# CORRELATION OF THE JURASSIC THROUGH OLIGOCENE STRATIGRAPHIES OF TRINIDAD AND NORTHEASTERN VENEZUELA

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## ABSTRACT

The Jurassic through Oligocene stratigraphies of Trinidad and the Serrania del Interior of eastern Venezuela show many similarities due to their proximity on a passive continental margin. A slightly later, post-rift subsidence in eastern Venezuela, and the generally deeper water sedimentation in Trinidad is interpreted to be due to a serration of the original rift margin, producing an eastern Venezuelan promontory and Trinidadian re-entrant. The stratigraphies contrast in the Hauterivian-Albian interval, with shallow shelf environments prevalent in the Serrania del Interior and deeper marine submarine fan deposition in Trinidad. Both areas develop Middle and Upper Cretaceous source rocks.

A slight lowering of eustatic sea level may have been responsible for the clastic influx represented by Maastrichtian sandstones, disturbing the previous pelagic and hemipelagic sedimentation. Sedimentation stabilized with slope and outer shelf turbiditic deposition during the Paleocene and Lower Eocene, before diachronous, west to east, shallowing occurred. Shallowing occurred in eastern Venezuela in the late Middle Eocene, and in the Late Eocene/Early Oligocene in Trinidad. The magnitude and rate of shallowing require there to have been a tectonic uplift. Following the shallowing, both areas subsided rapidly into laterally variable Oligocene to Recent flysch-like sedimentation. This is interpreted to represent the onset of direct interaction of the Caribbean plate with the South American depocenters of Trinidad and eastern Venezuela. From the Miocene to the Recent sedimentation has been strongly influenced by these plate interactions