



Cities on Volcanoes 9  
November 20-25, 2016  
Puerto Varas, Chile



*'Understanding volcanoes and society: the key for risk mitigation'*

## **Pehuenche and Copahue Volcano: How indigenous communities coexist with an active volcano**

**Jonathan Quijada<sup>1-2-3</sup>, Cristian Cartes<sup>1-2-3</sup>, Daniela Pino<sup>1-2-3</sup> and Juan San Martín<sup>1-2-3</sup>**

<sup>1</sup>SERNAGEOMIN: Servicio Nacional de Geología y Minería. Chile.

<sup>2</sup>RNVV: Red Nacional de Vigilancia Volcánica

<sup>3</sup>OVDAS: Observatorio Volcanológico de Los Andes del Sur

Keywords: Copahue volcano, pehuenche, indigenous communities, risk

Copahue is an active stratovolcano of the Southern Andes, located on the Chilean-Argentinian border at the intersection of Caldera El Agrio and the Liquiñe-Ofqui Fault Zone (LOFZ). The eastern summit crater El Agrio contains an acidic lake, continuously fed of meteoric water and glacier melting. Historic eruptions (VEI 2 or less) are dominantly caused by the interaction of the magmatic and hydrothermal systems. Copahue volcano has been monitored since May 2012. It is ranked ninth in SERNAGEOMIN's risk ranking of Chilean volcanoes and has been in yellow alert level since October 2014. The Pehuenche are an indigenous race that live in the mountainous territories of the Andes both in south-central Chile and Argentina, and use to practice subsistence agriculture and raise cattle. For centuries, communities of the Pehuenche people have lived close to Copahue volcano within hazardous zones, such as next to glacier fed rivers, migrating between different valleys during the winter, and herding cattle nearby the volcano during the summer. Their escape routes are insufficient due to their closeness to the volcanic hazard zones. In this abstract we discuss both resilience and worldview of the Pehuenche and the challenges of the volcano monitoring.