

Lower Ordovician Ichnoassemblages from South Bolivia

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Trace fossil assemblages from Lower Palaeozoic siliciclastic successions in southern Bolivia are known since the last century, but hitherto only poorly investigated in terms of their palaeoenvironmental context. Different outcrops of fossiliferous Lower Ordovician sediments have been studied in the district of Tarija in 1997 and 1998. Especially the Lower Arenigian Pircancha Formation yielded diverse ichnofaunas which are characterized by taxa belonging to the *Cruziana* ichnofacies. In the Sella locality (north of Tarija) several of the arthropod ichnotaxa occur partly together with a Ptychopariid trilobite fauna. In other localities the changes in the composition of the non-arthropod ichnoassemblages and their stratigraphic distribution enable correlations with palaeoenvironmental changes in their ancient shallow marine habitats.

The lowermost Ordovician ichnofaunas from South Bolivia show numerous facial and taxonomic similarities with contemporaneous siliciclastic sedimentary successions from other Gondwanan localities which are characterized by similar shallow marine palaeoenvironments and by reliable ichnoassemblages. These Lower Ordovician ichnofaunas from Bolivia therefore are attributed to a circum-Gondwanan type of ichnoassemblages.