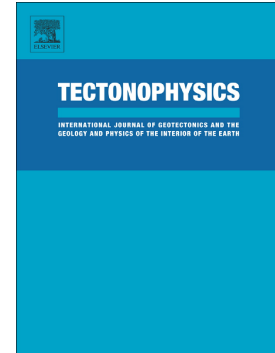


Accepted Manuscript

Cenozoic intraplate tectonics in Central Patagonia: Record of main Andean phases in a weak upper plate

G.M. Gianni, A. Echaurren, A. Folguera, J. Likerman, A. Encinas, H.P.A. García, C. Dal Molin, V.A. Valencia



PII: S0040-1951(17)30406-7
DOI: doi:[10.1016/j.tecto.2017.10.005](https://doi.org/10.1016/j.tecto.2017.10.005)
Reference: TECTO 127643
To appear in: *Tectonophysics*
Received date: 12 May 2017
Revised date: 24 August 2017
Accepted date: 1 October 2017

Please cite this article as: G.M. Gianni, A. Echaurren, A. Folguera, J. Likerman, A. Encinas, H.P.A. García, C. Dal Molin, V.A. Valencia , Cenozoic intraplate tectonics in Central Patagonia: Record of main Andean phases in a weak upper plate. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. *Tecto*(2017), doi:[10.1016/j.tecto.2017.10.005](https://doi.org/10.1016/j.tecto.2017.10.005)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Cenozoic intraplate tectonics in Central Patagonia: Record of main Andean phases in a weak upper plate

G. M. Gianni¹, A. Echaurren², A. Folguera², J. Likerman², A. Encinas³, H.P.A. García¹, C. Dal Molin⁴, V. A.Valencia⁵

¹IGSV. Instituto Geofísico Sismológico Ing. F. Volponi. Universidad Nacional de San Juan. CONICET. Km 12, jardín de los Poetas, Rivadavia (5400), San Juan, Argentina.

² IDEAN, Instituto de Estudios Andinos Don Pablo Groeber, UBA - CONICET. Departamento de Ciencias Geológicas, FCEN, Universidad de Buenos Aires.

³ Departamento de Ciencias de la Tierra, Universidad de Concepción, Casilla 160-C, Concepción, Chile.

⁴SEGEMAR, Av. Julio Argentino Roca 651, Buenos Aires, Argentina. CP (C1067ABB).

⁵School of the Environment, Washington State University, Pullman, Washington 99164, USA

Corresponding author: Guido M. Gianni (guidogianni22@gmail.com)

Abstract

Contraction in intraplate areas is still poorly understood relative to similar deformation at plate margins. In order to contribute to its comprehension, we study the Patagonian broken foreland (PBF) in South America whose evolution remains controversial. Time constraints of tectonic events and structural characterization of this belt are limited. Also, major causes of strain location in this orogen far from the plate margin are enigmatic. To unravel tectonic events, we studied the Cenozoic sedimentary record of the central sector of the Patagonian broken foreland (San Bernardo fold and thrust belt, 44°30'S-46°S) and the Andes (Meseta de Chalia, 46°S) following an approach involving growth-strata detection, U-Pb geochronology and structural modeling. Additionally, we elaborate a high resolution analysis of the effective elastic thickness (T_e) to examine the relation between intraplate contraction location and zones of low lithospheric strength. The occurrence of Eocene growth-strata (~44-40 Ma) suggests that

Download English Version:

<https://daneshyari.com/en/article/5781444>

Download Persian Version:

<https://daneshyari.com/article/5781444>

[Daneshyari.com](https://daneshyari.com)