

ABSTRACT
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**Caves in the Glaciers of Terra Nova Bay
(Victoria Land, Antarctica)**

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In the 2000/2001 expedition of the Italian Programme of Research in Antarctica (PNRA) some investigations on karst phenomena in ice have been carried out around the Italian Station of Terra Nova Bay, on the western coast of the Ross Sea.

Some caves have been explored in the glacial terminus of glaciers reaching the sea and another one has been found on the summit of Mt Melbourne, a volcanic cone 2700 m high. The caves on the coast have been generated by a dry process of speleogenesis due to sublimation of ice. The process is driven by temperature difference between the core of the glacier ice and the quite warmer sea water under the fast ice at the bottom of the caves.

The Mt Melbourne subglacial cave is generated by the heat of the volcanic rocks; also in that cave the water vapour state is of fundamental importance because in such a state the water is carried out from the cave.