

Chambered trace fossil from the Lower Tipam Formation (Pliocene) of Tripura, Northeast India

HEMANTA SINGH RAJKUMAR

Department of Geology, United College, Lambung, Chandel – 795127, Manipur, India

mohnaroprajakumar@gmail.com

Abstract:

The medium grained, cross bedded fluvial sandstone of the Lower Tipam Formation, Pliocene age, of Amarapur area in Tripura, India is considered to have been deposited in a fluctuated intertidal to tidal environment with occasional brackish water and fluvial influence. The unit is characterized by a trace fossil composed of filled chambered burrows, more or less ellipsoidal in outline, and interconnected by shafts/tunnels. The burrows show variable dimensions with length 30–160 mm, width 30–100 mm, and height 20–60 mm; and the tunnels are 8–9 mm in average diameter. Small forms of *Thalassinoides* isp. and *Skolithos* isp. are the other traces observed. The chambered burrows are possibly related to social insects, such as ants or termites. The discovery is remarkable because of the rare occurrence, and for it was not previously reported from Asia; and at the same time no other exactly similar ichnospecies has been reported so far. Thus, the morphology of the studied traces points toward a likely new ichnospecies of *Vondrichnus* belonging to the ichnofamily Krausichnidae. The presence in the Lower Tipam Formation also suggests a probably warm climatic condition for the environment of this unit.

Keywords: interconnected, fluvial, sandstone, Krausichnidae, warm climate