THE SALT POND, CHACACHACARE ISLAND

By Peter R. Bacon.

On the south side of Chacachacare Island a sand and shingle bar has grown across a bay and trapped a small body of water variously known as the Salt Pond or Saline Lake. The area can be reached either from the Gulf of Paria by boat, or by the metalled track, now overgrown and in a state of disrepair, that leaves the landing stage in Perruquier Bay and climbs steeply up to the ridge of hills which form the south-eastern peninsular of the island. See text figure 1.

The track divides on the ridge and falls gradually to the south-west until it opens out on the cliff tops above the sea. Before the pond becomes visible very strong sulphurous fumes are noticeable, making the last part of the trail around the shores of the pond rather unpleasant.

The barrier separating the Salt Pond from the sea of the Gulf of Paria is about forty (40) feet wide at the west end and slightly wider at the east. It is composed of sand with stretches of shingle and quartz boulders. On this barrier and around the pond shores the most common plants were as follows.

Avicennia nitida Jacq. the Black Mangrove. These trees grow at intervals all around the shores of the pond and quite thickly along the sand bar.

Hippomane mancinella L. the Manchineel, grows mainly on the seaward side of the bar.

Pithecallobium unguis-cati (L). Mart. The Campeche or Bread and Cheese. Although elsewhere this plant grows into a small tree, on the sand bar it is a stunted bush scattered among the Manchineel trees.

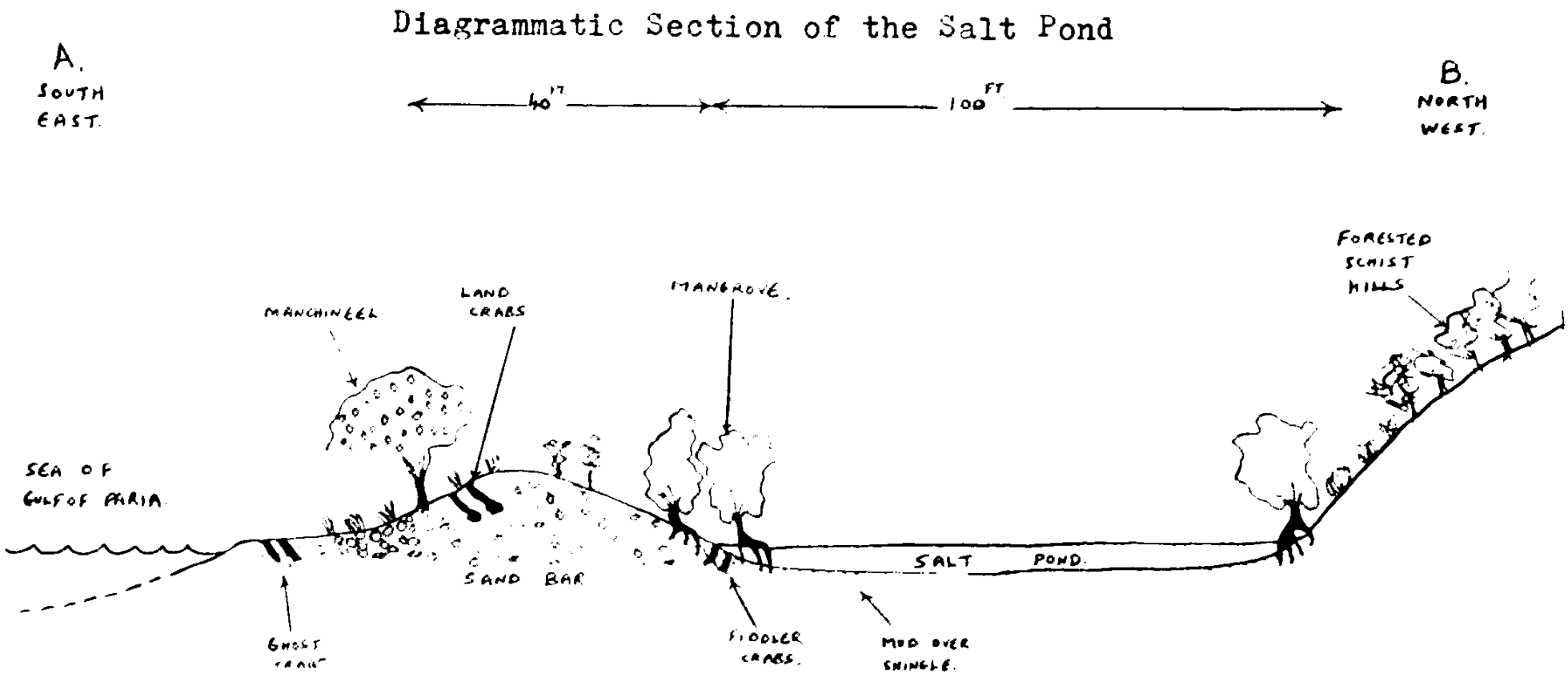
Gossypium ? barbadense L. the Sea Island Cotton, which grows as small bushes along the sand bar, mainly on the seaward side.

