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Abstract :

This work focuses on the contribution of the documentation of the fluvial sedimentary archive in the study of the contribution of rainfall and large dams in the decline of sedimentary inputs of the Cheliff Wadi at the outlet. Therefore, three sediment cores, taken in the lower Cheliff valley, were studied through the paleohydrological approach. Such an examination aims, on the one hand, to establish a chronology of depositional accumulation and, on the other hand, to evaluate the ability of the information incorporated in the sedimentary archive to transcribe the evolution of the hydrosedimentary signal and the fluctuations of the controlling factors.

The results reveal: a strong variation in the granulometric distribution of the deposits and a progressive decline in the progressive decline in the rate of sediment accumulation. Thus, the upper part of the core is mainly made of particles belonging to the fine granulometric class that have accumulated with fine that accumulated with an average rate of about 1.31 cm / year. Contrary to the deposits composed of a succession of coarse and fine sedimentary layers, and showing a rhythm of accumulation much more superior, whose value is evaluated to 16 cm/year. However, the fluctuations observed in the granulometric composition and the accumulation rate of the deposits correlated strongly with the evolution of the rainfall signal and/or the multiplication of the number of large dams. Indeed, relatively coarse deposits and a higher accumulation rate correspond to the wet period before 1980. Then, the decrease in rainfall was accompanied by a longer accumulation rate and deposits composed mainly of fine particles. In addition, the recently built dams, bringing the outlet of the watershed closer and closer, have a drastic effect on the deposition process.

KEYWORDS : Sedimentary archive, paleohydrological approach, Cheliff, Rainfall, Granulometric profile

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