

**REPLY****Reply to Discussion of Dr. M.A. Gonzales on Our Paper "Comparison of ESR and Amino Acid Data in Correlating and Dating Quaternary Shorelines Along the Patagonian Coast, Argentina" in *Journal of Coastal Research*. 6(2), 391–412.****Nat Rutter,† Ulrich Radtke‡ and Enrique J. Schnack\***

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The authors appreciate the comments and interest of Dr. Gonzales on our work on Quaternary shorelines along the Patagonian Coast. Our purpose was to improve knowledge and understanding of the number, age, character and geomorphology of beach ridges found in selected areas of Patagonia, since little information was available. To aid in correlation and dating, we employed two methods previously untested in the area—amino acid dating techniques and ESR (Electron Spin Resonance). The authors are well aware of the limitations of the methods and have indicated such throughout the paper. Our conclusions were based upon our best interpretation of the data obtained to date and believe that we now have a better understanding of the evolution and timing of events of shoreline development. We leave it to our readers to agree or disagree with us. We stand by our conclusions and emphasize the following:

- (1) That  $^{14}\text{C}$  dates determined on molluscs from below various beach ridges that give ages of between 25–40 Ka are suspect, and are probably infinite.
- (2) That there was no detectable mid-Wisconsin rise of sea level along the Patagonian Coast and that all levels above the Holocene terraces are older than mid-Wisconsin, and
- (3) That even though ESR dating of molluscs from Patagonian deposits were not altogether satisfying, including the margin of error, we can identify whether a shell is Holocene, mid-Wisconsin, or last interglacial or older.

The story of Quaternary shorelines along the Patagonian Coast is far from over. Further detailed studies, and dialogue between workers such as this, will go a long way for a better understanding.