

Figure S1. Relationship between ET as retrieved from ECOSTRESS L3 ET product and all 13 predictor variables - before forward feature selection (FFS)- for D1: 06 February 2020. Significant linear relationships occurred in 12 out of 13 regressions, but only marginal parts of the variance in ET were explained (r^2 : < 0.001 – 0.055, P < 0.05). No significant linear relationship occurred between ET and LAI.

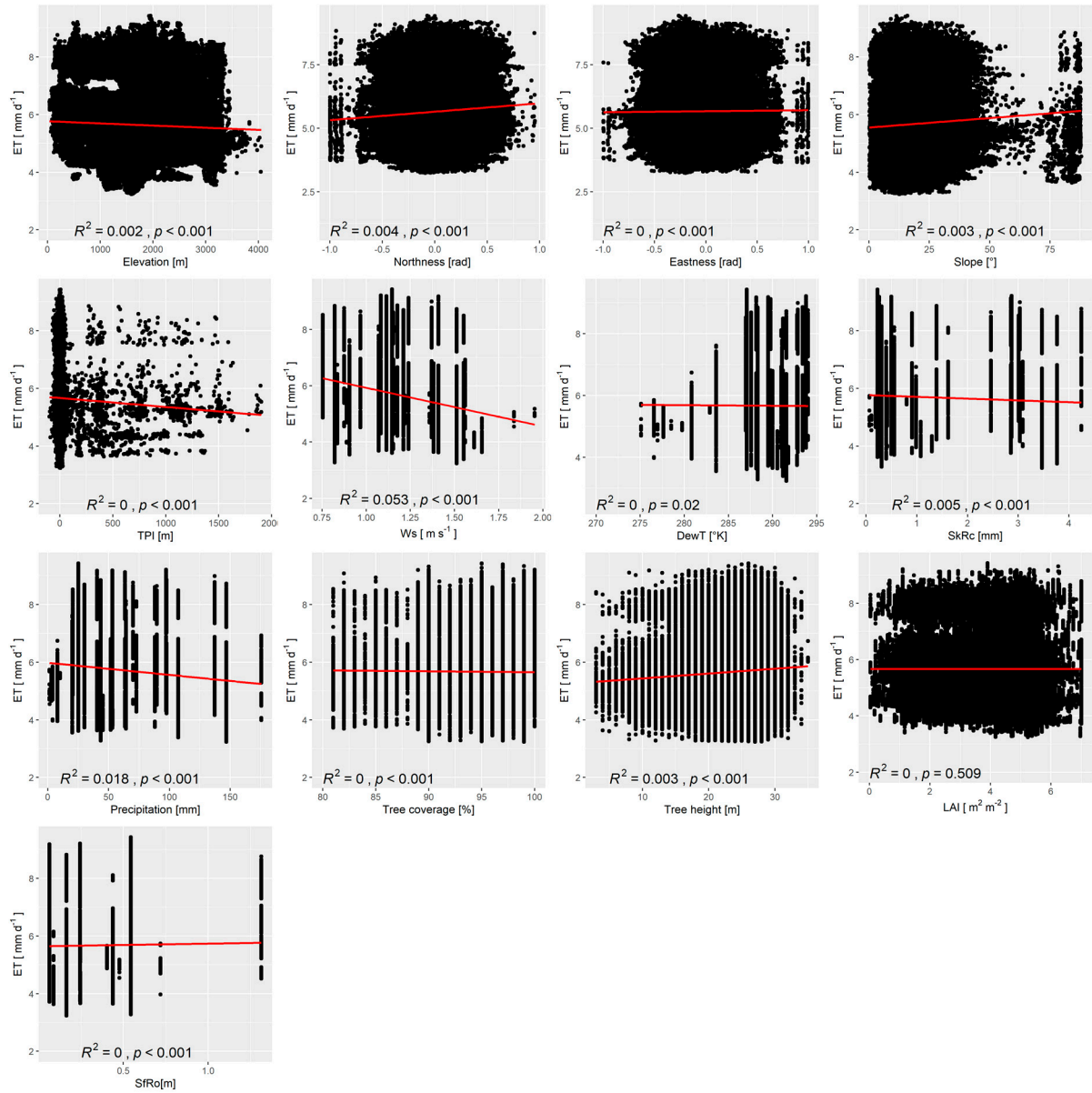


Figure S2. Relationship between ET as retrieved from ECOSTRESS L3 ET product and all 13 predictor variables - before forward feature selection (FFS)- for D2: 10 August 2020. Significant linear relationships occurred in 12 out of 13 regressions, but only marginal parts of the variance in ET were explained (r^2 : $< 0.001 - 0.053$, $P < 0.05$). No significant linear relationship occurred between ET and LAI.

