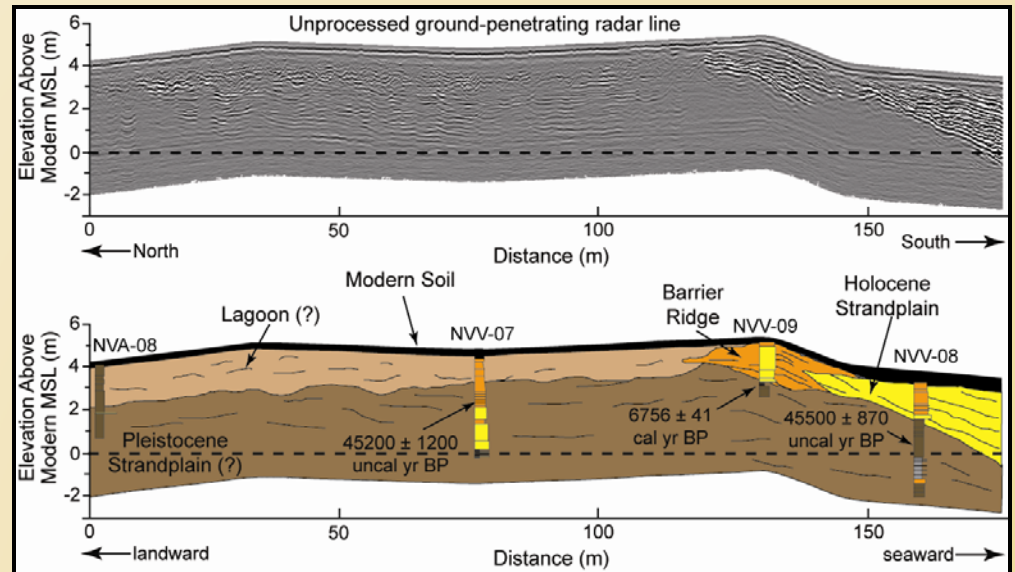
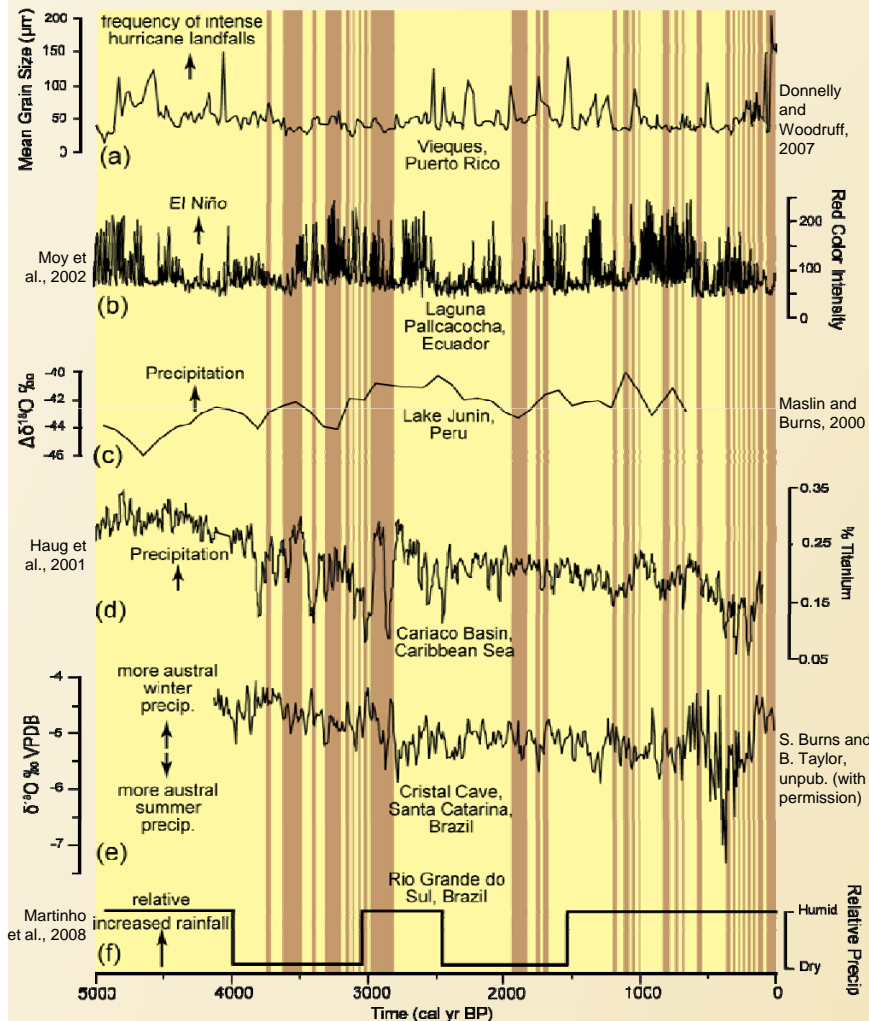


Strand Plain Geometry, Stratigraphy, and Evolution: Tijucas, Santa Catarina, Brazil



Duncan M. FitzGerald, Department of Earth Sciences, Boston University, Boston, MA 02215

Utilizing a suite of geophysical and sedimentological tools, we are studying strandplain evolution since the mid-Holocene highstand in Santa Catarina, Brazil to advance our understanding of Holocene sea level change, barrier formation during forced regressions, chenier development, and coastal response to climatic and sea level forcings.



~70 abrupt transitions between shore-parallel sand- and mud-dominated facies within the upper strandplain sequence at Tijucas likely result from changes in the fluvial bedload / suspended load ratio driven by decadal- to centennial- scale climate change. Yellow: sand-dominated deposition; Brown: mud-dominated deposition

Raw (top) and processed (bottom) ground-penetrating radar lines from Navegantes. The features shown are interpreted as the mid-Holocene highstand ridge, emplaced upon the underlying Pleistocene (~120,000 years old) regressive strandplain. A radiocarbon date at the base of the ridge indicates that this ridge is of mid-Holocene age, at the approximate time of the sea-level highstand identified along the southern Brazil coast.