

## **Biogenic-Sedimentary Structures of the Ordovician-Khabour Formation from the Northern Thrust Zone, Kurdistan, Iraq**

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**Abstract :** The Ordovician-Khabour Formation from the Northern Thrust Zone of Iraqi-Kurdistan comprises between 500 and 800 m of alternating predominantly greenish-grey sandstones, siltstones and shales. The succession has revealed an abundant ichnofossils characterized by 11 ichnogenus, namely: Helminthopsis, Gordia, Cruziana, Rusophycus, Monomorphichnus, Rhizocorallium, Thalassinoide, Planolite, Paleophycus, Deplocraterion and Skolithose. Ethologically these ichnogenes display dwelling and feeding activities of the infaunal organisms. This association of ichnofossils contains elements of the Skolithose and Cruziana ichnofacies. The presence of Skolithos ichnofacies indicates sandy shifting substrate and high energy conditions in foreshore zone while the Cruziana ichnofacies indicate unconsolidated, poorly sorted soft substrate and low energy condition in the shore face/offshore zone. These ichnogenes indicate shoreface-offshore zone of shallow-marine environment for the deposition of the rocks of the Khabour Formation.

**Keywords :** Ichnofossils, shoreface-offshore zone, Khabour Formation, Iraq

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