forests

Supplementary Figures

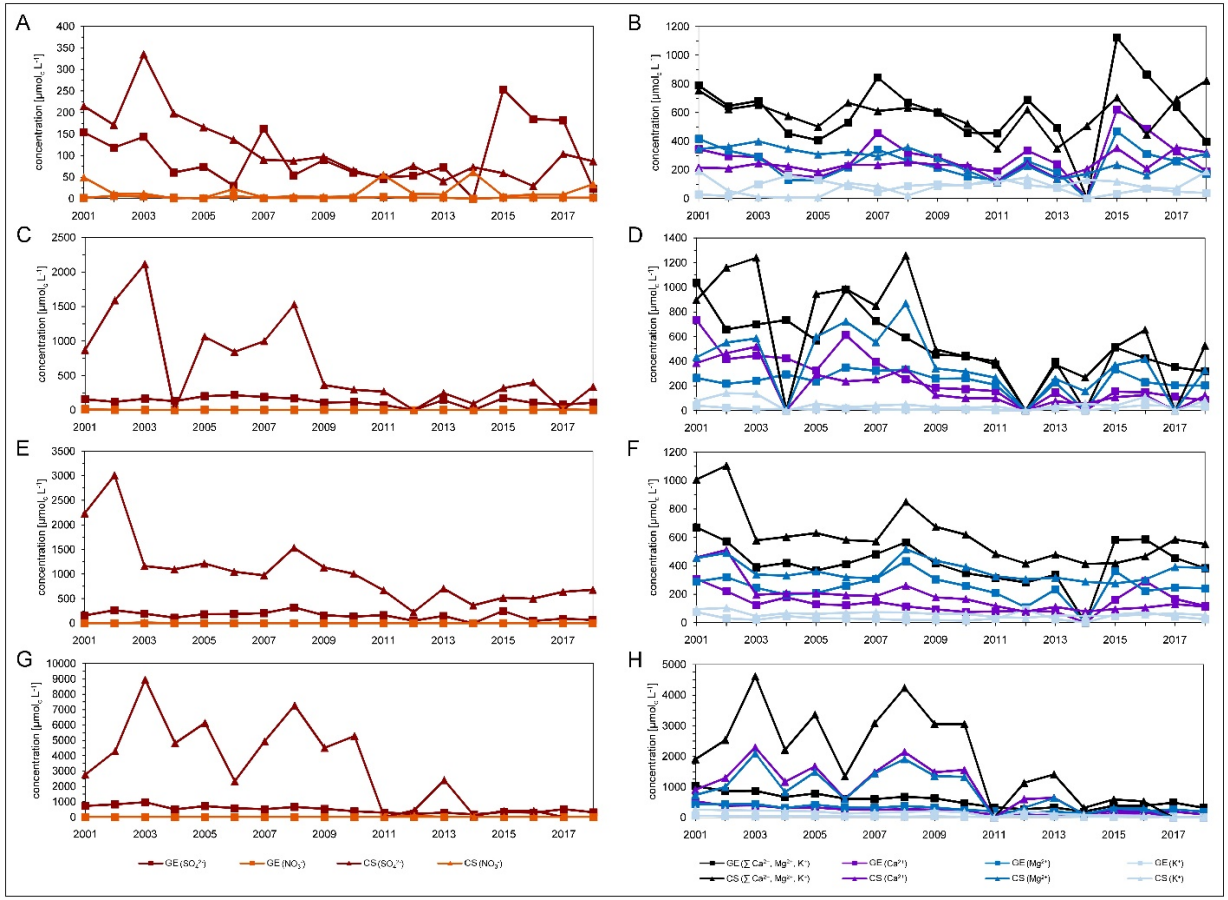

Figure S1. Macronutrient concentration (NO_3^-, SO_4^{2-}, Ca^{2+}, Mg^{2+}, K^+; $\mu mol_c\ L^{-1}$) in seepage water of forest floor (A, B), as well as of mineral soil at 20 cm (C, D), 50 cm (E, F) and 100 cm (G, H) depth at the plot-pair GE/CS ICP. The site was observed in the framework of the ICP Forests Intensive Monitoring Programme (Level-II; ThüringenForst). GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).

