



Saharan dust from a marine perspective: sediment-trap time series along a Transatlantic transect between Africa and the Caribbean

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The particle size of mineral dust is often used as a tool to reconstruct paleoenvironmental conditions in the source of the dust. Both in on-land (loess), lacustrine, and in marine archives, the size of dust deposits is considered a proxy for paleo-wind intensity. However, next to wind strength, the particle size of aeolian deposits is also influenced by various other parameters such as source-to-sink distance, altitude at which the particles have been transported, and various other environmental conditions in the sources of the dust. To verify if we can quantify a relationship between the size of mineral dust particles and prevailing environmental conditions, we study "modern" dust. Here we present grain-size distributions of Saharan dust that was collected in marine sediment traps, which were deployed along a transatlantic transect between Northwest Africa and the Caribbean. In these traps, dust is collected that is sinking through the water column to the ocean floor. The big advantage of this sampling strategy is that also potential marine environmental effects of the dust deposition are monitored. The temporal resolution of the trap is 1-2 weeks. The time series was started in 2012 and is still being continued.