Slee et al. supplementary information.

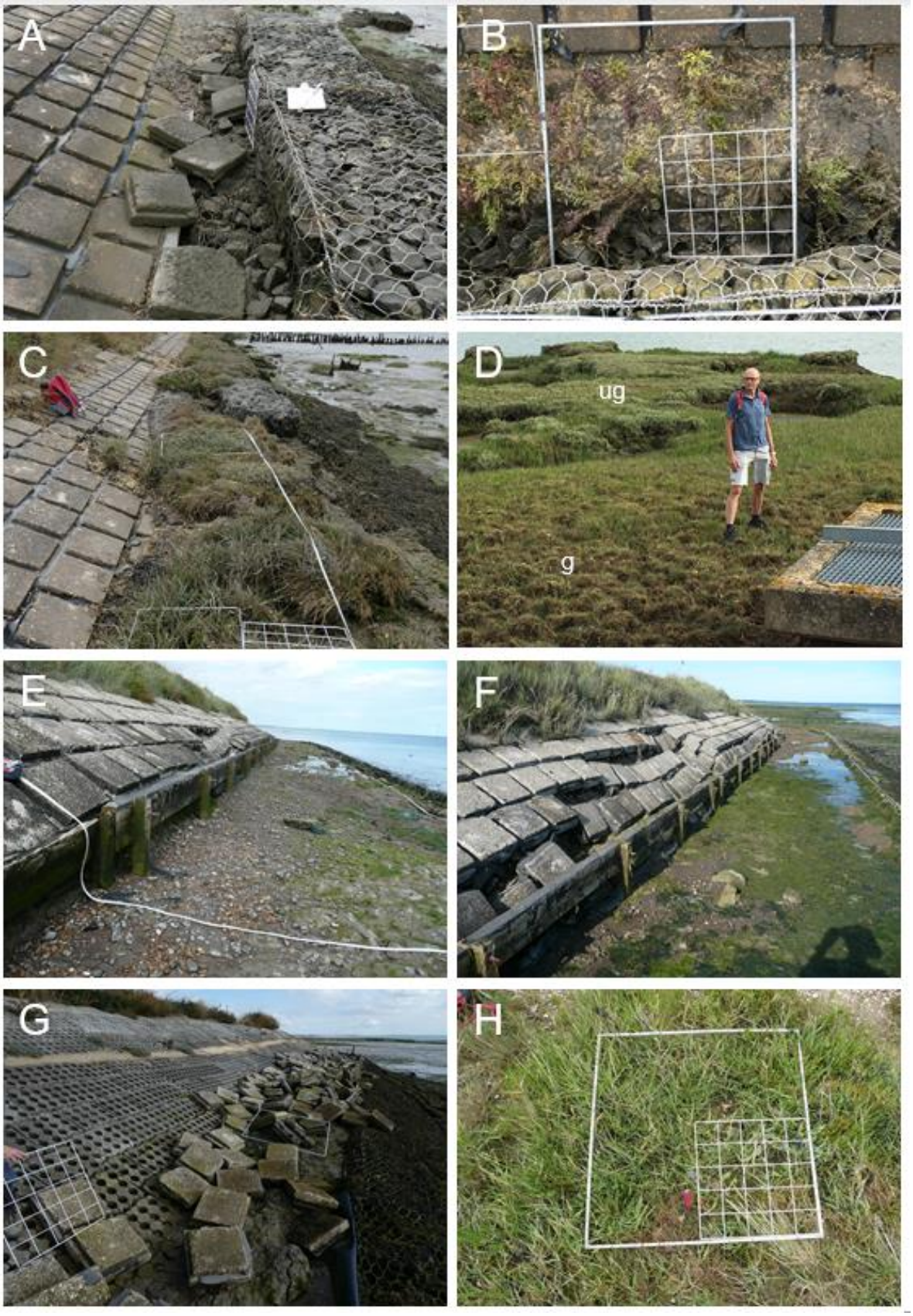

Figure S1 (A) Wellhouse Terrace W3, 111 months after construction, gabion providing seawall protection but clay filled terraced mainly absent; (B) Wellhouse Terrace W1, 111 months after construction, seawall protected, some halophyte colonisation of terrace, erosion between gabion and terrace; (C) Wellhouse salt marsh (WM3) and Terrace W5 at 111 months. Erosion of terrace and natural salt marsh - sediment block failure; (D) Langenhoe salt marsh in 2020 (85 months) near L3. Impact of grazing (g) seen in foreground compared to ungrazed marsh (ug) in the background; (E) Tollesbury Terrace T1, 49 months after construction, sediment eroded and toe of seawall exposed; (F) Tollesbury T1, at 62 months, sediment loss and ponding on terrace with loss of integrity of cement blocks on sea wall; (G) Tollesbury T1, seawall repair with open blocking, old Essex blocking used to overlay clay terrace, 111 months after construction; (H) Tollesbury salt marsh 2022 with high abundance of *Spartina anglica.*

Figure S2 A - F. Contour plots of terrace height (m rel. to C.D) for selected terraces at Wellhouse, Langenhoe and Tollesbury from 2012 to 2017.. Points indicate measured locations, contours are interpolated.

A (Wellhouse W4, m C.D.)