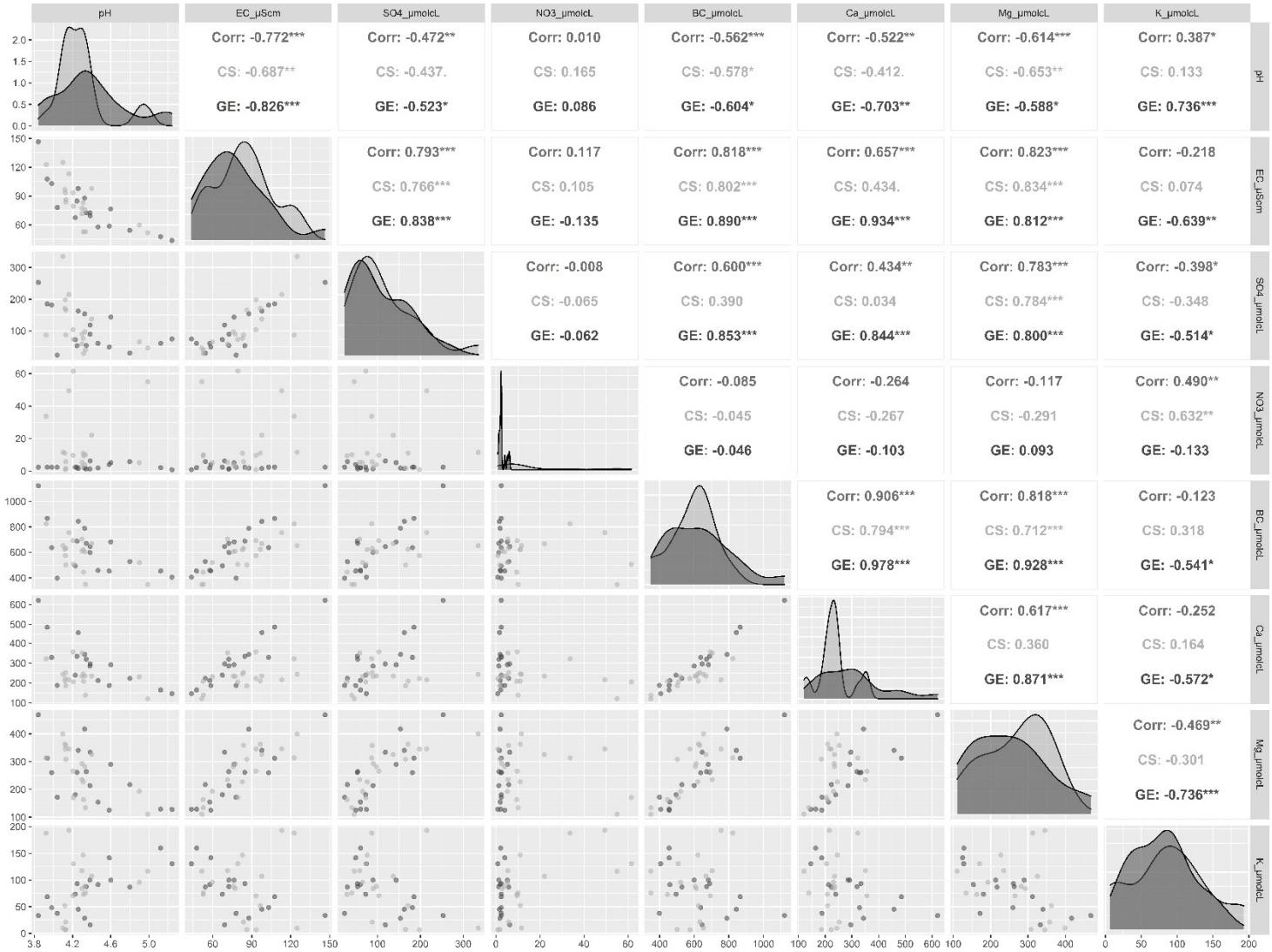

Figure S2. Correlations between element concentrations (NO_3^-, SO_4^{2-}, K^+, Ca^{2+}, Mg^{2+}), pH and electrical conductivity in seepage water of forest floor at the plot-pair GE/CS ICP. The site was observed in the framework of the ICP Forests Intensive Monitoring Programme (Level-II; ThüringenForst). GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).

