www.thehindu.com 2017-8-15

Largest volcanic region on earth lies in Antartica

Fire and ice:Water warmed by volcanoes in Antarctica. Heat from volcanoes allows plants and animals to survive here.British Antarctic Survey/Australian National University/AFPPETER CONVEY

The largest volcanic region on Earth — with nearly 100 volcanoes — has been discovered two km below the surface of the vast ice sheet in west Antarctica.

Researchers from the University of Edinburgh in Britain found a staggering 91 previously unknown volcanoes, adding to the 47 others that had been discovered over the previous century of exploring the region.

The height of these newly discovered volcanoes range from 100 to 3,850 metres, with the highest almost as tall as Switzerland's 3,970-metre Eiger mountain.

These active peaks are concentrated in a region known as the west Antarctic rift system — which stretches 3,500 km from Antarctica's Ross ice shelf to the Antarctic peninsula. Geologists say this huge region is likely to dwarf east Africa's volcanic ridge — currently rated as the densest concentration of volcanoes in the world.

Eruption concerns

However, the activity of this range could have worrying consequences, glacier expert Robert Bingham was quoted as saying to *The Guardian*. "If one of these volcanoes were to erupt it could further destabilise west Antarctica's ice sheets."

"Anything that causes the melting of ice, which an eruption certainly would, is likely to speed up the flow of ice into the sea," Mr. Bingham said, adding: "The big question is: how active are these volcanoes? That is something we need to determine as quickly as possible."

The Edinburgh volcano survey, reported in the Geological Society's special publications series, involved studying the underside of the west Antarctica ice sheet for hidden peaks of basalt rock similar to those produced by the region's other volcanoes.

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