

Letter to the Editor

This refers to the article "Phytophysiological studies on mangrove forests of Chakaria Sundarbans" (Bano Biggyan Patrika 9 : 1 & 2 : 17-28). The relationship shown between the distribution of mangrove species and ground water table (Fig. 1) does not seem to be tenable. Mangrove species grow under tidal swamp conditions. During the high tides water table in tidal swamps occurs over the soil surface. The fall of groundwater table during the low tides under such conditions depends mainly on soil permeability than on elevation of the landform. Soil permeability in Chakaria Sundarbans being very slow, the groundwater table remains almost on the soil surface even during the low tides. No scope, therefore, remains to be confused on the issue at which depth the groundwater table should occur in very poorly drained soils of tidal swamps.

The depth and duration of tidal inundation rather than the groundwater table and elevation may be the effective

factors influencing the ecological distribution of mangrove species in the Sundarbans.

The authors designated A-C, A-B-C and A-B₂-C types of profiles in Chakaria Sundarbans. But it seems that only C or A-C type of profiles may occur in Chakaria Sundarbans. The mottled layers which were designated as B horizons are, in fact, the C layers. Mottles of low chroma, even the soft glaeboles along the root channels, may form very quickly due to iron concentration, even sometimes before the recession of floodwater depositing the sediments. These features may not, therefore, be considered as significant signs of alterations for defining a cambic B horizon. Cambic B in hydromorphic soils is recognized from the content of organic carbon which decreases regularly with depth and reaches a level of less than 0.2 percent at a depth of 1.25 m from the surface. Another criterion for cambic B is the presence of hard Fe-Mn concretions (more than 0.2 percent by wt) in the profile which formed *in situ* pedogenetically.

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