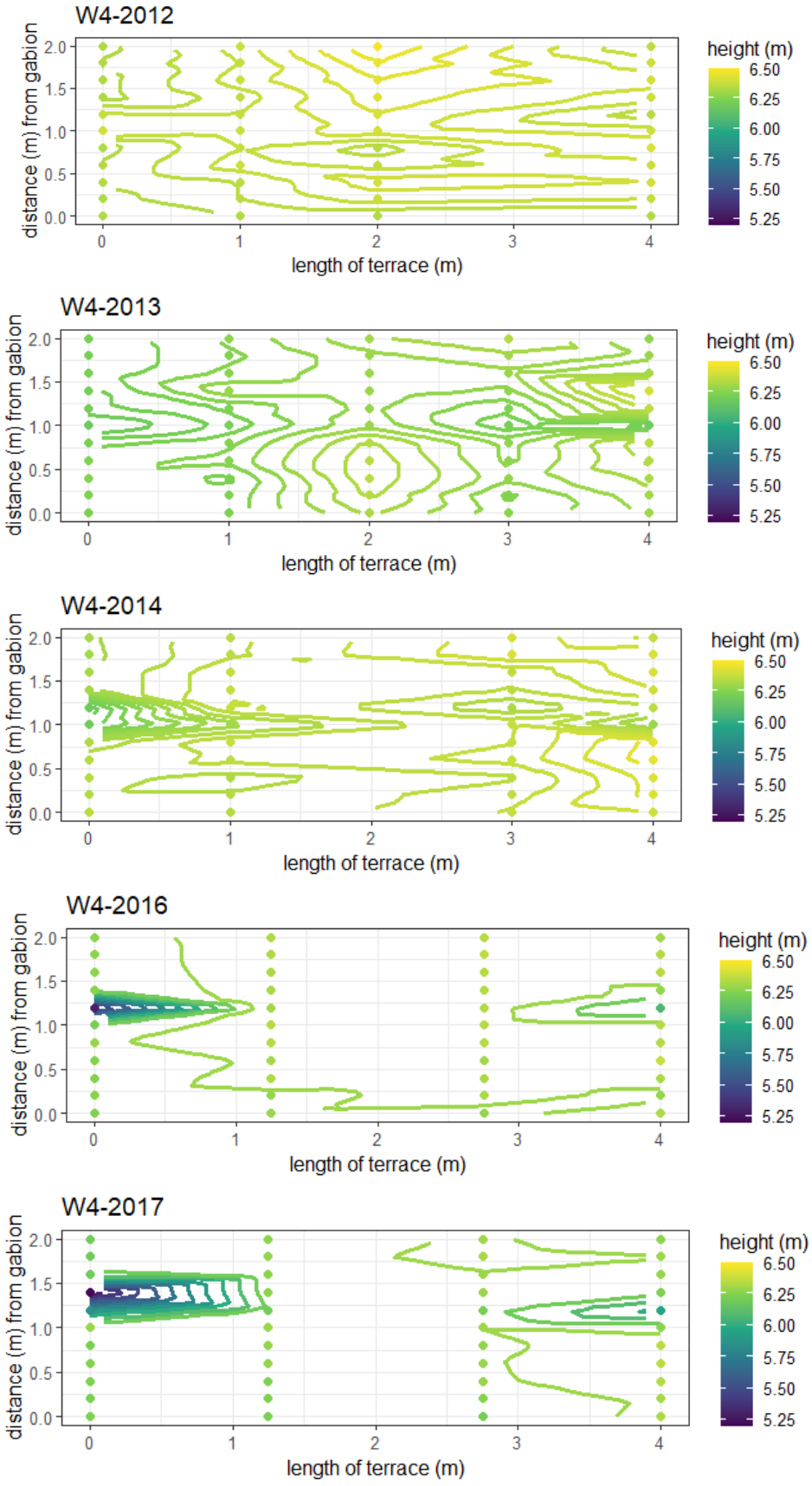

Figure S2B Wellhouse W5 m C.D.)

