DISTRIBUTION AND STRATIGRAPHY OF THE EL RAYO LIMESTONE LENSES IN THE SAN GERMAN AND SABANA GRANDE QUADRANGLES, CABO ROJO-SAN GERMAN STRUCTURAL BLOCK, SOUTHWESTERN PUERTO RICO.

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ABSTRACT

The El Rayo Formation is exposed intermittently between the towns of San German, Lajas, and Sabana Grande in southwestern Puerto Rico. The preserved part of this carbonate platform/ramp is exposed over a 7 km long area. Outcrops occur mostly in the southern flank of the Cabo Rojo-San German structural block, and north of the Lajas Valley.

The formation was first described by Slodowski (1956) and redefined by Volckmann (1984) as dark-grayish-purple to black andesite and basaltic lava and tuffaceous breccia. Thin-bedded to massive limestone lenses are interbedded with lava flows and breccias in the upper one third of the formation. These lenses range in thickness from several meters to close to one hundred meters in the Lajas Arriba area where the formation is at its maximum thickness. The limestone represents a shallowing upward sequence and is characterized by Titanosarcolites - Parastroma rudistid frameworks in the lower half of the formation and by coral-algal bioherms and oyster biostrome in the top.