



**Figure 3.** Examples changing *hydrological* and *chemical* conditions in the Krycklan Catchment Study over the last 30-60 years. These changes include an increase in evapotranspiration (ET, trend:  $+0.3\% \text{ yr}^{-1}$ ) at the C7 catchment measured as the difference between precipitation and discharge (**panel A**). Long-term increases in forest biomass in the extended Krycklan area relative to estimates in 1957 (trend:  $+1.0\% \text{ yr}^{-1}$ ; **panel B**; Swedish National Forest Inventory, SLU, unpublished data). An increase in mid-winter (March) runoff in the C7 catchment (trend:  $+0.1 \text{ L s}^{-1} \text{ yr}^{-1}$ ; **panel C**). Declines in the timing (date) of lake ice-off in the spring, based on a 55-year record collected 25 km north of the Krycklan (trend:  $-0.2 \text{ days yr}^{-1}$ ; Rune Axelsson, unpublished data; **panel D**). Declining Ca concentrations in a forest-dominated stream (C2; trend:  $-0.02 \text{ mg L}^{-1} \text{ yr}^{-1}$ ), but not for an adjacent mire-dominated stream (C4; **panel E**). Increasing DOC concentrations in same forested stream (C2; trend:  $+0.2 \text{ mg L}^{-1} \text{ yr}^{-1}$ ), but not in the mire-dominated counterpart (C4; no trend, **panel F**). All trends were calculated using Mann Kendall tests.