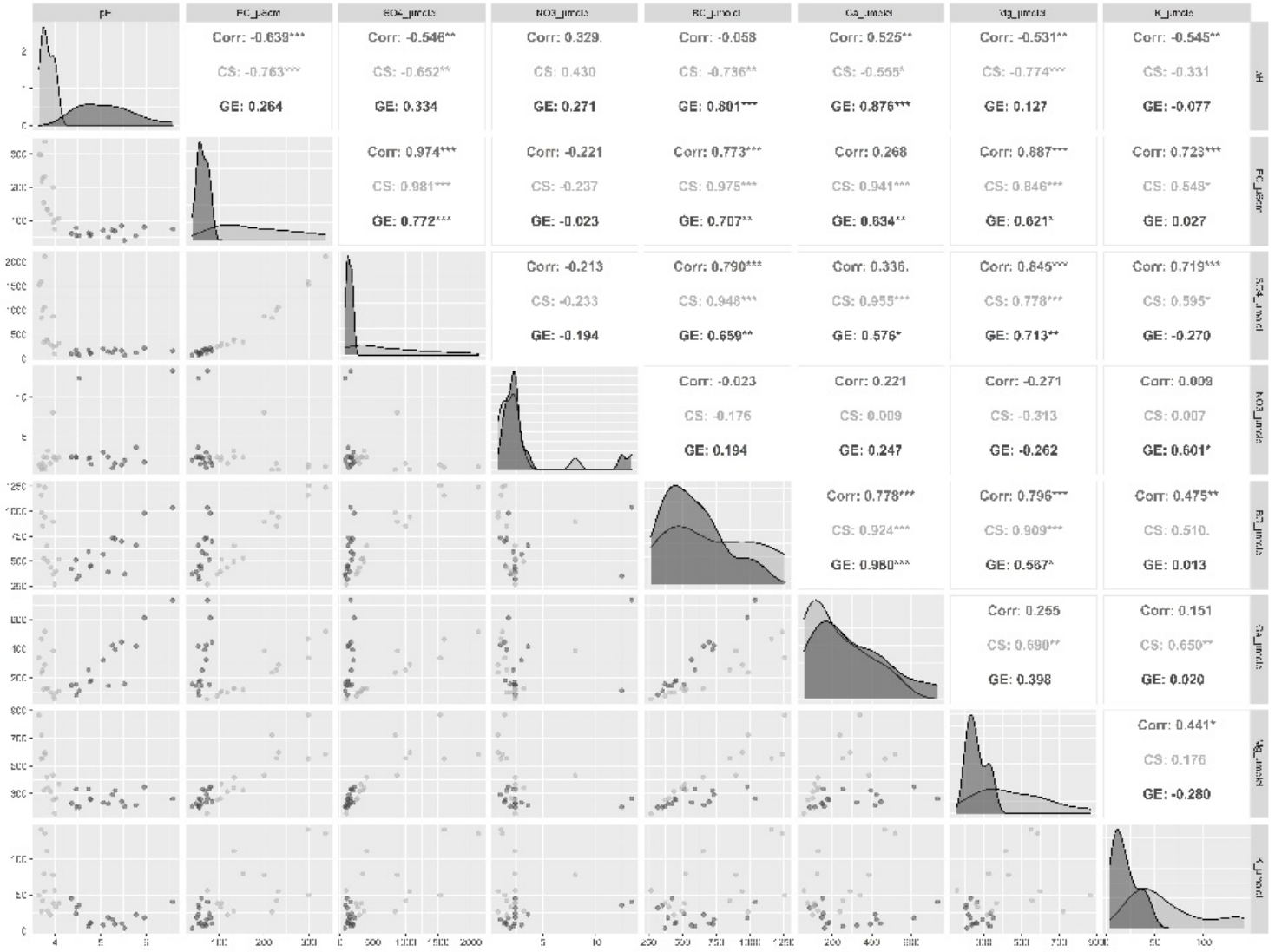

Figure S3. Correlations between element concentrations (NO_3^-, SO_4^{2-}, K^+, Ca^{2+}, Mg^{2+}), pH and electrical conductivity in seepage water of mineral soil (20 cm depth) at the plot-pair GE/CS ICP. The site was observed in the framework of the ICP Forests Intensive Monitoring Programme (Level-II; ThüringenForst). GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).

