at an altitude of less than 2,000 feet (600 meters), the ñire also can adopt a stunted shape. Although the ñire belongs to the same genus as the trees mentioned above, it is better at tolerating poor soil drainage and, for this reason, is the tree seen most frequently in valley bottoms. Fungi, lichens, and insects commonly establish a biotic relationship with the ñire, perhaps because of its preference for more humid habitats.

ALPINE VEGETATION. This zone is known for its peat bogs and flooded areas where Sphagnum moss (*Sphagnum magellanicum*) grows almost exclusively. Peat is made of plant residues, mainly bryophytes or mosses. They have an enormous capacity to retain water and therefore are active creators of environmental humidity. The enormous water-retaining quality of peat bogs is due to the absorbent properties of Sphagnum moss. Peat bogs cover 1 percent of the Earth's surface and were created over a long period of time. For example, a 60-inch-deep (1.5-meter) deposit took no less than 6,000 years to form. White peat (from Sphagnum moss) is mainly used as fuel and a soil additive. This moss has been commercially exploited for more than one hundred fifty years. The use of peat as fuel has increased in many countries due to the energy crisis. The peat industry depends on the natural production of Sphagnum moss. Its properties make it ideal for conditioning soils, as bedding for growing other plants, and for other uses. It can retain up to 20 times its weight in water. The softness of its fibers makes it useful as packing material for transporting fresh vegetables, fruit, flowers, and other delicate products. Sphagnum moss has been effective in filtering and treating domestic sewage and industrial wastewater that contains acid and toxic discharges, high levels of heavy metals, and organic substances such as oils, detergents, and dyes.

Low temperatures prevent the accumulated vegetation from decomposing and its pH level turns acidic. Leaves and branches pile up on top of each other, creating an ideal environment for fungi and lichens to thrive. The ground is normally flooded and soft, a hazard for anyone who tries to walk on it. Along the edge of peat bogs one can find bulrush (*Schoenoplectus californicus*) and, in association, a small brightly colored carnivorous plant, *Drosera uniflora*. This plant feeds on insects and measures about one-fifth inch (4–5 millimeters). The sticky mucilage it secretes at the tip of its tentacles serves to attract and trap insects. It only grows in very wet areas, and it flowers in December and February.

Peat bogs are commonly surrounded by small patches of ñires, which are adapted to the area's poor drainage conditions, thus creating an ecosystem that is characteristic of the alpine zone.

COASTAL VEGETATION. The canelo grows to its full potential along the coast of the Beagle Channel because the environment is humid and offers certain benefits. This tree is an evergreen frequently found together with the Magellanic coihue. The notro, on the other hand, grows on the slopes up to an altitude of 330 feet (100 meters), embellishing the landscape with its red flowers.

The undergrowth contains plenty of moss and ferns. *Leña dura* (*Maitenus Magallánica*), grows here among other shrubs and herbaceous plants. In springtime, delicate orchids (*Codonorchis lessonii*) bloom, their white flowers peering through the edge of the forest. The most vibrant colors are provided by the *murtillas* (*Empetrum rubrum*), violets (*Viola* sp.), and primulas (*Primula farinacea*). The Magellanic murtilla is a small stunted shrub with hanging branches, sharp leaves, and reddish flowers. The Selk'nam people used to eat its edible fruit, which has a sweet-sour taste.

Despite their name, the violets have yellow flowers and the primulas stand out for their white flowers. In summer, with the flowering of *armerias* (*Armeria maritima*), the seaside is awash in pink petals and fields sway with swaths of white and yellow daisies (*Chrysanthemum* spp.). However, flowers bloom year-round in the park, changing the landscape with every season. In winter, for example, the *michay* (*Berberis ilicifolia*) pushes through the snow, opening its amber-colored flowers. The leaves of this shrub are of a deep green color, similar to that of mistletoe. It is green year-round, and its orangish-yellow flowers bloom by the end of winter while its bluish-colored fruit ripen in fall.

The *calafate* (*Berberis buxifolia*), a thorny shrub with many arching branches, also thrives here. In summer it stands out among the forest trees for its small yellow flowers that later turn into delicious blue-black berries. According to legend, anyone who eats the calafate berry will certainly return to this land.

The *mata negra* (*Chilliotrichum diffusum*) is a shrub with flowers resembling small daisies that last until the fall. It is an evergreen plant and grows on the steppe as well as in mountainous areas.

Chaura (*Pernettya maconata*) is a highly ramified shrub with leaves that end in thorns. Its bell-shaped flowers are small and white and its berries are dark red. This plant blooms twice a year, producing fruit both times. It grows near the coastline and on relatively dry meadows.

FRESHWATER VEGETATION. In humid areas that receive some light, the ground is usually covered with a soft herbaceous carpet that grows in association with the wild Magellan strawberry (*Rubus geoides*), the devil's strawberry (*Gunnera magellánica*), and a small fern (*Blechnum penna-marina*). The Magellan strawberry grows in areas with moderate humidity, perhaps protected by a fallen trunk or on the slopes of embankments. This deliciously sweet, red fruit is similar in appearance to the raspberry. The berries can be found half-buried and covered by the plant's small leaves, growing from October to February.

At higher altitudes, on crossing the mountains, a species of *yareta* (*Azorella* sp.) and peat-type vegetation can be seen with certain abundance that are characteristic of a swampy terrain formed by the putrefaction of vegetation in a humid environment. Other plants such as reeds, some species of cryptogams, mosses mainly, and a white-flowered aster (*Aster valbii*) also flourish here.

The *campanilla* (*Phaiophleps biflora*) can also be found in this habitat type. Creamy or pale yellow and purple-veined, this delicately perfumed flower blooms between November and January. It measures 3½–28 inches (9–70 centimeters) and grows in clusters of 2 to 7 flowers. It can be found in almost every landscape on the island.

FAUNA

BIRDS. The wildlife of Yendegaia is comprised mainly of birds. According to surveys, a total of 49 bird species has been recorded, both aquatic and terrestrial, belonging to 29 families, thus making Yendegaia a natural sanctuary for these species.

The *bandurria* (*Theristicus caudatus melanopis*) and the *caiquén* (*Chloephaga* spp.) are highly abundant. The caiquén is a wild goose that pastures throughout the Lapataia and Yendegaia Valleys and its sexual dimorphism is notable—while the male has white and grey plumage, the female is of a warm, brick color.

The *pidén austral* (*Ortungonax rytirhynchos luridis*), the *tinque austral* (*Phallcoboenus australis*), the *jote* or *gallinazo* (*Cathartes* sp.), and in the Andean heights, the imposing condor (*Vultur gryphus*) with a wingspan of 11 feet (3.3 meters), are all very common.

The forest is home to the *comesebo* or Patagonian sierra finch (*Phrygilus patagonicus*), the *rayadito* (*Aphrastura spinicauda*), the *cachaña* or Austral parakeet (*Enicognathus ferrugineus*), the Magellanic woodpecker (*Campephilus magellanicus*) with its black plumage and red head, the Falkland thrush (*Turdus falcklandii*), and the most southerly hummingbird in the world, the green-backed firecrown (*Sephanoides galeritus*) with its shiny plumage.

In shortgrass pastures, marshlands, wet scrubland, and open areas near roads, one can observe a notable variety of birds including the *remolinera patagónica* or black-bellied *cinclodes* (*Cinclodes patagonicus*), the *bandurria baya* or black-faced ibis (*Theristicus melanopis*), the *tero* or Southern lapwing (*Vanellus chilensis*), and *cauquén colorado* or the ruddy-headed goose (*Chloephaga rubidiceps*).

In lookout points at higher altitudes, one can see *jotes* or vultures (*Coragyps atratus*) and the *aguilucho cola rojizo* or rufous-tailed hawks (*Buteo ventralis*).

The Yendegaia coastline is representative of southern Chile's channels and fjords ecoregion. Marine life here is abundant with the presence of birds such as the black-necked cormorant (*Phalacrocorax magellanicus*), the *ostrero austral* or Magellanic oystercatcher (*Haematopus leucopodus*), Magellanic penguins (*Spheniscus magellanicus*), petrels (*Procellariiformes*), *gaviotas cocineras* or kelp gulls (*Larus dominicanus*), *gaviotas australes* or dolphin gulls (*Leucophaeus scoresbii*), imperial cormorants (*Leucocarbo atriceps*), flightless steamer ducks (*Tachyeres pteneres*), and *carancas* or kelp geese (*Chloephaga hybrida*).

MARINE ANIMALS. The Yendegaia coastal area is also abundant with marine mammals such as southern fur seals (*Arctophoca australis australis*); the *chingungo* or marine otter (*Lontra felina*); and the *delfín pío*, *tonina overa* or Commerson's dolphins (*Cephalorhynchus commersonii*). Several species belonging to the *mysticeti* group (bearded cetaceans) and *odontocetes* (toothed cetaceans) circulate in the seas surrounding the island of Tierra del Fuego; these include Minke whales (*Rocual Minke*), the southern right whale (*Eubalaena australis*), orcas (*Orcinus orcas*), sperm whales (*Physeter macrocephalus*), and pilot whales (*Globicephala*).

TERRESTRIAL ANIMALS. The guanaco (*Lama guanicoe*), whose name comes from the Quechua word *wanaku*, is an extremely agile and swift camelid. It is the biggest land mammal living in the park (weighing up to 200 pounds), and is covered by a thick, double coat of hair that offers protection from the harsh climate. The guanaco was central to the economy and culture of the Selk'nam people.

Smaller mammals present in Yendegaia include the *culpeo fueguino* or Andean fox (*Lycalopex culpaeus*); the *tucu-tucu* (*Ctenomys*), a type of hystricomorph rodent, the only one belonging to the Ctenomyidae family; the southern river otter or *huillín* (*Lontra provocax*); and smaller rodents such as mice and small rats.

Regarding reptiles, there is only one known species of lizard (*Liolaemus magellanicus*) known to the area; it lives in the steppe lands north of Grande River. As for amphibians, just one species lives on the island and only on the Chilean side; it is known as the *sapito de tres rayas* (*Nannophryne variegata*), and additionally it is the most southerly amphibian in the world.

Of the nonnative species that have been introduced to the region, the most prominent are the South American grey fox or *chilla* (*Lycalopex griseus*), the common or European rabbit (*Oryctolagus cuniculus*), the muskrat (*Ondatra zibethicus*), the previously mentioned North American beaver (*Castor canadiensis*), and the American mink (*Neovison vison*).

