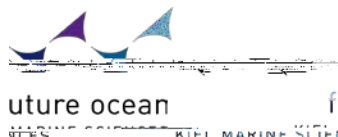


Press Release



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Earthquake rupture halted by Seamounts **German-Spanish team of geologists presents explanation for smaller than expected tremor during the April 2014 Iquique earthquake**

30 September 2015/Kiel. Experts expected for some time that one of the next mega earthquakes occurs off northern Chile. But when the earth did tremble around the northern Chilean city of Iquique in spring 2014, the strength and areal extent of shaking was much smaller than anticipated. Geologists from the GEOMAR Helmholtz Centre for Ocean Research Kiel and the Cluster of Excellence “The Future Ocean”, the Institute of Marine Sciences (CSIC) in Barcelona (Spain), and the German Institute for Geosciences and Natural Resources (BGR) now publish a possible explanation

fractures, less stress is build up in the area around the subducting seamounts and the resulting earthquake is smaller. "In addition, the subducted seamounts probably stopped the spatial propagation of seismic rupture physically during the Iquique earthquake," says Dr. Geersen.

The risk of a future mega earthquake in the seismic gap of northern Chile is not yet reduced. "A portion of the accumulated stress has now been released by the 2014 earthquake. However, in the unbroken northern and southern portion of the seismic gap there is still enough energy that remains to be released during an earthquake with a magnitude larger than 8.5" says Dr. Geersen. Therefore, scientists from around the world continue to monitor the region. In autumn 2015, a team of GEOMAR scientists will also visit the area off northern Chile onboard the German research vessel SONNE in order to install high-precision instrumentation on the seabed that is capable of detecting even small centimeter-scale movements of the