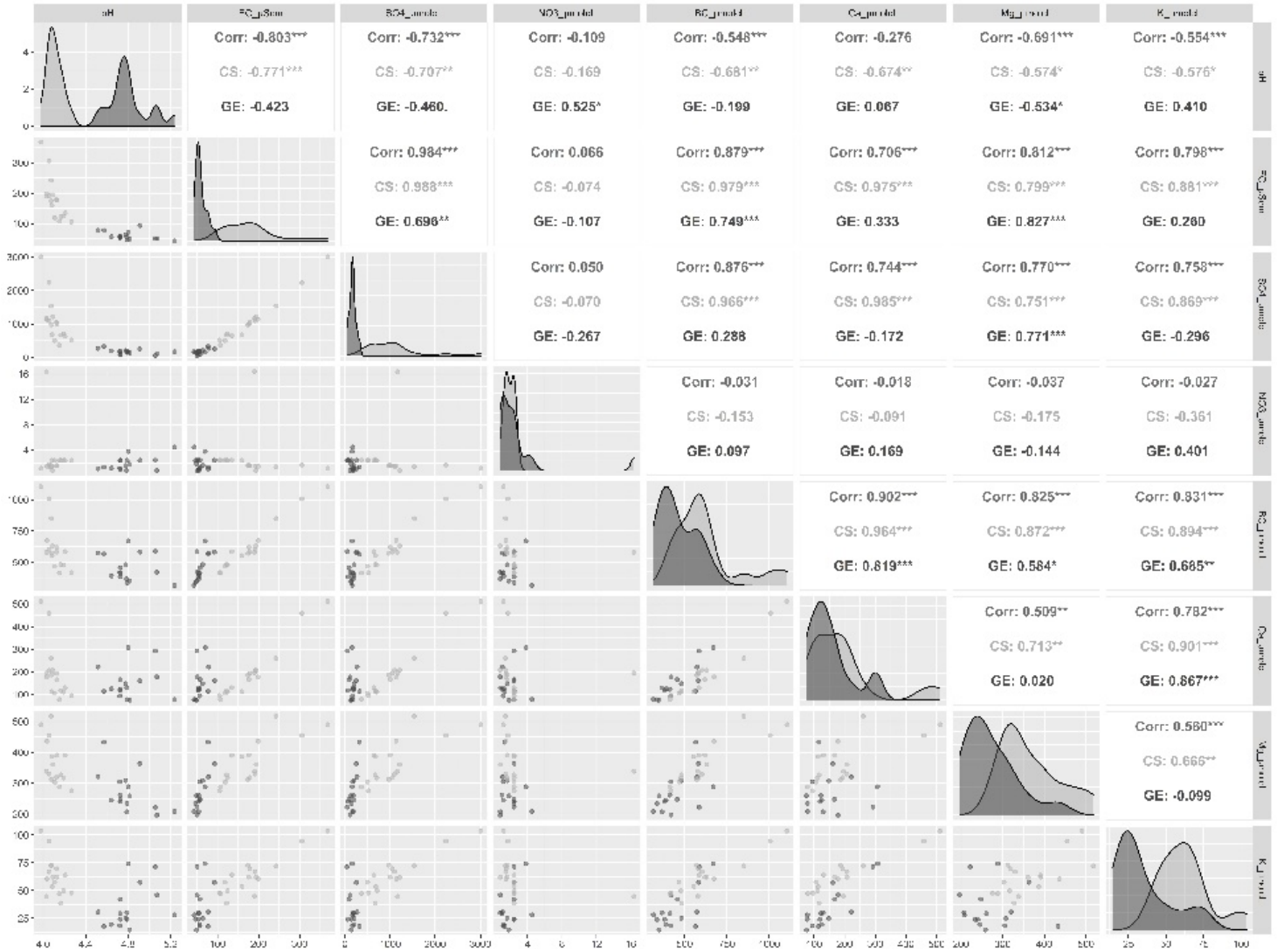

Figure S4. Correlations between element concentrations (NO_3^-, SO_4^{2-}, K^+, Ca^{2+}, Mg^{2+}), pH and electrical conductivity in seepage water of mineral soil (50 cm depth) at the plot-pair GE/CS ICP. The site was observed in the framework of the ICP Forests Intensive Monitoring Programme (Level-II; ThüringenForst). GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).

