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Erg Chebbi, SE Morocco: Morphometry, granulometry, and groundwater recharge

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Erg Chebbi, located close to the border to Algeria, is one of the most popular dune areas in Morocco. The most impressive features are the numerous star dunes with heights up to 170 m. In addition the Erg provides groundwater for the adjacent oases.

The poster presents results of colorimetric, sedimentological and microscopic analysis on crest sands from 19 star dunes and barchans as well as sediments from two drilled cores up to 7.8 m depth which allow insights into the development history of this dune area. Portable luminescence reader data from the coring profiles give first hints on the age chronological structure of two star dunes (while OSL age determination is in progress). High resolution UAV-based digital elevation models provide the basis for future multi-temporal geomorphological analyses. Regional hydrological analyses (SWAT) allow estimating groundwater recharge.

