

**Mid- to late Holocene aeolian activity recorded in a coastal dunefield and lacustrine sediments on Andøya, northern Norway**

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The coastal area of western Norway is frequently visited by synoptic scale low-pressure systems carrying high wind speeds and storm surges. In an effort to reconstruct past storminess, we have investigated a foredune stratigraphy and a continuous lake sediment record from the largest dunefield on Andøya in northern Norway. The dunefield extends landwards in a north-eastward direction, and consists of several parabolic dunes, foredunes and blowouts. The sediment record (169 cm) from the nearby lake Latjønna and the foredune stratigraphy (10 m) covers the last 6200 and 3800 cal. yr BP, respectively. The lake sediment record consists of several sections dominated by sand grains interspaced by organic layers. The core has been examined by use of several sediment analysis such as XRF, magnetic susceptibility and loss-on-ignition. Mineral grains were detected by wet sieving of the ignition residue, and the relative influx of sand grains to Latjønna was calculated based on the weight of sand grains  $>250 \mu\text{m}$  per cm divided by accretion rate determined by the radiocarbon chronology. Phases with high influx of sand is recorded around 4800, 4250, 3000-2000, 1850-1750, 1600-600, 450, 300 and 150 cal. yr BP. The two investigated sites show quite contrasting chronologies, where high sedimentation rates in the lake record, associated to more aeolian influx, are corresponding to erosion and hiatuses in the foredune stratigraphy.