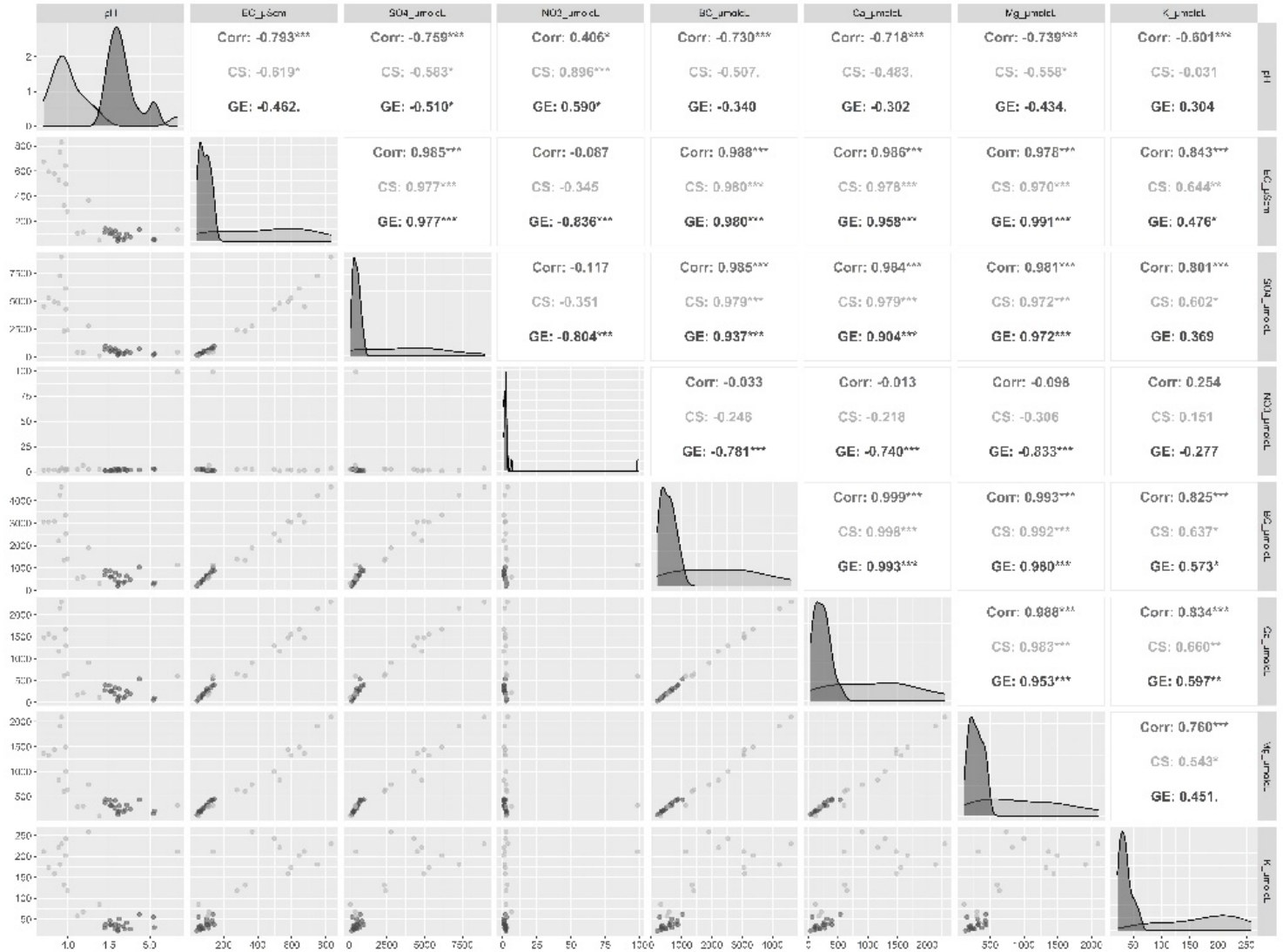

Figure S5. Correlations between element concentrations (NO_3^-, SO_4^{2-}, K^+, Ca^{2+}, Mg^{2+}), pH and electrical conductivity in seepage water of mineral soil (100 cm depth) at the plot-pair GE/CS ICP. The site was observed in the framework of the ICP Forests Intensive Monitoring Programme (Level-II; ThüringenForst). GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).

