

**Ichtnology of Triassic sedimentary rocks of the Lepreau region,  
southern New Brunswick, Canada**

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Continental red beds outcropping in southern New Brunswick along the Lepreau River and along the shore and inland at Point Lepreau have historically been assigned to the Triassic Lepreau Formation. No stratigraphic correlation of the two sections has been accomplished. The Triassic age of the Point Lepreau section is based on the presence of Pennsylvanian-derived lithoclasts and on palaeomagnetic data. The Lepreau River section contains reptile footprints of possible Triassic age, but the age of the section is currently uncertain.

The coastal section is subdivided into three members: the basal Fishing Point Member (350 m), the Duck Cove Member (1200 m), and the uppermost Mace's Bay Member (1175 m). The basal and upper members reflect deposition in an alluvial fan environment whereas the middle member is interpreted to have been deposited in a braided fluvial environment. Stratigraphic thicknesses are approximate as dip-slip faulting of unknown throw is common throughout the formation.

Ichnofossils in the coastal section occur commonly in sandstones and, to a lesser degree, in siltstones and shales, and are of essentially simple morphology. Twelve ichnogenera have been tentatively identified, some informally. The Duck Cove Member contains the most diverse assemblage. Preservation is poor due to the grain-size and easily weathered nature of the host rock. Pseudofossils, root casts, and other sedimentary structures occur, complicating ichnological study.

Due to the broad time ranges of the ichnogenera present the observed assemblage is of no value in assigning an age to the strata. The ichnofauna belongs to the *Scoyenia* ichnofacies of Seilacher and was probably produced by opportunistic organisms able to withstand rapid environmental changes under semi-arid conditions. The occurrence of *Rusophycus* ichnosp., more common in marine deposits, reinforces the danger of using isolated occurrences of ichnofossils as palaeoenvironmental indicators.