



## AEGS-1: Ciencias planetarias, meteoritos y procesos de impacto

### The impact record of South America: A review

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The Earth's impact record is known to be rather limited in both time and space. There are about 190 impact structures currently known on Earth, representing a minor fraction of all the impact events that contributed to the initial formation of our protoplanet, and then to formation and modification of the surface of the planet. Moreover, the distribution of impact structures on Earth is manifestly uneven. One continent that stands out for its relatively small number of confirmed impact structures and impact ejecta occurrences is South America. The limited impact record for this large continent makes a robust case that there is a significant potential for further discoveries. Significant information on the impact record of South America is dispersed in different types of publications (journal articles, books, conferences abstracts, etc.), and in several languages, making it difficult to access and disseminate it among the geoscientific community. We aim to present a summary of the current knowledge of the impact record of this continent, comprising the older and larger structures located in Brazil, two young and small craters in Chile and Peru, respectively, two crater fields in Argentina, a number of occurrences of impact glasses in Argentina, Chile, Uruguay and, possibly, Colombia, some occurrences of distal deposits (in Brazil and Colombia) from the K-Pg boundary event that formed the Chicxulub impact structure in Mexico and, finally, some reports of airburst events in the Amazon regions of Brazil and Guiana.