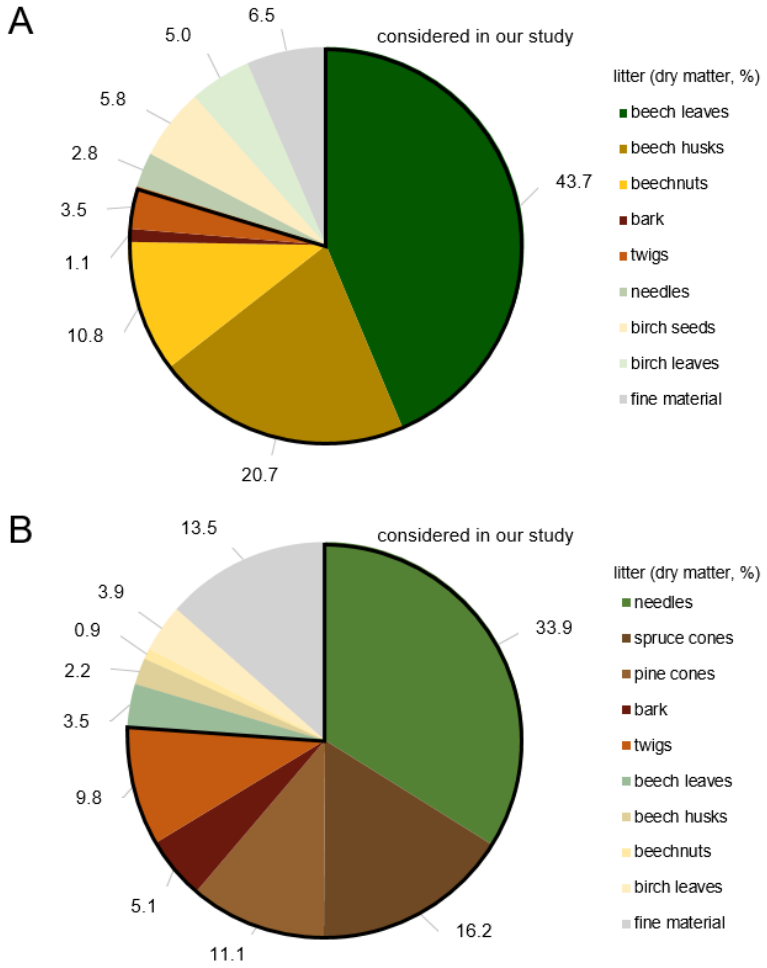

Figure S6. Composition of total annual litter fall (dry matter, %) at GE (A) and CS (B) as well as analysed litter (79.8% at GE and 76.1% at CS of the total annual litter fall). GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).

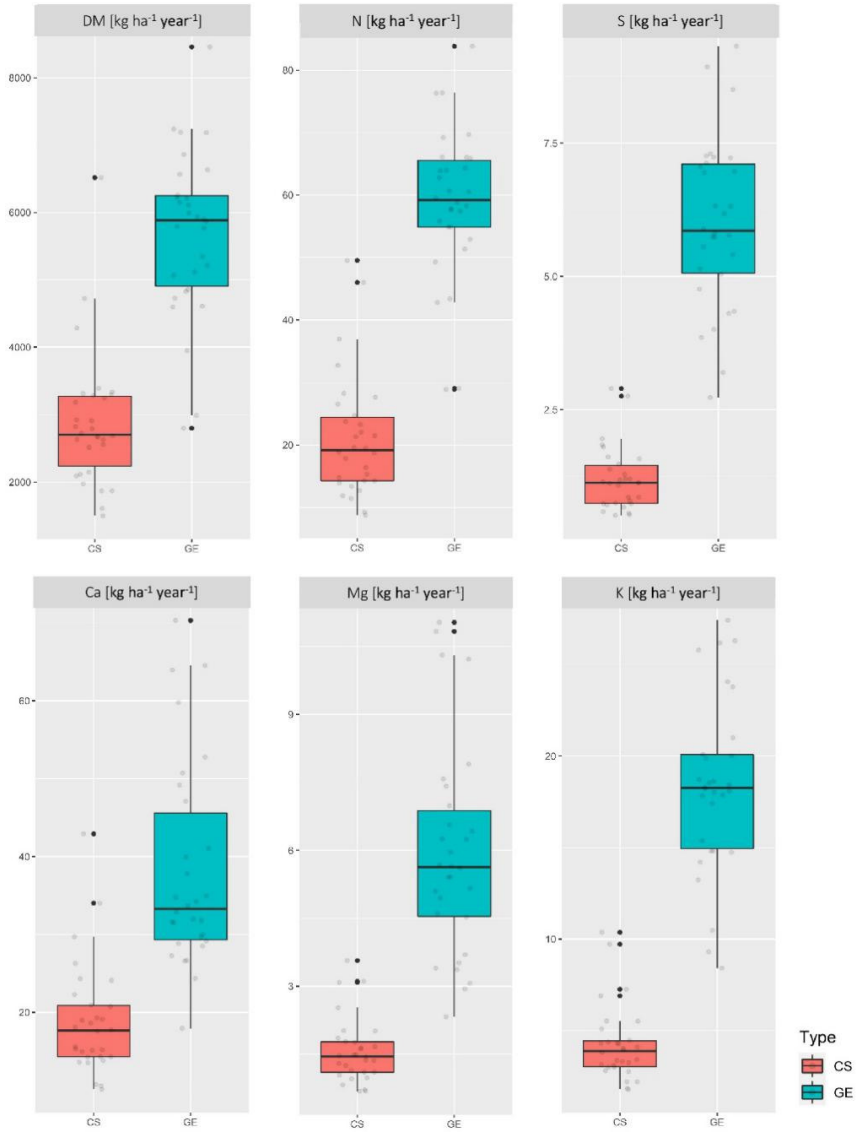

Figure S7. Dry matter and macronutrient fluxes in annual litter fall for Green Eyes and coniferous sites. GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).