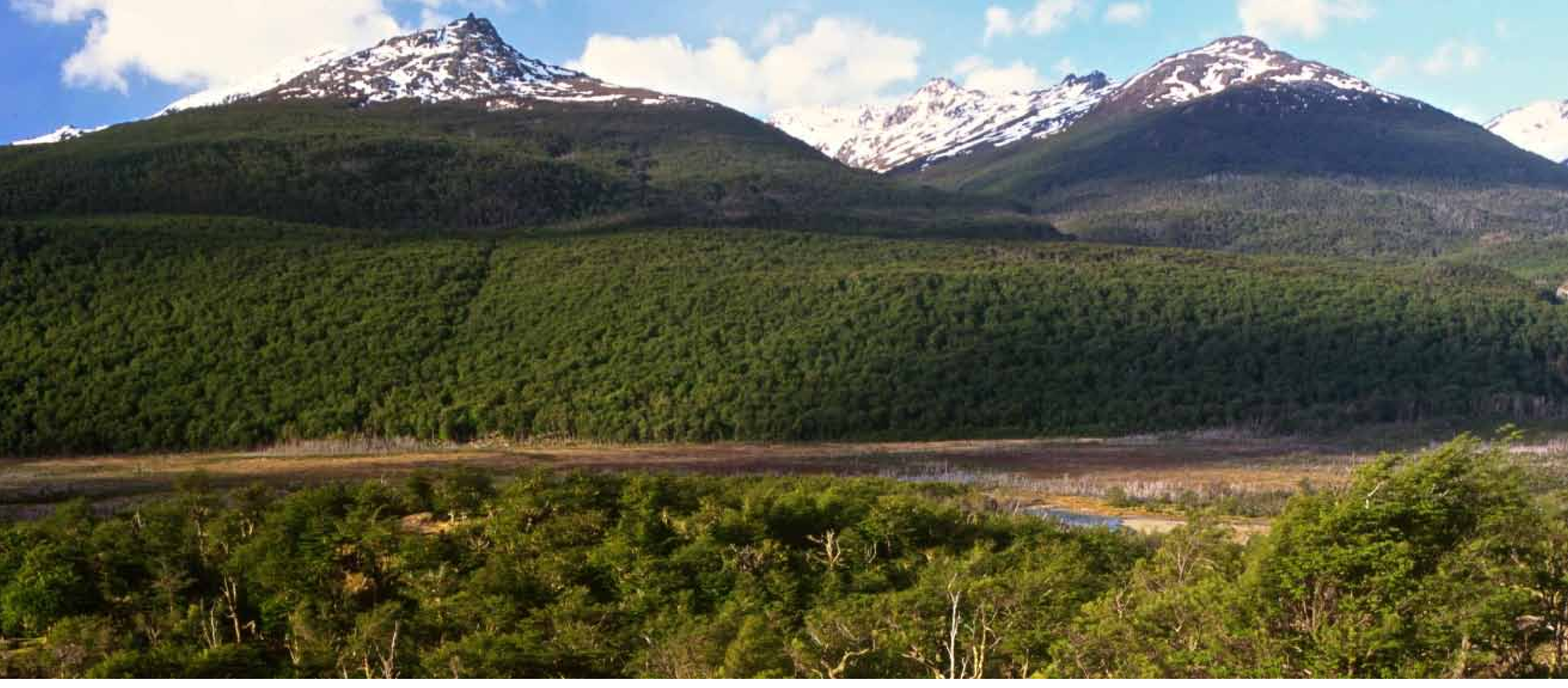
Notably, Yendegaia National Park conserves natural environments that are ideal to help sustain several imperiled animal species. These include the *culpeo* fox of Tierra del Fuego (*Pseudalopex culpaeus lycoides*), which is deemed vulnerable, and the southern river otter (*Lontra provocax*) and the ruddy-headed goose (*Chloephaga rubidiceps*), both of which are in danger of extinction.

CONCLUSION

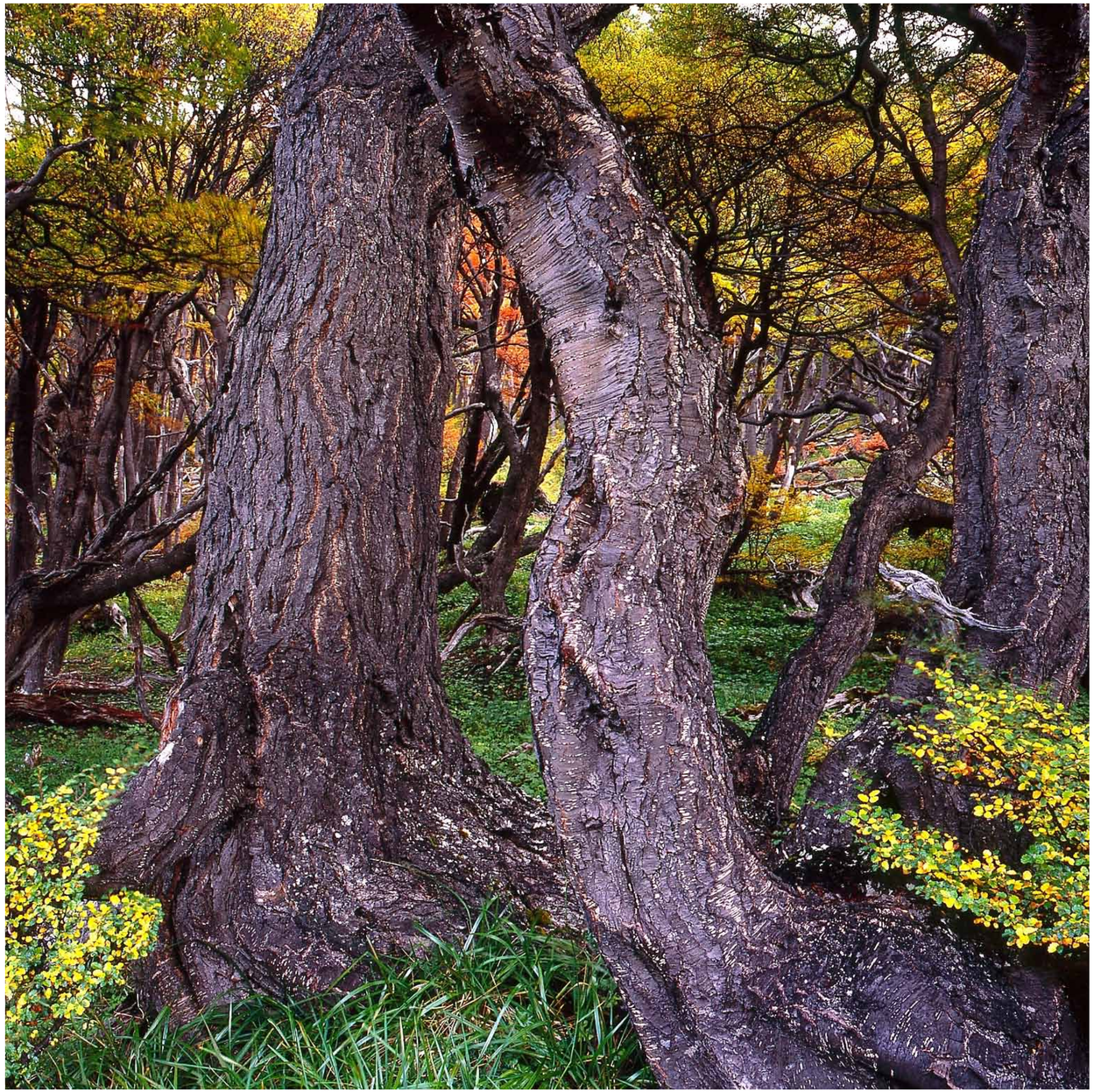
In sum, the terrestrial and aquatic habitats of the newly designated Yendegaia National Park offer a rich variety of ecological features and attributes. It is a landscape of global importance, with fascinating creatures and striking scenery. Its size, remote character, and landscape position—between two other national parks and forming a broad habitat linkage—make it a great advance for conservation at the end of the world.

LANDSCAPES

mother rock, father sky,
your weeping rests at the foot of the snowdrifts
and every star perches on your white summit
lighting the road to silence
—Rubén Patagonia

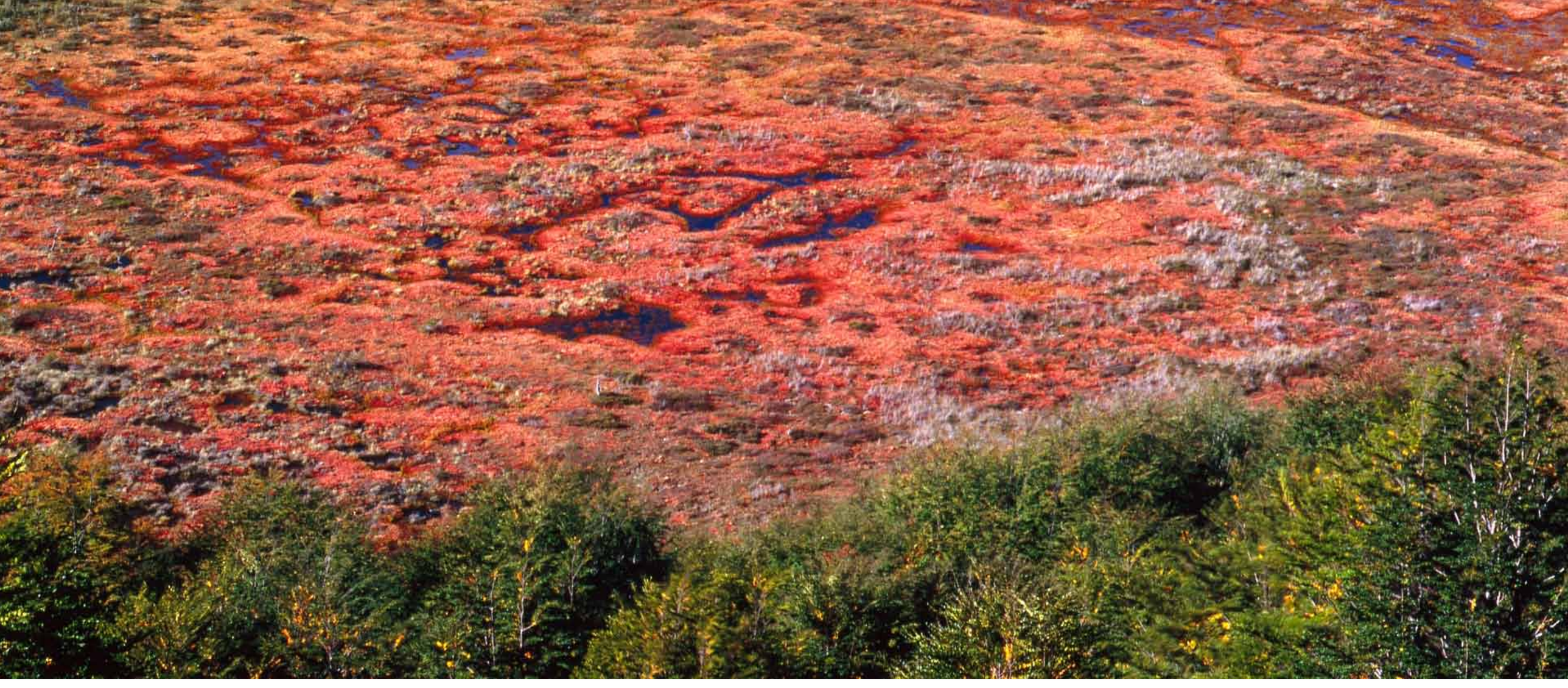


FORESTS



Why Patagonia? . . .
Palled for a moment with civilization and its surroundings,
I wanted to escape somewhere,
where I might be as far removed from them as possible.
—Lady Florence Dixie

We need to listen more to the biologists and naturalists,
sociologist, philosophers, and artists.
Let us pay more attention to poets and environmentalists
and learn from our forests, which offer multiple values.
—Adriana Hoffmann



PEAT BOGS

No synonym for God is as perfect as Beauty.