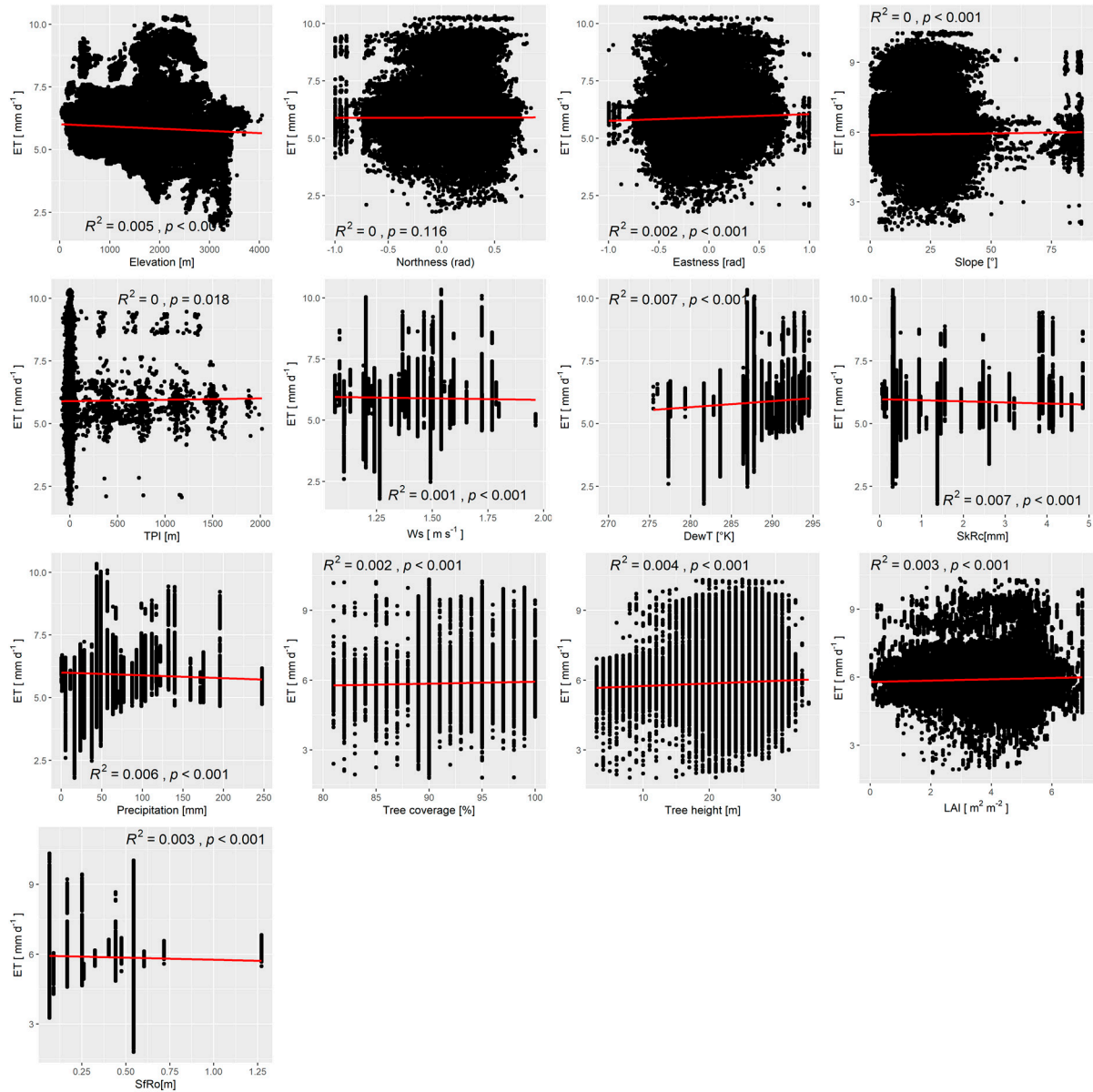


Figure S3. Relationship between ET as retrieved from ECOSTRESS L3 ET product and all 13 predictor variables - before forward feature selection (FFS)- for D3: 10 October 2020. Significant linear relationships occurred in all regressions, but only marginal parts