Chemical composition of fresh water samples from various creeks from lower and middle Savannah River watershed. (S11-sivapatham221057-Poster)

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Abstract:

This study was undertaken to monitor temporal and spatial variation of chemical composition of fresh water samples from various creeks from lower and middle Savannah River watershed at monthly interval. The results of this study indicated that pH of collected water samples were near neutral or slightly alkaline (6.6 to 8.9) and their electrical conductivity varied substantially in the rage of 0.13 to 49.3 mS. Various elements were determined by ICP-OES while the distribution of various anions and cations in these samples were determined by IC. Calcium and Mg were the dominant elements present in these creeks and their concentrations too varied substantially with time of sampling and location of these creeks. Concentrations of P, Mn, and Al were comparatively less compared to Ca and Mg. Other trace elements and heavy metals were found to be non-detectable. As expected Na, K, Ca, Mg were found to be the most dominant cations and SO42- and Cl- were the most dominant anions. Even though NH4+ was not found in any of these creek samples, significant amount of N was observed as NO2-. Interestingly one of these creeks consistently showed higher amount (9 mg L-1) of NO3-N in all the sampling events.

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