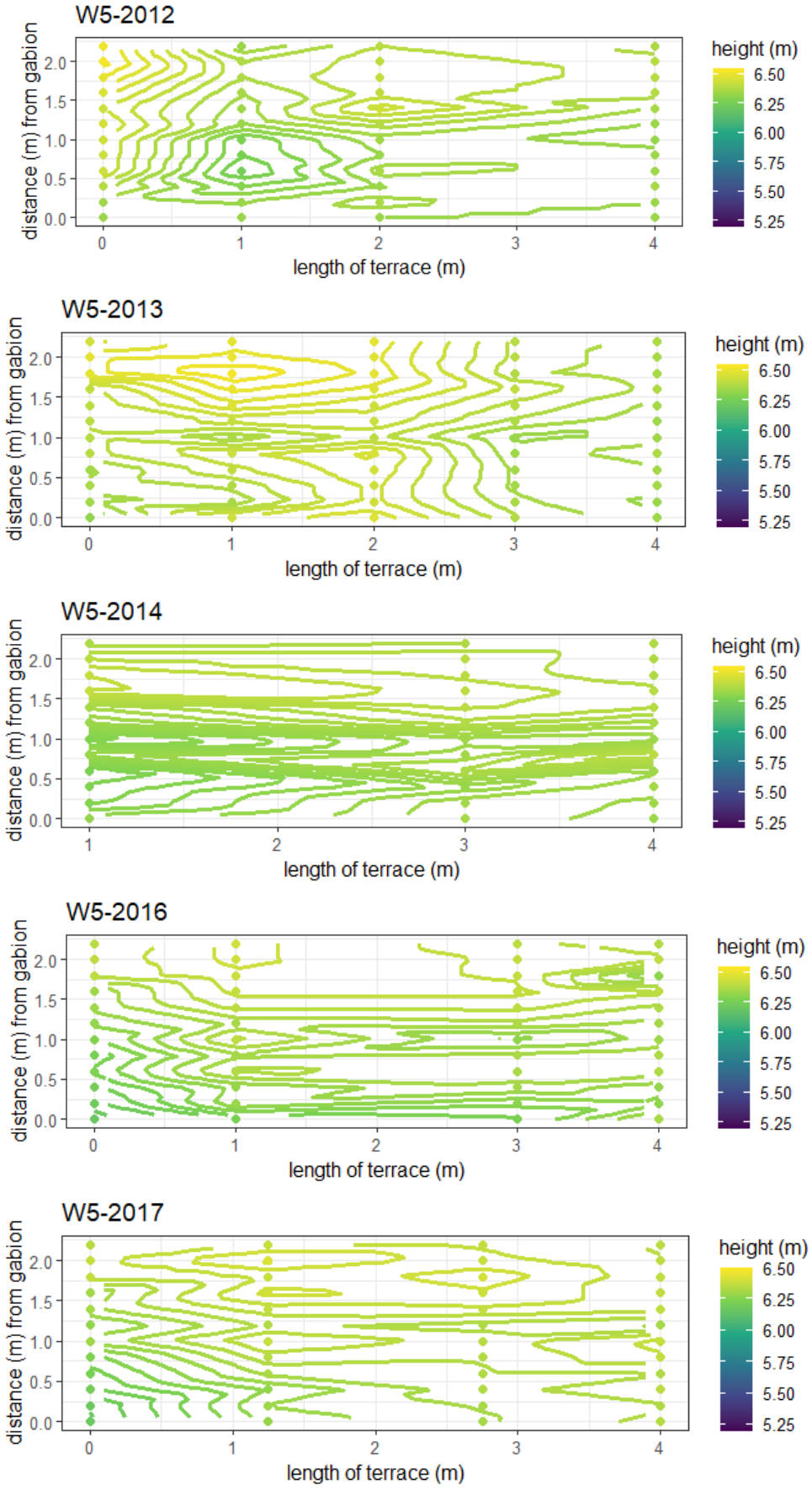

Figure S2C Langenhoe L1 m C.D.)

