

# Antarctica, 'heart of the Earth' needs protection: expert

November 29 2019, by Viken Kantarci

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Marcelo Leppe, director of the Chilean Antarctic Institute (INACH), says the world must work to preserve the sixth continent which is like the "heart of the Earth"

It may be remote and uninhabited but Antarctica is suffering from man's activities, says the director of the Chilean Antarctic Institute, Marcelo

Leppe, in an interview with AFP.

## **Why is Antarctica important?**

Originally in school we were taught that there were only five continents around the world. Antarctica is the sixth continent, but it's a continent that you can define as the heart of Earth.

The world's main marine current is the circumpolar Antarctic current that moves from west to east around Antarctica. It appeared 13 million years ago and it has frozen a continent that was green in the past. This current has connections with the thermohaline (ocean) currents around the world.

It's like a heart because every year it changes its shape from 14 million square kilometres to more than 20 million. It expands in winter with the sea ice and retreats in summer ... You can see it beating, really beating.

And the subantarctic current is moving around the world like a circulatory system. It's probably playing a major role in the control of [climate change](#).

So it (the current) is very important to understand and to predict, but it's also very important to preserve.

## **What is the impact of climate change on Antarctica?**

The main impact in Antarctica is probably the cryosphere. Every year you can observe and record the melting of glaciers, the disappearance of sea ice ... and, in areas that are left without ice, the recolonisation of plants and other organisms that were not present in Antarctica before.

We have recorded that in the last 50 years, probably 15 percent of all the ice has disappeared. And in the coming years this curve will accelerate, more than originally expected in the IPCC (Intergovernmental Panel on Climate Change) predictions.

In 2100, probably an important share, more than 35 percent of the ice will have disappeared. The landscape of the Antarctic peninsula will be different and the dynamics of the sea currents will also definitely be different.

## **Are there any other threats? Why should we be concerned?**

Antarctica is not as isolated as we think. Microplastics are starting to be a big, big issue in Antarctica. They are everywhere and ... we have detected them in all environments. We have detected them in the eggs of penguins, for example.

So what we produce in the rest of the world is reaching Antarctica and this nature that looks very untouched is actually impacted by human beings through microplastics.

When you have a [continent](#) that is regulating the weather, the [climate](#) around the world, with these teleconnections (related to each other at great distances), of course you have to pay attention.

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