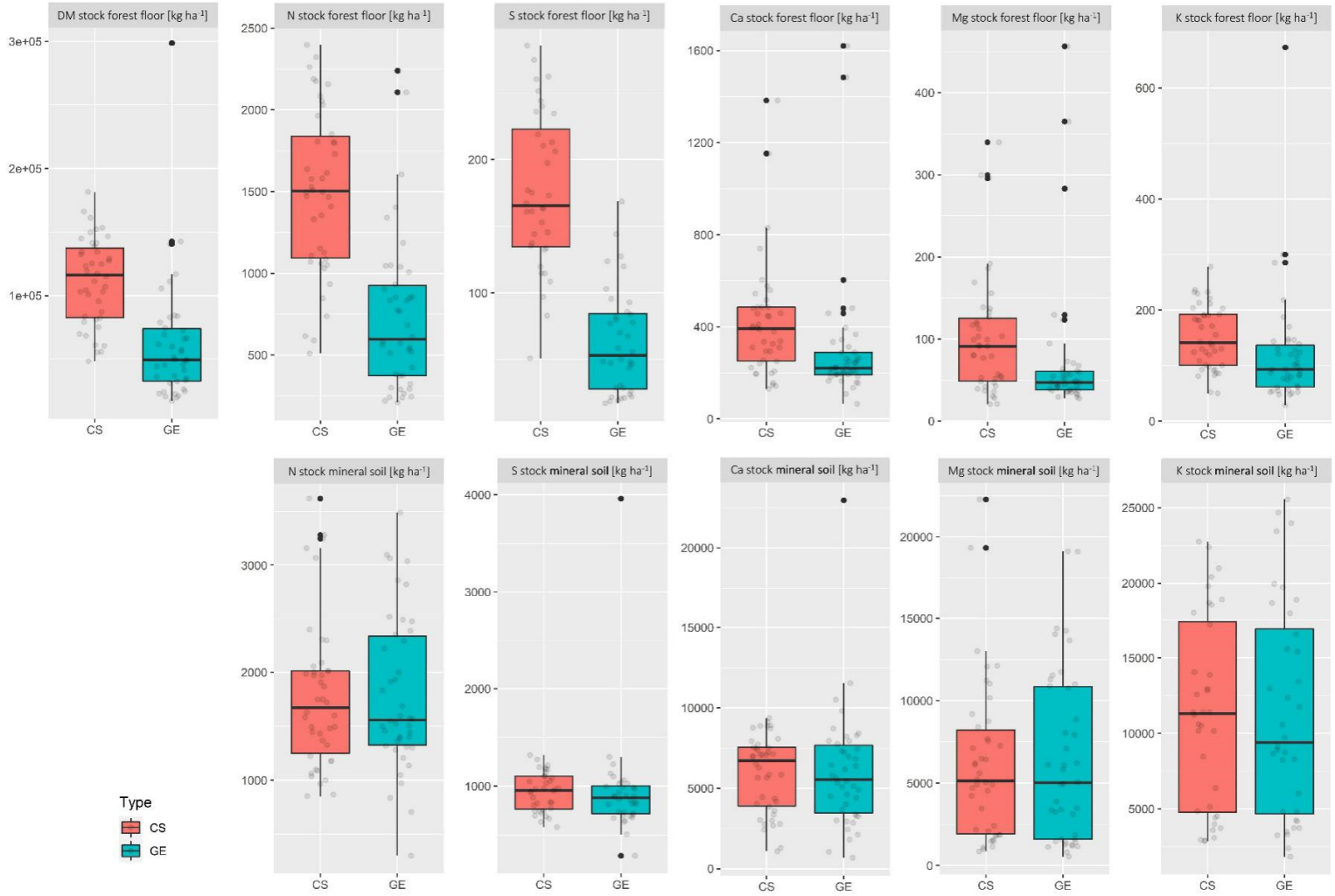

Figure S8. Dry matter stocks (in forest floor) and macronutrient stocks (in forest floor and mineral soil) for Green Eyes and coniferous sites. GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).