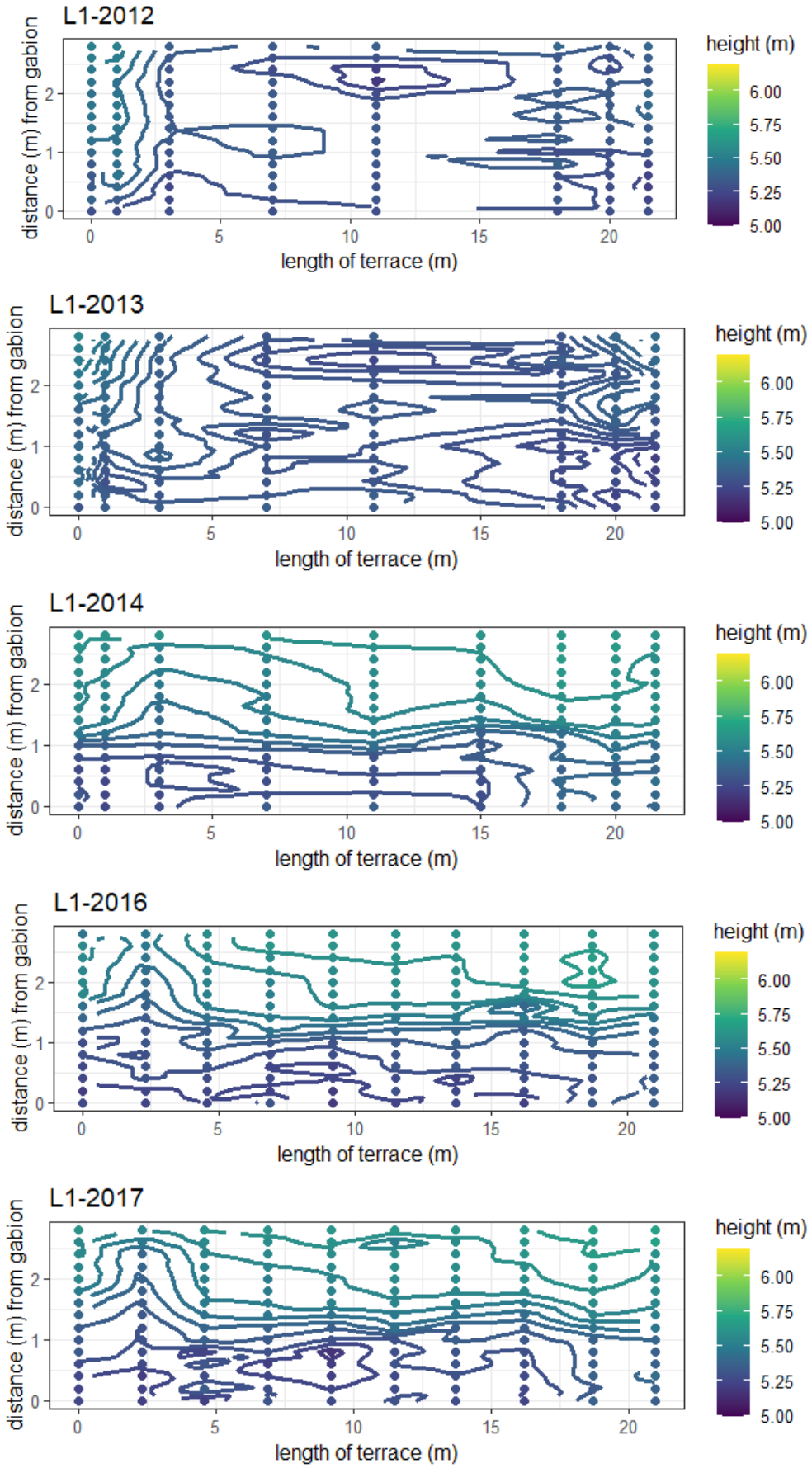

Figure S2D Langenhoe L4 m C.D.)

