Boletín Geológico

SERVICIO GEOLÓGICO COLOMBIANO

EDITORIAL

Boletín Geológico presents issue number 47, the second issue published in 2020, with five articles on basin evolution, stratigraphy, economic geology, geothermochronology, and geoarchaeology.

Amaya et al. present a lithological, petrographic, geochemical, and geochronological characterization of the Guaviare Complex, a new unit defined in the Colombian Amazonian Craton, which is part of the Precambrian basement located in southeastern Colombia (Figure 1). This work is the result of the systematic geological mapping of the Servicio Geológico Colombiano carried out near San José del Guaviare. The Guaviare Complex is divided into three units according to their textural and compositional characteristics, which are termed the Termales Gneiss, Unilla Amphibolite, which present protoliths that were formed in the Mesoproterozoic at 1.3 Ga, and La Rompida Quartzite, with a maximum age of 1.28 Ga.

Martínez et al. describe the base of the Guadalupe Group in the Tunja area, Colombia (Figure 1). The base of the Guadalupe Group consists of cherts and porcellanites in the NW region of the study area (Alto del Gavilán section) and mudstones, siltstones, quartz-arenites, and, to a lesser extent, porcellanites and cherts towards the SE (Vereda Salitre section). Paleontological analyses performed on the two stratigraphic sections measured in this study indicate that the base of the Guadalupe Group partly represents the Upper Santonian and mostly the Lower Campanian.

Castrillón and Guerrero describe the mineralogical and geochemical characterization of an association of rocks in the Cerro Matoso nickel laterite deposit, Montelíbano, Colombia, that could correspond to listvenite (Figure 1). This term is used principally by Russian geologists to describe the carbonate +/- sericite +/- pyrite alteration of mafic and ultramafic ophiolitic assemblages, which indicates the hydrothermal involvement of quartz +/- carbonate veins.

Cetina et al. review radiometric and thermobarometric techniques used to construct cooling curves or paths to characterize intrusive bodies and calculate cooling and exhumation rates. These cooling curves or paths in intrusive bodies are highly relevant when studying compressive or extensional areas because they partly represent the local thermal history, thereby providing data on the magmatic and tectonic evolution of a region.

Triana et al. present a detailed micromorphological and micromorphometric analysis of sediments collected in archaeological excavations conducted at the Tequendama and Aguazuque sites near Bogotá, Colombia (Figure 1). The analysis quantifies the contents of archaeological materials, such as bones and coal, as well as carbonates remains, which are associated with various activities. Based on paleoenvironmental interpretation, the presence of secondary carbonates indicates arid conditions in the Sabana de Bogotá region, which coincide with the regional climatic records.

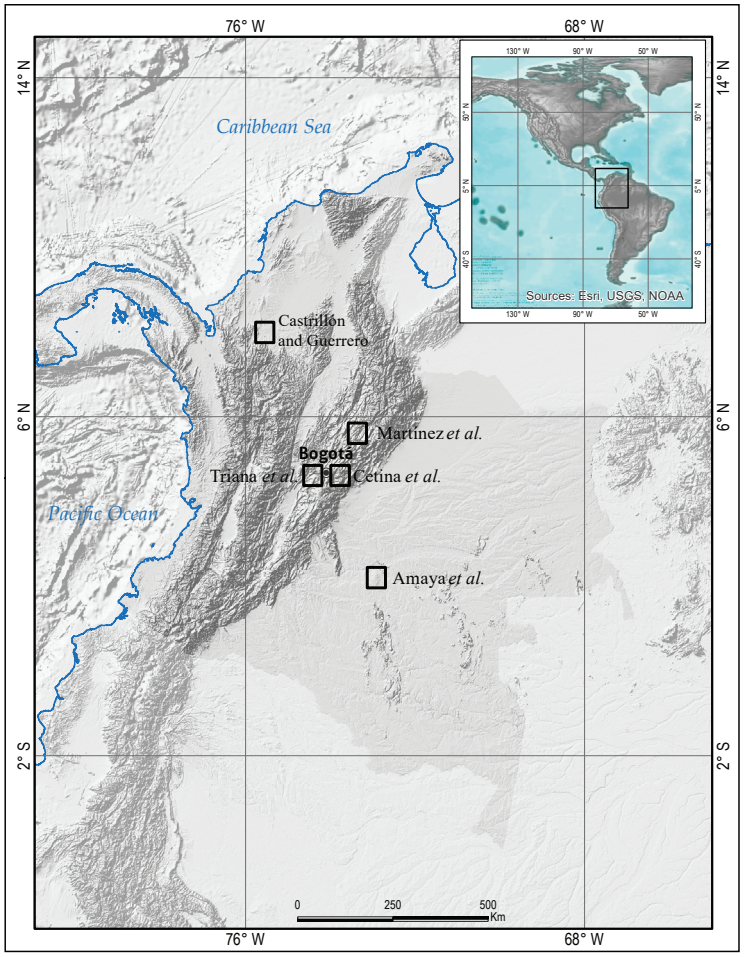

Figure 1. Location of the areas with contributions presented in this issue

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