of the variance in ET were explained (r^2 : $< 0.001 - 0.007$, $P < 0.05$).

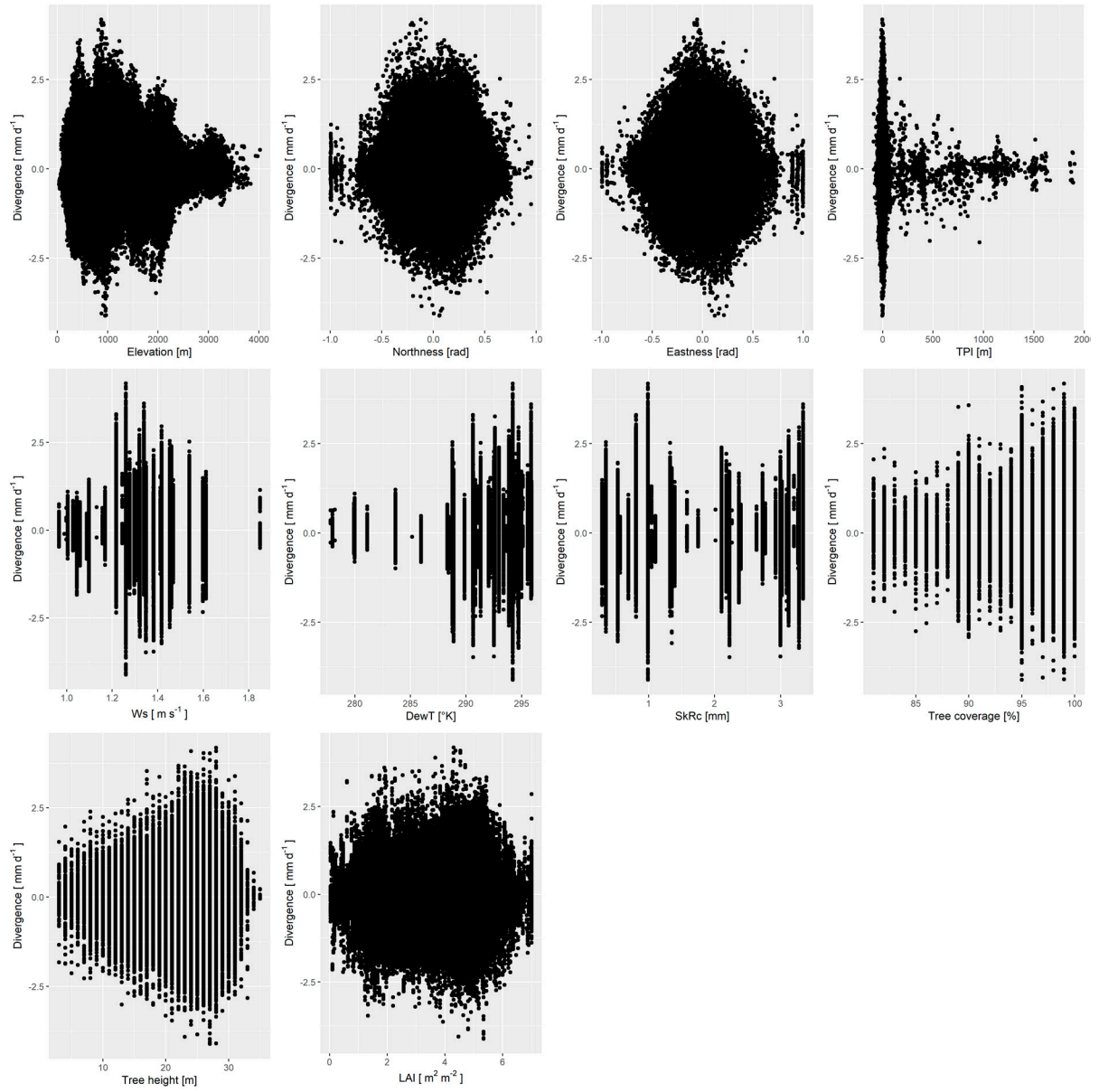


Figure S4. Relationship between divergencies (difference between observed vs predicted ET values for the testing or validation dataset) and predictor variables for D1: 06 February 2020.