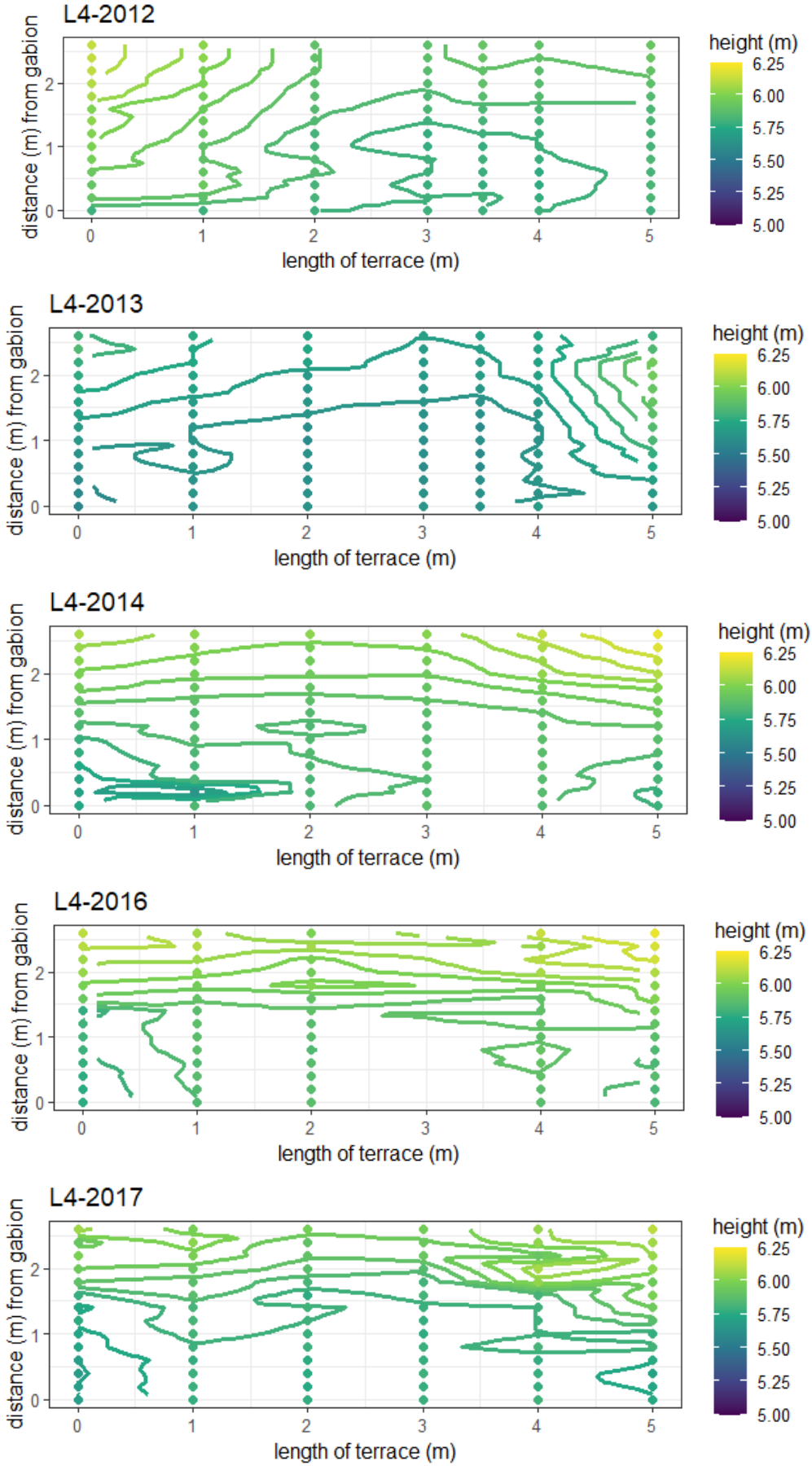

Figure S2E Tollesbury T1 m C.D.)

