QUATERNARY PHREATOMAGMATIC VOLCANOES OF SOUTHERN TENERIFE, SPAIN: MONTANA PELADA TUFF RING AND CALDERA DEL REY MAAR


Abstract

Quaternary monogenetic volcanoes in southern Tenerife are part of a rift zone extending from the Pico del Teide to the north. In this rift zone, cinder cones are often covered by smaller volcanic remnants from an extensive volcanic field. In the southern margin of this rift zone, near the Atlantic shoreline phreatomagmatic volcanoes are known. Montana Pelada is a tuff ring 1.2 km across and stands about 100 m above the sea level. The pyroclastic succession of the tuff ring is very monotonous and consists of accidental rich bedded lapilli tuff. The pyroclastic rocks in the base are cobble accretionary lapilli beds derived from pre-burial lacustrine and from the upper section. A gradual transition to a more bedded texture of the pyroclastic units is prominent. In the upper section of the maar, small tuff beds and scoria-lake beds indicate the vents of the volcano has been cleared by this time of the eruption. The crater of the Montana Pelada Maar is about 800 metres in diameter and its rim is 100 m high. Tuff ring succession are especially rich in intra-volcanic deposits, which are especially rich in large impact craters of the Tenerife.
Quaternary phreatomagmatic volcanoes of southern Tenerife, Spain: Montana Pelada tuff ring and Caldera del Rey Maar.

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