



Identification and delineation of paleo-shorelines using high resolution drone mapping in Mono Basin, California

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The Mono Basin, located in Mono County, eastern central California, USA, is an endorheic drainage basin currently hosting the saline alkaline Mono Lake. The most recent highstand coincided with the last glacial termination. Prominent lacustrine terraces, visible as strandlines to the north and northeast of Mono Lake are evidence of monumental lake rises. However smaller stands are not apparent and are difficult to distinguish in the field and in currently available topographical maps, due to their small scale, minute changes in slope, and the overlying pervasive vegetation. This study presents a mapping dataset obtained with drone imagery flown over the northwestern shore of the lake and a high resolution DEM of the area calculated using structure from motion software. From this dataset a contour map was created which allowed for identification of small scale (<1 m) paleo-lacustrine terraces in the field. These data will be helpful to understand the landscape evolution of the Mono Basin and help reconstruct the Quaternary history of Mono Lake.