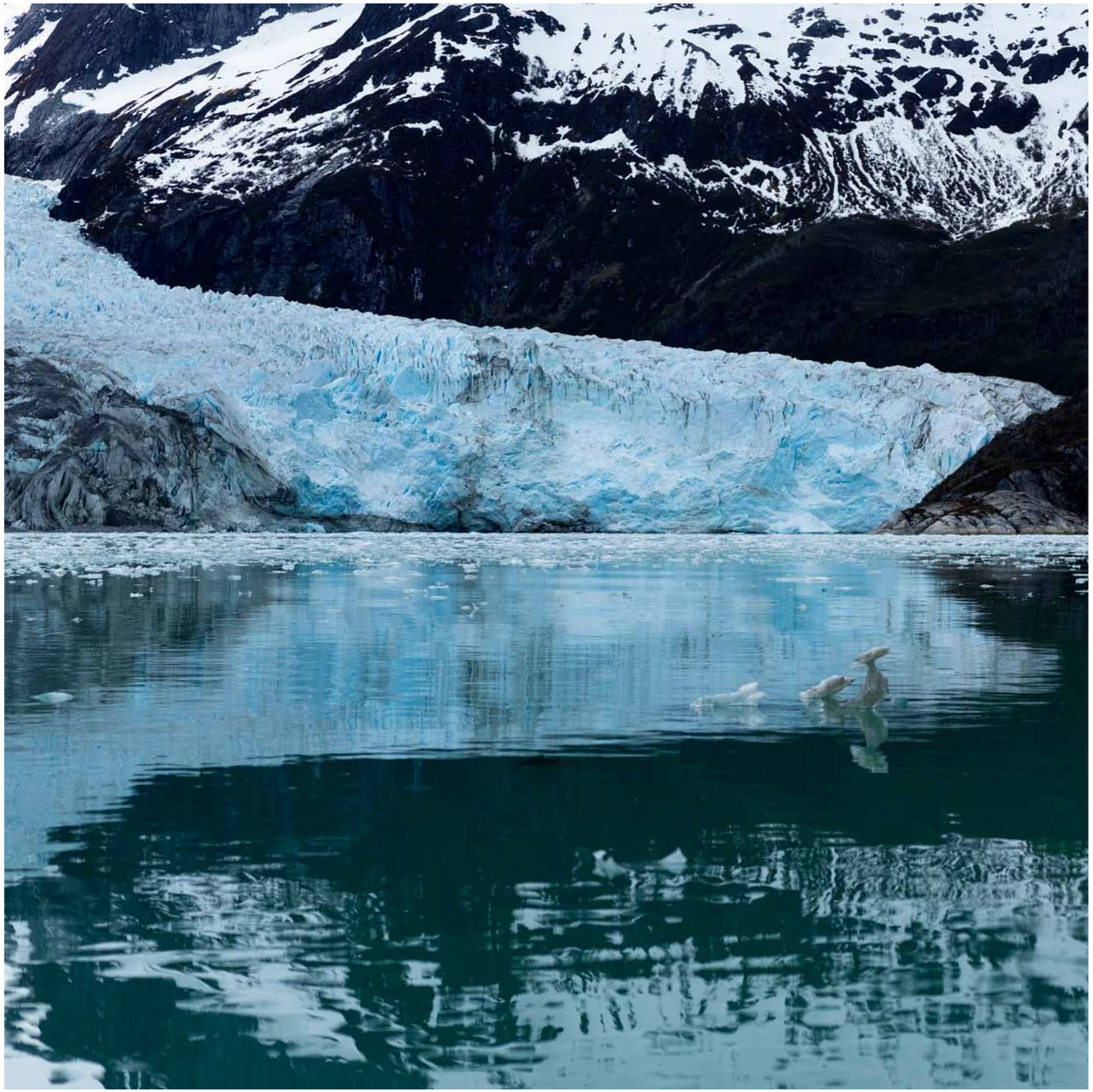
—John Muir

MOUNTAINS

A stupendous panorama, indescribable for the profound vastness of the horizon
and the sublime grandeur of the hundreds of summits. . . .
This is the first time human eyes have gazed upon these frozen solitudes,
at times with raptures of joy; at other times with astonished awe. . . .
I peer intently across that immense expanse of snow,
ice, and mountain peaks, rendered even sharper by the crystalline transparency of the air
and the glittering sunlight, and try to divine its secrets.

—Alberto María De Agostini

FJORDS

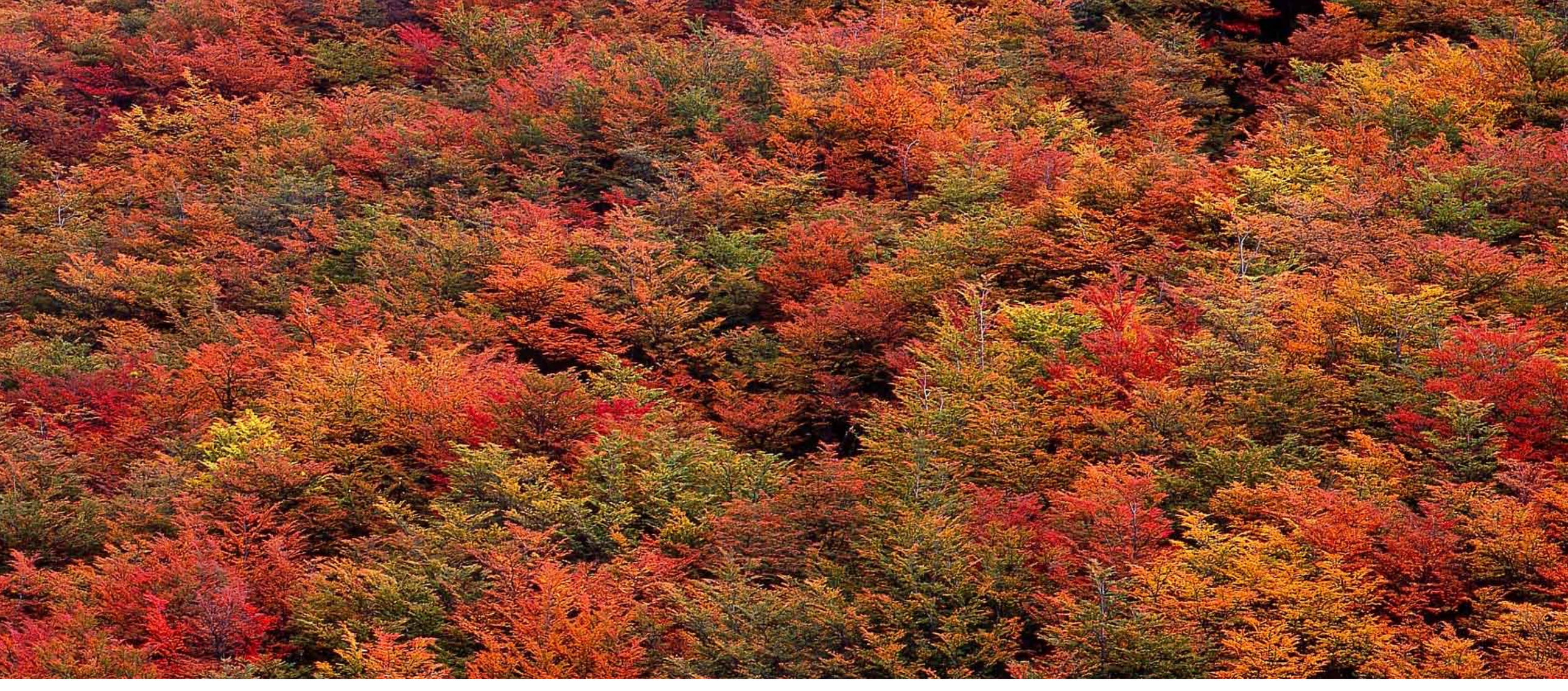


One light is left us:
the beauty of things, not men;
the immense beauty of the world, not the human world.
Look—and without imagination,
desire, nor dream—directly at the mountains and the sea.
Are they not beautiful?
—Robinson Jeffers

COASTLINE

It is called the "Land of Fire"
as if in mocking irony
by man in his always
misguided obstinacy.
Who would not be appalled
at such turning of the truth
on its head, calling
"fire" what is in fact "cold"?
It would be like shouting "Blasphemer!"
at the Soul of Piety itself.

