



Do Sahara dunes make dust? Some dunes do and some dunes don't

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The Sahara desert is responsible for producing around half of the atmospheric mineral dust on Earth. While most of the Sahara has the potential to produce dust some areas have been identified using remote sensing as especially prolific dust sources such as the Bodélé Depression in Chad which is described as the dustiest place on Earth. Geomorphological analysis indicates that these areas are usually topographic lows, such as the Bodélé, as well as regions on the flanks of topographic highs. This view was challenged by Crouvi et al. (2012) who suggest that active sand dunes are the most frequent dust sources. In this paper we use an experimental dust chamber to generate dust from dune sediments collected from the crest of active sand dunes across the Sahara including samples from the Bodélé depression, as well as dune sands from Algeria, Egypt, Libya, Morocco and Tunisia. The experiments produced a wide range of results indicating that some dune sands, including those from the Bodélé produce much more dust than others.