

Petrology and Biostratigraphy of the Paleogene Volcanic Arc in the La Sierra Maestra, Cuba

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Our work was developed in the southern part of La Sierra Maestra in the lowest sequence of the Paleogene Volcanic Arc, represented by El Cobre Group. This group is divided in two different packets: one with a Middle-Upper Paleocene age and the other one with a lower Eocene age. The first one is more extended in the studied area and it is represented by terrigenous, carbonated and tuffogenic rocks in the lowest part with predominance of terrigenous rocks, being more abundant toward the east part of La Gran Piedra region. There is a variation toward the upper part of this packet becoming more piroclastic and the presence of lavics lithofacies of middle-basic composition to acid, interbedded with siliceous and volcano-sedimentary facies. Its age is given by the ***Morozovella angulata-Morozovella velascoensis*** biozone. The Upper part with lower Eocene age was detected in scarce outcrops, becoming notable the predominance of lavic and piroclastic facies with scarce carbonated rocks, the chemical composition, of the magmatic rocks don't vary in this packet; just toward the western portion is more acid becoming andesito-dacitic. The correspondent biozones, ***Morozovella formosa formosa* - *Morozovella aragonensis***

Analyzing the results we consider that the Paleogene volcanic arc began to develop in the Middle Paleocene and the volcanic activity was increasing toward the lower Eocene. The major explosive and effusive activity was found in Guamá and La Gran Piedra Region, while in the western region the number of magmatic focus were scarce.