Alternanthera ramosissima (Mart.) Fries., this plant with its white flowers grows about two (2) feet tall here, and is found mainly under the Manchineel trees.

Sesuvium portulacastrum L., this salt-loving succulent is found creeping over the mud at the edges of the pond.

Sporobolus virginicus Kunth., this hardy grass grows along the seaward shore of the bar, where it is one of the first plants to colonise the bare sand of the sea shore.

Diagrammatic Section of the Salt Pond



NOT TO SCALE.

PAS

Fimbristylis cymosa R. Br., this sedge grows in tussocks on the shingle areas of the pond shore.

Agaves and cacti, **Opuntia** and **Cereus spp.**, grow commonly along the upper beach at the northern end of the bar.

There is no information available on the origin of the water in the pond, but possibly the seepage of sea water under the barrier and a high rate of evaporation (a surface temperature of 30.4°C. was recorded at 0900 hours) account for the high salinity recorded by the present author of approximately 65 °/00. (Compared with approximately 35 °/00 in normal sea water).

The floor of the pond is sand and shingle covered with a few inches of a soft, black, sulphurous mud in which were found numerous empty shells of the Molluscs **Cerithium** and **Tellina.** Along the pond shore were several burrows of a Fiddler Crab, **Uca sp.**, while higher up on the sand bar these gave place to the larger burrows of the Land Crab, **Cardisoma guanhumi** Latr., these in turn were replaced in the beach by the rapidly burrowing Ghost Crabs. A sketch section through the pond and bar is shown as text figure 2.

A few years ago Dr. Price, (now of the Trinidad Regional Virus Laboratory), visited the area and recorded a small Water Boatman and the larvae of a Syrphid fly. At that time he released a quantity of the eggs of **Artemia**, the Brine Shrimp, to se if they could survive in this saline environment. Neither the insects nor **Artemia** were collected by the author in spite of a careful search during the visit on the morning of the 29th. of May 1966. Welch in 1927 reported the larvae of the Mosquito **Aedes taeniorhynchus** from the ponds of Chacachacare.

The microscopic organisms in the pond water were examined in a sample collected in the following way. As it was not possible to venture far into the water as the mud was very soft around the pond shores, a plastic bucket was used to scoop up the water from the shore taking care to disturb the bottom mud as little as possible. The buckets of water were then poured through a No. 25. mesh plankton net which was suspended from a branch of a mangrove tree into the water, and the concentrate from the sample was preserved immediately in formalin for later examination.

The following organisms were counted from a sample from fifteen (15) gallons of pond water.

Organism.	**Number in Sample.**
Plants.	
Diatom cells.	1.

Animals.

Harpacticoid Copepods.	924.	Approxmately one third with egg sacs.
Gastropod Larvae.	7.	
Cyclopoid Copepods.	5.	
Calanoid Copepods.	4.	
Ostracods.	4.	
Copepod Nauplii.	3.	
Mites.	2.	
Coleopteran Larvae.	2.	
Coleoptera.	1.	Not part of the aquatic fauna.
Pelycepod Larvae.	1.	
Nematodes.	1.	
Total number of organisms —	955.	

In addition to the living organisms there were 175 exuviae of Copepods. The density for this sample was approximately 17,000 organisms per cubic meter.

The most interesting part of the above sample was the Harpacticoid Copepods which made up 97% of the total. These proved to be a single species **Cletocamptus albuquerquensis** (Herrick), which was known previously only from the Western United States, also from brackish and saline lakes and ponds; also from Haiti (as **C.dominicanus** Kiefer), and questionably from Aruba and Bonaire. This record therefore provides a significant range extension for this species.

I would like to thank Dr. T. E. Bowman of the Smithsonian Institution, Washington, for the information on the range of **Cletocamptus**, and Professor G. Williams, U.W.I., for assistance with the preparation of this report.

REFRENCES:

Welch, T. B. 1927. The abatement of **Aedes taeniorhynchus** at Chacachacare. J. Port-of-Spain Med. Soc. 121-123.

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