



**THE 4TH GEOLOGICAL CONFERENCE
OF
THE GEOLOGICAL SOCIETY OF TRINIDAD AND TOBAGO**
June 17-22, 2007, Hilton Trinidad & Conference Centre
Port-of-Spain, Trinidad and Tobago

“Caribbean Exploration – Planning for the Future”

ABSTRACT

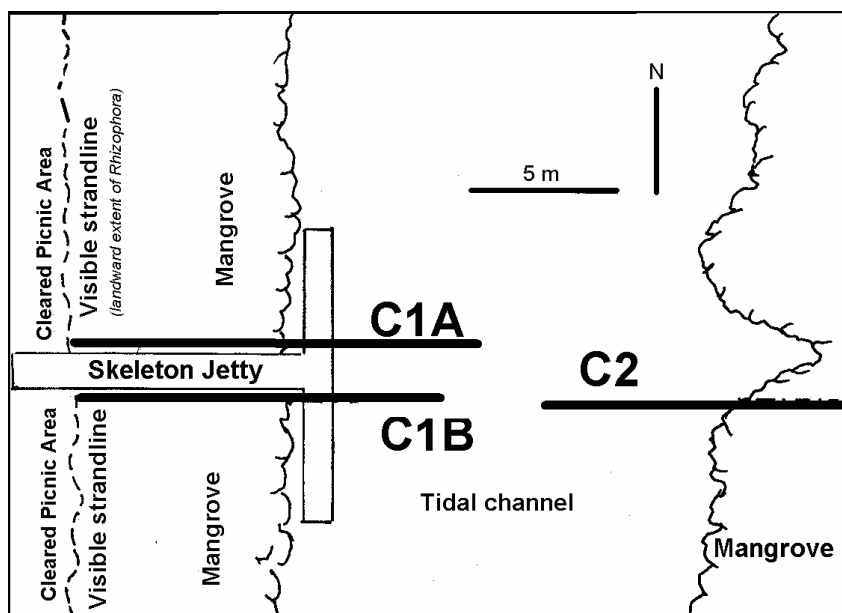
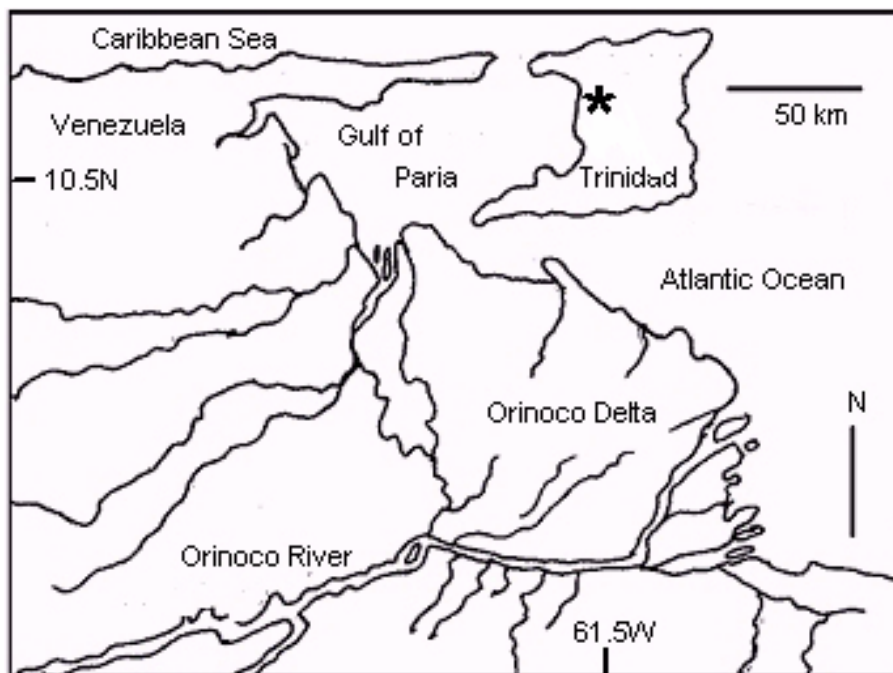
**CHANNEL-FLOOR TRANSECT PROFILES AND FORAMINIFERA AROUND SKELETON
JETTY IN THE CARONI MANGROVE SWAMP, TRINIDAD , WEST INDIES**

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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.