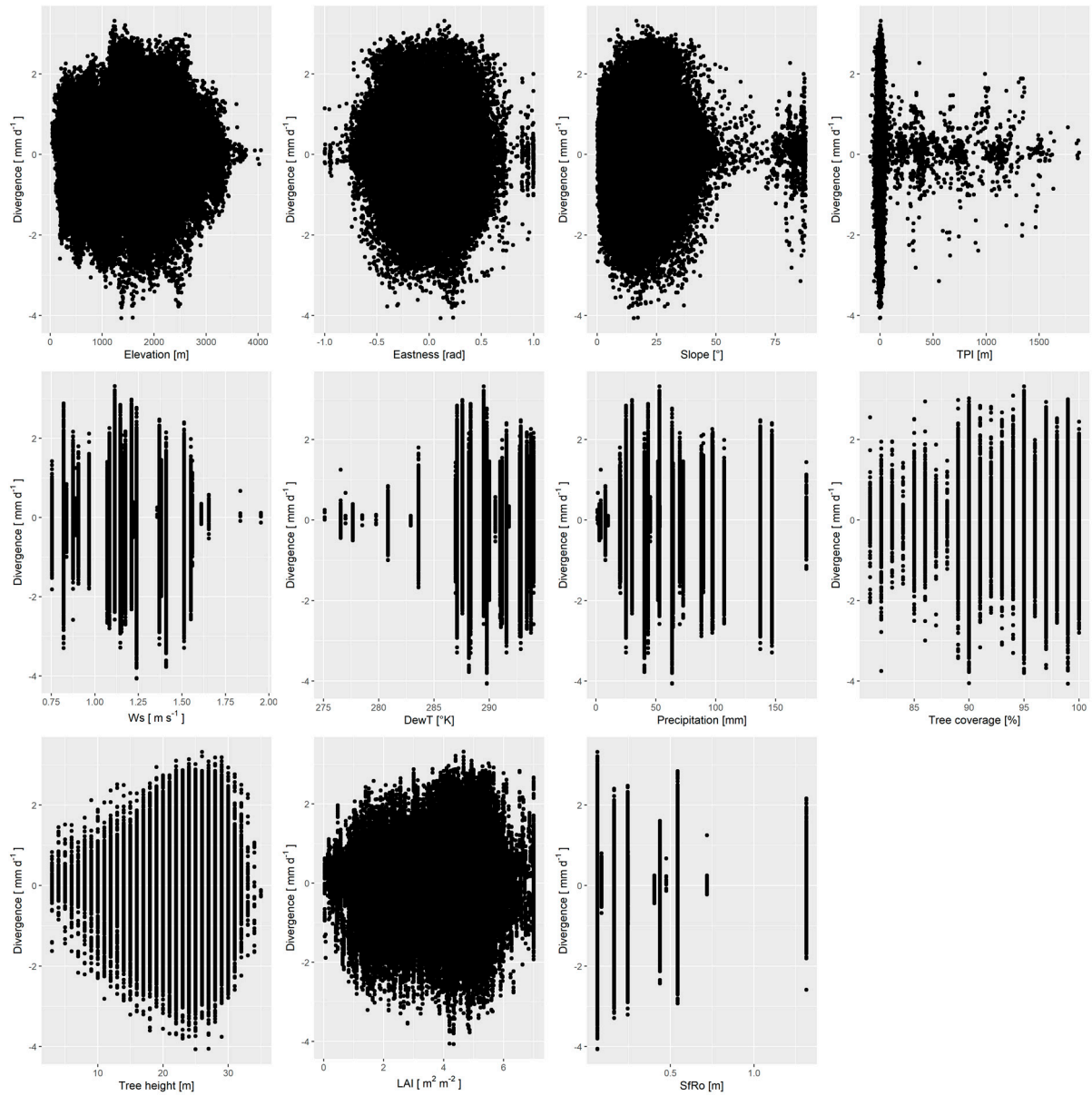


Figure S5. Relationship between divergencies (difference between observed vs predicted ET values for the testing or validation dataset) and predictor variables for D2: 08 August 2020.

