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ABSTRACT

**CHANNEL-FLOOR TRANSECT PROFILES AND FORAMINIFERA AROUND A
SKELETON JETTY IN THE CARONI MANGROVE SWAMP, TRINIDAD, WEST INDIES**

**Nicholas Cooke, Reece Ramsingh, Anna-Lisa Thomas,
and Brent Wilson***

*Petroleum Geoscience Unit Department of Chemical Engineering,
The University of the West Indies, St. Augustine, Trinidad and Tobago,
West Indies*

**Corresponding author: bwilson@eng.uwi.tt*

Skeleton jetties are constructed from a framework of beams. Although intended to allow the unimpeded passage of water and sediment, skeleton jetties can alter local geomorphology. A skeleton jetty was in the 1980s constructed in a microtidal, mangrove-lined creek in the Caroni Mangrove Swamp, Trinidad ((latitude 10° 35'N, longitude 61° 30'W). Differences in channel transect profiles adjacent to the jetty may indicate that its presence has disrupted sediment transport, sediment accumulating at the tip of the jetty on its southern, seaward side. (An alternative explanation, that dredged sediment was dumped there during jetty construction, seems unlikely.) However, the jetty has not affected the composition of the adjacent foraminiferal community. Foraminifera were examined in 75 cm³ samples collected from three transects: one each immediately adjacent to the jetty's northern and southern sides, and a control transect on the opposite bank. All transects extended

from near the visible strandline, through the mangrove fringe, and into the creek. Those two transects adjacent to the jetty exhibited three distinct foraminiferal zones: (a) an uppermost zone dominated by *Arenoparrella mexicana* and *Trochammina inflata*; (b) a middle zone with *Miliammina fusca*, *Ammotium salsum* and *A. mexicana*; and (c) a lowermost zone dominated by *Ammonia beccarii*. Only the third zone contains calcareous foraminifera. Diversity, measured in each sample using the information function, was highest in the middle zone. The altitude of the boundary between zones 1 and 2 was constrained between ~0.25-0.35 m (and possibly even between 0.25-0.29 m) below the visible strandline. The altitude of the boundary between Zones 2 and 3 fluctuated markedly, although it is not possible to relate this to the impact of the jetty. For reasons currently unclear, *Ammonia beccarii* was virtually absent from the control transect.