—Nicolás Granato

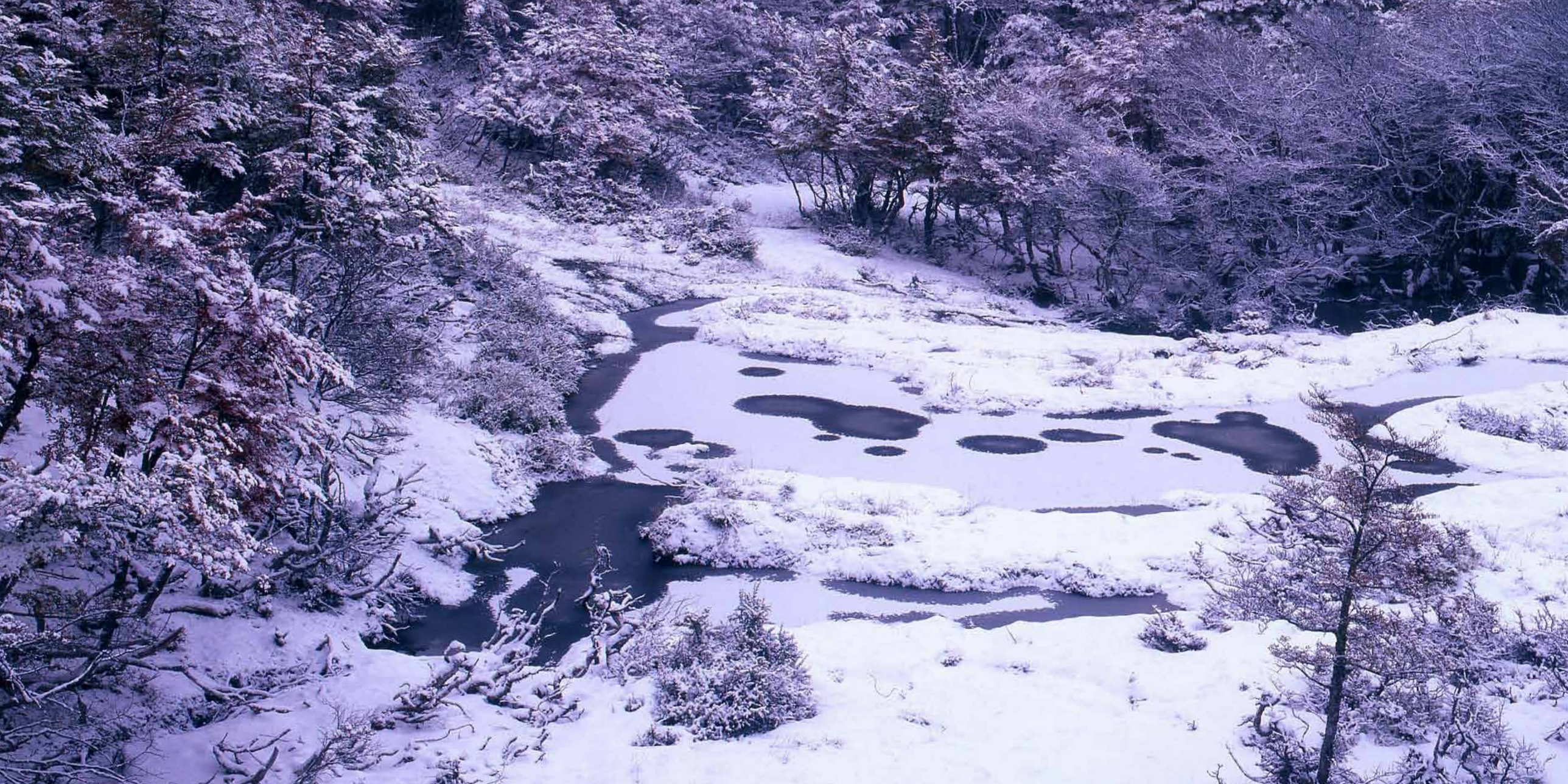


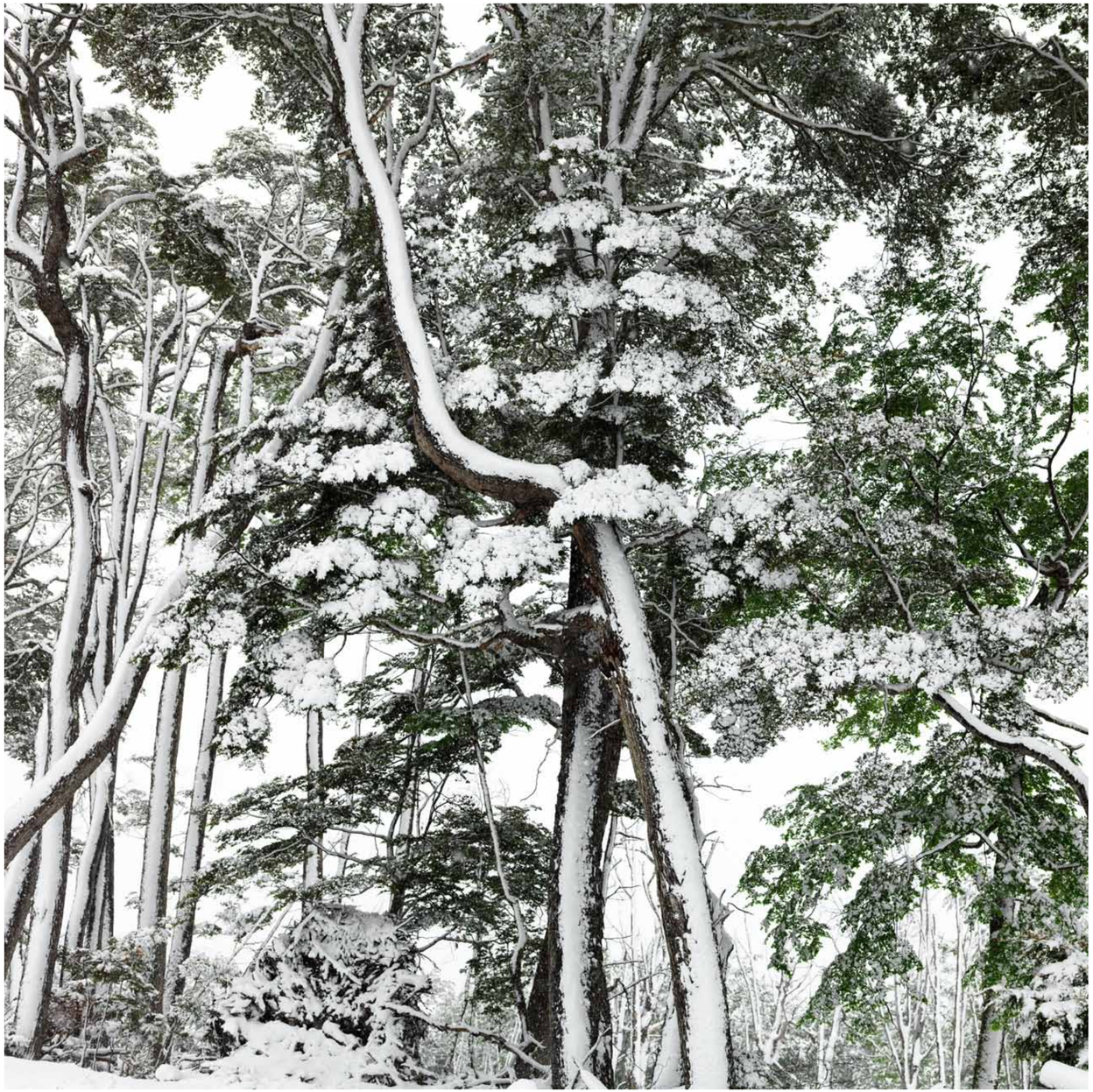
AUTUMN

Trees have historically and mythologically represented many things—the Tree of Life, the axis of the earth, tribal ancestors, homes of spirits.

—Stephanie Kaza

WINTER

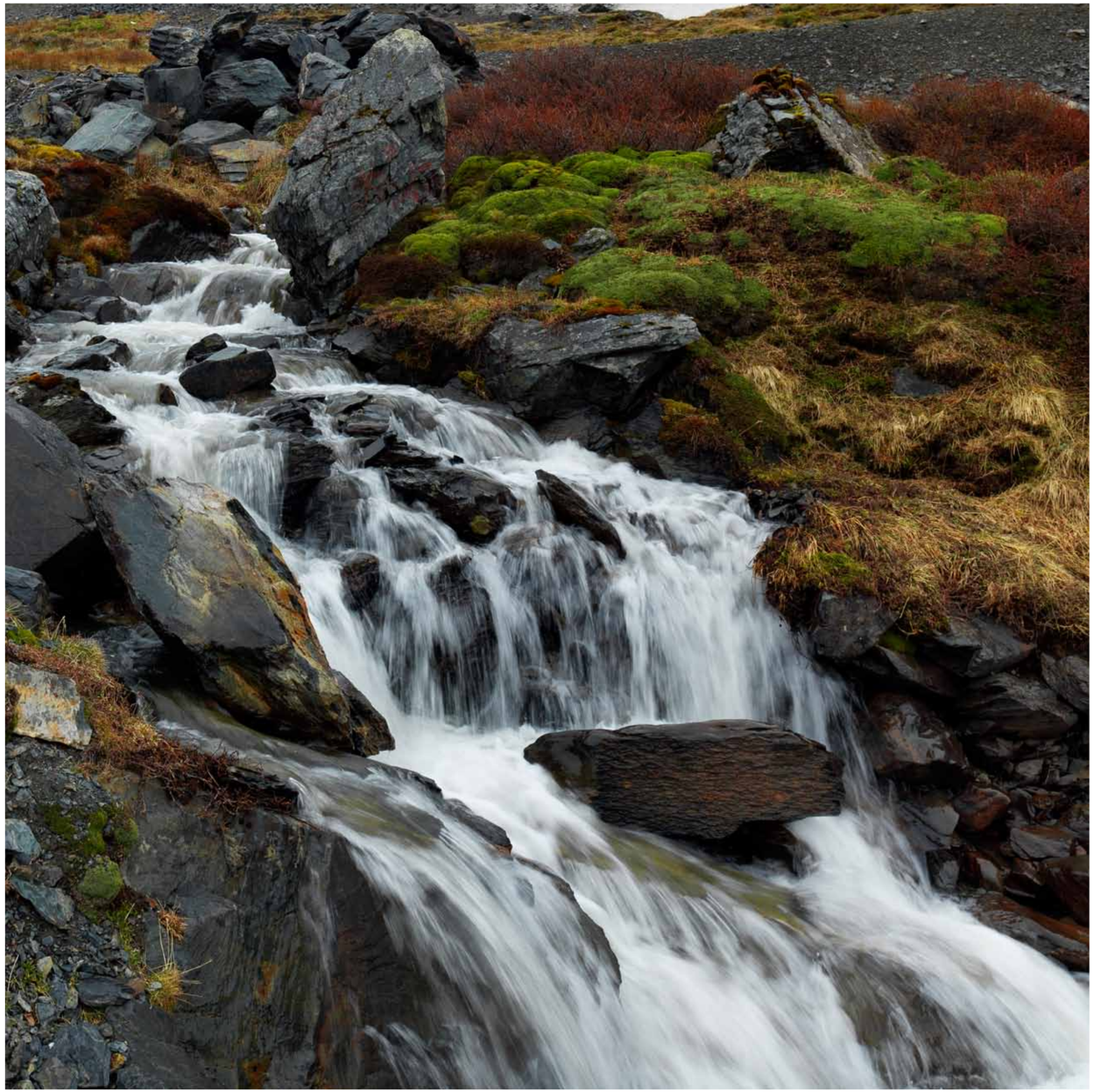




Among the scenes which are deeply impressed on my mind,
none exceed in sublimity the primeval forests . . .
temples filled with the varied productions of the God of Nature.
No one can stand in these solitudes unmoved,
and not feel that there is more in man than the mere breath of his body.

