

## **SYNOROGENIC TERTIARY DEPOSITS OF THE ANDEAN OROGENIC FRONT AT 32°S LATITUDE**

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Since tertiary times a series of foreland basins has been developing along the western andean margin of South America. At 32°S four different morphostructural provinces are defined, from west to east, on the argentinian andean side: the Cordillera Principal, the Cordillera Frontal, the Precordillera, and the Sierras Pampeanas. The sinorogenic tertiary deposits of the foreland basin related to the thrust belt front migration in the eastern Precordillera, are analyzed and an interpretation of the thrusting sequence is proposed. These nonmarine sinorogenic deposits comprise mainly fluvial, alluvial and subordinated eolian environments in a semi-arid setting. The stratal patterns are strongly influenced by structural control. The foreland basin remained slightly sediment-starved and unfilled during most of its evolution. Provenance studies in nine sections allow to establish these relationships: a) early distal to medial facies indicates Cordillera Frontal as a source area, b) proximal facies are a result of the western to eastern Precordillera uplift, c) in the east side of the basin a supply from Sierras Pampeanas during the last stage (broken foreland) is also suggested.