

# Introduction

The Mer de Glace (literally “the sea of ice”) is a French glacier, located on the Mont-Blanc massif. It is 30 km<sup>2</sup> wide, 12 kilometers long and 300 meters thick, making it the largest glacier in France and the third-largest in the Alps.

This ice giant is however threatened: climate change is causing it to thaw rapidly. Each year, the glacier shortens by 30 to 40 meters and loses 4 to 5 meters of its downstream thickness. Since 1850, the Mer de Glace has withdrawn by 2 kilometers. Scientists predict it could withdraw by another 1.2 kilometers by 2040.

The glaciers’ importance can be observed from hundreds of kilometers downstream on ecosystems and human activities. Glaciers play a crucial role in the regulation of hydrologic flows, of the climate globally, and impact increasing sea-levels.

If glaciers were to disappear, the consequences would be disastrous and unprecedented for biodiversity (including human beings and non-human beings). Along with the oceans’ thermal expansion, the thawing of the glaciers and of the Antarctic and Greenland ice caps is the main cause for the global sea-level rise.

The conservation of glaciers is critical and can only be achieved by addressing climate change.

The French State carries a responsibility towards glaciers, which can so far be characterized as a weak level of action and an overall breach of international commitments to reduce greenhouse gas emissions.



## #1 Presentation

# Presentation

Humans are causing the Mer de Glace to disappear. It is urgent to recognize its right to existence. The numbers exposed before are undeniable. Each year the glacier gets smaller and thinner. Its very nature is transformed: sediments are accumulating, lakes are appearing. The glacier's right to exist is directly threatened.

The Mer de Glace's right to regenerate must also be acknowledged. It is not too late and if we give it a chance, we still can count on its resilience. Unlike most glaciers, glaciologists estimate the Mer de Glace has favorable odds to survive, if we manage to change our current harmful trajectory and mitigate global warming.

Scientific modelings expose that by getting close to the Paris Agreement goals (more precisely by respecting the IPCC RCP\* 2.6 trajectory), the Mer de Glace could keep up to 70% of its current volume by the end of the century.

On the other hand, if greenhouse gas concentrations remain the same as today, the glacier shall lose more than 90% of its current volume. The Mer de Glace is among the most resilient glaciers and could undergo a relatively limited thawing if national and international climate commitments are respected.

The Mer de Glace's right to the upholding of its natural cycles must also be acknowledged. The balance of the glacier is upset, and as a consequence, the whole surrounding alpine ecosystem is too.

Recognizing the Mer de Glace's rights to exist and regenerate is protecting fundamental rights for both humans and non-humans.

Finally, a glacier is like a water tower. Our impact on glaciers amounts to threaten the access to water resources of human and non-humans beings living around the glacier and downstream. Glaciers hold the great majority of the Earth's freshwater resources.

During the summer, when the freshwater gets scarce, they constitute a substantial source of water. Therefore, populations, both human and non-human, living downstream to the glaciers depend on their presence.

With the thawing of glaciers, the fundamental right to water of humans and non-humans is also jeopardized.

## **Yann Borgnet's testimony:**

It isn't always easy to actually experience the effects of climate change. Everywhere, they are expressed in numerical terms and in descriptions of the disruptions they bring. But since facts seldom touch our senses they are rarely experienced directly. Living part of the year in high mountains brings the uncertainties of climate change into our daily lives. We experience and react to climate change but spend little time consciously reflecting on it. Because thinking too deeply can set mountaineering and mountain guiding on a dangerous path towards over-planning. Living with the uncertainties brought by climate change requires playing by ear rather than sticking to a detailed score.

The Mer de Glace is probably the French Alps glacier that best expresses the cacophony of sometimes clashing melodies. Sounds meet and mix. At times informative, at times inopportune, they reveal the clash of two worlds.

The old world cast light upon this strip of ice, known as the « grande glaciaire », that people have come from afar to see since over a century ago. The Montenvers train, a technological feat built in 1919, brought accessibility and therefore renown to the Mer de Glace. Numerous projects were planned at that time in the Chamonix Valley, but only a few were realised. One of them had been intended to transport people up to within a few hundred metres of the summit of Mont-Blanc but in the end the construction of the train line was terminated at Nid d'Aigle (Eagle's Nest), halfway up the mountain. It was a time when complete accessibility to glaciers and summits was paramount. But now, when the Compagnie du Mont-Blanc dreams of extending two train lines, has anything really changed?

The sounds of the Mer de Glace

The moraines surrounding the Mer de Glace have been collapsing, summer and winter, for I don't know how long. Gradually, but with a roar that always makes me shudder. I cannot get

used to it. It arouses an anxiety that slowly takes root as a deep insidious fear. What is becoming of the glacier that made Chamonix's reputation? What are these sounds doing to it? The glacier is withdrawing, as if in shame. It is being covered with rocks, becoming a black glacier. Last winter, it was difficult to ski all the way down the Vallée Blanche. Scattered and striking images.