—Charles Darwin

LAKES AND RIVERS



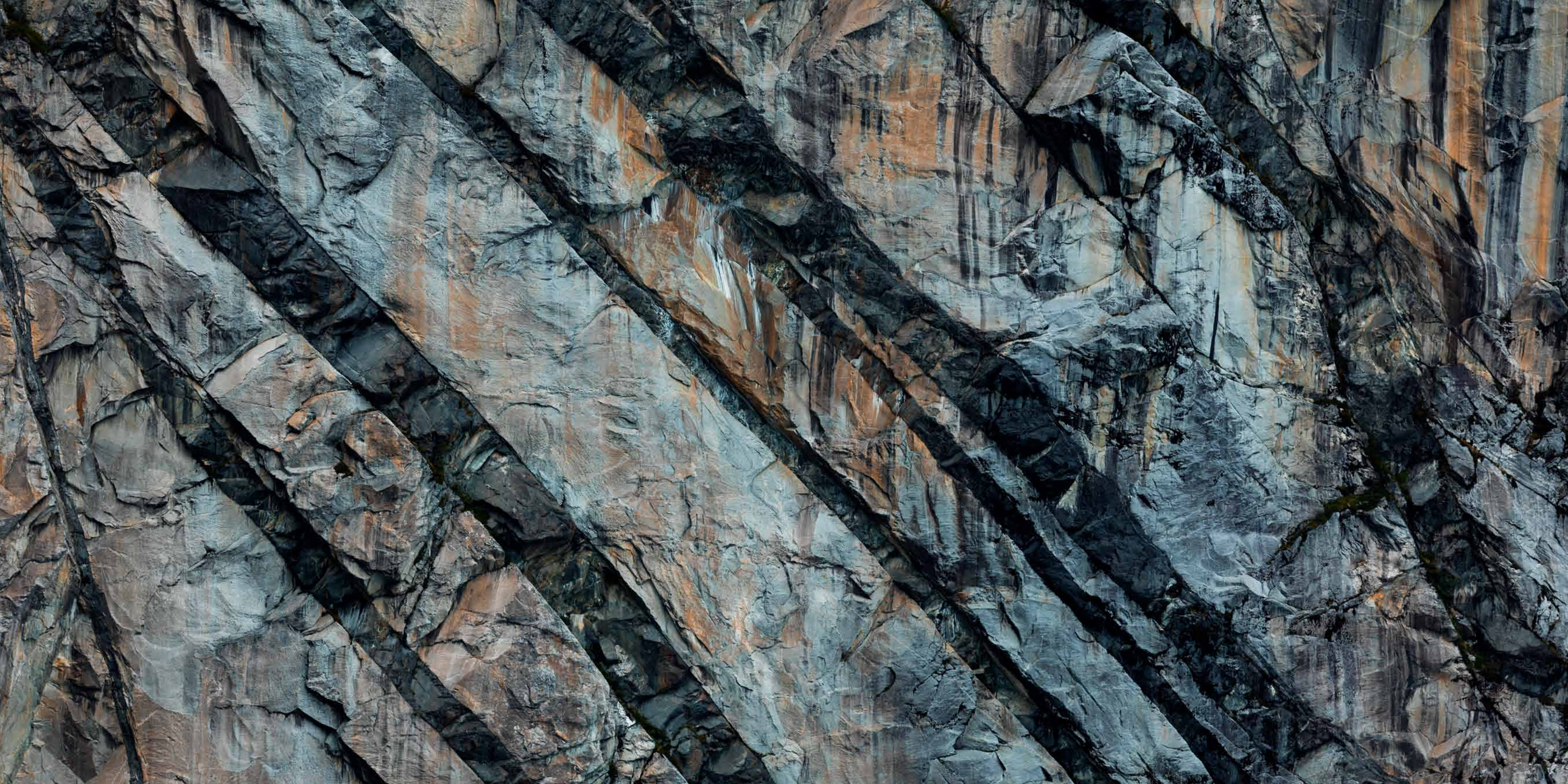
Parks should be dominated by the spirit of beauty. . . .
Is not outstanding beauty one of the rarest and greatest possessions a land can possess?
It should be looked upon as a national asset and given an important place
in every programme of conservation.

—J. B. Harkin

PATTERNS AND FORMS

Protean steppe of Tierra del Fuego,
your paintbrushes every instant
spread the rainbow of color
offered by the setting sun.
And the snows of your winters
magnify your reflections
scattering the longings
of your trembling shadows.

—Nicolo Gligo

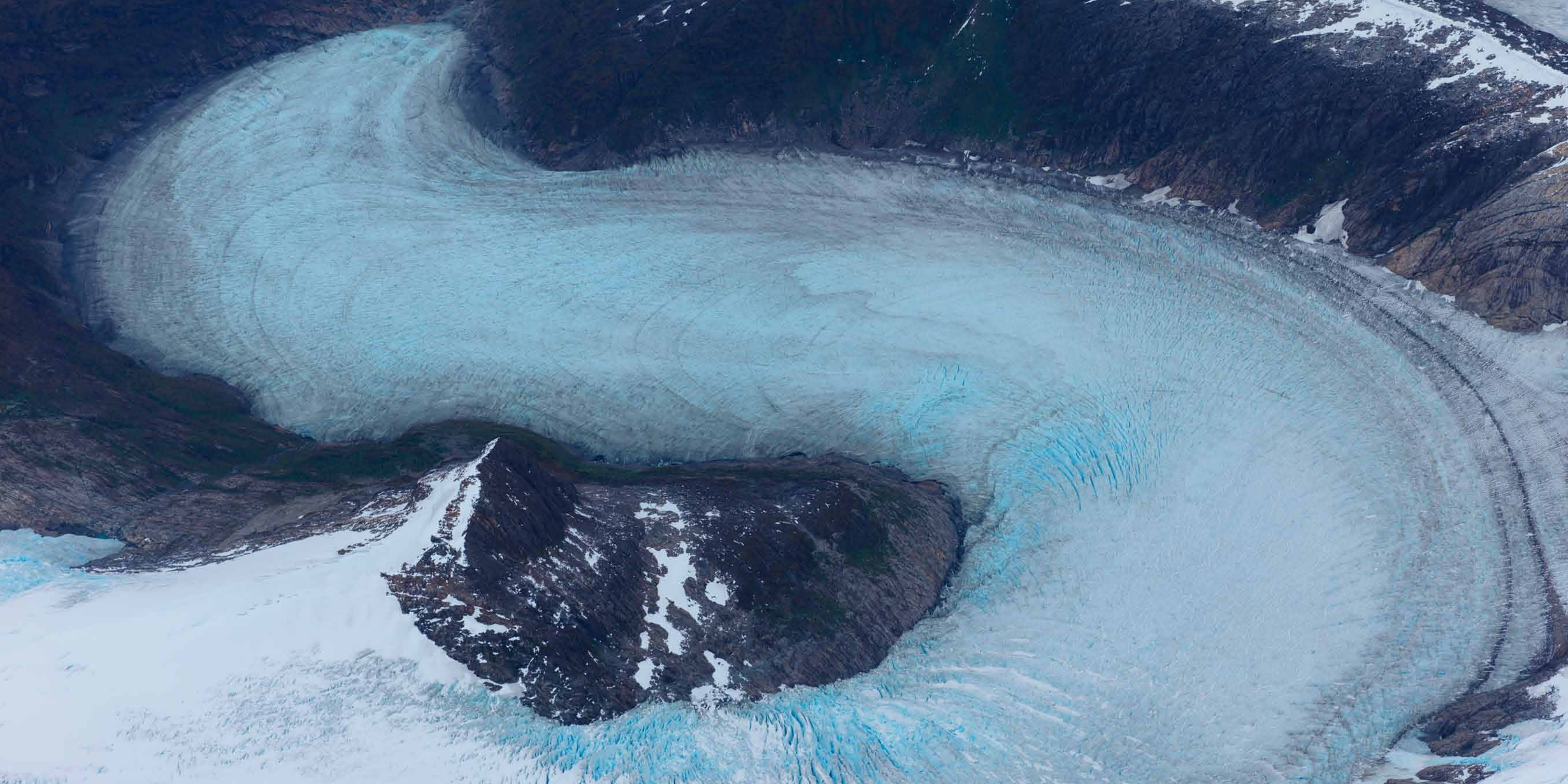


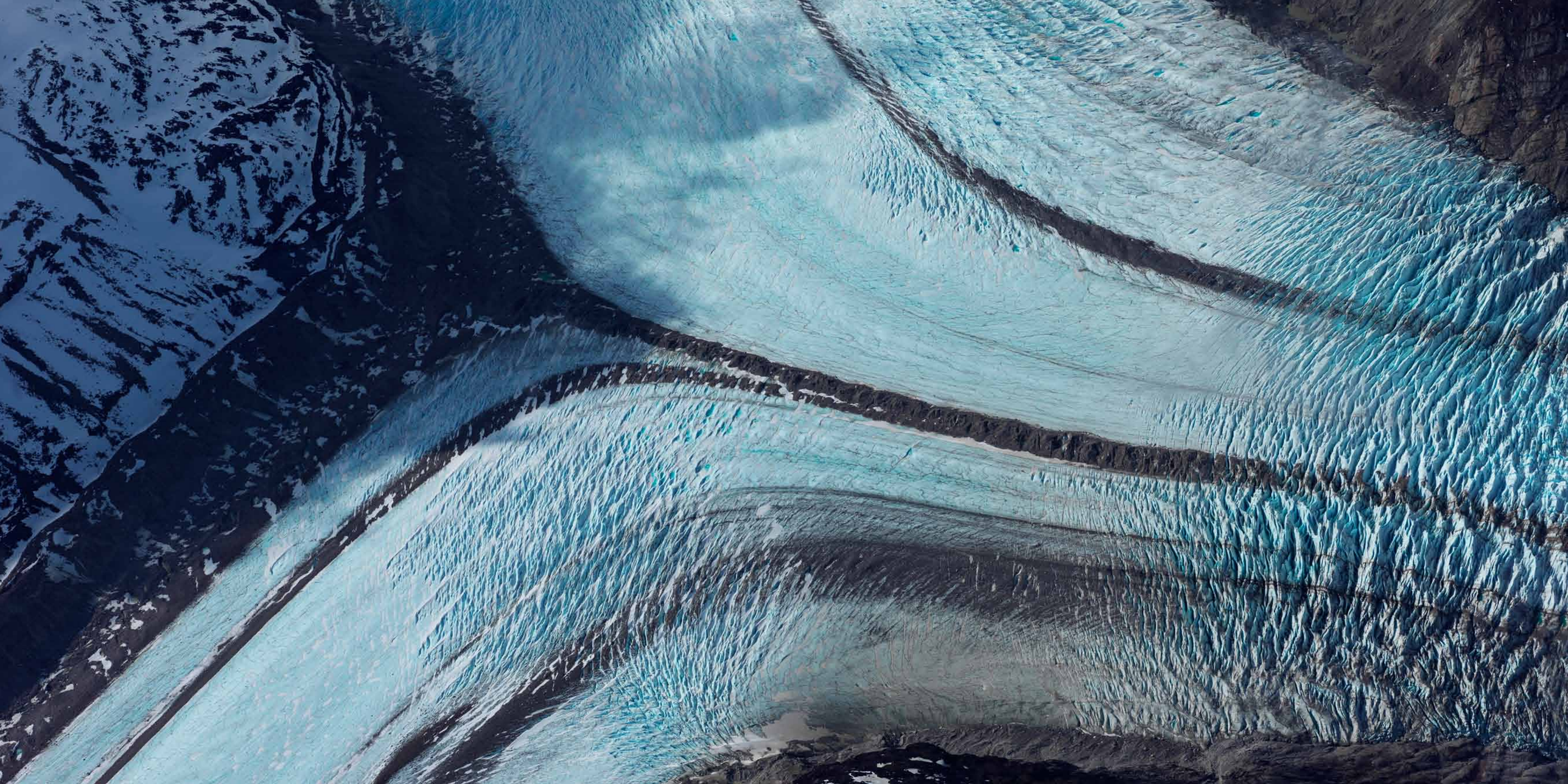
The natural world is the greatest source of excitement;
the greatest source of visual beauty;
the greatest source of intellectual interest. . . .
The greatest source of so much in life that makes life worth living.
—David Attenborough

