

**AAPG Annual Meeting
March 10-13, 2002
Houston, Texas**

Stefan K. Rehm¹, Dietrich Horn², Gilbert F. Camoin³, Wolf-Christian Dullo², Philippe Lapointe⁴ (1) Geomar, Research Center for Marine Geosciences, 24148 Kiel, Germany (2) Geomar, Research Center for Marine Geosciences, Kiel, Germany (3) IRD, Institut de Recherche pour le Developpement, 98848 Noumea cedex, New Caledonia (4) TotalFinaElf, 92078 Paris La Défense Cedex, France

Miocene Carbonate Platform Development in the Philippines: Comparison of Offshore Data and New Outcrops in SW Palawan

Miocene platform carbonates and reefal structures have been studied on Palawan (Philippines), and compared to coeval deposits offshore.

The interpretation of wells and seismic lines offshore NW-Palawan yields the following depositional model: 1) Early to Middle Miocene platform carbonates overly unconformably Cretaceous to Lower Tertiary clastics; 2) some isolated reefal structures of different sizes occur on top of the platform; 3) the carbonates are covered by Late Miocene to recent clastics that display prograding sequences and erosional channels.

The discovery of new outcrops of Miocene platform carbonates and isolated reefal structures in SW-Palawan represent a similar development onshore. The platform carbonates overlie shales. A gravel content in the lower part of the platform carbonates indicates a shoreline nearby. In contrast, the uppermost layers are dominated by fine, monotonous mud- to wackestone with planktonic foraminifera, which relate to relatively deeper water, quiet environment. Furthermore, a sea level rise is documented within the platform sequence. Isolated reefal structures still developed after the demise of the carbonate platform. Variable depositional conditions as consequence of the drowning can be observed by means of facies changes along the reef profile.

Based on the observations on- and offshore we conclude that the carbonates in SW-Palawan represent the onshore equivalents of the Miocene carbonate section offshore. The offshore survey and the observed facies development and distribution onshore confirm the concept of drowning of an early carbonate platform followed by the development of isolated reef structures, which are finally buried by clastics at different times.