TEMPORAL VARIATION OF WATER QUALITY IN ANDAGALAWELLA SITE IN KIRINDA, HAMBANTHOTA DISTRICT

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Coastal areas of Sri Lanka are facing with environmental problems due to undesirable pollution of its waters from various wastes. The objective of this research study was to determine the present status of water quality in Andagalawella site in Kirinda, Hambanthota. The study was carried from 2014 to 2015. Sampling was done on a monthly basis in five sub sites in the selected area. Temperature, pH, Turbidity, Conductivity and Salinity were determined as onsite parameters. Salinity (9.25 ± 10.42 ppt) and turbidity (20.61 ± 16.69 NTU) values showed a huge variation most probably due to fresh water influsk in 2014 as one branch of Yoda Ela in Tissamaharama reach to the sea near to that site bringing high volumes of freshwater yield from heavy rains and releases from irrigation system in the area. But in 2015, fresh water influx was same within whole year resulting low mean and SD values of salinity (1.72 ± 2.53 ppt) in relation to 2014. However the whole profile of the water quality was not possible due to the unavailability of water quality parameters heavy metal concentration, NO3-, PO4- and bacteriological parameters. Further studies are recommended obtain a complete water quality profile that is an essential part to draft highly needed policy development.

Key Words: *Turbidity, Conductivity, Salinity, heavy metal, NO_3^- and PO_4^-*