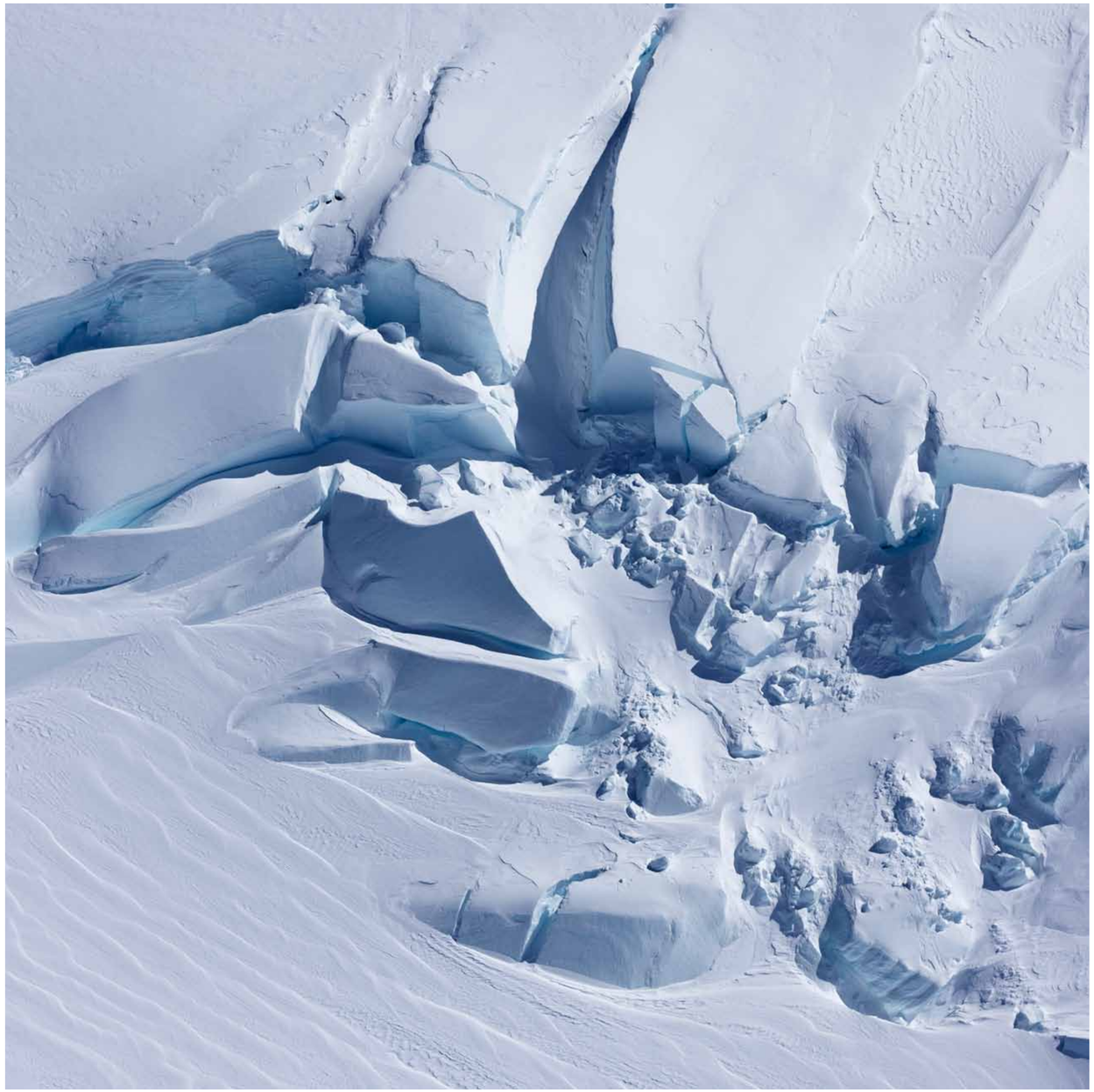
GLACIERS

Protected areas . . . counteract what has been called the extinction of experience
in the wake of the downhill spiral of generational ecological amnesia:
this effect refers to the narrowing range of potent experiences of the natural world,
accompanied by a cumulative collective ignorance
of how rich life on Earth is when
left free of human chiseling and hammering.

—Eileen Crist







On mountains, latitude's imperceptible changes
can become altitude's striking transformations.
Ecology and climate change rapidly from balmy foothills to glacial heights. . . .
Up high, biology vanishes to reveal a world shaped
by the starker forces of geology and meteorology,
the bare bones of the earth wrapped in sky.