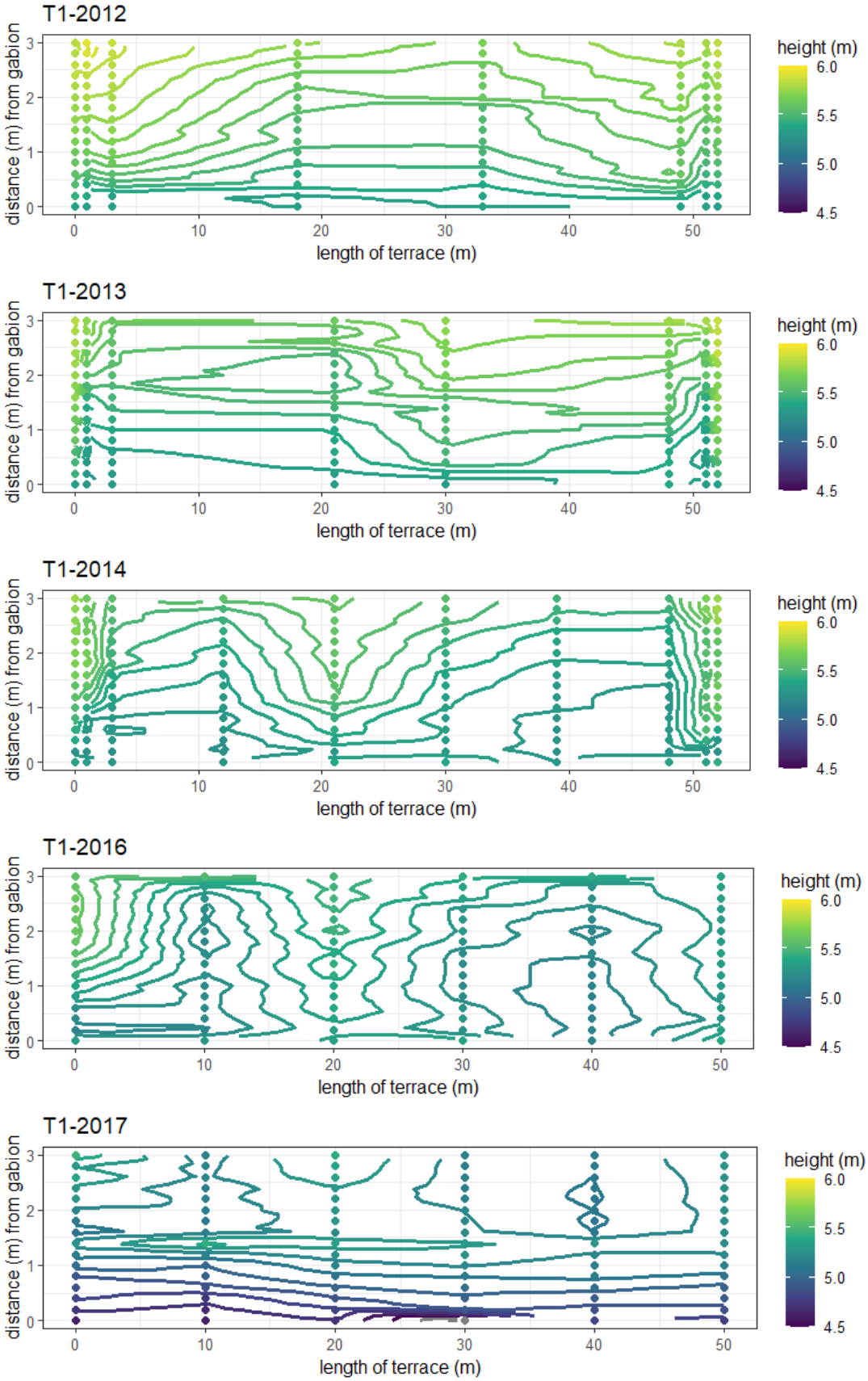

Figure S2F Tollesbury T2 m C.D.)

