

codes, differ significantly. The script that was used to visualize and calculate the feature statistics can be found in appendix 2.2.

Results

Field work

In between the arms of dune 1 and 2, similar profiles were found (appendix 1, profiles 4 and 10). These profiles are characterized by a thick humic A horizon, formed directly on sand layer. This profiles strongly resemble the Gley-braunerde soil, described in the Legende Bodenübersichtskarte 1:300.000 (BÜK 300) and are classified as gleysols. However, the organic layer in both profiles is less thick and developed as the Gley-braunerde soil. The profiles on top of dune 1 and 2 were also similar (appendix 1, profiles 2 and 8). A thick dark humic A horizon was formed directly on the sand layer. In both profiles, dark spots with organic material was found throughout the sand layer. In profile 2, this was a more distinct layer. Profiles 2 and 8 resemble the Braunerde soils, described in the BÜK 300 and are classified as haplic arenosols. The profiles of the arms of dune 1 and dune 2 and on top of dune 1, are also similar (appendix profiles 1, 2, 3, 6, 9, 11). All these profiles are characterized by what seems to be a starting eluviation layer. Another similarity is a zone with humic matter towards the end of the profile. In profile 3, 9 and 11, this was a distinct layer. The profiles show characteristics of a beginning podzol and therefore, most closely resemble the Podzol-Braunerde soils discussed in the BÜK 300 and are classified as haplic or gleyic arenosols from aeolian sand. This also applies for the profile on top of dune 4 (appendix profile 12). However, this podzol is strongly developed and shows distinct eluviation and illuviation layers, therefore it is classified as a haplic podzol from aeolian sand. Below, a schematic overview of the soil profiles is shown. Additional information on the profiles can be found in appendix 1.

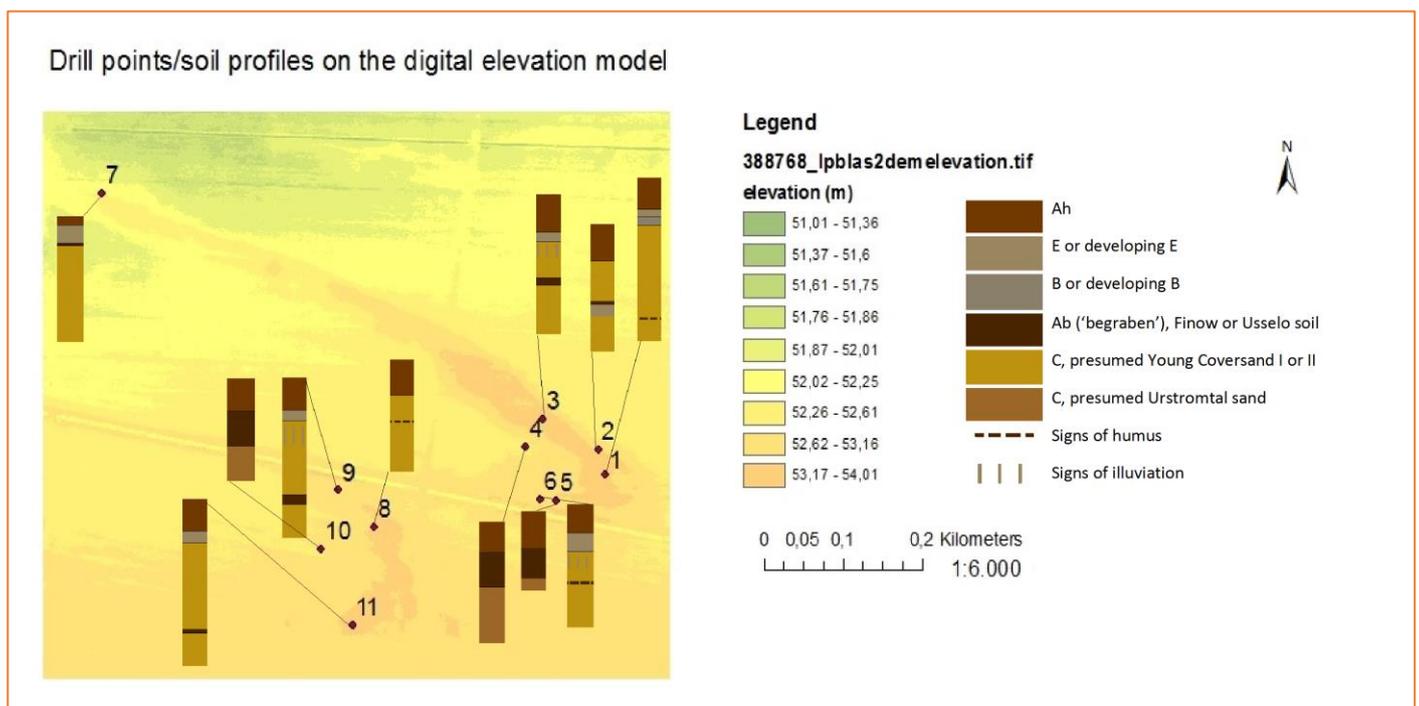


Figure 7: An overview of the soil profile locations with a schematic overview of the profiles of dune 1 (profile 1-7) and dune 2 (profile 8-11). The profiles are drawn roughly on scale. The true depths and soil characteristics of the profiles can be found in the appendix 1.