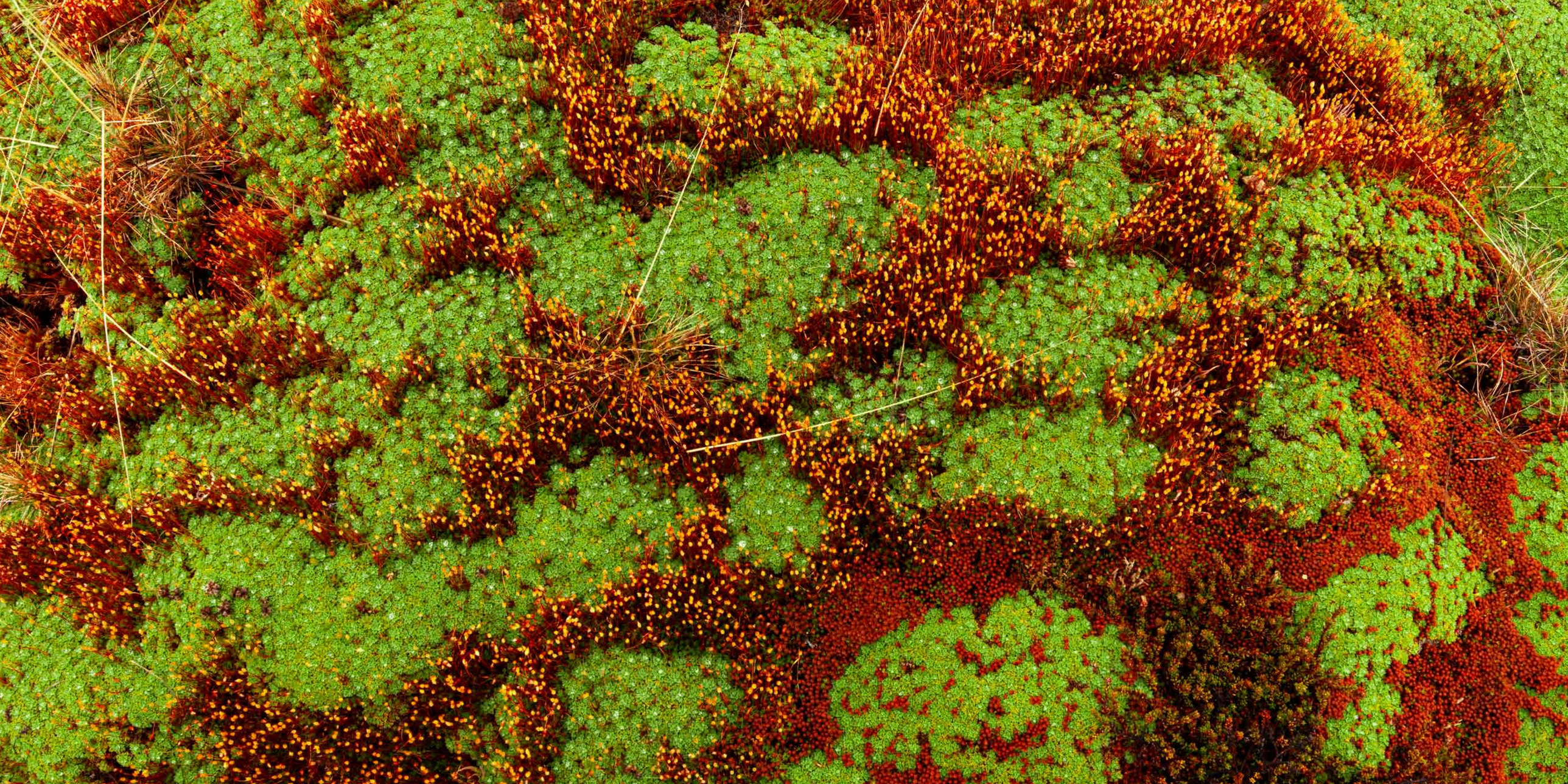
—Rebecca Solnit

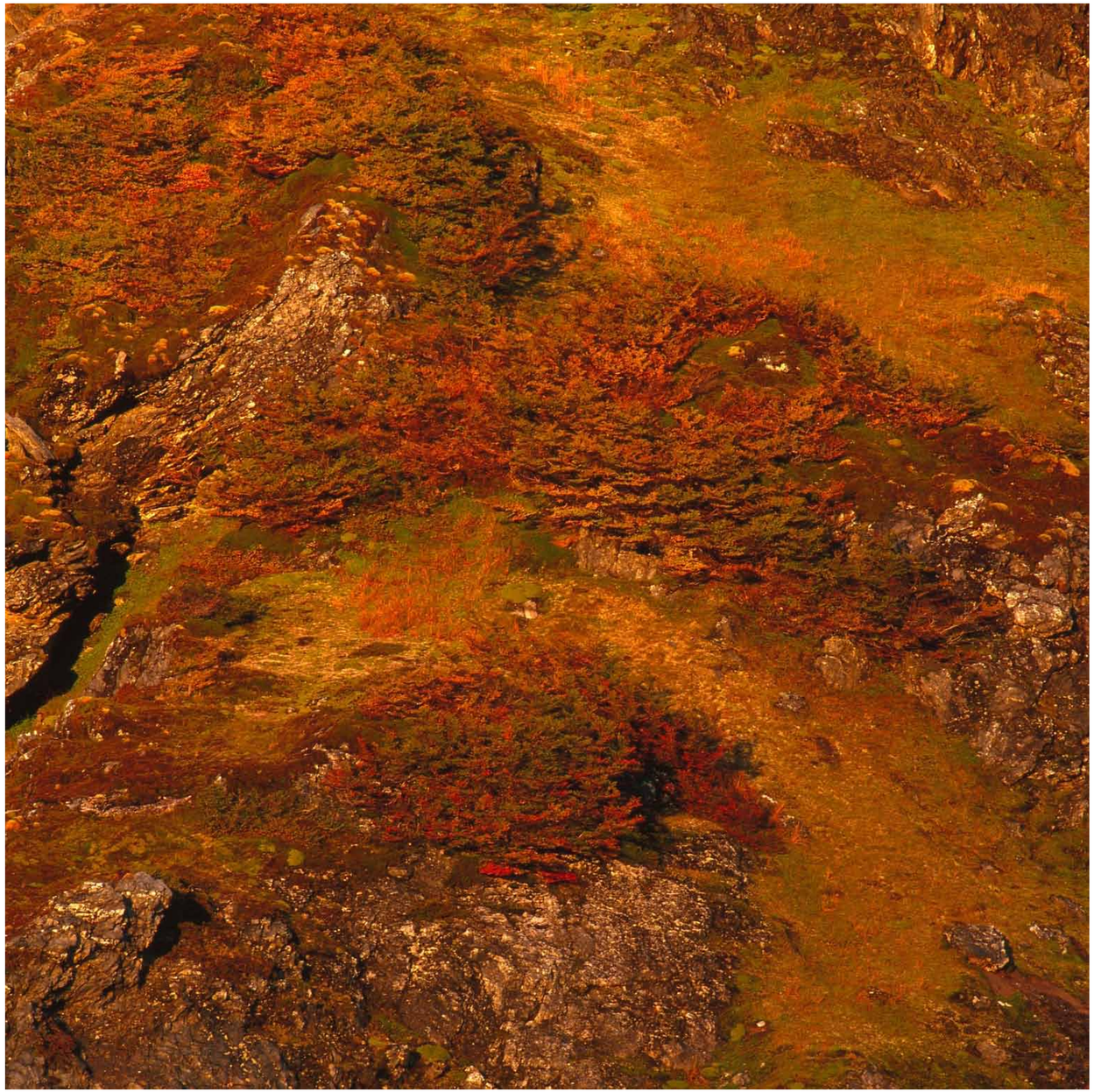
MOSSES AND LICHENS

Just at the limits of ordinary perception lies another level in the hierarchy of beauty,
of leaves as tiny and perfectly ordered as a snowflake,
of unseen lives complex and beautiful. . . .
Mosses . . . [are] a vehicle for intimacy with the landscape,
like a secret knowledge of the forest.

—Robin Wall Kimmerer

TEXTURES AND LIGHT





The parks are an object lesson for a world of limited resources.
In the national parks the visitor learns that satisfaction is not correlated to the rate at which he expends resources, but that just the opposite is true.
The parks promote intensive experience, rather than intensive use.
The more one knows, searches, and understands,
the greater the interest and satisfaction of the park experience.

—Joseph L. Sax

PHOTOGRAPHER'S NOTE

Antonio Vizcaíno

Located in one of the most spectacular regions of the world, Yendegaia National Park requires travelers to the area to undertake meticulous preparation and overcome several hurdles before reaching its incomparable rewards. The only access is by boat, by sailing on the Strait of Magellan to reach Yendegaia Bay. Planning for this leg of the trip always involves leaving some leeway for the unexpected, with weather as the decisive factor.

Taking the photographs for this book entailed several extensive trips whose common denominator was always waiting for the right weather and light conditions to occur. Tierra del Fuego's legendary weather is ever changing: One may experience rain, sun, snow, and wind on the same day. I witnessed this when walking, and occasionally riding on horseback, through the valleys on fascinating explorations of the terrain. Similarly, when I sailed by sea with Oceana Joss Gregoir and Aramara Vizcaíno, I was awestruck by every detail of the fjord coastline where the rocks and stone, sculpted and painted by glaciers, were displayed as natural abstract art. Shooting the aerial photographs during the four seasons of the year demanded careful planning and lots of patience and was successful thanks to pilot Rodrigo Noriega. When the wind conditions and cloud coverage allowed, Rodrigo's experience and weather knowledge let us seize windows of opportunity to enter the area. But, just as the climate is extreme, so is its stunning beauty.

Exploring Yendegaia on a photographic search of its natural beauty is like entering a land of fantasia. The diversity of colors and textures in plants, rocks, or lichen never ceases to amaze me. Whether in the visual close-ups I obtained during extensive expeditions on land, the images gathered while crossing enormous valleys, or wide panoramas seen from a distance and afforded by hours of overflight, the texture and color factors are, from a photographic point of view, what make this place extraordinary. For this reason I chose a visual language that would show, on the one hand, panoramic landscapes that impress us with their grandiosity and, on the other hand, intimate details of the smallest plants or facets of rivers and valleys that offer abstract images that not only record their beauty but also evoke their emotional impact.

The diversity of this landscape comes forth on a grand scale through its mountains, glaciers, coastlines and fjords, forests and tundra, rivers and lakes. Life in this park is revealed in its vastness, and photographing it has been a privilege that has allowed me to perceive the dimension of our planet. In addition to the insight gained through my personal experience crossing this magnificent territory and photographing it, the truly transcendental thing offered to me was the opportunity to participate and provide images for a project of this magnitude hand in hand with the conservation program led by Douglas and Kristine Tompkins.

The fact that the Yendegaia property was purchased for the purpose of eventually donating it to Chile's national parks system demonstrates the clear vision of a conservation project with a firm strategy. Yendegaia borders with Argentina to the east, specifically with Tierra del Fuego National Park, and with Chile's Alberto De Agostini National Park to the west. Donating the property and turning it into a national park has enabled the completion of a protected corridor between these two natural areas. Thus the new Yendegaia National Park's conservation impact is multiplied, as it has helped establish a broad, permanently secure habitat linkage and a binational protected area.

I was fortunate in that I was able to closely follow the process that led to the former Estancia Yendegaia property becoming a national park. Personally, I was deeply moved to see how a dream came true, and I am grateful to know that this is still possible and that we can hold onto areas where life preserves itself through its ancestral cycle.

CONTRIBUTORS

Miguel Juan Sebastián Piñera Echenique, popularly known as Sebastián Piñera, former president of Chile (2010–2014), was born in Santiago, Chile. A businessman and politician, Piñera has been a professor at several Chilean universities, has served as senator (of East Santiago), and has been instrumental in creating projects with an ecological mission, including Fundación Futuro and the privately funded nature preserve, Tantauco Park. He holds a degree in Business Administration from the Pontifical Catholic University of Chile and MA and PhD degrees in Economics from Harvard University.

Douglas Tompkins is a wilderness advocate, mountaineer, organic farmer, and conservationist. For more than two decades, he has worked alongside his wife, Kristine Tompkins, to restore degraded farms and to establish large-scale protected areas, including national parks in Argentina and Chile. Through a family foundation, Doug Tompkins supports environmental activism campaigns in North and South America and has helped produce numerous conservation-related books, including *Corcovado National Park: Chile's Wilderness Jewel and Monte León National Park*.

Nicolo Gligo V., born in the Magallanes and Chilean Antarctic Region, is a professor and director of the Institute of Public Affairs at the University of Chile. Gligo has held senior positions in the Chilean Ministry of Agriculture and the Research Institute of Natural Resources and international posts with the United Nation's Economic Commission for Latin America and the Caribbean. Consultant to numerous agencies and guest professor at universities throughout Latin America, Gligo launched the comprehensive report, "The Status of the Environment in Chile."

Hernán Mladinic Alonso is a sociologist and a native of the Magallanes Region. He coordinated the Antarctica and Environmental Program of the Foundation for the Development of Magallanes, has served as the Regional Ministerial Secretary of Planning and Coordination (Aysen Region), and worked with the National Environmental Commission, among other professional roles. Executive director of the Pumalín Project and Park since 2008 and a director of Fundación Yendegaia since 2009, Mladinic oversaw negotiations with the government that led to the creation of Yendegaia National Park.

Santiago Valdés Gutiérrez is an entrepreneur with degrees in civil engineering and business management. His enthusiasm for Chilean nature conservation inspires his work to create national and private parks in Chile. Valdés spearheaded efforts to create Tantauco Park in Chiloé, one of Chile's largest private nature preserves. He later headed teams whose efforts resulted in the designation of Yendegaia National Park, Tic-Toc Marine Park, Pitipalena and Juan Fernandez Protected Coastal Marine Areas, and several natural monuments, as well as the expansion of Alerce Costero National Park.

Adriana Hoffmann Jacoby is a distinguished Chilean botanist who specializes in wildflowers and ecology. As founder and coordinator of Defenders of the Forest, she was named one of the 25 environmental leaders of the 1990s by the United Nations. In 1999, she received the National Environmental Award for Environmental Education from the National Environmental Commission, where she later served as executive director. From 2000 to 2005, Hoffmann presided over Fundación Yendegaia. She has authored numerous books on Chile's flora and natural heritage, including *The Tragedy of the Chilean Forest*.

Antonio Vizcaíno is a photographer, editor, and conservationist. In the last two decades, he has published 29 books of his nature photography, including *Water*, *Forest*, *Mountain*, *Wildlands Philanthropy*, and *Mexico: Landscape and Spirit*. In 2001, he embarked on the photographic expedition "América Natural: Tierra del Fuego–Alaska," with the goal of photographing the best-protected natural areas in America and contributing—through images and campaigns of environmental education—to the preservation of the continent's biological diversity.

YENDEGAIA NATIONAL PARK
In Brief

A land of striking beauty and diversity, Yendegaia National Park offers unique scientific, touristic, and cultural values. The park's mountains, glaciers, lakes and rivers, steppe, and forest are of outstanding ecological character. The park harbors pristine and lightly manipulated (but now recovering) expanses of subantarctic forest—a globally rare natural community. Bounded on the east by Argentina's Tierra del Fuego National Park, and bordering Chile's Alberto De Agostini National Park to the west, Yendegaia also serves as a broad wildlife corridor and establishes a world-class, transboundary protected area.

Date of enactment

December 24, 2013, through Decree No. 118 of the Ministry of National Assets.