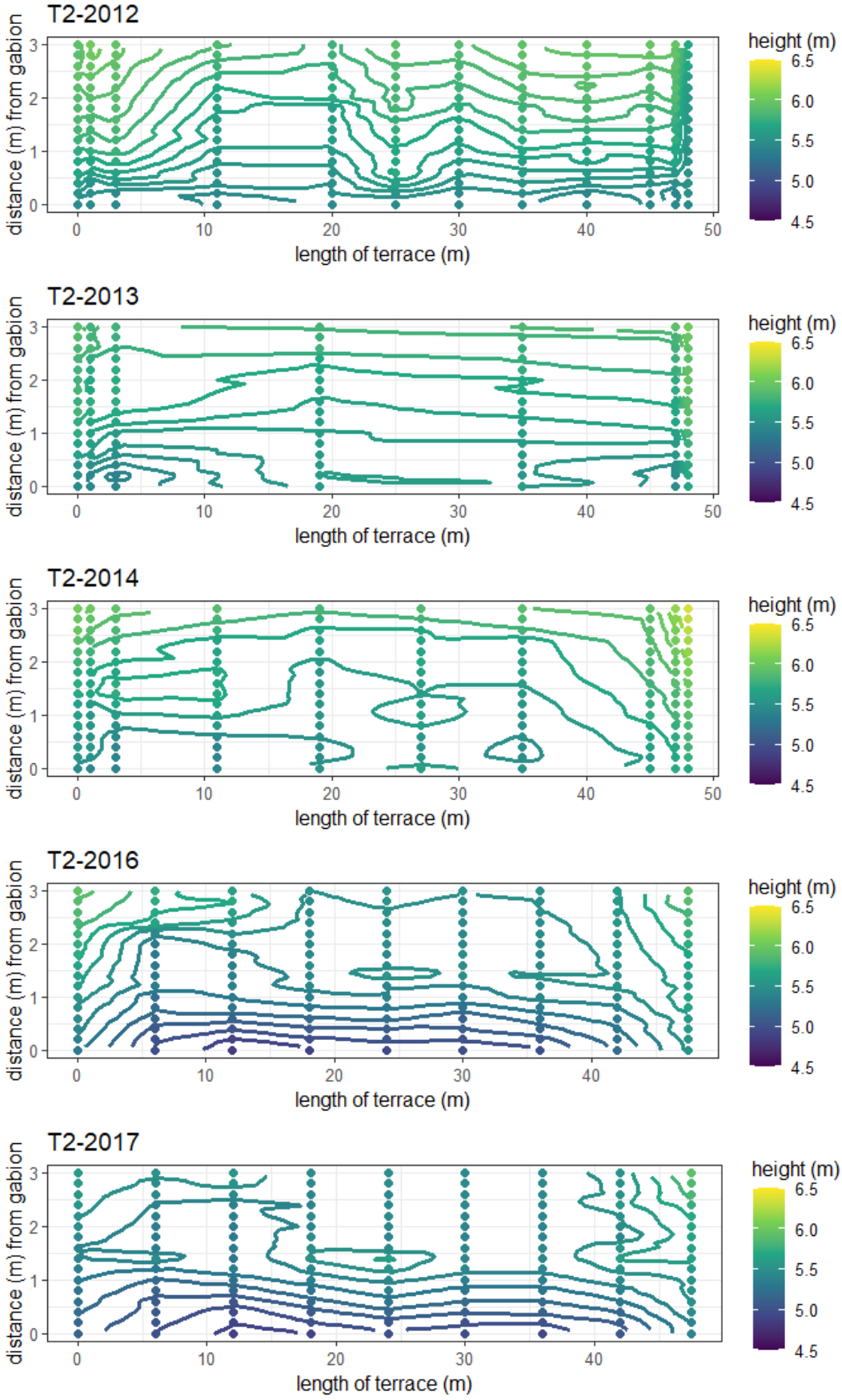

Figure S3. Correlation matrix for various physical and biological variables (plant richness, selected halophyte species) for engineered sea wall terraces in Essex, U.K., between 2012 and 2022. Pearson's correlation statistic (r) and statistical significance presented ($p < 0.05$ *, $p < 0.01$ **, $p < 0.001$ ***, n varies depending on the comparison).