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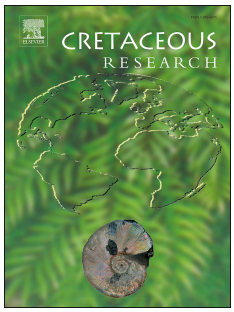

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Fish assemblage and palaeoenvironment of Early Cretaceous (Barremian) neap-spring tidal rhythmites from Sidi Aïch Formation of the Chotts basin (Southern Tunisia)

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ABSTRACT

The Khanguet Aicha Barremian Biota site (KABBS) has yielded five actinopterygians taxa, four of are shortly described in this paper. The fish assemblage comprises the ichthyodectiform *Cladocyclus* sp., indeterminate osteoglossiform, chanoidei and stem otophysan, plus an ellimmichthyiform previously described.The fish assemblage recorded in the KABBS corresponds to a mixture of mostly freshwater taxa, the osteoglossiform, with taxa that dwell in both marine and freshwater environments (*Cladocyclus* and the chanoidei) and a marine fish (the stem otophysan). The association of the fish specimens with both freshwater conchostracan and marine shrimp indicates that the paleoenvironment was characterized by the influence of freshwater input. The fish assemblage contains a mixture of taxa that are found along the southern margin of the Tethys and along both margins of the incipient South Atlantic Ocean.

Sedimentary facies of the Sidi Aïch Formation, which encompasses the KABBS include channel intraformational clasts, cross-bedded sandstones with mud drapes, herringbone cross-bedding; and sigmoidal cross-bedding suggesting strong tidal influences. Tidal facies together with paucity of bioturbation and mixed freshwater to marine fossils indicate that sedimentation took place mainly in restricted tidal flats ponds. The clayey varved facies, which dominates the KABBS corresponds to dark organic-rich and white organic-poor