Key actors in the park's creation

Douglas Tompkins and the Conservation Land Trust, President Sebastián Piñera Echenique, Peter Buckley, Ernst Beyeler, Fundación Yendegaia, Ministry of National Assets, National Forestry Corporation (CONAF)

Size

372,170 acres (150,612 hectares)

Location

Latitude 54°44´20.93´´ S, Longitude 69°0´14.23´´ W on the Grand Island of Tierra del Fuego in the Magallanes and Chilean Antarctic Region, south of the Azopardo River and Fagnano Lake, between Alberto De Agostini National Park and the border with Argentina.

Landscape features

Mountains; valleys; forests; wetlands; peat bogs; extensive coastline; lakes; the Yendegaia, Lapataia, Betbeder, and Rojas Rivers; glaciers and snowfields, especially Stoppani Glacier and Holanda (or Monte Francés) Glacier.

Altitude gradient

Sea level to approximately 2,300 meters (7,546 feet).

Mountains

Prominent mountain ranges: Montes Nordenskjold, Cordón Central, and Cerros Pirámides, with a maximum altitude of 1,500 meters (4,921 feet).
Prominent peaks include Monte Bove (2,279 meters/7,477 feet), Monte Francés (2,261 meters/7,418 feet), and Cerro Ada (2,113 meters/6,932 feet).

Key ecosystems

Magellan Subpolar Forest, Antiboreal Andean Grassland

Soils

Glacial, with high peat content. Podzolic soil predominates, typical of cold and wet or cold temperate climates.

Notable species

Magellanic *coihues*, *lengas*, *ñires*, *canelos*; the Magellanic strawberry; various mosses, lichens, and fungi, especially species adapted to peat bogs. The most frequently seen birds are the *rayadito*, *fio-fio*, Andean tapaculo, house wren, swallow, and giant woodpecker; common seabirds include the Dominican gull and giant petrel. Species of conservation concern include the southern river otter; ruddy-headed goose; and Tierra del Fuego culpeo fox. Sea mammals include leopard seals, elephant seals, sea lions, Peale's dolphins, and Chilean dolphins.

Values

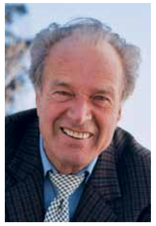
Scenic beauty, bird-watching, wildlife habitat; wilderness recreation, scientific research, intrinsic value.

Climate

Isothermal climate with an average temperature of 9°C (48°F) in summer and 2°C (35°F) in winter. Rainfall occurs year-round with an annual average of 500–1,000 mm (20–40 inches). Winds can reach over 100 km/hour (60 m/h) and are frequent in the spring and summer.

ACKNOWLEDGMENTS

Peter Buckley



Ernst Beyeler

We acknowledge with profound gratitude Peter Buckley and Ernst Beyeler (1921–2010), two outstanding philanthropists who made crucial contributions to the purchase of the former Estancia Yendegaia, in partnership with the Conservation Land Trust (CLT).

The creation of Yendegaia National Park is the result of innovative public-private cooperation. Many people were united in this collaborative effort to make a dream become a beautiful reality. There are too many individuals who helped birth the park (and this book celebrating its birth) to thank comprehensively, but we want to note some of the key actors. We thank the writers who contributed essays: Mr. Sebastián Piñera, then president of Chile; Douglas Tompkins, president of the Conservation Land Trust; Nicolo Gligo, former director of Fundación Yendegaia and a native of Tierra del Fuego; Hernán Mladinic, director of Fundación Yendegaia, who oversaw relations with government institutions that led to the park's creation; Santiago Valdés, interministerial coordinator of the Government of Chile; Adriana Hoffmann, one of the project's initiators who, along with Alan Watson Featherstone and Graciela Ramaciotti (1946–2011), had the original idea of conserving the land; and photographer Antonio Vizcaíno. His marvelous images, captured during photo expeditions made possible due to the skill of pilot Rodrigo Noriega, transport the reader to the furthest crooks and crannies of the park. Many other individuals aided AntonioVizcaíno with his travel logistics and photographic production work; they include Paloma Diez de Sollano, Lorenza García Mendez, Francoise Gregoir, Ursula Hernandez, Oceana Joss, Mariana Martinez, Carmen Gloria Pacheco Soffia, Andrea Meza, Angel Sandoval, Jorge Sandoval, Lorena Valenzuela, Fernando Viveros, Aramara Vizcaíno, Matías Vizcaíno.

We are grateful for the constant support, vision, and legal counsel of Pedro Pablo Gutiérrez, head attorney on this and other CLT conservation projects, as well as attorney Macarena Soler, a member of the Tompkins Conservation team for more than a decade. Thanks also go to Ingrid Espinoza, a forestry engineer in charge of the Land Program of the foundations that supervised the technical and cartographic aspects of the proposal. We note also, with thanks, the board of Fundación Yendegaia—Board President Carolina Morgado, Victor Gallegos, Rodrigo Noriega, Carmen Gloria Joost, Luis Toro, and Carlos Cuevas Cueto, as well as past directors María Luz Sierra, Jaime Chávez, and Tito Gargari.

Many local people in the Magallanes Region believed in this project from the beginning and contributed to its success by creating the community organization "Amigos de Yendegaia." Key individuals in that group included José Ruiz Dos Santos, Juan Manuel Draguisevic, Fernando Haro Meneses, Julio Yagello Díaz, Alfredo Prieto Iglesias, Hugo Vera Cárcamo, Gerd Pagels, Mirta Ojeda Dey, Mónica Martínez Guerrero, Alfredo Soto Ortega, Yasna Lobos Vigneaux, and René Bobadilla López.

We also express our gratitude to all those who collaborated in various ministries, government departments, and army and police branches who, with their dedicated but often anonymous work, made possible the creation of a new national park. These individuals include José Antonio Taladríz, Magdalena Piñera Morel, Hernán Bianchi Benguria, Alfonso Domeyko Letelier, Juan Gabriel Fernández García-Huidobro, Stefan Bagladi, Martín Aro Greene, Sofía Vial Osorio, Bárbara López Báez, Patricia Reyes Gutiérrez, Juan Riesco Urrejola, Rodrigo Medina Chaparro,

ACKNOWLEDGMENTS

Alfonso Roux Pittet, Rodrigo Lagos Cerda, Marcela Quezada Vio, Juan Carlos Bulnes Concha, Marlys Guzmán Vargas, María Angélica Fonseca, Elisa Lavado Fernández, Ronald Larenas Campos, Marcelo Vegas Ampuero, Sandra Rojas Wirth, Exequiel Caballol Silva, Gricel Castro Quiroga, Álvaro Monett Hernández, Rodrigo Pérez Mackenna; Richard Torres Pinilla, Eduardo Víal Ruiz-Tagle, Luis Mayol Bouch, Miguel Díaz, Eduardo Katz, Sebastián Llantén Rivas, José Suarez Bolaños, Miguel Ángel García, Iván Sasso Godoy, Nelson Aguilera Águila, Víctor Lagos San Martín, Eduardo Núñez Araya, Claudio Cunazza Paliuri, Gabriel Cogollor Martin, José Fernandez Dübrock, Juan Ivanovich Segovia, Mauricio Ruiz Bustamante, Leonel Sierralta Jara, Pamela Fernández Grossi, Rodrigo Guijon Buschmann, Diego Flores Arrate, Rodrigo Benítez Ureta, María Ignacia Benítez, Arturo Matte Izquierdo, Javiera Ferreyra Bucarey, Ingrid Henríquez Cortéz, María Teresa Infante Caffi, Matías Abogabir Méndez, Andrés Cortes Díaz, Estéfani Saez Cuevas, María Angélica Buvinic, Alfonso Vargas Lyng, Juan Sebastián Montes, Víctor Osorio Reyes, Nivia Palma Manríquez, José Miguel Villablanca, Magdalena Badilla Rodriguez, Víctor Igor Hess, Jorge Maldonado Contreras, Alfonso Simunovic Ojeda, Claudio Radonich Jiménez, General Juan Miguel Fuente-Alba Poblete, General Leonardo Martínez Menanteau, General Víctor Mizón García-Huidobro, Colonel Fernando Hinrichs Pastrana, Mayor Julio Flanega Palma, Teniente Gonzalo Solis Cáceres, Second Corporal Victor Higuera Loaiza, Director General Gustavo González Jure, Inspector General Jorge Rojas Langer, and Colonel Edgardo Osses Cotroneo.

Finally, we thank the members of the Yagán indigenous community of Bahia Mejillones that actively participated in the indigenous consultation process and supported the creation of the Yendegaia National Park: Luis Gomez, Veronica Balfor, Maria Luisa Munoz Cristina Calderón, Lidia González, Alexis Reyes Salamanca, Elcira Menaz, Patricio Chiguay, Fedor Balfor Merino, Violeta Balfor, José González, and Francisco Filguería.

Pedro Pablo Gutiérrez, head attorney for various Conservation Land Trust projects over many years, provided crucial legal support during the process that resulted in the creation of Yendegaia National Park.

COLOPHON

Photography
Antonio Vizcaíno

Essays
Sebastián Piñera Echenique, Douglas Tompkins, Nicolo Gligo V., Hernán Mladinic Alonso, Santiago Valdés Gutiérrez, Adriana Hoffmann Jacoby, Antonio Vizcaíno

Editor
Tom Butler

Art Director
Douglas Tompkins

Editorial Assistance
Carolina Morgado, Mary Elder Jacobsen, John Davis

Translation
Danielle Thys, Claudia Yarur, Juan Quintana

Cartographic Design
Santiago Rodríguez Doeyo, Ingrid Espinoza

Proofreader
Mary Elder Jacobsen

Pilot
Rodrigo Noriega

AMERICA NATURAL

Production Editor
Antonio Vizcaíno

Book Design
Jorge A. Sandoval

Print Coordination
Thomas R. Hummel, Edmund Chung

Printer
Toppan Printing Co.
Hong Kong

THE CONSERVATION LAND TRUST

The Conservation Land Trust (CLT), a nonprofit private operating foundation incorporated in California, works to create and expand national parks in Chile and Argentina. Since its founding in 1992, CLT has developed innovative projects in South America that preserve wilderness, conserve biodiversity, protect endangered species, and restore degraded ecosystems. CLT has conserved more than 1.6 million acres to date and has partnered with government agencies and other nongovernmental organizations to establish multiple new protected areas including Chile's Corcovado National Park and Monte León National Park in Argentina.

The Conservation Land Trust
1606 Union Street, San Francisco,
California 94123
(415) 229-9339

www.theconservationlandtrust.org
www.tompkinsconservation.org

ISBN: 978-1-939621-22-1

Distributed by Goff Books, an imprint of ORO Editions.
www.goffbooks.com
info@goffbooks.com