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Stratigraphy of divers pleistocene dunefields of carbonate sands on Fuerteventura (Spain)

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Correlating Quaternary dunefields in Northern Fuerteventura is a scientific challenge as reliable stratigraphic findings are only available for the Lajares-Dunefields (Faust et al., 2015). Over the last few years we added further important sites to better understand the system dynamics and characteristics. A detailed stratigraphy of dunepaleosol-sequences in four dunefields spanning the entire region of Northern Fuerteventura will be proposed. This study aims at correlating marker horizons across all investigated dunefields. The correlation is based on environmental magnetic findings, geochemical and granulometric analyses, elemental composition and finally on mollusk assemblages. We could identify guide assemblages of mollusks that enable us to trace marker horizons over long distances in all studied dune-paleosol-sequences. A first chronological assessment will be presented. Furthermore the question of soil forming intensity will be discussed considering the background of climate change vs. exposition duration.