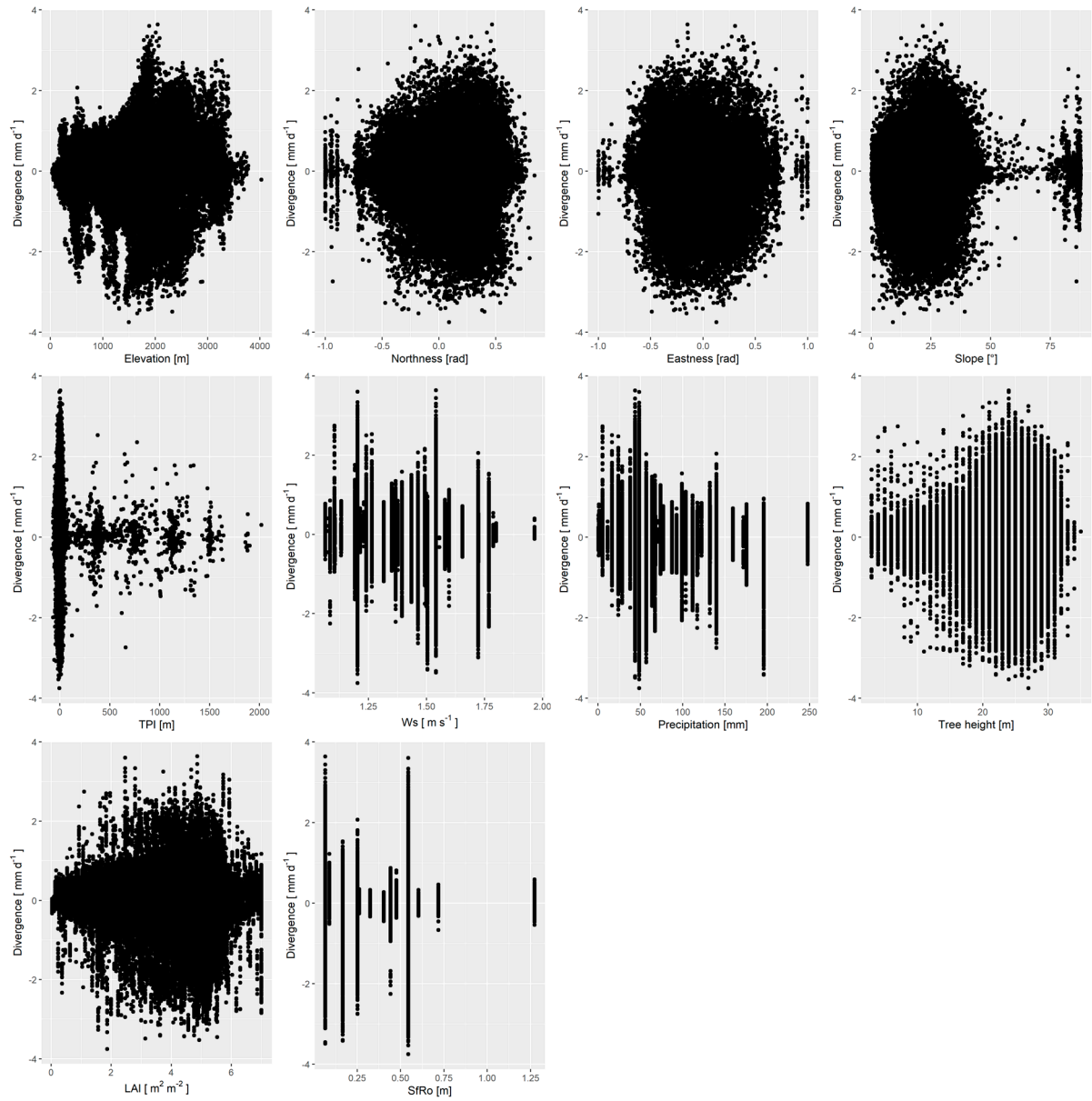


Figure S6. Relationship between divergencies (difference between observed vs predicted ET values for the testing or validation dataset) and predictor variables for D3: 10 October 2020.

