

## **Deposition Architecture of a Fluvio-Deltaic to Reef Crest Succession, Port Morant Formation, Jamaica**

**Sherene A. James-Williamson and Simon F. Mitchell**

*Department of Geography and Geology, University of the West Indies, Mona Campus, Kingston 7, Jamaica. West Indies*

### **Abstract**

The Late Pleistocene deposits of the Port Morant Formation are separated from the underlying deposits of the Coastal Group by a significant angular unconformity; they show exquisite exposures on the coast of Port Morant Harbour that provide virtually continuous exposure in the down-dip section of the Port Morant Delta; and the sections can be traversed from fully marine into the fluvial system. The Port Morant Formation is interpreted as a fan delta that drained the rapidly uplifting Blue Mountains during the mid to late Pleistocene. River capture following the last sea-level low stand has resulted in these exposures.

Three facies associations have been identified: (I) coral reef and carbonate lagoon, (II) foredelta (classic lagoon), and (III) fluvial (conglomerates and sandstones). Excellent exposure allows sedimentary surfaces to be traced throughout the exposures. Using these surfaces we can establish a sequence stratigraphic model to the Port Morant Formation. This paper presents a six stage model to describe the depositional architecture of the fluvial deltaic to reef crest succession of the Port Morant Formation.