Another sound, sadly characteristic of the Mont-Blanc massif, is the hubbub of helicopter turbines and twin-engine tourist planes. Constant background noises, they inspire disgust rather than fear. In order to allow a few tourists to enjoy easy access to the high alpine glaciers, thousands of mountaineers and others seeking to enjoy the peace of the natural environment have to endure this invasive noise, an appropriation of space. Can we really leave the Mont-Blanc to be the only massif unprotected from such dubious projects?

Some sounds are more occasional, scattered and disparate. Isolated actions which will reverberate for a long time. Some may seem trivial, but their cumulative effects are giddy: more than 600 linear metres of ladders have been installed to access the five mountain refuges surrounding the Mer de Glace. Other efforts to cling on the old world evoke the myth of Sisyphus: each year the Compagnie du Mont-Blanc digs a new ice cave in the stony ground. There is still ice below, but for how long? The stairs leading to the cave are extended each year and along with them signs indicate the level of the glacier at certain dates. Observations without consequences. Potential projects are being discussed in the press: if the ice is no longer visible below, should we expand the robotic arm until it's visible again? But for how long would it last?

Unlimited access to the Mont-Blanc massif and the Mer de Glace must now be questioned. How long will we be bound to follow the score of the old world, a symphony that allows for no deviation or improvisation. When will we listen to the improvised polyphony arising from many disparate voices, muted until now? The Mer de Glace is now a mere residue of ice covered in rock debris, a residue of the old world. It is upon this ruin of capitalism that new and cheerful melodies must be composed.

On a personal level, improvisation has intruded on my work as a mountain guide. As summer 2020 began, we climbed the chaotic moraine towards the ladders leading to the Couvercle refuge. On the first post-lockdown trip, neither Antoine, my client, nor I, wanted to push ourselves too hard. Nothing planned, only an ambitious goal divided into easier stages: crossing

the Droites, bivouacking in the high mountains, crossing the Courtes. One step at a time, our bags full of bivouac equipment so that we could play by ear rather than try to follow a prearranged score. We slept right under the peak of the Droites, where we were able to observe the decay of the glaciers. Our memories of the bivouac will remain in our minds for far longer than our memories of the summit.

## **The Team**

The Mer de Glace defence team at the Rights of Nature Tribunal:

The Case Presenter



Marine Yzquierdo

Lawyer and coordinator in Notre Affaire à Tous, committed to climate justice and the recognition of rights to non-human entities.

The Scientific Expert



Jean-Baptiste Bosson

Glaciologist and geomorphologist, author of the first study on World Humanity Heritage glaciers.

The Witness





Mountain Wilderness France, represented by Fiona Mille.

Advisor in Industrial and territorial ecosystem regeneration, administrator at Mountain Wilderness France since 2018.

The Witness



Yann Borgnet

Yann is a 29 years old mountain guide and founding member of the “Alpines Lines” collective which aims at bringing a change in mountaineering and the general mountain outdoor activities. He is also doing a Geography PhD on the adaptation of mountain sports to climate change.

The Legal Advisor



Pierre Spielwoy

PhD student in international environmental law at the Centre Universitaire Rouennais d'Etudes Juridiques in Rouen (France) and also PhD student in eco-anthropology and ethnobiology at the French National Museum of Natural History.



Notre Affaire à Tous

Rights of Nature and climate justice

Notre Affaire à Tous is an association which uses the law as a way of protecting the living, our common heritage and the climate.

<https://notreaffaireatous.org/>



Mountain Wilderness France

Protection of the mountain

Mountain Wilderness defends a relation to mountain based on the respect of humans and of nature.

<https://www.mountainwilderness.fr/>

## Legislation

By recognizing the glaciers rights to exist and regenerate, we also protect the fundamental rights of human and non-human beings. There is an undeniable link of interdependence between humans, non-humans and glaciers.

We therefore ask the Tribunal to acknowledge that in order to guarantee the rights of human and non-human beings, we must recognize and uphold the rights of Mother Earth and of the natural elements forming it, notably the Mer de Glace, and to that end:

to recognize the Mer de Glace's quality as a legal subject;

to uphold the Mer de Glace rights to exist, regenerate and have natural cycles;

to appoint representatives to the Mer de Glace whom shall defend its interests and take part in any decision-making regarding, even remotely, the glacier;

to enforce the compliance of the French State with the Paris Agreement and especially the goal of reducing by 45% the emission of greenhouse gases by 2030;

to create a protected area around the glacier.

