

EASTERN ANDEAN HOLOCENE VOLCANISM IN SOUTHWEST MENDOZA PROVINCE, ARGENTINA

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On the eastern flank and piedmont of the Cordillera de los Andes in southwest Mendoza Province, Argentina (35°07'S-35°10'S), there are more than 20, mostly monogenetic cones and some composite stratovolcanoes with blocky basaltic-andesite lava flows. They include small cones such as the Hoyada-Lagunita-Loma Negra Group, with a total volume of ~0.2 km³, more voluminous monogenetic volcanoes such as Hoyo Colorado, with 0.44 km³, and composite volcanoes such as the Cerro Diamante of 4.2 km³. Although data indicate they were emitted as groups of successive strombolian eruptions, they are overall contemporaneous, being the youngest Holocene volcanoes located in an extra-Andean setting, randomly distributed from ~70 to 120 km to the east of the main volcanic front. The basaltic-andesitic magmas of these eastern volcanoes show petrographic and geochemical characteristics that support both processes of crustal interaction during ascent, as well as a more direct ascent. Structural characteristics of the basement rocks and the current seismotectonic activity of the Andes at this latitude indicate that these volcanoes were emplaced in a dominantly compressive tectonic regime at the eastern flank of the cenozoic fold and thrust belt, but on different morphologic blocks: one comprises the eastern Andean flank and the other, the Andean piedmont. Current studies show physical and geochemical behaviour of this 'unusual' Andean volcanism. Fondecyt Project 1960186 is acknowledged.