The Peteroa volcano, located in the Southern Volcanic Zone of the Andes on the Argentine-Chilean border at 35 ° 15' S latitude, erupted for about 48 days, beginning on September 4th, 2010. After a period of increased fumarolic activity, the eruption began with a strong eruption column of ca. 1,800 m in height, continuing later with a weak column of no more than 200 meters. The eruption was of the phreatomagmatic type, with more profuse emission of steam than pyroclastic material. Particulate emitted material contained mainly juvenile glass and subordinate cristaloclasts. The tephra fall was mainly accumulated in the vicinity of the volcano, while in more remote areas formed only a thin layer. On 25th September the plume reached its maximum extension of 420 km SSE. Peteroa is a Holocene poligenetic volcano part of the Volcanic Complex Planchón-Peteroa, which has a volcanic history that began in the Pleistocene. The Peteroa volcano has recorded 20 eruptions in historical times with a VEI ≤ 2. Due to the low volume of ejected tephra and limited volcanic ash spread, and the fact that the vicinity of the volcano is uninhabited during the winter, the eruption of 2010 did not have much effect on people. At the moment Peteroa doesn`t have permanent monitoring.