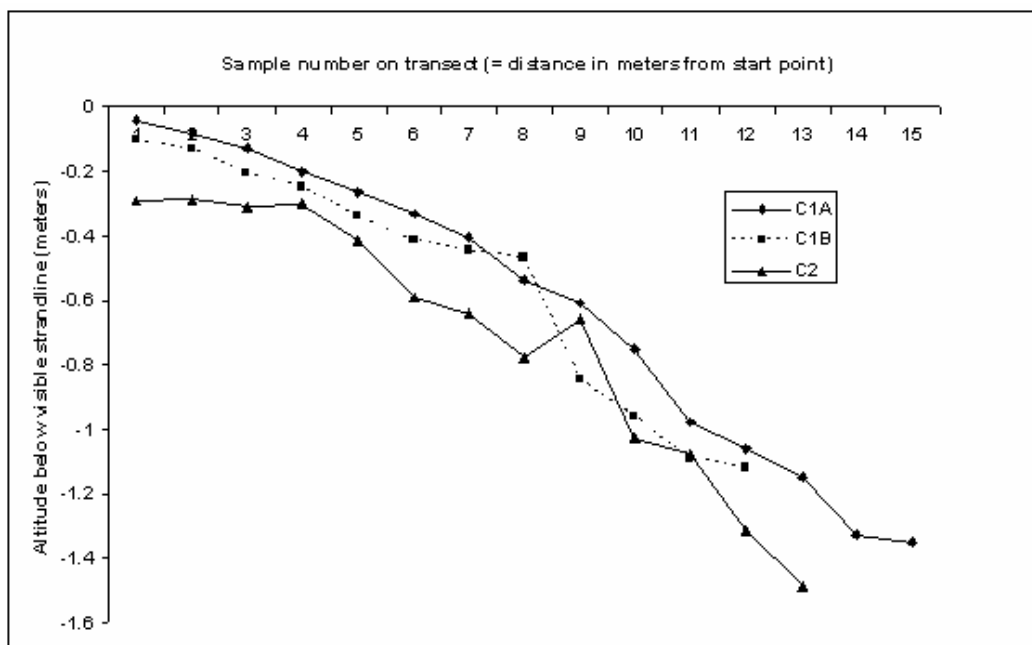


Table 1. Foraminifera from transect C1A, Caroni Mangrove Swamp, Trinidad, May 2006

Species	C1A-1	C1A-2	C1A-3	C1A-4	C1A-5	C1A-6	C1A-7	C1A-8	C1A-9	C1A-10	C1A-11	C1A-12	C1A-13	C1A-14	C1A-15
<i>Ammobaculites exiguus</i>	0	0	0	3	1	0	0	3	2	0	0	0	0	0	0
<i>Ammodiscus</i> sp.	1	0	14	19	0	6	6	3	4	11	2	0	1	0	0
<i>Ammonia beccarii</i>	0	0	0	0	0	0	0	0	2	26	206	181	222	230	218
<i>Ammotium directum</i>	0	0	0	0	0	0	7	6	3	6	0	0	0	0	0
<i>Ammotium salsum</i>	0	0	14	9	25	32	45	27	21	8	0	0	4	2	0
<i>Arenoparrella mexicana</i>	13	64	149	172	110	15	75	30	22	6	2	1	2	2	0
<i>Elphidium excavatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2
<i>Haplophragmoides manilaensis</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Haplophragmoides wilberti</i>	3	98	0	0	3	1	0	1	3	5	12	1	0	8	5
<i>Miliammina fusca</i>	0	2	1	6	4	27	43	74	64	57	1	1	5	2	1
<i>Quinqueloculina cf. jugosa</i>	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0
<i>Sulcophax palustris</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
<i>Textularia earlandi</i>	0	0	0	5	1	8	10	2	2	7	3	0	0	0	0
<i>Tiphotrecha comprimata</i>	0	0	10	1	7	1	0	0	1	2	0	0	0	0	0
<i>Triloculina oblonga</i>	0	0	0	9	0	0	0	0	0	0	6	0	1	0	13
<i>Trochammina advena</i>	0	0	1	0	0	7	7	11	12	40	21	15	12	14	14
<i>Trochammina inflata</i>	31	31	81	53	28	13	4	1	1	1	1	0	0	1	2
Altitude bvs (m)	-0.04	-0.08	-0.13	-0.20	-0.26	-0.34	-0.41	-0.54	-0.61	-0.75	-0.98	-1.06	-1.15	-1.33	-1.39
N	49	195	270	278	179	110	197	159	137	169	256	199	252	259	255
S	5	4	7	10	8	9	8	11	12	11	10	5	9	7	7
H	0.97	1.05	1.16	1.26	1.20	1.84	1.61	1.58	1.68	1.87	0.82	0.36	0.57	0.50	0.62
E	0.53	0.71	0.46	0.35	0.42	0.70	0.63	0.44	0.45	0.59	0.23	0.29	0.20	0.24	0.27