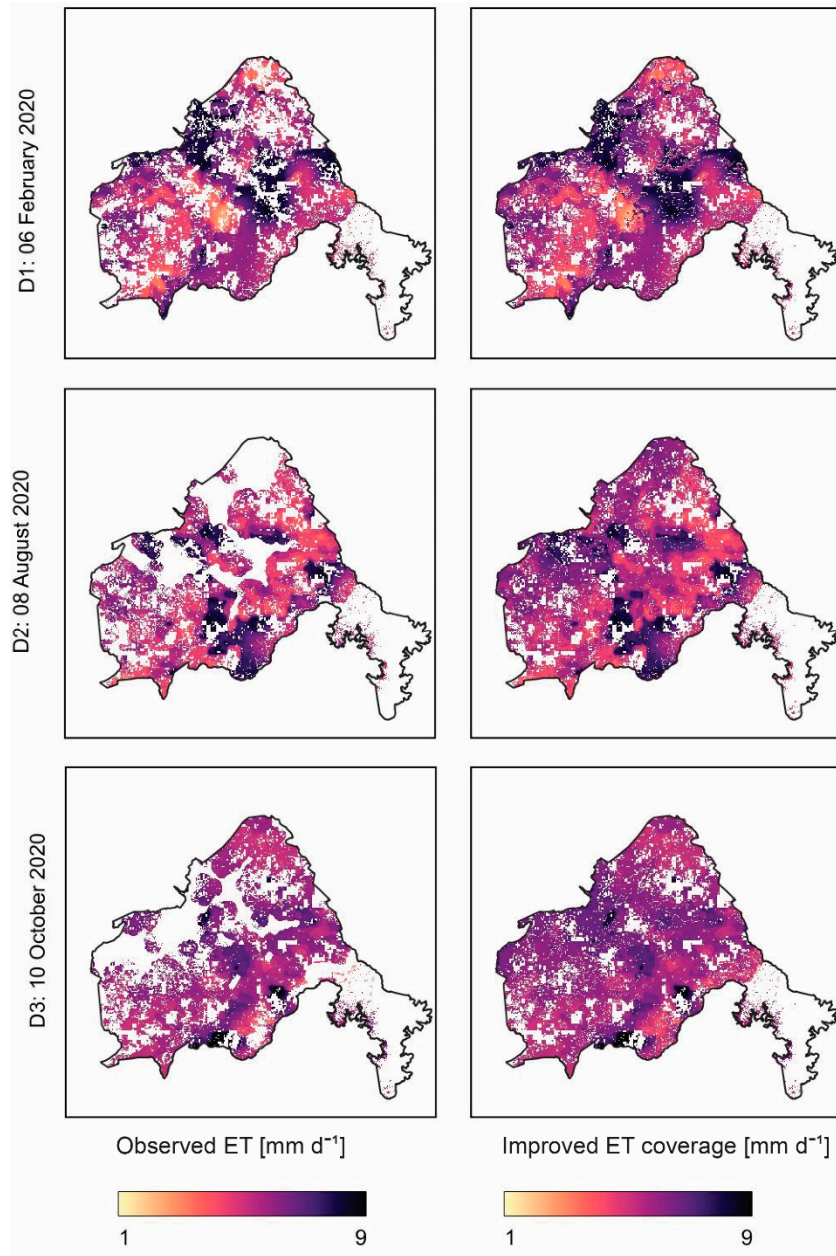


Figure S7. Prediction of ET based on models D1: 06 February 2020, D2: 08 August 2020 and D3: 10 October 2020 for observation gap filling across areas with > 80 % forest coverage in Cotacachi Cayapas National Park. White areas correspond to forest coverage < 80%, tussock vegetation or removed data (no data from predictor variables)