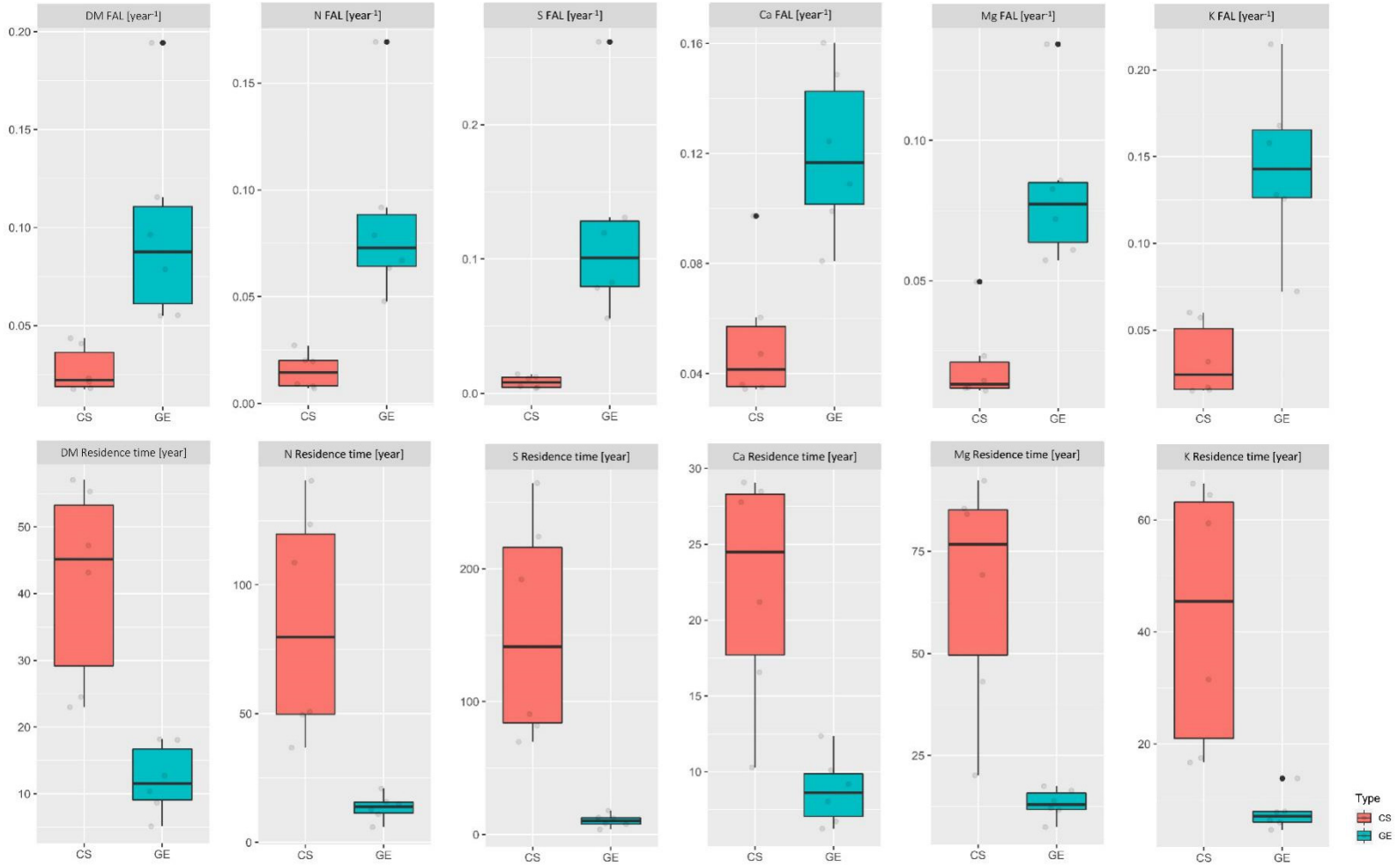

Figure S9. Fractional annual loss (turnover rate) and residence time in years of the forest floor organic material and of macronutrients stored in forest floor (∑ Oi, Oe, Oa) for Green Eyes and coniferous sites. A steady state condition was assumed. GE: Groups of European beech within stands of Norway spruce and Scots pine (CS) near Hummelshain (Thuringia, Central Germany).