

**PRELIMINARY STUDIES OF WATER MOVEMENTS IN THE BOLGODA LAGOON, AS INDICATED  
BY TEMPERATURE AND SALINITY MEASUREMENTS BETWEEN 1978 AND 1980.**

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The Bolgoda lagoon which extends approximately over a distance of 25 miles has two outlets to the sea with the main outlet at Panadura and the other at Wadduwa.

Throughout the lagoon the water temperature and the salinity was higher at the surface than at the bottom. At all depths temperature and the salinity decreased with distance from the mouth of the lagoon at Panadura. Diurnally, the temperature and salinity showed two peaks and two troughs corresponding to two high and two low tides. This indicates an influx of sea water into the lagoon twice during the day.

These findings indicated the formation of a clear salt wedge. Formation of the salt wedge and the stratification of the lagoon were greatest during February/March and September/October. The lagoon contained mostly fresh water that was well mixed during the months of June/July and November/December due to monsoon rains.